Development of Competencies in the World of Work and Education: Conference Proceedings
# CHAPTER 1: TRANSITION FROM HIGHER EDUCATION TO THE LABOUR MARKET & EARLY CAREER

<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence-Based Approach Reconsidered</td>
<td>Naoyuki Ogata</td>
<td>3</td>
</tr>
<tr>
<td>Occupational Change and the Expansion of Higher Education in the UK:</td>
<td>Peter Elias &amp; Kate Purcell</td>
<td>9</td>
</tr>
<tr>
<td>The Impact on Graduate Earnings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence from UK Longitudinal Studies on the Impact of Higher Education</td>
<td>Kate Purcell &amp; Peter Elias</td>
<td>17</td>
</tr>
<tr>
<td>Expansion on Equality of Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectiveness of Competences and Competencies during Transition from</td>
<td>Divya Jindal-Snape &amp; Michael Naulty</td>
<td>29</td>
</tr>
<tr>
<td>Higher Education to Employment: A Case Study of Community Learning and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development (CLD) Qualifying Training in Scotland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intergenerational Mobility in the Transition from Education to Labour Market</td>
<td>Sandra Isabel Fachelli Oliva &amp; Jordi Planas</td>
<td>37</td>
</tr>
<tr>
<td>and Early Career: The Case of the University Graduates in Catalonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed Reasons and Thorough Analysis Demonstrating Why Teachers of English,</td>
<td>Maria Vega</td>
<td>45</td>
</tr>
<tr>
<td>German, French and Italian as Foreign Languages Fail So Dramatically in Their</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching Work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country Patterns of Labour Market Entry and Early Career</td>
<td>Peter Robert</td>
<td>57</td>
</tr>
<tr>
<td>Graduates’ Early Career during Rapid Economical Growth in Latvia</td>
<td>Inta Jaunzeme</td>
<td>63</td>
</tr>
<tr>
<td>Comparative Analysis of Employers’ Competence Expectations and the</td>
<td>Viktor Shevchuk, Joanna Zyra &amp; Leszek Zyra</td>
<td>71</td>
</tr>
<tr>
<td>Competences Taught in Poland (on the example of Technical Universities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matching of General Competencies with Labour Market Needs: Important Factor</td>
<td>Kestutis Pukelis &amp; Nora Pileiciene</td>
<td>77</td>
</tr>
<tr>
<td>of Quality of Study Programmes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Labels and Employability in Chemistry</td>
<td>Pavel B. Drašar</td>
<td>85</td>
</tr>
</tbody>
</table>
CHAPTER 2: HIGHER EDUCATION & THE SUPPLY OF COMPETENCES

Investments in Occupational Career as the Influencing Factor in Finding a Proper Job by Darka Podmenik 89


Graduate Competences and Relationships with the Labour Market: the UK case by John Brennan & Brenda Little 111

Enhancing Students’ Satisfaction with their University Experience in Transition Economies by Olga Saginova 121

Graduates’ Characteristics and Labour Market Entry - Polish Experience by Leszek Wincenciak 127

Baccalaureate and Masters’ Degree Nursing Students’ Levels of Critical Thinking and Factors Influencing Critical Thinking by Hatice Ulusoy & Nezaket Oztürk 137

Mission, Objectives and Activities of the Slovene University Career Centres by Aleksander Zadel, Iris Skrt, Gregor Cerinšek & Manca Poglajen 143

Developing Synergetic Relationships with the Market: The Design, Implementation and Evaluation of an Internship Program for Students in a Department of Economics from a Greek Public University by Antigoni Papadimitriou & Dimitris Mardas 147

Higher Education and the Development of Complex Competencies: New paths by Ana Julia Bozo de Carmona, Maria Cristina Parra Sandoval & Alicia Iniciarte Gonzáles 153

Postsecondary Professional Education, the Bologna process and the Market Needs in Sectoral Professions by Jurij Švec, Tibor Šagát & Juraj Štencl 159
CHAPTER 3: DEVELOPMENT OF COMPETENCES AT WORK

Competence Development and Participation in Transient Knowledge Communities by Ashly Pinnington & Hilary Sommerlad 163

Graduates’ Qualifications and Quality of Jobs by Gabriela Grotkowska 175

Measuring Occupations in Worldwide Web-surveys by Kea Tijdens 189

The Role of the Undergraduate Work Placement in Developing Employment Competencies: Results from a 5 year study of employers by Matthew Hall, Helen Higson & Nicola Bullivant 195

Developing Capacity for New Competencies: Use of Problem-based Innovation in Singapore by Oon Seng Tan 203

Transition from Postsecondary School to Work Place for Students with Disabilities in Japan by Jun Yaeda & Divya Jindal-Snape 213

The Development of Career Competencies in the University by Vilma Tubutiene 219

Functions of In-Company Language Courses by Anna Sliwa 227

Developing geographic competencies for careers in higher education, business, government, and non-profit organizations by Kenneth E. Foote, Michael Solem & Janice J. Monk 233

E-Learning for Change: Competence Development in Work Organizations by Grete Netteland 239

Informal Learning and Development of Key Competencies in Workplaces by Leoni Riccardo 247

Societal and Organizational Contexts of Women’s Careers by Nevenka Černigoj-Sadar 259

Competence, Empirical Insights from a Small-Business Perspective by Thomas Lans & Martin Mulder 265

Debunking the Isolation of School-Work Connect: UB Learning and Teaching Policy as Frame for Debate by Rebecca Lekoko and Christopher Busang 271

ENBW Trainee Programme and Skill Management 277
# DECOWE:
Development of Competencies in the World of Work and Education

## CHAPTER 4: QUALIFICATIONS SYSTEMS; METHODOLOGY

- **Supporting Skill Measurement through Innovative Skill Mismatch Research**
  *by Jasper Van Loo*
  283

- **A Methodological Contribution to the Measurement of Skill (Mis)match**
  *by Francesca Sgobbi & Fátima Suleman*
  291

- **School to Work Transition in Turkish Labor Market**
  *by Aysit Tansel & Keiichi Ogawa*
  303

- **Innovative Modernization of Curriculum in Slovenia**
  *by Natalija Komljanc*
  313

- **Nomadic Work-Challenging Students**
  *by Franz Gellert & René Schalk*
  319

- **Accreditation of Prior Learning for Higher Education - General Findings of the German Initiative ANKOM**
  *by Ida Stamm-Riemer*
  327

- **Rating and ranking: A Fuzzy Approach to Individual Bundle of Competence**
  *by Fatima Suleman & Abdul Suleman*
  335

- **Quality Assurance: A Means to Respond to the Expectations of Education and Training Users**
  *by Daniela Ulicna*
  343

- **Learning Outcomes Based Approach in Higher Education system of Georgia**
  *by Nino Javakhshvili*
  351

- **Qualifications and Competences – What Could and Should Be Created at a University**
  *by Krzysztof Jozwik*
  359

- **Learning Outcomes and Educational Reform: Some Lessons from the UK’s NVQs**
  *by Michael Young*
  365
CHAPTER 5: PERMEABILITY BETWEEN VET & HE

The Early Professional Development of Beginning Teachers in the UK: What can Students Tell Them? by John Edwards 373

The Relation between Personal Growth Needs Concerning the Development of Personal Qualities and the Five Factor Model of Personality by Rainer Hensel, Frans Meijers, Rein van der Leeden & Joseph Kessels 383

Traditional Difficulties and New Solutions for Cross-border Information Systems of Professions and Professional Qualifications by Karl H. Müller 391

Education, Training and the Re-definition of Skill in Current Labour Markets by John Wallis 397

Generic competencies and values in pre-university students by Alejandra Cortés Pascual 403

Using Narratives as Innovative Tools in Mathematics Course in Finnish Teacher Education by Sonja Lutovac & Raimo Kaasila 417

The Role of Virtual Worlds in Teaching and Learning by Petra Štogrová Jedličková 423

The Importance of SWOT Analysis for Educational Units that Belong to the Field of Vocational Institute (IEK) of Epanomi in Thessaloniki by Efthymios Valkanos, Adamos Anastasiou & Despina Androutsou 431
CHAPTER 6: ABSTRACTS FROM ALL CONTRIBUTIONS

Transition from Higher Education to the Labour Market and Early Career 441
Higher Education and the Supply of Competences 445
Development of Competencies at Work 449
Qualifications Systems and Methodologies 455
Permeability between Vocational Education and Training & Higher Education 459
Section 1

Transition from Higher Education to the Labour Market and Early Career
COMPETENCE-BASED APPROACH RECONSIDERED

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Abstract: The purpose of this paper is to consider the role of university education appropriate for the knowledge society by critically reconsidering the existing competence-based approach. Traditionally, higher education research on university and work has ignored the substantial relationship between learning outcome and performance of work, leaving them in a kind of “black box”. The competence-based approach is of great significance because it tries to directly address the theme of how university and work are linked through competence. Two issues are examined based on the REFLEX survey. Firstly, the rights and wrongs of evaluating university education from the viewpoint of the gap between competence required in the workplace and competence acquired by individual are examined. Secondly, the pros and cons of judging university education from the viewpoint of competence “generally required by companies” are discussed through “happy worker approach”.

Key words: Competence-based approach, gap-based approach, happy worker approach, occupational relevance of university education, REFLEX.

1. Research Background

Interest on university education has been growing globally. The quality of university education has traditionally been measured by its inputs such as students and educational conditions, or the reputation of the faculty’s research. However, the circumstances surrounding the quality have changed significantly, reflecting the following factors. The first is universalization of higher education. Universalization has increased diversity of the academic performance and the learning goals of students, causing the quality of education to become an important issue. The second is politicization. Universalization of higher education increased public funding, creating needs for financially relevant quality, in other words, accountability for the educational outcome. The final factor is the advent of knowledge society. In the knowledge society, there has been a growing demand for human resources who thrive in the global economy, not just satisfying the minimum standard. This means there is a need for socially relevant quality. Universities are required to respond to these issues and needs for quality through their provision of academic education (OECD 2008a; 2008b).

The above describes the multilayered nature of the circumstances surrounding the quality of university education, implying the necessity for its comprehensive analysis. This paper addresses the social relevance of university education, specifically the occupational relevance. Concerning the occupational relevance of university education, the traditional focus was to enhance the match between academic qualifications and occupational categories. However, in a knowledge society, the match between the competence acquired during study time the competence required by the job or society will increasingly be seen as important. The issue has shifted from “university and employment” to “university education and job” (Teichler 1988).

Today, there are initiatives such as OECD feasibility study for the international assessment of higher education learning outcomes (AHELO), which aims to determine or guide the direction of the outcome of university education. It should be noted that such an approach is one of the options. An alternative approach is to focus on the alumni, the stakeholder other than the government, in order to evaluate the learning outcome. The alumni survey enables access to information such as the quality of teaching and learning during study time, as well as the learning outcome. It can also clarify an evaluation of the individual’s educational/learning experience from his/her work experience point of view. To discuss the occupational relevance of university education, it is more meaningful to use evaluations based on work experiences, rather than using achievement level at the time of graduation.

In the following sections, two issues are examined based on the REFLEX survey, in order to seek an appropriate method to discuss the occupational relevance of university education, with a focus on competence. Firstly, the rights and wrongs of evaluating university education from the viewpoint of the gap between competence required in the workplace and competence acquired by an individual are examined. Secondly, the pros and cons of judging university education from the viewpoint of competence “generally required by companies” are discussed. Four countries, Japan, the UK, Germany, and France, have been chosen for comparative analyses.¹

2. Framework of Analysis

Gap-based approach is one of the methods of competence-based approach that has conventionally been used. This approach clarifies competence required in the workplace and competence acquired by each employee, extracts gaps between them, and finds out problems of university education (Paul 2002). For example, in the case that the worker’s level of competence is not as high as that required in the workplace, the gap is understood

¹ The survey target was ISCED5A Bachelor level graduates in Japan, the UK and France. In Germany, ISCED5A Master level graduates were included, for reasons such as to balance the field of studies and to ensure an adequate number of samples. Although the responses from the Bachelor and Master level graduates showed differences, it was not considered as a critical problem for the purpose of comparison with the other three countries.
to mean that the university graduate does not have enough competence required in the workplace.

However, the underlying patterns causing such gaps are not so simple, because the gap is determined by the relative relationship between the job characteristic and the acquired competence. Two scenarios are assumed when the gap is small. The first possibility is that the individual is engaged in work requiring high-level competence, and he/she has acquired the relevant competence. Alternatively, the individual is not engaged in work requiring high-level competence and thus he/she has not experienced any lack of work-relevant competence. Similarly, two assumptions are possible when the gap is wide. The first possibility is that the individual has acquired high-level competence, but is not engaging in work requiring such competence. Alternatively, the individual is engaging in work requiring high-level competence, but has not acquired such level of competence (Table 1). The first question of this paper is to examine this point.

Table 1: Ideal structure of competence gap

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<thead>
<tr>
<th>acquired competence</th>
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<td>low</td>
<td>low</td>
<td>wide</td>
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<tr>
<td>high</td>
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Traditionally, there have been two main streams of thought in the competence-based approach. The first is the company (or employer)-based approach, which examines the role of university education starting from the competence required by the workplace (NCHEMS 2000; Learning and Skills Council 2008). The other is the school (or educator)-based approach, which first establishes the target of the educational institution and the characteristics of the educational contents provided, and builds on these traits to consider the occupational relevance and role of university education (Boys et al. 1988; Brennan and McGeevor 1988). It should be noted that neither approaches reflect the viewpoints of graduates or workers, as they are based on the needs of the employer or the educator. Similarly, the gap-based approach simply conducts comparative analysis of competence without incorporating the factors such as the working styles preferred by the individuals. In this sense, it also lacks the viewpoint of graduates or workers.

Thus, the second question of this paper is to consider the occupational relevance of university education from the viewpoint of graduates or workers as an alternative to the company-based and school-based approaches. In other words, this third way approach is based on the following hypothesis.

“While higher education is becoming more prevalent, failure to offer jobs that suit the graduates’ way of thinking or behaviour will result in preventing effective use of human resources.” Therefore, the “HW (happy worker) approach” to examine where and how “happy workers” among university graduates are working is hypothetically proposed and the relevance of such an approach is examined. It should be noted that the use of “happy” is not based on a rigorous definition, but rather a subjective personal feeling of graduates or workers.

3. Gap-based Approach Reconsidered

The REFLEX survey asks the current level of acquired competence and the competence level required in the workplace, with regard to a total of 19 items related to knowledge, skill, and attitude. Considering the Japanese propensities toward responding to surveys, the original 7-point scale of the questionnaire has been reduced to a 5-point scale by combining scalar points 1 and 2 as well as 6 and 7. When the responses to the 19 questions were tallied, the responses toward the acquired level and the required level ranged from a low of 19 points to a high of 95 points. Next, the total points assigned to the acquired level were divided by those of the required level. These then were categorized into four groups, “less than 90%,” “90% to less than 100%,” “100% to less than 110%,” and “110% or more,” in order to generate gap variables.

Figure 1 shows that in Japan, nearly 60% of the participants responded that their acquired level of competence was less than 90% of the required level of competence. Conversely, in the UK, Germany, and France, responses of a majority of the participants resulted in a gap ratio of 100% or more, which means that their acquired level of competence exceeded the required level of competence. Should this result be interpreted as the occupational relevance of university education in Japan being low, whereas university educations in the other countries are sufficiently effective? Or, is it a reflection of over-education in the latter group of countries?
In order to verify this point, the relationship between gap variables and the utilization of competence (the average score from the 5-point-scale valuation) has been examined (Figure 2). For the group whose gap is 110% or more (the acquired level is at least 10% higher than the required level), the utilization of competence was low in all of the countries. Such cases indicate the possibility that the respondent is not engaging in the type of work corresponding to his/her acquired level of competence. For the remaining groups whose gap was lower than 110%, there was no significant difference in the utilization of competence. However, in Japan and France, the groups with lower levels of acquired competence exhibited higher levels of competence utilization. Conversely, in the UK and Germany, the utilization of competence was higher in groups with a small gap (90% to less than 110%).

The results lead to two hypotheses. First, the respondents whose gap is 110% or more are less likely to be engaged in work requiring high levels of competence. Second, in Japan and France, respondents who acknowledge their lack of acquired competence are more likely to be engaged in work requiring high levels of competence. In order to verify these hypotheses, the relationship between gap variables and the level of competence required (the responses have been categorized, for each country, into three groups—those with high, medium, and low degrees of required competence based on the sums of scores) (Figure 3). In all countries, as the level of required competence increases, the ratio of the respondents who are aware of their lack of acquired competence is higher. In other words, those engaging in work requiring high levels of competence tend to be more aware of their lack of competence. However, in the UK and Germany, the group requiring high levels of competence included a significant number of respondents with a small gap (90% to less than 110%). Another notable point was that the group requiring low levels of competence had a significantly higher proportion of respondents with a large gap (110% or more). This trend was especially marked in the UK, Germany and France.

The above indicates that the competence gap does not necessarily signify low relevance of university education to work. In cases where the respondents feel that they are overqualified in terms of competence, they are less likely to be engaged in work requiring high levels of competence, with low levels of acquired competence utilization. However, there is a different relationship in each country between gap variables and the recognition of whether acquired competence is utilized and whether the respondents are engaged in work requiring high levels of competence. In the UK and Germany, the survey results showed that the smaller the gap, the higher the level of utilization of acquired competence and employment in work requiring high levels of competence. Conversely, in France and Japan, the higher the gap, the higher the level of utilization of acquired competence and employment in work requiring high levels of competence.

4. Happy Worker Approach; Company-based Approach Reconsidered

The advent of the knowledge society does not only mean that knowledge becomes more important in society, but it also means that the number of workers who compose or create knowledge increases by the expansion of higher education. In other words, the knowledge society signifies a society that needs to make better use of knowledge workers. This means that it is important to consider the relevance of university education to work from the viewpoint of the appropriate way of working for university graduates. Therefore, the “happy worker approach” is hypothetically adopted.

Three elements that enhance both satisfaction and the exercise of competence are extracted; “opportunity to learn new things,” “new challenges,” and “work autonomy,” all of which are related to “internal compensation” rather than “external compensation.” Based on the point of these elements, a “happy worker index” is set. Three variables have been generated using a 5-point-scale system. Taking into consideration the Japanese tendencies toward responding to surveys, scalar points 1 and 2 combined were
converted to 1, 3 converted to 2, and 4 and 5 combined were converted to 3. The response to the happy worker index ranged from a low of 3 points (scoring 1 point for all 3 elements) to a high of 9 points (scoring 3 points for all 3 elements). The group which scored 9 points in the happy worker index was labelled SUPER-HW (hereinafter referred to as “SUPER”), those scoring 7 to 8 points were labelled as MIDDLE-HW (hereinafter referred to as “MIDDLE”), and those scoring 6 points or less as LOW-HW (hereinafter referred to as “LOW”).

Examining the distribution of happy workers by each country (Figure 4), the ratio of LOW in Japan was high at 40%, implying that there are few happy workers. The country with the highest proportion of happy workers was Germany, with 45% categorized as SUPER. The results for the UK and France were between Japan and Germany. Although it is meaningful to seek the cause of the different distributions of happy workers by country, the main focus of this paper is to re-evaluate the traditional competence-based approach by examining similarities and differences with the happy worker approach. Thus, the next step is to examine the accuracy of using traditional occupation-related variables such as wage and type of contract in comprehending happy workers. Subsequently, a comparison between the generally required competence and those required for the happy workers will be made, in order to seek the future direction of university education with occupational relevance.

Figure 5 shows the relationship between gap variables and happy workers. In the three countries excluding Japan, there is a clear relationship between the two. Groups with higher happy worker scores tend to have a lower share of respondents whose gap is 110% or more, and have a higher share of respondents whose gap is between 90% or more but less than 110%. Also, happy workers are more likely to feel a lack of acquired competence versus required competence.

Figure 6 shows the relationship between monthly earnings (from contract hours in main employment) and happy workers. In the UK and Japan, SUPER respondents tend to earn higher wages. However, it should be noted that not all SUPER earn high wages. In Germany and France, the relationship between earnings and being a happy worker is not clear. Normally, earnings are viewed as a proxy indicator for the job suitable for a university graduate or that requiring high levels of competence. However, earnings as external compensation do not necessarily explain a happy worker based on internal compensation.

Similarly, type of contract is not necessarily appropriate as a variable to explain a happy worker. One of the reasons may be because for all four countries, the ratio of respondents with unlimited-term contracts is significantly high, at around 80%. However, it should be noted that the ratio of SUPER among those working under unlimited-term contracts is not necessarily the highest. The ratio of SUPER is slightly higher in the cluster with fixed-term contracts. In addition, respondents categorized

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3 Florida (2003) points out that people in the creative class, to which many highly-educated people belong, tend to place special emphasis on internal compensation.

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4 The samples from Germany include many respondents whose monthly earnings exceeded €2,500. Respondents who earned more than €2,500 were regrouped in a new category for further analysis, but it did not provide a clear result that proves happy workers earned higher wages.

5 The proportions of SUPER in unlimited-term contracts and fixed-term contracts, respectively, for each country surveyed were: Japan (23%, 24%), the UK (35%, 36%), Germany (42%, 48%), and France (25%, 29%).
as SUPER work longer hours than their counterparts in the MIDDLE or LOW categories. Weekly working hours for SUPER and LOW, respectively, for each country surveyed were: Japan (47.6 hours, 45.1 hours), the UK (43.5 hours, 39.5 hours), Germany (44.0 hours, 42.4 hours), and France (38.7 hours, 36.6 hours). Those in the SUPER category are likely to work longer hours because they are committed to their work, therefore, it is highly possible that he/she spontaneously chooses to work long hours. A happy worker is not a workaholic in the negative sense of the term and he/she is not in a bad working condition with long working hours.

Finally, competence relevant for increasing internal compensation is considered and it will be compared with the findings of the company-based approach. The 19 items related to knowledge, skill and attitude (converted to scalar points using the same approach as above) have been used to extract competence required by the company-based approach, that is, competence required of all employees in the workplace, and the top six items are shown (Table 2). The shaded cells correspond to the knowledge, skill, and attitude shared by at least two countries. In all countries, items such as the “ability to use time efficiently,” the “ability to make your meaning clear to others,” the “ability to work productively with others,” the “ability to coordinate activities,” and the “ability to perform well under pressure,” occupied the top ranks. These are threshold competence that forms the basis of all types of work.

The difference between the responded values of SUPER and LOW has also been calculated and the top six items have been determined as well (Table 2). The result shows that the following competence clusters have high levels of affinity with SUPER in all countries: the “ability to rapidly acquire new knowledge,” “alertness to new opportunities,” “the ability to come up with new ideas and solutions,” “willingness to question your own and others’ ideas,” and the “ability to present products, ideas, or reports to an audience.” These are differentiated competence that separates those who are happy workers and those who are not.

Threshold competence and differentiated competence differ in their contents. It is possible to extract threshold competence required for all workers using the company-based approach. However, they are not necessarily the group of competences that enable graduates to become happy workers. Considering which competence cluster should be enhanced through academic training provided by university education, especially competence necessary to enable graduates to be happy workers should be given priority. The competence clusters generally required by companies do not necessarily illustrate the model of human resources development through university education for a knowledge society.

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1 Weekly working hours for SUPER and LOW, respectively, for each country surveyed were: Japan (47.6 hours, 45.1 hours), the UK (43.5 hours, 39.5 hours), Germany (44.0 hours, 42.4 hours), and France (38.7 hours, 36.6 hours).

2 Virtually the same results were derived for SUPER, MIDDLE or LOW. Therefore, these are considered to be basic competence required for all types of workers.
5. Conclusion

Traditionally, higher education research on university and work has ignored the substantial relationship between learning outcome and performance of work, leaving them in a kind of “black box”. The competence-based approach is of great significance because it tries to directly address the theme of how university and work are linked through competence.

However, it is true that the current method of the competence-based approach has its own limits, when trying to judge whether the present university education system is useful or not in the context of the knowledge society and when discussing the appropriate university education system for the future, in order to secure the relevance to work.

Critical reconsideration of the gap-based approach is to raise questions in simply looking at the divergence from competence required in the workplace. In cases where the individual feels he/she is overqualified, the results indicated that he/she was less likely to be employed in work requiring high levels of competence, with low levels of acquired competence utilization. However, in the UK and Germany, the respondents with a smaller gap tended to be employed in appropriate types of work, whereas in France and Japan, those with a wider gap were considered more likely to be employed in appropriate types of work. In order to precisely identify the meaning of gap, it is necessary to typify the gap between acquired competence and required competence and further examine its relationship with other job-related variables.

The happy worker approach presents issues stemming from starting with an analysis of competence itself by the company-based approach. If university graduates select their work styles with higher priorities on internal compensation than external compensation, observations using traditional variables such as wage and type of contract will not suffice. This is why there is increased attention on the competence required in the workplace. However, it should be noted that competence required of all employees in a workplace is different from competence enabling them to be happy workers. It is critical to recognize the difference between threshold competence and differentiated competence in defining and enhancing the quality and excellence of university education.

Many existing studies have discussed the relationship between the university and the knowledge society. In order to discuss the role of university education in the knowledge society in a persuasive manner based on empirical research, without falling into the pitfall of relying on impressions or jumping to new interpretations/explanations, the only possible method is through assembling factual data for in-depth validation of the relationship between the knowledge society and the university, as pointed out by Egbert (1999) and Välimaa (2008). This paper takes a small step in that direction.

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OCCUPATIONAL CHANGE AND THE EXPANSION OF HIGHER EDUCATION IN THE UK: THE IMPACT ON GRADUATE EARNINGS

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Abstract: Using data from the UK Labour Force Surveys, we show that the UK labour market has, until 2009 at least, undergone a remarkable degree of occupational restructuring which has maintained a strong demand for highly qualified young people, particularly those with a degree. This has taken place against a background of demographic change which has seen the population of 26 to 35 year olds declining in the UK over the past 14 years.

By examining occupational change through the use of a classification of occupations designed specifically for this purpose, we reveal the extent of growth in a wide variety of occupational areas for young people in this 26 to 35 year age range – the age range where we now observe those who benefitted from the rapid expansion in the output of higher education in the UK in the late 1990s. Consistent with the view that the demand for graduates has risen in line with the increased supply, we show that graduates have continued to move into the upper end of the income distribution. This appears to be the case even for the most recent graduates we observe in the labour market – those aged 21 to 25 years in 2007/08. This analysis contrasts sharply with those who claim to have found evidence of ‘overeducation’ in the UK labour market.

1. Introduction

Commencing in the late 1980s, the UK transformed its university sector from one which catered for a small and elite group of entrants to a system of mass higher education, offering a diverse range of educational experience and vocational skills. However, this transition has spawned a growing number of scholarly articles1 referencing the ‘overeducation’ phenomenon in the United Kingdom, reflecting and in turn informing vigorous debate among educational policy makers of different political persuasions about the scale of higher education. The importance of this debate is acknowledged by all. If we persuade young people to embark upon activities which effectively preclude them from the labour market for three or more years whilst causing them to accumulate significant debts in the process, only to see them struggle to find employment commensurate with their ambitions, will future productivity and the general well-being of the population be put at risk?

Most of the studies of this phenomenon have adopted what might be termed a ‘supply-side’ approach – examining the impact on the earnings of graduates of various measure of ‘overeducation’, including information reported by graduates about the extent to which they feel overqualified for the jobs they hold. This paper examines in more detail the most recent evidence about the changing occupational structure within the UK labour market and shows that the prevailing view among many analysts and policy makers, that the UK has expanded its system of HE beyond a level commensurate with the needs of the labour market, is incorrect. While the short run prospects for all labour market entrants, graduates and non-graduates, will be severely affected by the 2008/09 recession, the long run prospects for graduates in terms of their relative earnings, the occupations they will hold and their subsequent career paths, remain good.

2. Employment Growth, Occupational Change and Higher Education

Over the past two decades, employment in the UK has grown by over 4 million jobs - approximately 20 per cent of the entire workforce. Most of this growth has been located at the higher end of the occupational spectrum. An indication of the nature of these changes can be gained from Figure 1, in which we distinguish between two broad categories of occupations. The first of these covers managerial, professional and associate professional occupations, essentially those which are strongly connected with the growth of the ‘knowledge economy’ – jobs linked to the production and utilisation of knowledge rather than physical goods and low level services. From a base of 8.5 million jobs in 1992, this group of occupations has grown to cover 12.7 million jobs by 2009. While there have been offsetting compositional changes among the other group of occupations (covering administrative, secretarial, skilled trades, personal, sales and customer service, process, plant and machine operatives, elementary occupations), it is clear that the growth in the group of high level occupations is linked to the growth in employment more generally.

In earlier work, the authors show that these trends have been in evidence since the early 1980s. Clearly, employment growth and occupational restructuring on this scale would not have been possible without an associated increase in the high-level qualifications among those in the labour force. Government policies, enacted via successive measures introduced from the late 1980s onwards and relating to the control and funding of Higher Education Institutions, provided the necessary impetus. Figure 2 shows the growth in participation in higher education for young people through the early 1990s, the period of transition within the higher education sector from a system catering for a relatively small elite to mass higher education.

Much of this growth reflects women’s increased participation in higher education – to the extent that the preoccupation with girls’ and young women’s educational underachievement has now been superseded by concern about lower proportions of young males obtaining secondary education qualifications and proceeding into higher education and training. Girls are less likely to complete school with no formal qualifications and obtain more and better national secondary education certificate grades than boys: women graduates are more likely to have obtained first class or upper second class honours degrees than males, and consequently are well-placed to compete for ‘knowledge economy’ jobs, where the growth of female employment has exceeded that of males.

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1 The Age Participation Index (API) measures the number of home domiciled young (aged under 21) initial entrants to full-time and sandwich undergraduate courses, expressed as a proportion of the average 18 to 19 year old Great Britain population.
3. Unravelling the Growth in Employment: Occupations and High Level Qualifications

To gain some understanding of the changing nature of the labour market that graduates have entered over the past 15 years, we examine changes in the UK population, economic activity and occupational structure in more detail. Tables 1, 2 and 3 present, in successively greater detail, a picture of the main changes in the UK population and employment that took place between 1993/04 and 2007/08—the period encompassing the major expansion of the UK higher education system and the associated increase in the numbers of highly qualified people entering the labour market.

Table 1 shows the overall changes in the size of various population age groups and the associated changes in participation in employment. Examining this table first, two features stand out—the growth in the population of 36-55 year olds and the decline in the population of 26-35 year olds. The former is consistent with the large wave of immigration from the new countries acceding to the European Union, together with the arrival into this age group of the population boom associated with the high birth rates in the late 1950s and the early 1960s. Corresponding to this population ‘boom’ is the subsequent fall in the birth rate, resulting in a decline of more than three quarters of a million people aged 26-35 between 1993/04 and 2007/08. For males, the decline in numbers in this age group translates into a decline in employment. While the proportion of men in employment in this age group rose from 84 to 89 per cent, this was insufficient to counter the effect of the declining population in the age range. Although part-time employment increased slightly, this was offset by a fall in the numbers in full-time jobs and self-employed as their main economic activity. For women, the picture is very different. Rising employment participation in this age group, from 65 per cent to 72 per cent, led to an overall increase in employment between 1993/04 and 2007/08—mainly due to the growth of employment in full-time jobs.

Table 1: Changing structure of the UK population, by gender, age group and employment status

<table>
<thead>
<tr>
<th></th>
<th>UK Population (thousands)</th>
<th>Breakdown of change in population (thousands; 1993/04 - 2007/08)</th>
<th>Breakdown of change in employment (thousands; 1993/04 - 2007/08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Under 17</td>
<td>6,202</td>
<td>6,289</td>
</tr>
<tr>
<td></td>
<td>17 to 25</td>
<td>3,381</td>
<td>3,680</td>
</tr>
<tr>
<td></td>
<td>26 to 35</td>
<td>4,326</td>
<td>3,936</td>
</tr>
<tr>
<td></td>
<td>36 to 55</td>
<td>7,078</td>
<td>8,411</td>
</tr>
<tr>
<td></td>
<td>56 to 65</td>
<td>2,713</td>
<td>3,485</td>
</tr>
<tr>
<td></td>
<td>66 plus</td>
<td>3,252</td>
<td>3,865</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>26,952</td>
<td>29,666</td>
</tr>
<tr>
<td>Females</td>
<td>Under 17</td>
<td>5,934</td>
<td>5,989</td>
</tr>
<tr>
<td></td>
<td>17 to 25</td>
<td>3,360</td>
<td>3,551</td>
</tr>
<tr>
<td></td>
<td>26 to 35</td>
<td>4,396</td>
<td>3,993</td>
</tr>
<tr>
<td></td>
<td>36 to 55</td>
<td>7,170</td>
<td>8,613</td>
</tr>
<tr>
<td></td>
<td>56 to 65</td>
<td>2,856</td>
<td>3,632</td>
</tr>
<tr>
<td></td>
<td>66 plus</td>
<td>4,701</td>
<td>4,936</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>28,417</td>
<td>30,714</td>
</tr>
</tbody>
</table>

Source: UK Labour Force Surveys, 1993/94 (6 quarters) and 2007/08 (6 quarters)

To understand the impact of the expansion of higher education within this changing labour market, we developed an occupational classification to map and monitor change in the graduate labour market (Elias and Purcell, 2004). This classification, termed ‘SOC(HE)’ identifies four distinct labour market categories where recent graduates were employed in jobs where they reported using their skills and knowledge, according to their responses in relevant surveys and when interviewed in detail about their day-to-day work. These are termed ‘traditional graduate jobs’, ‘modern graduate jobs’, ‘new graduate jobs’ and ‘niche graduate jobs’.

The more established areas of graduate employment: ‘traditional’ and ‘modern’ graduate jobs – the ‘establishedprofessions’ and
occupational areas that had emerged or increasingly recruited graduates since the 1970s - were most likely to call for discipline-based expertise that unequivocally required the education they had completed as well, often, as strategic and interactive skills, as did many of the ‘niche’ graduate jobs found in generally non-graduate vocational areas with an established minority graduate-entry route, such as nursing and hotel management. In comparison, the more recent areas of graduate employment that we labelled ‘new graduate jobs’ - where the proportion of incumbents to have degrees rose substantially in the latter part of the 20th century - were more likely to be jobs with somewhat lower discipline-based expertise requirements, but substantial strategic, managerial or interactive skills.

Table 2 examines these changes that took place between 1993/94 and 2007/08 in full-time, part-time and self-employment according to our classification of occupations into these categories of graduate and non-graduate jobs. In this period non-graduate jobs increased by just over 8 per cent. However, growth in those jobs with potential to absorb those with high level skills has been much higher. Both traditional and modern graduate jobs grew by well over 50 per cent, new graduate jobs by 45 per cent and niche graduate jobs by more than 30 per cent. For both men and women the growth in graduate jobs is fairly evenly distributed between the sexes and is concentrated within full-time employment.

### Table 2: Changing structure of UK employment by occupational category and employment status

<table>
<thead>
<tr>
<th>SOC(HE) category</th>
<th>Change in UK employment in thousands</th>
<th>Change as a % of 1993/94 employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employee full-time</td>
<td>Employee part-time</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional graduate jobs</td>
<td>203</td>
<td>30</td>
</tr>
<tr>
<td>Modern graduate jobs</td>
<td>317</td>
<td>34</td>
</tr>
<tr>
<td>New graduate jobs</td>
<td>227</td>
<td>31</td>
</tr>
<tr>
<td>Niche graduate jobs</td>
<td>491</td>
<td>63</td>
</tr>
<tr>
<td>Non-graduate jobs</td>
<td>304</td>
<td>499</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,542</td>
<td>656</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional graduate jobs</td>
<td>252</td>
<td>66</td>
</tr>
<tr>
<td>Modern graduate jobs</td>
<td>249</td>
<td>115</td>
</tr>
<tr>
<td>New graduate jobs</td>
<td>331</td>
<td>98</td>
</tr>
<tr>
<td>Niche graduate jobs</td>
<td>514</td>
<td>205</td>
</tr>
<tr>
<td>Non-graduate jobs</td>
<td>241</td>
<td>131</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,587</td>
<td>615</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional graduate jobs</td>
<td>454</td>
<td>96</td>
</tr>
<tr>
<td>Modern graduate jobs</td>
<td>566</td>
<td>149</td>
</tr>
<tr>
<td>New graduate jobs</td>
<td>559</td>
<td>129</td>
</tr>
<tr>
<td>Niche graduate jobs</td>
<td>1,005</td>
<td>268</td>
</tr>
<tr>
<td>Non-graduate jobs</td>
<td>545</td>
<td>630</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,129</td>
<td>1,271</td>
</tr>
</tbody>
</table>

Source: UK Labour Force Surveys, 1993/94 (6 quarters) and 2007/08 (6 quarters)

In Table 3 we take this analytical approach to the limits imposed by the available data. Here we compare ‘graduate career-building’ age groups (i.e. those aged between 26-35 years old) in 1993/94 with the same age group in 2007/08. This age group is selected because it exhibits the employment situation for those who may have acquired a university degree and who have had, on average, ten years since graduating to gain access to jobs commensurate with their high level qualifications (both at undergraduate and, for some, post-graduate levels). We show information not just for the broad occupational categories of SOC(HE) used in Table 2, but also for detailed constituent occupational groups. We have selected occupations where the changes in the occupational classifications used for Labour Force Survey data have had little impact and they remain reasonably comparable. We include, where appropriate, occupations that have exhibited growth, stability and decline between the years compared. The earlier cohort entered the labour market prior to the most recent expansion, the later cohort after it. The columns of this table show the changing nature of a selection of the constituent occupations within each SOC(HE) category, presenting information on the growth (or decline) in employment in each occupational category between 1993/94 and 2007/08, the percentage of job holders in this age range with a degree, the proportions of women and the graduate premium (computed here simply as the ratio of the weekly earnings of full-time employees with a degree to those without a degree).
Table 3: Detailed changes in occupational structure, 26-35 year olds in 1993/94 and 2007/08

<table>
<thead>
<tr>
<th>Occupational category (SOC[HE])</th>
<th>Employment change in, thousands, 1993-04 to 2007-08 (%)</th>
<th>% with degree</th>
<th>% female</th>
<th>Graduate premium 1 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional graduate occupations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical practitioners</td>
<td>+30 (78)</td>
<td>85</td>
<td>84</td>
<td>37</td>
</tr>
<tr>
<td>Biological scientists &amp; biochemists</td>
<td>+13 (58)</td>
<td>79</td>
<td>88</td>
<td>44</td>
</tr>
<tr>
<td>Judges, barristers &amp; solicitors</td>
<td>+17 (48)</td>
<td>92</td>
<td>91</td>
<td>44</td>
</tr>
<tr>
<td>Actuaries, economists &amp; mgt consultants</td>
<td>+29 (144)</td>
<td>65</td>
<td>70</td>
<td>35</td>
</tr>
<tr>
<td><strong>Modern graduate occupations</strong></td>
<td>+204 (51)</td>
<td>51</td>
<td>70</td>
<td>37</td>
</tr>
<tr>
<td>Within which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software engineers, programmers</td>
<td>+33 (37)</td>
<td>45</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td>Primary, nursery education teachers</td>
<td>+55 (104)</td>
<td>83</td>
<td>93</td>
<td>83</td>
</tr>
<tr>
<td>Social workers, probation officers</td>
<td>-7 (-23)</td>
<td>30</td>
<td>58</td>
<td>67</td>
</tr>
<tr>
<td><strong>New graduate occupations</strong></td>
<td>+122 (22)</td>
<td>37</td>
<td>57</td>
<td>38</td>
</tr>
<tr>
<td>Within which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel, training etc managers</td>
<td>+3 (9)</td>
<td>40</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Chartered &amp; certified accountants</td>
<td>-15 (-25)</td>
<td>46</td>
<td>69</td>
<td>30</td>
</tr>
<tr>
<td>Laboratory technicians</td>
<td>-9 (-36)</td>
<td>33</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td><strong>Niche graduate occupations</strong></td>
<td>+36 (3)</td>
<td>15</td>
<td>37</td>
<td>43</td>
</tr>
<tr>
<td>Within which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses</td>
<td>-47 (-28)</td>
<td>5</td>
<td>34</td>
<td>89</td>
</tr>
<tr>
<td>Police officers - sergeant &amp; below</td>
<td>-9 (-13)</td>
<td>7</td>
<td>33</td>
<td>14</td>
</tr>
<tr>
<td><strong>Non graduate occupations</strong></td>
<td>-664 (-17)</td>
<td>3</td>
<td>11</td>
<td>46</td>
</tr>
<tr>
<td>Within which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts clerks, book-keepers etc</td>
<td>-46 (-27)</td>
<td>9</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>Sales assistants</td>
<td>-35 (-16)</td>
<td>2</td>
<td>12</td>
<td>79</td>
</tr>
<tr>
<td>Filing and record clerks</td>
<td>-40 (-57)</td>
<td>7</td>
<td>28</td>
<td>67</td>
</tr>
</tbody>
</table>

Total                           | -97 (-2)| 15      | 32      | 44      | 45      | 42      | 48      |


Note 1. The ‘graduate premium’ is simply the ratio of the gross weekly earnings of degree and non-degree holders for employees in full-time employment.

Referring back to Table 1, we noted that male employment in this age range (26-35 years) falls markedly between 1993/94 and 2007/08. This is a consequence of the declining population of males in the age group. For women, their increased participation more than offsets the decline in the population. For both sexes, employment falls by almost 100 thousand over this 14 year period. However, Table 3 reveals that the changes in occupational structure that took place over this period far outweigh the changes in population and labour force participation. Employment in the four categories of jobs which have potential for absorbing labour market entrants with high level qualifications (traditional, modern, new and niche graduate jobs) grew by well over half a million.

The sheer scale of these occupational trends is quite remarkable, especially when it is placed within the context of a declining population age group. The employment of 26-35 year olds in the traditional areas of graduate employment grew by over 200
thousand, with a small increase in the already high proportion of job holders in this occupational area who have degrees. Women made significant inroads into these jobs, with the proportion of women rising from 44 to 53 per cent over the period. Each of the four specific occupational groups shown in Table 3 (medical practitioners, biological scientists, legal professionals and ‘actuaries, economists, management consultants’) has grown strongly over the 14 year period.

Modern graduate occupations grew by a similar amount, but the significant difference between these jobs and the traditional graduate jobs is the rise in the proportion of job holders with degrees, from 51 per cent of the group in 1993/94 to 70 per cent by 2007/08. ‘Social workers and probation officers’ is an occupational group which shows the highest increase in the proportion holding a degree, from just under one third in 1993/94 to 58 per cent in 2007/08.

The employment of 26-35 year olds in new graduate jobs also increased significantly, as did the proportion of degree holders in this occupational area. Finally, while niche graduate jobs did not demonstrate quite such growth, the proportion of degree holders rose, helped significantly by the rise in graduates in the police forces and in nursing occupations.

4. The Changing Distribution of Graduate Earnings

Next we turn our attention to the potential impact that rising numbers of graduates entering the labour market may have had on the graduate earnings premium. We noted in Table 3 that the raw earnings differential between graduates and non-graduates within occupations moves in different directions for various graduate occupational groups. Overall, the ‘graduate earnings premium’ displayed by the 26-35 year age group appears to grow by 6 percentage points, from 42 per cent to 46 per cent. However, this age group may not reflect more recent changes in the graduate earnings premium. To address this issue we focus upon a younger age group, those aged 21-25 year in the two time periods we compare. The age group observed in 1993/94 would have obtained their first degrees between 1989 and 1993, the period immediately prior to the expanding output of graduates into the labour market – when only about 15 per cent of the age cohort would have obtained a degree. The group observed in 2007/08 would have graduated between 2003 and 2007, by which time the expansion of higher education meant that more than one third of the age group were graduates entering the labour market. For each age group the gross weekly earnings of those in full-time employment is extracted from the UK Labour Force surveys, distinguishing between those with a first or higher degree and those with lesser or no qualifications.

Before examining the changing distributions of the earnings of these graduates and non-graduates, we consider how their relative position in the earnings distribution might change in the light of the expansion of higher education. Two different hypothetical scenarios are presented. The first assumes that, as more people acquire higher education qualifications, employers adjust by segmenting the labour market into graduate jobs and non-graduate jobs, restricting the recruitment of graduates to jobs that utilise and reward their potential to innovate and ‘add value’ as a result of the skills and knowledge they possess – and these jobs are at the higher end of the earnings distribution. The second scenario is one in which an oversupply of highly qualified labour means that graduates are being recruited for lower paid jobs that do not require higher-level skills and knowledge and previously were the domain of non-graduates.

The consequences of these two scenarios for the changing distribution of young graduates in the labour market are demonstrated in Figures 3 and 4. In Figure 3 we hypothesise that, at higher earnings levels, the proportion of people with a degree will increase. The relationship is probably not linear, in that there are likely to be some ‘mismatched’ graduates who have taken low-paid and/or temporary work while they continue to search for better paid employment. With an increase in the proportion of graduates in the labour market, the curve does not just shift upwards as the proportion of young full-time employees with degrees increases, but swings anticlockwise as higher proportions of these graduates enter better paid jobs than was the case in the earlier period. This situation is consistent with the maintenance a graduate earnings premium – or even growth in the premium if graduates manage to ‘command’ the more highly paid jobs. This does not necessarily imply that graduates have become more productive than non graduates, particularly if employers increasingly use possession of a degree as a ‘gateway’ into more highly paid employment.

If the ‘over-education’ scenario holds, we would expect the aggregate outcome to be closer to that shown in Figure 4 than Figure 3. The actual change that was recorded between 1993-94 and 2007-08 is shown in Figure 5. Despite the fact that there is a degree of ‘noise’ in these graphs associated with the lower survey numbers at the higher end of the earnings distribution, the analysis reveals that the change observed lends more support to the first hypothesis, that the graduate earnings premium appears to have been maintained during this period of rapid expansion of the number of young graduates in the labour market. Figure 6 shows the same information for the older age group of young people, those aged 26-35 years. Although this figure relates to those who gained their first degrees and entered the labour market five years earlier on average, it demonstrates the continuing rise in earnings with age, and shows that the more recent movement of 21 to 25 year old graduates into the labour market effectively mirrors the situation prevailing for these older graduates.
Figure 4: Graduate expansion and a decline in the graduate earnings premium

Figure 5: Change in the distribution of 21-25 year old graduates by earnings, 1993-94 compared with 2007-08

Note: Earnings in 2007-08 have been deflated by 75 per cent – the growth in earnings of all employees between 1993-4 and 2007-08. The mean pay of full-time employees aged 21-25 year in 1993/94 was £214.
Figure 6: Change in the distribution of graduates aged 26-35 by earnings, 1993-94 compared with 2007-08

Note: Earnings in 2005-6 have been deflated by 75 per cent – the growth in earnings of all employees from 1993-94 to 2007-08

5. Conclusions

We show that the UK labour market has, until 2009 at least, undergone a remarkable degree of occupational restructuring which has maintained a strong demand for highly qualified young people, particularly those with a degree. This has taken place against a background of demographic change which has seen the population of 26 to 35 year olds declining in the UK over the past 14 years.

By examining occupational change through the use of a classification of occupations designed specifically for this purpose, we reveal the extent of growth in a wide variety of occupational areas for young people in this 26 to 35 year age range – the age range where we now observe those who benefited from the rapid expansion in the output of higher education in the UK in the late 1990s. Consistent with the view that the demand for graduates has risen in line with the increased supply, we show that graduates have continued to move into the upper end of the income distribution. This appears to be the case even for the most recent graduates we observe in the labour market – those aged 21 to 25 years in 2007/08. This analysis contrast sharply with those who claim to have found evidence of ‘overeducation’ in the UK labour market.

We are in no doubt that the recession of 2009 will slow down this growth and may temporarily impede progress into and within the labour market for those graduating in 2009 and 2010. However, such impediments to progress are likely to be short term.

6. References


EVIDENCE FROM UK LONGITUDINAL STUDIES ON THE IMPACT OF HIGHER EDUCATION EXPANSION ON EQUALITY OF OPPORTUNITY

KATE PURCELL AND PETER ELIAS
Warwick Institute for Employment Research

Abstract: This paper draws on three main sources: national longitudinal survey and interview data from two cohorts of UK HE graduates who obtained their degrees in 1995 and 1999, and an ongoing longitudinal survey tracking 2006 higher education applicants, most of now coming to the end of their third year of study.

The graduate survey data were collected at 3-4 years and 7 years of 1995 and 1999 graduates from 38 UK higher education institutions and a qualitative sub-sample interview follow-up of targeted members of the 1995 sample were also conducted seven and again ten years after graduation. The 2006 HE applicant survey is an independent online census survey, funded by the educational charity HECSU (the Higher Education Careers Services Unit) with the assistance of the national universities application service through which applicants for virtually all full-time courses of undergraduate study must apply (UCAS). At the first sweep over 121,000 students who had gained and accepted places responded, so it has facilitated a robust and detailed analysis of the relationship between variables – subject studied, gender, socio-economic, ethnic, regional and educational backgrounds and career choices and experiences.

Drawing on these data and considering the relevance of Amartya Sen and Martha Nussbaum's work on the relevance of the development and facilitation of capabilities to understand the persistence of social inequality, we examine the relationship between the expansion of UK HE in the late 20th and early 21st centuries, widening access to higher education and the extent to which it has led to greater equality of opportunity for disadvantaged groups, including, in particular, exploration of the impact on gender inequalities. The paper presents findings that throw light the dynamics of the complexities and heterogeneity of the UK higher education population, the range of subjects studied, the skills and knowledge developed and the career implications and outcomes of these.

1. The Changing Conceptualisation of Higher Education in the UK

The policies of successive UK governments, in common with those of virtually all developed and most developing countries, increasingly have been designed to expand higher education in the belief that widening access and the resulting increased output of graduates will contribute to the growth of a ‘high skills' economy and greater economic and social prosperity. In the early 1960s less than 8 per cent of UK school-leavers entered higher education (HE) and full-time ‘mature students' were virtually unknown. Since then, the UK Higher Education system has undergone a major transformation over the past 40 years, from a system that catered for an elite group of entrants in the late 1960s and early 1970s to one that now aims to provide tertiary education to half the population of 18-30 year olds and provides ‘second chance' opportunities for adults, where the promotion of ‘lifetime learning' has become a core of educational, skills development and employment policies.

A crucial aspect of recent growth is the extent to which it reflects women's increased participation in higher education – to the extent that the preoccupation with girls' and young women's educational underachievement has now been superseded by concern about lower proportions of young males obtaining secondary education qualifications and proceeding into higher education and training. Girls are less likely to complete school and to proceed into higher education and training. Women graduates are more likely to have obtained first class or upper second class honours degrees than males, and consequently are well-placed to compete for ‘knowledge economy' jobs, where the growth of female employment has exceeded that of males. Women were 42 per cent of the 414,000 full-time undergraduates studying at UK HEIs in 1970/71, 54 per cent of their 1.1 million successors registered in 2000/01 and 55 per cent of those who began full-time undergraduate study in autumn 2006. This means that the gender skills and qualifications balance has been shifting, with implications for earning potential, dependency in relationships and gender divisions of labour – but gendered patterns remain and these contribute to the persistence of social and economic gender inequalities. Gender relations in the UK, as in most developed and developing countries, changed throughout the 20th century as a result of the impact of expedient change in traditional gender roles during the two World Wars in the earlier part of the century, feminist and wider political action to challenge entrenched gender inequities, industrial re-structuring, technological change, and, perhaps most importantly, the increasing reliability and accessibility of mechanisms to control fertility – and the cultural changes that resulted (See Crompton 2006 and Purcell 1989 for detailed discussion of these). However,
this by no means has led to an androgynous culture (Bem 1974). Children from birth are socialised into distinct gender roles, based on culturally-entrenched beliefs and practices relating to what are generally believed to be inherent sex differences, many (but not all) related to potential biological reproductive roles. Genetic and behavioural research reveals that, apart from physiological differences, there are indeed consistent and patterned differences between male and female attributes, abilities and psychological make-up, but on all such dimensions, there is an overlap between the sexes. The distributions of male and female propensities, for example, to be violent or nurturing, assertive or responsive, or to exhibit spatial, systemising or empathic abilities, are different, with significant average differences between the sexes. However, gender roles – the social construction of what it is to be a man or a woman and the prescribed roles attached to these – lead to very different beliefs, interpretations and gendered outcomes in different societies and, within these, in different sub-cultures. In considering how social inequalities build on and distort natural differences, we draw on Sen’s (1985) concept of ‘capabilities’ and Nussbaum’s (2000) elaboration of his concept of capability in conjunction with Rawls’s (1971) theory of social justice, with particular reference to gender inequalities. This enables us to build upon previous analyses we have undertaken on the UK graduate ‘gender pay gap’ and gendered differences in graduate career trajectories and outcomes (Purcell and Elias 2008; Purcell et al. 2006).

UK higher education expansion has been predicated upon two key concepts: ‘the knowledge economy’ and ‘employability’ – both used rather loosely by policy-makers in government and higher education. For a recent example of this, see the recent ‘Horizon scanning Scenarios’ produced by the Department for Innovation, Universities and Skills (DIUS). This document also makes use of a further concept that has been gaining wide currency: the business-led concept of ‘talent’, used very specifically to refer to highly-skilled recruits who have had the benefit of elite higher education, successful completion of which is assumed to provide a proxy for intellectual and innovative ability (DIUS ibid., Brown and Hesketh 2004). But ‘talent’ in its traditional use means ‘special or very great ability’ (Oxford Reference Dictionary), most often used to refer to virtuoso artistic or athletic abilities which, while they normally reflect learned and trained skills and abilities, also are assumed to derive from genetic or ‘God given’ endowment; capabilities beyond those that could be achieved by others through learning and practice – reflecting ‘natural inequalities’ such as beauty, athletic prowess or high intellect (Comte 1854) – but even most of these ‘natural’ inequalities can be changed by educational, technological and medical intervention.

Sen’s work on economic inequality and development reminds us that the objectives of economic growth and increased productivity/efficiency on the one hand, and extension of opportunities to realise human potential and social contribution are not equivalent alternatives in either practical or ethical terms. The former (although they are often seen as ends in themselves) are essentially means towards the achievement of more fundamental goals related to social justice, the quality of life, and social cohesion and stability; the latter are fundamental goals in themselves. Neither do they entail each other. The increase in economic activity and national wealth per se does not guarantee decrease in socio-economic inequalities or an improvement in the quality of life for all citizens – as is evidenced by recent increases in the share of wealth accruing to the richest, accompanied by increasing poverty, in the UK (Hills 2004) and by the very wide gap between the highest and lowest earners in ‘increasingly prosperous’ emerging economies such as India.

Sen and Nussbaum both recognise, beyond unequal access to freedoms and rights, access to formally-available rights are contingent upon the possession of capabilities which (in sociological terms) are socially-constructed or repressed by the socio-economic, political or cultural contexts within people are born and live. Sen (2000:13-14) is clear that ‘the relation between incomes and achievements, between commodities and capabilities, between our economic wealth and our ability to live as we would like’ is contingent upon the circumstances in which we live and the opportunities to which we have access – the capabilities which we have been able to develop. It will be argued in this paper that Sen’s (1985) concept of capability, as modified by Nussbaum (1999) to elaborate gender difference and inter-dependencies, can advance analysis of gender differences in UK HE participation patterns and gendered early career outcomes. Most usefully, we will consider the relevance of her concept of ‘threshold of real opportunities’ within the material and cultural contexts within individuals (as individuals, members of families, members of communities and citizens), access (or are denied access to) rights and opportunities. Crucially, she includes access to the capacity to develop cognitive, sensual and emotional aspects of humanity.

2. Exploring Students’ higher Education Choices and Attitudes to Their Development of Competences

Drawing on our current work on the relationship between higher education, career decision-making, and labour market outcomes - the Futuretrack study of 2006 full-time UK HE applicants², three

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1 Revealingly, and indicative of change in UK government policy priorities, this government department was formed and named in a 2007 reorganisation of two previous departments: the Departments of Education and Employment (DfEE) and the Department of Technology and Industry (DTI). The other re-formed department is the Department of Business, Enterprise and Regulatory Reform (DBERR). DIUS has this year been merged with DBERR, or part of it, to form a new Department of Business, Innovation and Skills (DBIS) – generally thought among those in universities to be another step further from the intrinsic to the instrumental values of university education. See http://horizon.scanningscenarios/dius/scenarios/printview

2 A longitudinal study being conducted by the applicants, funded by the Higher Education careers Services Unit (HECSU) that is tracking over 50,000 2006 applicants for full-time higher education courses between summer 2006 and winter 2011-12, through four survey waves and related interview programmes.
aspects of gender differences among the population of the students who embarked on their courses in Autumn 2006 clarify why this may occur: subject choices, choices of institution in which to study, and subjective estimates of their core skills and levels of self confidence. Figure 1 shows that throughout the full spectrum of academic and vocational first degree subjects and disciplines, the distribution of the longitudinal study male and female student sample distributions differed substantially. With reference to Nussbaum’s basic and internal capability development, the choices made by 2006 UK HE applicants appear to reflect standard Western gender-socialised development of capabilities, expectations and choices. The subjects selected for vocational qualifications differ between men and women. Men were more likely to study vocational qualifications for construction, planning and the built environment (with almost 100 per cent of these awards going to men), or engineering and manufacturing technologies (89 per cent of all awards), whereas women were more likely to have opted for health, public services and care related vocational qualifications (around 86 per cent of all awards).

Figure 1: Subject applied for, comparing male and female distributions (accepted applicants)

![Figure 1: Subject applied for, comparing male and female distributions (accepted applicants)](image)

Source: Futuretrack 2006: accepted applicants, full survey, weighted.

Figure 2 shows the gender ratios within each subject, which makes the same point but allows us to consider the social context within which students in different areas of study might be likely to experience HE: the context in which they develop internal capabilities. Men who choose to study undergraduate Education programmes or Subjects Allied to Medicine and women who opt for engineering or Mathematics & Computing opt for experience as members of a small and conspicuous minority. We have cited the challenges that this can pose to the latter from evidence collected in a previous study of graduates (Purcell et al. 2006). It appears, conversely, the men who choose ‘female dominated’ options and occupations tend to benefit, rather than suffer, in career terms (e.g. Guy and Newman 2005, Cavanagh and Cree 1996).
Female applicants were less likely to apply to the most prestigious universities and more likely to apply to study at new universities, and to universities within their own region. Gender is, of course, mediated in relation to other contextual and cultural variables, of which a highly significant one is ethnicity and the sub-cultural beliefs and norms associated with these. Figure 3 illustrates how gender and ethnic background impacted on choice of higher education institution (HEI).

Source: Futuretrack 2006: all accepted UK applicants to full survey weighted.

Source: Futuretrack 2006: accepted UK-domiciled applicants, full survey, weighted.
Proximity to parents and other family members were also taken into consideration by Asian students (particularly those from Bangladeshi and Pakistani subcultures) to a considerably greater extent than for black or white applicants, as was proximity to friends. This may be a very positive finding from the point of view of the former, reflecting a greater likelihood of well-being and strong family and community affiliations conducive to security, but it does suggest that some, at least, may be restricting their options, and their opportunities to integrate beyond their pre-existing membership groups, into the wider HE community. The longitudinal study will enable us to explore the longer term evaluations of the costs and benefits of choices in relation to outcomes and subjective satisfaction.

3. Skills, Capabilities, Knowledge and Higher Education

The freedoms and inequalities Nussbaum (1999:41-2) distinguishes in her elaborated model of capabilities encapsulate Sen’s substantial and negative freedoms (freedom to exercise rights and opportunities, and freedom from coercion or injustice); by and large, rights enshrined in social policies and legislation in most developed and developing countries whether or not they are explicitly laid out in Human Rights legislation. However, her analysis goes beyond these, in recognising that ability to take advantage of these freedoms is incumbent upon the development of three distinct categories of capabilities; all, crucially, conceptualised as ‘being able to...’ and including the underlying emotional and developmental capabilities that facilitate or impede ability to act or respond.

Thus, Nussbaum reflects that the majority of infants are born with the potential to develop basic capabilities related to being able to survive in good health, to imagine, to think, to reason, to empathise, to laugh, to play...to develop relationships with others – but these are developed according to material and social circumstances; largely according to gendered norms and values, which are found to a greater or lesser extent in all known cultures. Internal capabilities ‘build on pre-existing basic capabilities by processes such as exercise, education and training’. Combined capabilities involve the ability to deploy internal capabilities to manage the external institutional and material conditions that these facilitate or obstruct the exercise of the individual’s basic and internal capabilities. Nussbaum's big question (op cit:34) in relation to capabilities is “Looking critically at access to formal rights: what are people actually able to do and be?” We are now going to move to consideration of the evidence from our current and recent research on access to HE and graduate early career development and outcomes to investigate gender differences and inequalities.

4. Skills, self-confidence and Different Attributes and Cultural Contexts

Anyone who has experience of recruitment and selection, whether of students for scarce places or job applicants, knows that a significant contributory factor to success is candidates’ ability to present and defend themselves and their interests. This involves the ability to demonstrate a cluster of Nussbaum’s basic capabilities, deriving from having been able to develop skills related to self-esteem and interaction with others, whatever might be the more formal capabilities sought explicitly for the studentship or post. In attempt to get some estimate of students’ self-esteem, and indeed, gain some insight into capabilities beyond formal achievements, we asked our longitudinal study respondents to evaluate their ‘core skills’ and self-confidence on dimensions invariably mentioned by graduate employers as areas where they seek recently-qualified graduates. We also asked them to evaluate their self-confidence. We find clear gender differences in all but spoken communication.

![Figure 4: Self-assessment of basic skills prior to HE entry, by gender](image-url)

Source: Futuretrack 2006: all accepted UK applicants to full survey weighted.
There are gender differences on most dimensions. However, the norms and values that influence self-assessment, as well as the standards of comparison explicitly or implicitly drawn upon to make the assessment, reflect individual experiences, networks and cultural values and these need to be borne in mind.

- Female applicants were more likely than men to rate themselves as excellent or very good in written communication (63 per cent compared to 57 per cent);
- Male applicants were more likely to rate themselves as excellent or very good in numeracy (52 per cent compared to 37 per cent), computer literacy (69 per cent compared to 51 per cent) and overall self-confidence (54 per cent compared to 43 per cent).

This gender comparison of accepted applicants is particularly interesting the light of the finding that men had a higher probability of gaining an accepted place, and in the light of the fact that female accepted applicants had higher UCAS tariff scores1 at entry, on average, than males. These data provide the opportunity to explore this further. It is also apparent that self-rating on these dimensions reflects elements of cultural diversity, in skills or in the ways that individuals evaluate themselves in relation to others. This is shown clearly in the different self-rating patterns exhibited among minority ethnic groups.

- On written communication, Black Africans were most likely to rate themselves highly (68 per cent), compared with White applicants (60 per cent), Asian Bangladeshis (63 per cent) and at the other extreme, only 40 per cent of the Asian Chinese.
- On spoken communication, the patterns of response were similar, with Black applicants from both African and Caribbean backgrounds most likely to rate themselves highly (64 per cent) and Asians slightly less likely to do so, and within the Asian communities, Bangladeshi Asians were most likely at 63 per cent. White respondents did so in 58 per cent of cases, compared to only 38 per cent Asian Chinese respondents.
- On numeracy, the reverse patterns are apparent, with Chinese Asians most likely to rate themselves excellent or very good (59 per cent), followed by Black Africans (57 per cent) Asian Indians (56 per cent) – with White and Black Caribbean applicants least likely to be confident of their skills in this area (42 per cent and 38 per cent respectively rating themselves highly).
- Minority ethnic applicants are all more likely to rate their computer literacy highly than White applicants, ranging from Asian Pakistanis (72 per cent), Asian Bangladeshis (67 per cent), the other minorities around 60-62 per cent, with Black Caribbean (59 per cent) and White applicants (58 per cent) last likely to score highly.

Finally, the ‘excellent and very good’ proportions for overall self-confidence ranged from Black Africans (72 per cent), Bangladeshi Asians (61 per cent), White (62 per cent), to Asian Chinese, with only 39 per cent doing so.

Overall self-confidence is correlated most closely with written and spoken communication skills, which intuitively makes sense: poor communication skills are likely to be inhibiting and foster low self-esteem. However, it is important to remember the subjectivity of the evaluation. How do gender and other cultural differences reinforce or challenge one another? The data are weighted to take account of gender bias in response (and as in all surveys, a higher proportion of targeted women responded than was the case for men) and we found no significant bias in terms of minority ethnic responses.

We find that, with reference to Spoken Communication, Asian Bangladeshi and Black African women rated themselves more highly than their male peers, but otherwise there was little gender difference within ethnic groups. Chinese Asian women rated themselves lower than their male equivalents on every dimension, and Asian Bangladeshi and Black Caribbean women were as likely as their male peers to rate their written communication skills highly, but on Computer Literacy and Numeracy, women in all communities were less likely to rate themselves highly than men. In Table 2 we explore responses to the self-confidence self-rating item further to examine the interaction of gender and cultural background. In all cases, males were more likely to rate themselves highly than females.

In all the groups, we find a ‘gender confidence gap’, ranging from 5 per cent for Bangladeshi Asians to 15 per cent for Black Caribbeans. Chinese Asians of both sexes stand out as least likely to express confidence about their self-confidence, Black applicants generally expressed greater self-confidence their self-rating, and those from a mixed race background do exhibit patterns between the relative lower likelihood of confidence among white respondents and the higher rates of the majority of minority ethnic groups. How far the relative confidence patterns are borne out, or changed in the course of HE experiences and outcomes, will be monitored as the longitudinal study proceeds.

Along with the different subject choices and skills developed, these differences in subjective evaluation of core skills reflect the gendered and ‘en-cultured’ patterns of capability development – but the self-confidence gap, in particular, reveals the residual impact of similarly-socialised basic emotional capabilities which are normally reinforced rather than challenged by wider social interactions in the public domain. How far will the gender confidence gap contribute to inequalities of graduate outcomes, most graphically illustrated by the persistent gender pay gap found among recent graduate cohorts even at the earliest stages of career development prior to reproduction and family formation?

1 This is the sum of their grades achieved in the standard UK national subject ‘A’ level examinations or equivalent.
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5. The Early Career Development of Recent UK Graduates

We go on to look briefly at two aspects of gender difference in graduate early career outcomes, using evidence from longitudinal surveys of recent UK graduate cohorts: first, the gender pay gap and second, gendered career outcomes and the explanations given for gendered choices by highly-qualified women who have proved, in their early career trajectories, that they have the internal and combined capabilities to take advantage of earning and career development opportunities on a par with their male peers. Cross-sectional evidence on the differences in the average earnings of male and female graduates shows that the pay gap appears to widen with time spent in the labour market, but cross-sectional evidence can be highly misleading, in that it portrays the experiences of successive cohorts of graduates. Figure 4, based on longitudinal data, shows the evolution of the gender gap in pay among 1995 graduates in full-time employment. For their first main job after graduating in 1995, at the time of the first survey (1998/99) and at the time of the second survey (2002/03).  

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1 See www.warwick.ac.uk/go/glmf for details of the Moving On and Seven Years On longitudinal studies of the 1995 graduating cohort and Class of ’99 survey of 1999 graduates’ career experiences in the first four years after graduation.  
2 Sample attrition is a major problem with longitudinal surveys and our survey is no exception. Response rates in 1998/99 were just over 30 per cent. Only 70 per cent of these respondents gave permission to be re-contacted. Of these, only 50 per cent responded. However, we are able to determine whether or not the respondents at the second survey are systematically different from those who responded at the first survey. We find little evidence of such systematic differences.
These comparisons reveal that the unadjusted earnings gap (without taking account of gender differences in subject studied, social class background, entry level qualifications, class of degree obtained, etc) had increased steadily as careers evolved over this seven and a half year period since graduation. Women graduates reported full-time annual gross earnings in their first job after graduation that were, on average, 11 per cent less than those of male graduates. Three and a half years later this gap had risen to 15 per cent, then to 19 per cent by 2002/03. Multivariate analysis of the earnings of these graduates, focusing only those in full-time employment, reveals that, although a number of factors show a powerful association with annual earnings, they do not necessarily contribute to a better understanding of the gender difference in pay. Gender differences in earnings do, however, appear to be associated with a number of factors which vary significantly between men and women. The most important among these are:

- gender differences in weekly hours worked;
- the sectoral distribution of graduate jobs and public/private sector location;
- the extent to which graduates are employed in workplaces where the type of job they do is segregated by gender;
- gender differences in subject studied for their 1995 degree.

An interesting finding from the analysis described above relates to the relative effects of subject studied and sector of employment. These two factors are clearly related, and we anticipated that subject studied would appear as the most important factor in helping us to understand the gender difference in pay. In fact, it turns out that the opposite is true – sector of employment and the public/private sector distinction are better predictors of the gender difference in earnings than subject of study, although the two are clearly inter-related when we look at the occupational distribution. The combined influence on the gender difference in pay of the factors outlined above is shown in Figure 5.

Differences in weekly hours worked and the different sectors in which men and women graduates are employed alone ‘account for’ half of the gender difference in the earnings of young 1995 graduates in full-time employment seven years after gaining a first degree. Clearly this does not ‘explain’ the gender difference, given that choices of working hours, working in the public or private sector are choices made in the light of subjects studied, domestic constraints, partnership and may well reflect gender-based constraints on opportunities to vary working hours or access particular employment options. However, a very interesting result illustrated at the ‘macro’ level of this national study is that the gender difference in earnings relates also to the gendered nature of the work environment. Women graduates tended to work in jobs where people who did their kinds of job tend to be primarily other women, and these jobs paid less than those in male dominated workplaces, a finding that reinforces earlier sociological studies of gender segmentation at the workplace and its association with gender inequalities in pay and promotion profiles (Wilson 1998, Cockburn 1991, Kanter 1977). Further exploration of why we find highly-qualified women and men working in contexts where ‘people who do their jobs’ are the same sex, revealed that those with androgynous occupational skills are more likely to be recruited to ‘gender appropriate’ vacancies: for example, males and females both become human resource managers, but relatively well-paid human resource management posts in the manufacturing industries are more likely to be filled by men, and somewhat less highly-paid public sector HRM posts by women, even among young graduates(Purcell et al, op cit).
We are left with a residual difference in the earnings of men and women graduates where we fail to relate to any observed factor. In the 1995 graduating cohort, this accounted for almost 8 per cent of the difference in full-time earnings of these two groups some seven years after graduation. This difference remains after we have adjusted earnings to take account of the fact that women tend to work in jobs with shorter full-time weekly hours, in sectors which pay less (particularly in public sector jobs) and in workplaces where their kind of work is done predominantly by women - all factors which reduce the pay of women graduates relative to men. We are left with the ‘Why?’ questions. Why do women work shorter hours, why are they more likely to have obtained, or opted for, Public Sector employment, and jobs where people in their jobs are more likely to be women?

6. Getting beyond ‘accounting for’ to ‘explaining’ gender differences in early graduate career development

The qualitative research that we have carried out, particularly in subsequent interviews with women in the sample identified as ‘high flyers’ at the earlier sweep of the survey, indicates that there are three explanations for gender differences, and the extent to which they are contributory factors varies according to employment sector and degree subject (which reflects, of course, the gendered internal and combined capabilities that respondents had been able to develop. In a recent paper (Purcell and Elias 2008) we have further explored the complexities underlying the unexplained residual gender difference in average earnings by focusing in more closely on different types of graduate and different work contexts. Comparing women and men who had studied engineering, law and humanities degrees within each discipline group and across the discipline boundaries, we discuss how the gender pay gap differed according to degree obtained and why this might be. The gap was narrowest for engineering graduates and widest for law graduates, and when we looked more closely at the kinds of jobs they had obtained, it appeared that not only salaries, but the use of disciplinary skills and knowledge in employment was different. Women who had studied Engineering most often began their working lives in Private Sector manufacturing and had more often ‘opted out’ of mainstream engineering than men (seven years after graduation only 50 per cent were using their degree subject knowledge in their current employment, compared to 75 per cent of male engineering graduates). When we asked them why, we found that the female engineering graduates universally reported the difficulty of ‘working as a woman in a man’s world’ and reported experiences ranging from unequivocal discrimination through sexual harassment to discouragement, exclusion from ‘the best projects’, and undervaluing or unreasonable challenging of their competences. Conversely, towards the other end of the vocational-academic spectrum, women who had studied Humanities were more likely than their male peers to be using their subject knowledge (37 per cent compared with 31 per cent of males). This was because female humanities graduates (like graduates in almost all subjects) were considerably more likely than males to have opted for careers in teaching rather than using their skills and qualifications. Graduates in Law and Management (particularly those who had obtained employment in the Private Sector) reported, as their careers progressed, the difficulties of combining ‘high flying careers in their chosen profession with managing their private lives.

When we conduct detailed follow-up interviews with graduates in their early careers, across the spectrum of occupations and employment sectors, we find the same patterns of gender inequality (Purcell and Elias 2006). Gendered outcomes include:

- persistent and increasing gender pay as careers progress;
• gender segmentation in graduate jobs;
• women’s lower reported satisfaction with career development;
• persistent under-representation of women in ‘top jobs’;
• significantly lower fertility among female graduates (around one third remaining childless at age 40).

Our current work involves carrying forward these analyses of the relationships between sector, occupation, employment context and conditions of employment (including but not restricted to earnings) – and longitudinal change that reflects the impact of equal opportunities policies – using a new occupational classification of jobs (see Elias and Purcell 2009 paper presented at this conference). Table 1 provides an indication that, as women’s share of jobs increases in a broad occupational group, the graduate premium is differentially affected and gender relativities in average full-time earnings change.

### Table 1: Impact of occupational change 1993/94 – 2007/8 by SOC(HE) occupational category

<table>
<thead>
<tr>
<th>OCCUPATIONAL CATEGORY</th>
<th>Change in 26-35 agedwomen’s share of this category 1993-4/2007/8</th>
<th>IMPACT ON THE full-time GRADUATE PREMIUM</th>
<th>IMPACT ON THE Full-time PAY GAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional graduate jobs</td>
<td>44% - 53%</td>
<td>No change (13%)</td>
<td>Down from 88% - 83%</td>
</tr>
<tr>
<td>Modern graduate jobs</td>
<td>37% – 43%</td>
<td>2% - zero</td>
<td>Up from 81% - 83%</td>
</tr>
<tr>
<td>New graduate jobs</td>
<td>38% - 47%</td>
<td>19% - 16%</td>
<td>Down from 97% - 87%</td>
</tr>
<tr>
<td>Niche graduate jobs</td>
<td>43% - 46%</td>
<td>26% - 40%</td>
<td>Little change (96% - 95%)</td>
</tr>
<tr>
<td>Non-graduate jobs</td>
<td>46% - 44%</td>
<td>20% - 18%</td>
<td>Up from 75% - 81%</td>
</tr>
</tbody>
</table>

Source: UK Labour Force Surveys, 1993/94 (6 quarters) and 2007/08 (6 quarters)

Overall it does appear that highly specialist qualifications and the skills and knowledge have developed provide some protection for women at the most high status and well-rewarded levels of the labour market and women’s increased entry has little impact on the value put on the qualification by employers in purely financial terms. However, this varies by specific occupational group, as we are now beginning to explore in greater detail. At the less highly-qualified vocational levels, there is some indication that women’s entry to occupations leads to a decline in the value accorded the in the labour market; feminisation leads to a reduced graduate premium. The area where women and men have to make the greatest ‘own-life’ sacrifices in terms of very high workloads, long working hours, high requirements for unpredictable flexibility and willingness to travel at short notice that prioritizes the organisation rather than the individual, such as some areas of commercial law and management roles in global organisations (mainly concentrated in the Modern and New graduate occupational groups, are the ones where a) women are least likely to progress to the higher level posts and b) women are likely to be in lower-paid occupations than men with similar levels of qualification. These differences very clearly reflect the extent to which they have been, in terms of qualifications achieved, recruitment and promotion patterns of employers, and choices made (which their male peers have largely not made) to prioritise social, community and family responsibilities and contributions. This goes back to Nussbaum’s development of basic capabilities (via primary socialisation, in line with the enculturated gender patterns approved and promoted, so that girls develop gendered skills and ideas about what is appropriate for them), internal capabilities (through secondary socialisation that predisposes them and their advisers to make ‘gender-appropriate’ subject and career choices and largely discourages gender deviance) and combined capabilities where, even when they have made atypical basic and internal capability-development choices, they are likely to encounter resistance and obstacles to being able to use these capabilities in employment.

### 7. Conclusion

It is clear that policies to increase equality of opportunity can - in purely economic terms, and particularly in the short-to-medium term – involve greater costs than benefits to both individuals and employers. An example of this, in terms of gender inequality, is the current debate in the UK on how far the extension of maternity and parental leave provision can be supported by a ‘Business case’ – and of greater concern, perhaps, to those who wish to support greater equality of opportunity between the sexes and family-friendly policies – whether such rights are likely to
lead to unacceptably high costs to employers that will lead to backlash, characterised by increasingly sophisticated mechanisms to circumvent legislation, to the disadvantage of women in employment and their families. In addition, the point has recently been made by the Chief Executive of the Equality and Human Rights Commission (Bennett and Ahmed 2008) that since employment flexibility entitlement related to the care of children and other dependents is more often taken advantage of by women, gender disparities in career development, earning capacity and the share of caring responsibilities may be amplified rather than alleviated by what was conceived of as equal opportunities legislation. Finally, our evidence of labour market patterns of employment among highly-qualified women and men, and our longitudinal survey and interview data, show clearly the costs to women in the short-medium term of existing patterns of gender career development. However, they also show that increasing numbers of women are developing ‘careers like men’ with or without cost, and others see their mid-career adjustments to accommodate family responsibilities as temporary expediencies that they do not expect to have a long term detrimental effect on their capacity to use their capabilities fully. Further detailed analysis over a longer period is therefore required to assess the full impact of policy and practical changes.

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EFFECTIVENESS OF COMPETENCES AND COMPETENCIES DURING TRANSITION FROM HIGHER EDUCATION TO EMPLOYMENT: A CASE STUDY OF COMMUNITY LEARNING AND DEVELOPMENT (CLD) QUALIFYING TRAINING IN SCOTLAND

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Abstract: This paper presents the case study of a qualifying programme in Community Learning and Development that uses competences and competencies approach to prepare its students for transition to employment. It also gives insights into the competencies and competences debate. The results suggest that most participants felt that the competency approach was appropriate for professional development and as a preparation for transition to work. However, the current array of competences should be refreshed in light of developments to take into account the growing diversity of CLD practice. Also, participants emphasised that it was important to focus on soft skills (competences) which indicate the process rather than the outcome driven hard skills (competences) alone, and that more work needs to be done to make them more explicit in the curriculum.

Key words: transition, competences, competencies, higher education, employment, community learning and development.

1. Introduction

Transition from Higher Education to Employment

Transition is an on-going process that focuses on interactions between an individual and significant others in that individual’s environment, such as peers, professionals, families (Jindal-Snape, 2010). Transition is satisfying and fulfilling for some individuals, however, others find it challenging and stressful (Jindal-Snape & Foggie, 2008). One of the roles of education is to prepare people for this transition to work. However, for some, this transition is not easy or straightforward (Gart & Gart, 2006). In this paper we will focus on transition from higher education to work and how a competence based curriculum has been designed to aid this transition in the case of professional education of Community Learning and Development (CLD) practitioners in Scotland. Before that, we would like to discuss our conceptualisation of competences and competencies, followed by an introduction to CLD.

The Competence versus Competency Debate

Boyatzis (1982) defined competency broadly as an underlying characteristic that could be a motive, trait and skill, an aspect of their self-image or social role, or body of knowledge which they use. Boyatzis distinguishes between functions, tasks and relevant competences. Fundamentally the distinction is between:

- the aspects of the job that have been with competence; and
- what people need to bring to the job in order to perform the aspects to the required level of competency

Woodruffe (1992, 17) argues that this distinction leads to the following definition of competency:

“A competency is a set of behaviour patterns that the incumbent needs to bring to a position in the order to perform its tasks and functions with competence.”

Woodruffe contends that competency is concerned with people’s behaviour and is a dimension of behaviour that is relevant to performance in the job. From this definition Woodruffe differentiates competency (the behaviours people need to display in order to do a job effectively e.g. sensitivity) and competence (areas of operation and job functions e.g. staff development). To further explain this, Woodruffe states that the job itself consists of a set of deliverables, outputs or roles, each which requires a number of individual competencies.

Eraut (1994; 179) makes a distinction between ‘competence’ which is given a generic or holistic meaning and refers to a person’s overall capacity and the term ‘competency’ which refers to specific capabilities. Gonzi et al. (1993; 5) takes a slightly different view in defining ‘competence’ as “Performance is what is directly observable, whereas competence is not directly observable, rather is inferred from performance.”

And continue to say:

“The competence of professionals derives from their possessing a set of relevant attributes such as knowledge, skills and attitudes. These attributes jointly underlie competence and are often referred to as competencies. So a competency is a combination of attributes underlying some aspect of professional performance...[but] attributes of individuals do not themselves constitute competence. Nor is competence the mere performance of a series of tasks. Rather, the notion of competence integrates attributes with performance.” (Gonzi et al. 1993; 5-6).
The Chartered Institute of Personnel and Development (CIPD, 2009; 1) offer the following distinction:

“‘Competency’ is more precisely defined as the behaviours that employees must have, or must acquire, to input into a situation in order to achieve high levels of performance, while ‘competence’ relates to a system of minimum standards or is demonstrated by performance and outputs.”

Dreyfus and Dreyfus (1986) advocate schema that distinguishes excellent performer from average performer, and include these 5 stages, (1) Novice, (2) Advanced Beginner, (3) Competence, (4) Proficiency, (5) Expertise. These have been extended to 7, the last two being (6) Mastery and (7) Practical Wisdom (Dreyfus, 2001). The emphasis is on critical reflection.

What is Community Learning and Development?

In January 2004 the Scottish Executive published guidance for Community Planning Partnerships which set out a framework for the promotion and development of community learning and development (CLD), and defined it as:

"Community learning and development (CLD) is learning and social development work with individuals and groups in their communities using a range of formal and informal methods. A common defining feature is that programmes and activities are developed in dialogue with communities and participants...[CLD's] main aim is to help individuals and communities tackle real issues in their lives through community action and community-based learning."

Each local authority area (32) in Scotland has formed a CLD partnership comprising all organisations that have an interest in offering or supporting CLD work. The voluntary sector is also a significant provider of CLD services, most particularly in the area of work with young people. There are 45,000 voluntary organisations in Scotland involving up to 130,000 paid staff and over 1.2 million volunteers (Source SCVO).

Professional Training in CLD

Professional qualifying training in CLD in Scotland is awarded by four Higher Education Institutes (HEI) at both undergraduate and postgraduate levels. This is after academic approval through HEI quality assurance processes and professional endorsement. Since the 1990’s, CLD training in Scotland has been competence based with competence being defined as the ‘product of an integration of knowledge, skills and values’ with qualifying practitioners able to:

“Demonstrate their understanding of the value base and principles, to demonstrate that they are able to conceptualise, reflect and analyse competing theories, ideologies and models of practice, and to demonstrate these in the fieldwork practice as educators.” (GeVe’s, 1995; 17).

This definition emerged as a result of a revised functional analysis which was carried out in 1994. In this, the purpose of occupational area was identified, with purpose being broken down into key roles, which were further broken down into elements of competence. As illustrated, there is a demand on professional training to provide the need for the ‘competent’ practitioner to have both personal attributes and be able to apply these effectively within a relevant setting demonstrating an integration of these personal attributes with professional performance. Therefore, CLD professional training to date, we would suggest, is akin to that advocated by Gonzì et al. (1993) that attempts to construct a curriculum that provides competence as a combination of personal abilities (competency) and their effective application in professional role (competence).

This paper is based on an analysis of the findings of research carried out to explore whether current CLD training in Scotland is meeting these demands and preparing students for transition to work in an ever evolving field.

2. Methodology

The project employed a multiple phase design. Primarily quantitative, complemented with some qualitative data, was collected from CLD employers using questionnaires. A total of 63 responses were received, out of which 36 were from voluntary and 27 from statutory sector. This shows a return rate of 32%.

On the basis of issues and themes emerging from the questionnaires, focus groups were used to collect in-depth qualitative data from an even wider group of stakeholders (CLD students, n=4; newly qualified practitioners [NQP], n=10; employers/agencies, n=15; minority groups, n=2 and training providers, n=8).

3. Results and discussion

Role of the CLD practitioner

All participants indicated that the role of the CLD practitioner was to work with people to meet their identified needs. For this they need to have a strategic and theoretical overview, have the ability and skills to operate in a locality/community at a group and 1:1 level, the ability to work towards meeting these needs in partnership with local people and related professionals and agencies; leading to the development of purposeful community engagement. This requires the development of the critically competent practitioner, engaged in socially situated learning and development which is aimed towards social justice and inclusion.

Desirable abilities and attributes of a CLD practitioner

Table 1 shows the questionnaire respondents’ perspective on the personal experience and attributes that a newly qualified CLD...
practitioner should have. As can be seen communication skills and honesty/integrity were perceived as highly essential.

The focus group participants split the key attributes and abilities required into soft and hard knowledge and skills areas. On the matter of soft skills, similar to questionnaire data, the identified skills were honesty, flexibility, adaptability, empathy, optimism, motivation, good communication skills, integrity, analytical skills, approachability and being ethical. Hard skills were organisational skills, evaluation and research skills, partnership and team working, group work and facilitation, understanding of policy and sociology, and project management skills.

Table 1: Personal experience and attributes perceived to be essential

<table>
<thead>
<tr>
<th>Personal experience and attributes</th>
<th>CLD Managers</th>
<th>National Agencies primarily Voluntary Sector</th>
<th>Primarily Voluntary Sector Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>42.1</td>
<td>71.4 (4)</td>
<td>64.3</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>52.6</td>
<td>57.1</td>
<td>85.7 (3)</td>
</tr>
<tr>
<td>Flexibility</td>
<td>73.7</td>
<td>83.3 (2)</td>
<td>60.7</td>
</tr>
<tr>
<td>Dependability</td>
<td>77.8</td>
<td>66.7</td>
<td>75.0</td>
</tr>
<tr>
<td>Coping Skills</td>
<td>57.9</td>
<td>57.1</td>
<td>60.7</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>84.2 (2)</td>
<td>83.3 (2)</td>
<td>92.9 (1)</td>
</tr>
<tr>
<td>Willingness to learn</td>
<td>73.7</td>
<td>66.7</td>
<td>67.9</td>
</tr>
<tr>
<td>Time Keeping</td>
<td>68.4</td>
<td>42.9</td>
<td>42.9</td>
</tr>
<tr>
<td>Time Management</td>
<td>61.1</td>
<td>57.1</td>
<td>57.1</td>
</tr>
<tr>
<td>Honesty/integrity</td>
<td>84.2 (2)</td>
<td>85.7 (1)</td>
<td>89.3 (2)</td>
</tr>
<tr>
<td>Working with the Public</td>
<td>89.5 (1)</td>
<td>57.1</td>
<td>78.6 (4)</td>
</tr>
<tr>
<td>Working in a Team</td>
<td>78.9 (4)</td>
<td>57.1</td>
<td>71.4</td>
</tr>
<tr>
<td>Empathy Skills</td>
<td>52.6</td>
<td>33.3</td>
<td>60.7</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>31.6</td>
<td>42.9</td>
<td>42.9</td>
</tr>
<tr>
<td>Creativity</td>
<td>42.1</td>
<td>57.1</td>
<td>32.1</td>
</tr>
</tbody>
</table>

Although a few respondents in other groups mentioned the softer skills and attributes (such as enthusiasm, commitment, motivation, willingness to learn, passion, empathy, strong values), it seemed that more respondents from the voluntary sector saw them as highly important. Also, perhaps due to the needs of the voluntary sector, the respondents emphasised finance and funding.

When asked what they look for when appointing a newly qualified CLD practitioner, the focus group participants said that the qualities being looked for were relevant experience and an aptitude for the job. The soft skills referred to earlier were regarded highly by employers as was constructive problem solving. Knowledge of relevant CLD policy and planning and evaluation approaches and methods was also seen as important. NQP asserted that a graduate in CLD should have the skills to be critically competent and know where to look for information and guidance based on professionally led social science-based education.

Views on the current set of competences used to assess initial qualifying performance in CLD

The questionnaire respondents were asked to indicate their views through a rating scale. Details of competences that were highlighted as essential can be seen in Naulty, Jindal-Snape, Bidwell and Patrick (2008; 34-36).

For some key areas there was a fairly equal split, however, in case of others there was a big variation in the importance placed on them. Overall, not surprisingly the first key area ‘To engage with the community’ was seen by all to be the most essential area. Interesting differences appeared in the importance of ‘reaching and engaging with traditional non-participants’, with CLD Managers and Voluntary Sector employers rating it as highly essential (81% and 70.8% respectively rated it as essential competence) and only 50% National Agencies rating it as essential. However, we cannot attach too much importance to this as the number of respondents from National Agencies was much smaller than the other two groups and the three groups statistically might not be comparable. The rating for competences within the key area, ‘To develop relevant learning and educational opportunities’, seems to be quite varied across the three groups. Again, it is interesting that none of the National Agencies saw ‘Community led development’ and ‘providing potential participants with appropriate guidance’ to be essential competences. However, it should be added that 66.7% and 80% saw them as important respectively.
This was further explored with focus group participants. All newly qualified practitioners were familiar with the professional competence framework and liked the process of evidence-based professional development. However, they observed that the practice of how the professional competences are embedded within the curriculum for professional training varied between the training providers with the competences either being embedded across course modules or as a discrete area within the curriculum. Most respondents felt that the competency approach was a good focus for personal professional growth and development.

CLD Employers and Agencies felt that the competency approach was a relevant one but the current array of competences should be refreshed in light of developments to take into account the growing diversity of CLD practice. They also felt that the current array of competences were not all relevant to initial training with some, particularly those related to the management of resources and staff being of more relevance to post-qualifying CPD. It was also felt that the softer skills of interpersonal and effective communications that underpin the range of the competences should be more explicitly identified and assessed within the assessment of practice.

Training Providers were of the view that the notion of competence as currently defined by Community Education Validation and Endorsement (CeVe) was a good definition (that it is the product of an integration of knowledge, skills and values with the competent community educator being able to think, to act and to critically reflect on practice) but within the current array of competences it was considered that the ability to critically reflect on practice could be more strongly identified as a practice skill. They also said that the competences should be aligned with the Scottish Credit and Qualifications Framework (SCQF) Levels statements for appropriate qualifications.

When asked about additional areas of competence that they saw as important and the challenges over the next 5 years for new graduates, the following themes emerged from the questionnaire responses (not in any particular order):

- Emphasis on financial skills (response seemed very specific to voluntary sector respondents),
- Partnership and interagency working, especially for local authority,
- Self-evaluation, evidence of outcomes and impact,
- Emphasis on experience and personal qualities of graduates (seemed important primarily to voluntary sector respondents),
- Working with change,
- Specific context and issue related work,
- CLD policy and context (seemed important primarily to statutory sector respondents).

NQP were of the view that the current competences were comprehensive but there should be an area of competence that identifies working in ‘Partnership and Collaboration’ as this is now a growing area of professional interest. It was also viewed that the current competences should be re-examined in the context of the wider and more diverse field of CLD practice and evaluated on this basis for their fitness for practice. Minority Groups were of the view that any revision of the current competences needs to include the areas of working with diverse and multi-cultural communities.

NQP felt that the development of professional competence should start from an analysis or audit of existing related skills and experience such as the construction of a Personal Development Plan. This would also help as a starting point for the Recognition of Prior Learning (RPL). There is also the need to address the on-going CPD needs of CLD practitioners within an articulated and progressive professional development framework as part of any professional registration system.

Views about Training Provision

Over 85% questionnaire respondents said that current training provision was good to excellent, with 12% saying it was adequate and 3% that it was inadequate or very poor. Graduating students said that qualifying training in CLD should be generic in nature and specialist training should be gained at the post qualifying CPD level. The focus group respondents overall were of the view that training in CLD should be built upon the soft skills as a prerequisite for initial training and that qualifying training provides a theoretical understanding in the development of practice expertise but there should be more assessment of the development and application in practice of these soft skills. Initial training has also helped with the development of an ethical basis upon which to practise, that being the professional value base. The final general point that respondents made was that initial training had also helped with the development of reflection and inquiry skills and the ability to evaluate personal and professional practice.

Readiness of newly qualified CLD practitioners for the transition to employment

In the questionnaires when asked how the respondents would rate the preparedness for employment of the newly qualified staff with them, 83% thought it was good to excellent with only 7% saying that it was adequate. In terms of their capacity to undertake their work, 88% thought that they were good to excellent. However, 12% indicated that they were only adequate. When asked in focus groups, whether they felt that the current knowledge base of students and newly qualified CLD practitioners is relevant to the demands of working in their particular area of practice, Newly Qualified Practitioners felt that qualifying training has provided them with the ability to reflect
and evaluate their practice and with the development of a professional knowledge and skills base.

**Strengths of newly qualified CLD practitioners**

According to the questionnaire respondents the main strengths of newly qualified practitioners were (in no particular order):

- Enthusiastic, keen to learn, motivated, commitment, eagerness, fresh approach, flexibility, new ideas, challenging existing staff to reflect on their own practice, sometimes naïve but thoughtful questions, sceptical, creative and open
- Integration of theory and practice
- Up-to-date understanding of theoretical perspectives

Table 2: Personal experience and attributes perceived to be biggest gap areas for prospective CLD employees

<table>
<thead>
<tr>
<th>Personal experience and attributes</th>
<th>CLD Managers</th>
<th>National Agencies primarily Voluntary Sector</th>
<th>Primarily Voluntary Sector Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (ranking in brackets)</td>
<td>10.5</td>
<td>50 (1)</td>
<td>10.5</td>
</tr>
<tr>
<td>Confidentiality</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Flexibility (2)</td>
<td>36.8</td>
<td>20.0</td>
<td>36.8 (2)</td>
</tr>
<tr>
<td>Dependability</td>
<td>21.1</td>
<td>20.0</td>
<td>21.1</td>
</tr>
<tr>
<td>Coping Skills (1)</td>
<td>42.1</td>
<td>33.3 (3)</td>
<td>42.1 (1)</td>
</tr>
<tr>
<td>Communication Skills (4)</td>
<td>31.6</td>
<td>42.9 (2)</td>
<td>31.6 (4)</td>
</tr>
<tr>
<td>Willingness to learn</td>
<td>22.2</td>
<td>16.7</td>
<td>22.2</td>
</tr>
<tr>
<td>Time Keeping (5)</td>
<td>10.5</td>
<td>0.0</td>
<td>10.5</td>
</tr>
<tr>
<td>Time Management</td>
<td>26.3</td>
<td>16.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Honesty/integrity</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Working with the Public</td>
<td>26.3</td>
<td>28.6</td>
<td>26.3</td>
</tr>
<tr>
<td>Working in a Team</td>
<td>21.1</td>
<td>33.3 (3)</td>
<td>21.1</td>
</tr>
<tr>
<td>Empathy Skills</td>
<td>15.8</td>
<td>33.3 (3)</td>
<td>15.8</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>36.8 (2)</td>
<td>28.6</td>
<td>36.8 (2)</td>
</tr>
<tr>
<td>Creativity (2)</td>
<td>26.3</td>
<td>33.3 (3)</td>
<td>26.3</td>
</tr>
</tbody>
</table>

**Gaps in preparedness for transition to employment**

The questionnaire respondents were asked to use the skills and attributes they had referred to earlier to give their view on what were the gap areas for prospective CLD employees.

As can be seen, CLD managers and voluntary sector employers thought that the biggest gaps were in the area of coping skills. The national agencies representatives thought that the biggest gap was in the area of sensitivity. Reassuringly nobody perceived any big gaps in the areas of confidentiality and honesty/integrity.

**New skills required of a CLD practitioner for smooth transition in a constantly changing field**

The questionnaire respondents considered the following to be the future needs of employers within a broad CLD sector:

- Strong development of professional identity, role and function within a multi-agency context
- Inter-disciplinary work-experience for students on qualifying programmes
- More placement experience
- Graduates with a generic qualification, with experience of all three areas (Youth Work, Adult Learning and Capacity Building and Community Development)
- Experience of wide range of contexts for transferability
- Funding to provide good salaries and increase staff retention
- Funding to release staff to access ongoing training
- Locally based training programmes, part-time, work-based routes, need more alternatives
- Need to boost its academic and professional image through registration body and stringent candidate selection for courses

The focus group participants were asked to reflect on the policy developments and strategic priorities of their organisation over the past 5 years and consider what the main skill requirements might be over the next 5 to 10 years. Newly Qualified Practitioners felt that the requirements needed were Partnership Working, Conflict Management, Facilitation and Meeting Skills,
that CLD was a distinct approach to working with people based on a professional value base and needs parity of recognition with related professions, that there should be more emphasis on social policy, community planning and partnership working and focus on contemporary issues such as sustainable development (e.g. climate change, digital inclusion, migrant workers etc). Child Protection is also a big issue and there is a need to make sure that the teaching and learning approach adopted by training providers in the development of a qualifying curriculum is relevant and flexible in this respect. CLD Employers and Agencies stressed that a CLD worker needs to be multi skilled and able to operate across the broad field of CLD.

Newly Qualified Practitioners said that Web based learning could be used more within qualifying training; that inter-professional training between relevant professionals (e.g., social work, teaching, health) should be further pursued within curriculum design; staff development for tutors should include field-based secondment as well as research opportunities.

4. Conclusion

All participants believed that the role of the CLD practitioners was to work with people to meet their identified needs through purposeful community engagement as critically competent practitioners. The key attributes and abilities were divided into hard and soft skills and knowledge base areas. There was a feeling that NQP were well prepared for employment. NQP felt that qualified training has provided them with a good professional knowledge and skills base.

Current modes of qualifying training delivery were all considered to be beneficial as they give access to a variety of training opportunities and parity across these modes needs to be assured. However, it was emphasised that all training modes should follow the SCQF framework and be progressive within a common articulated framework.

Most participants felt that the competency approach was appropriate for professional development and as a preparation for transition to work. However, the current array of competences should be refreshed in light of developments to take into account the growing diversity of CLD practice. Inter-professional and Partnership Working were two areas highlighted. Further, training providers felt that the competences should be aligned with the SCQF level statements and other relevant frameworks across Europe (e.g., LLUK Occupational Standards for CLD) and embedded in a continuous professional development framework that supports the CLD practitioner from entry to exit, drawing on the notion of progression from novice to expert. Also, participants emphasised that it was important to focus on soft skills (competencies) which indicate the process rather than the outcome driven hard skills (competences) alone.

Since this study, CLD Standards Council for Scotland was launched in March 2009 and the competences framework has been refreshed in light of changes and developments within the broadening field of CLD. This framework does mention some soft/process skills; however they are mainly implicit within the achievement of competences. The challenge for the training providers now is, firstly, to refresh the competences within their programmes. Secondly, there is still work to be done on how the soft skills/competencies can be made more explicit in the curriculum and to pilot ways of developing these attributes and competencies in qualifying students and those on CPD programmes taking into consideration notions of progressive development. At present the systems of assessing them are through student reflections and practice tutor assessments. We need to question, one, whether these systems give a complete and accurate picture? And two, are attributes something that can be developed and assessed in this manner?

5. References


Internet: http://www.scotland.gov.uk/Publications/2008/07/16160304/0

INTERGENERATIONAL MOBILITY IN THE TRANSITION FROM
EDUCATION TO LABOUR MARKET AND EARLY CAREER: THE
CASE OF UNIVERSITY STUDENTS IN CATALONIA

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Abstract: The Agency for Catalonia University System Quality (AQU) has charged an analysis of the labour insertion of the university graduates students 4 years after having left the university. The survey that was carried out in 2008, pick up information of 12,258 graduated in the academic year 2003/2004 at 7 Catalan universities. The aspects that are approached are linked with the development of the academic activities, the early labour market's insertion of graduated in their professional development as well as the origin of their parents related with the occupational position and also the maximum study level.

1. Introduction

The transition from school to work or young people's labour transition is one of the most determinant phenomena in the construction of people's adult life, and, consequently, of the future of our societies. Its study, therefore, is in line with social scientists' interest in describing and interpreting the process through which young people become adults.

The specific manner in which individuals enter adulthood undoubtedly is the result of their own decisions, as well as of the social and cultural contexts inspiring it (social class, gender, place of origin, etc.). But it also depends upon institutional configurations which limit and channel such decisions: educational opportunities, strategies applied by the employers who hire them or not, the structure and preferences of active population who shall compete with them, public policies supporting youth employment, etc.

In sum, the transition from school —and from the university in particular— to the world of labour is a subject of study which involves various dimensions, is suitable to be interpreted from different perspectives, and is connected to the complexity and variability of our labour markets.

In order to focus such a complex subject of study as young people's labour transition, it is essential to place it within a historical perspective (Sala et al 2007).

From a historical viewpoint, the generation whose professional insertion we are analyzing is, in connection with education, a generation educated at the height of mass education, quite contrary to what happened to their parents, who were born at the end of the forties and attended school during the fifties and the sixties, characterized by the educational misery of Franco years.

Educational expansion is one of the most decisive social phenomena in the second half of the 20th century in European societies. It is the result of a historical consensus among states, productive organizations, and individuals and families, all of them interested in contributing to the improvement of education levels. It is, therefore, a large-scale extension of education, both among population (through the universalization of the educational system) and over time (medium duration of studies has not stopped increasing from the decade of the 60s in the past century). In the Spanish case, education improvement has been slower than in surrounding countries, though more abrupt. Consequently, differences in educational opportunities available to the generations under study and those available to their parents are much greater than the differences existing in neighbouring countries for the same generations (Beduwe, Planas 2003; 173-175).

In these pages we shall analyze the professional insertion of university students graduated in 2004 and shall compare it with that of their parents; we can consider it an emblematic question as in this case the distance between parents' date of birth and their children's graduation, i.e., parents born around 1950 and children graduated in 2004, covers this half century dominated by educational expansion.

The data shown below allow us to know whether our university system, the set of our universities, play the role of social booster some people ascribe to it, or, contrariwise, as other people claim, it reproduces the differences derived from the social origin of the young, preventing access and/or conditioning their academic performance.

Methodological note on the survey

Labour insertion studies on Catalan universities are being carried out by AQU since 2001. The last study was made between January 16 and March 13, 2008. The surveyed population graduated in the academic year 2003-2004 amounts to 12,258 people, although in the case of medicine, the reference populations are those who graduated in 2001, since they have a
longer labour transition than graduates from other study courses (AQU 2008; 5).

2. What universities are we talking about?

The distribution of university students between public and private sectors in Catalonia is 90% for the public sector and 10% for the private sector. The survey on which this paper is based does not include graduates from all the universities in Catalonia, in the first place, because it was considered that the students from the Open University of Catalonia (who represent 18% of all students), given the peculiar distance learning characteristics, could not be analyzed jointly with those from compulsory-attendance universities, and in the second place, because graduates from 3 private universities who represent 7% of all university students could not be interviewed.

Therefore, the surveyed population includes the graduates from all public compulsory-attendance universities, and from one private university which represents 25% of the students in the private sector. These universities represent 75% of all Catalanian students.

The survey includes the two “historical” universities (prior to the year 1968) in Catalonia: the Universitat de Barcelona (UB) and the Universitat Politécnica de Catalunya (UPC); a public university created in 1968, the Universitat Autònoma de Barcelona (UAB), which were born in the 80s, at the time of university decentralization, and those created more recently, such as the public Universitat Pompeu Fabra (UPF) and the private Universitat de Vic (UV).

3. What is the education level of university graduates’ parents?

The sociological literature has been traditionally highly involved in the analysis of the relationship existing between education level and occupational status, and has found a very high relationship between both elements (Boudon, 1983; 40).

The analysis of the socio-economic status of a determined population according to the application of occupational or educational indicators (or both of them) contributes different perspectives. The education indicator makes reference to the family origin of students at their early age, in terms of cultural capital, and relates to the educational opportunities available to each generation. By contrast, the occupation indicator reflects a situation which may be modified more easily than the education level, since parents may change their occupation along their professional life, but they reach a determined level of education while they are young and it is difficult for them to change it afterwards.

The survey carried out among university graduates, as already stated, includes the variables ‘parents’ education level and occupation’, and, accordingly, our work addresses the family origin of graduates from the analysis of these two dimensions. In the particular case of our analysis, occupation is an indicator of parents’ socio-economic level at the moment of the survey (2008), while the education level indicator refers to parents’ young years, but there is a relationship between both indicators (Pearson’s r 0.51). In methodological terms, it is necessary to highlight that the answer by university graduates on both topics (education and occupation of their parents) exceeds 98%, with which we have been able to establish a good basis to perform the analysis presented below.

In our analysis, the variable which allows us to identify the education of graduates’ parents does not make any distinction between father and mother, and is classified into five categories, as shown in Table No. 1. In order to achieve a greater descriptive and expository capacity on the origin of university graduates in terms of their parents’ education level, these categories are subdivided into three groups, namely: parents who have completed elementary school, parents who have completed secondary school (one or both of them), and parents who have higher education (one or both of them). A first data of a global nature is that most graduates come from homes where parents have elementary education at the most (40.1%); the rest is distributed approximately in equal parts between those graduates whose parents have secondary education and those who have higher education.

<table>
<thead>
<tr>
<th>Parents' maximum level of studies</th>
<th>Cases</th>
<th>%</th>
<th>Subdivision into 3 categories</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both parents have elementary education or none</td>
<td>4,908</td>
<td>40.1</td>
<td>Up to elementary education</td>
<td>40.1</td>
</tr>
<tr>
<td>One of them has secondary education</td>
<td>1,828</td>
<td>14.9</td>
<td>Have secondary education</td>
<td>30.6</td>
</tr>
<tr>
<td>Both of them have secondary education</td>
<td>1,918</td>
<td>15.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One of them has higher education</td>
<td>2,054</td>
<td>16.8</td>
<td>Have higher education</td>
<td>29.3</td>
</tr>
<tr>
<td>Both of them have higher education</td>
<td>1,524</td>
<td>12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12,232</td>
<td>100.0</td>
<td>Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU
But this distribution is moderately heterogeneous if we consider it in terms of universities, educational itineraries and simultaneity between study and work (to broaden this aspect, see Planas & Fachelli, 2010).

4. What is the occupation of graduates in comparison to that of their parents?

First and foremost, it is important to highlight graduates’ high employment rate, since 2008 rate of unemployment of graduates from Catalan universities in 2004 was only 3.1%.

It is interesting to remember that the sociological literature has traditionally taken the occupation of the head of household or, in general, male workers’ occupation as a basis to stratify society. One of the most prolific lines of work on this subject has been the contribution by John Goldthorpe and his colleagues from the Nuffield College, Oxford. This author considers that the occupation of a job position is a quite suitable indicator to evaluate the individual’s social position.

Based on this background, we decided to take the two elements into account, i.e., to use occupation as an indicator of stratification and to avoid a sexist classification. In this way, we differentiated groups of workers among them, and specifically, we selected the father’s or the mother’s maximum occupational status in order to analyze the main characteristics of university students’ families. Therefore, the classification was established into 5 categories as detailed below:

1. Employee: Management
2. Employee: Senior Technician (including free-lance work requiring university studies)
3. Employee: Skilled worker
4. Self-employed worker: Does not require university studies
5. Employee: Unskilled worker

Table 2 shows the results.

<table>
<thead>
<tr>
<th>Parents' maximum occupational level</th>
<th>Cases</th>
<th>%</th>
<th>Occupational status</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee: Management</td>
<td>1,894</td>
<td>15.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee: Senior Technician</td>
<td>1,523</td>
<td>12.6</td>
<td>High status</td>
<td>35.3</td>
</tr>
<tr>
<td>Self-employed worker: Requires university studies</td>
<td>840</td>
<td>7.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee: Skilled worker</td>
<td>3,849</td>
<td>31.9</td>
<td>Medium status</td>
<td>31.9</td>
</tr>
<tr>
<td>Self-employed worker: Does not require university studies</td>
<td>2,493</td>
<td>20.7</td>
<td>Low status</td>
<td>32.7</td>
</tr>
<tr>
<td>Employee: Unskilled</td>
<td>1,453</td>
<td>12.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12,052</td>
<td>100.0</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU

The distribution of the occupational status of graduates’ parents is grouped into three almost equal parts. But this distribution varies, though not too much, if we consider it according to universities, educational itineraries and simultaneity between study and work (see Planas & Fachelli, 2010).

In this case, what interests us most is the comparison between graduates’ occupation and that of their parents. There are many papers on the relationship of parents’ and children’s occupations through traditional studies on social mobility. These theories have been developed as a part of the great approaches to stratification in industrial societies, and among most outstanding authors we currently find Goldthorpe and Erikson, who have analyzed social mobility in contemporary societies.

In general, occupation, as we have mentioned before, has been the most widely used indicator to determine social class, and the first element to determine the individual’s status within social structure. The concept of profession or occupation is considered to be more comprehensive and accurate than income (Hernandez de Frutos, 1997; 153). Despite the notoriety of this kind of analysis, these occupation indicators have been widely applied only to man, making room for a “... reductionist identification between social mobility and male mobility, the most immediate consequence of which has been the practical invisibility of the female half as a subject of study” (Salido Cortés, 2001; 43).

In order to follow tradition in this type of analysis, but avoiding sexist biases, our work focuses on considering the highest occupation level, either of the father or of the mother (Fachelli, 2009).

In general, the more categories the base information has, the more interesting the analyses resulting from this type of information organization (transition matrices). Since our information on the parents has been reorganized into five categories in the previous paragraph, we have decided to follow the same procedure with the children.
To compare children with their parents, children (either male or female) were classified under the same headings as their parents in relation to their occupation. Furthermore, in order to avoid the difficulty of comparing between graduates who work part-time and those who work full-time, we selected graduates who had an occupation at the moment of making the survey and who have full-time jobs. They add up to 80% of the total sample.

**Relative positions of parents and children**

In general terms, the following table shows the relationship between children’s and parents’ occupation. Thus, we can note the proportion of graduates who perform tasks of the same level as their parents’ and also those whose tasks are of a different level from their parents’ tasks, whether of a higher or a lower hierarchy. The result presented below shows all graduates who have full-time occupations. Table 3: Graduates’ occupation compared to their parents’ occupation.

<table>
<thead>
<tr>
<th>Parents’ maximum occupational status</th>
<th>University graduates who have full-time occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management</td>
</tr>
<tr>
<td>1 Management</td>
<td>6.0</td>
</tr>
<tr>
<td>2 Higher Technician</td>
<td>6.2</td>
</tr>
<tr>
<td>3 Skilled worker</td>
<td>9.5</td>
</tr>
<tr>
<td>4 Self-employed worker with no university studies</td>
<td>6.4</td>
</tr>
<tr>
<td>5 Unskilled worker</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU

A great number of university graduates, although they are in their first professional insertion, are already in higher positions than their parents, who, due to their age, are in the final stage of their professional career. From the total of graduates, 50.8% (which is obtained by adding all the percentages on the left and lower boxes of the table) already perform tasks of a higher hierarchy than that of their parents.

In turn, 25.9% performs tasks similar to those carried out by their parents (addition of the diagonal) and 23.3% still performs tasks of a lower hierarchy (right and upper boxes of the table).

It is interesting to highlight that the insertion of the graduates we are analyzing is early; therefore, they have a long road to travel in their professional career and, in many cases, this fact will imply an occupational promotion of graduates who will tend, in an even higher proportion than nowadays, to surpass the occupational positions of their parents.

If the observation is made by gender, men carry out tasks of a higher hierarchy than women although differences are small (52.4% and 49.8% respectively).

<table>
<thead>
<tr>
<th>Parents’ maximum occupational status</th>
<th>Working female graduates</th>
<th>Working male graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 Management</td>
<td>4.8</td>
<td>1.8</td>
</tr>
<tr>
<td>2 Senior Technician</td>
<td>5.5</td>
<td>2.0</td>
</tr>
<tr>
<td>3 Skilled worker</td>
<td>8.3</td>
<td>4.4</td>
</tr>
<tr>
<td>4 Self-employed worker with no university studies</td>
<td>5.9</td>
<td>2.9</td>
</tr>
<tr>
<td>5 Unskilled worker</td>
<td>3.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU

Consequently, women are overrepresented in tasks of a lower hierarchy. For instance, men who perform Management tasks, in comparison with their parents who are Senior Technicians or Skilled Workers, reach 18.6%, while in the case of women this percentage decreases to 13.8%.

On the other hand, if we observe the occupations above the diagonal (tasks of a lower level than those performed by their parents), women represent 24.2% as a whole, while men represent 22%.

The proportion of women and men who perform tasks of the same level as their parents is similar (26% and 25.6% respectively). In both cases, the higher rate is found in skilled tasks (17.4% for women and 12.7% for men). Finally, men have a greater presence than women in higher positions (10.6% against 6.8% for Management and Senior Technician positions).

**Children’s occupation in relation to their parents’ occupation**

If we make a reading considering parents’ occupation as an indicator of the family origin of the university graduate, we obtain the following results:
Table 5: Graduates’ occupation compared to their parents’ occupation

<table>
<thead>
<tr>
<th>Parents’ maximum occupational status</th>
<th>University graduates who have full-time occupations</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management</td>
<td>Senior Technician</td>
</tr>
<tr>
<td>1 Management</td>
<td>38.0</td>
<td>11.7</td>
</tr>
<tr>
<td>2 Senior Technician</td>
<td>32.6</td>
<td>12.7</td>
</tr>
<tr>
<td>3 Skilled worker</td>
<td>30.0</td>
<td>13.7</td>
</tr>
<tr>
<td>4 Self-employed worker with no university studies</td>
<td>30.0</td>
<td>13.4</td>
</tr>
<tr>
<td>5 Unskilled worker</td>
<td>29.8</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU

1. Management: Taking into account that this is the highest occupational category and consequently, they cannot have an upward mobility, it can be observed that 38% of graduates perform tasks of the same level as their parents, 43.4% perform Skilled tasks and 11.7% perform tasks as Senior Technicians. Very few children are Self-employed workers (4.8%) and only 2.2% carry out Unskilled tasks.

2. Senior Technician: Almost 13% of graduates perform tasks of the same level as their parents, while approximately one third surpasses them hierarchically by performing Management tasks. On the contrary, 45% performs Skilled tasks and the rest is distributed between 6% Self-employed workers and 3.3% Unskilled workers.

3. Skilled: Almost 50% of graduates perform tasks of the same level as their parents. In turn, 43.7% surpasses their

5. Unskilled: 6% of children perform tasks of the same level as their parents, and since this is the lowest occupational category, the rest carries out tasks of a higher hierarchy.

If we make the same analysis but differentiating graduates’ gender, the results are as follows:

Table 6: Graduates’ occupation by gender compared to their parents’ occupation

<table>
<thead>
<tr>
<th>Parents’ maximum occupational status</th>
<th>Working female graduates</th>
<th>Total</th>
<th>Working male graduates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1 Management</td>
<td>32.9</td>
<td>12.1</td>
<td>49.2</td>
<td>3.3</td>
</tr>
<tr>
<td>2 Senior Technician</td>
<td>29.2</td>
<td>10.7</td>
<td>51.2</td>
<td>4.7</td>
</tr>
<tr>
<td>3 Skilled worker</td>
<td>25.6</td>
<td>13.5</td>
<td>53.8</td>
<td>2.3</td>
</tr>
<tr>
<td>4 Self-employed worker with no university studies</td>
<td>27.0</td>
<td>13.1</td>
<td>50.9</td>
<td>5.2</td>
</tr>
<tr>
<td>5 Unskilled worker</td>
<td>28.1</td>
<td>9.7</td>
<td>54.3</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Own elaboration on the basis of AQU

Upon observing this situation by gender, relevant differences appear. From the total of sons from parents who are Managers, 44% occupies the same place and this percentage decreases to 33% in the case of daughters. This situation is compensated with a greater proportion of women having qualified positions (50%) versus 36% of men.

Senior Technicians’ sons perform Management tasks in a higher percentage (37.5%) than daughters from the same family origin (29.2%). Men whose place of origin coincides with that of their parents are over 15%, while women are approximately 10%.

Skilled workers’ children who perform the same tasks as their parents’ are more in the case of women (53.8%) than in the case of men (41.5%).

If we observe the category of parents who are self-employed workers with no university education, we see that the
percentage of children who surpass them in occupations of a higher hierarchy is similar for men (89%) and women (91%).

Children who perform the same Unskilled task as their parents are approximately 6% for both genders, and since this is the lower category, the remaining 94% occupies higher categories.

Finally, it seems reasonable to conclude that the university would be giving tools for the positioning of graduates in places hierarchically higher than those occupied by their parents and that the influence of parents’ origin from the point of view of occupation on the child’s occupation is not very important.

5. Conclusions

The results of this paper is based on the data obtained through a survey among individuals graduated from the university in 2004 in connection with their professional insertion, their occupation, and their parents’ occupation and level of education in 2008. First of all, we wish to highlight the high employment rate of graduates, since unemployment rate in 2008 of graduates from Catalanian universities in 2004 was only 3.1%.

From data analysis made by us, two results are particularly relevant with regard to the social function of Catalanian universities.

First, in relation to the level of education of university graduates’ parents, we can affirm that: a) most students graduated from the university in 2004 are the children of people who have no university education (70%); b) among them, graduates who come from families with an elementary or lower level of education constitute a relative majority (40% of the total) among surveyed graduates, c) there are very few differences between the opportunities of access to university degrees for the children who come from families having an elementary or lower level of education and those who come from families with secondary education; d) university graduates’ children, although at present are a minority at the university, still have many more access opportunities than those who come from families with no higher education.

The second result we wish to underline is the high upward occupation mobility of graduates in comparison to that of their parents, and that it is a comparison between one generation, that of parents, who are at the end of their professional career, and another one, that of children, who have just started theirs. We observe that the university system is making it possible for most graduates, only 4 years after having completed their studies, to have occupations hierarchically higher than their parents'. In connection with this aspect, we do not find significant differences in the marks upon admission to the university and the average mark shown on the graduates’ academic record (Planas & Fachelli, 2010).

This phenomenon is also reflected in the fact that graduates who occupy the highest work positions come from families of very different origins and are distributed in similar proportions among the different social classes to which their parents belong.

Strictly speaking, based on available data, we can only speak about intergenerational occupation mobility and not of social mobility. A true social mobility occurs only when changes are produced in the relative position with respect to their generation, since intergenerational occupation mobility could simply be due to a change of occupational opportunities from one generation to another, that is, structural mobility. Anyway, if this were the case, the fact that most of those who graduated in 2004 have already in 2008 an occupation of a higher level than that of their parents, indicates that their insertion is due, at the very least, to the changes in labour demand and, consequently, to the evolution of social structure.

Therefore, discrimination by social origin is manifested at the university, on the one hand, by the greater relative presence of students whose parents have a high level of education, even though at present, the latter, in absolute terms, constitute a minority; on the other hand, due to the greater presence in short-cycle courses of students whose parents have a low education level and occupational status. Finally, discrimination is also shown by the greater probability to occupy high job positions in the case of graduates whose parents occupy high level positions.

6. References

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DETAILED REASONS AND THOROUGH ANALYSIS
DEMONSTRATING WHY TEACHERS OF ENGLISH, GERMAN,
FRENCH AND ITALIAN AS FOREIGN LANGUAGES FAIL SO
DRAMATICALLY IN THEIR TEACHING WORK

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Abstract: The overall aim of the Paper is to explain in detail, some obvious facts, which in my opinion have not received enough attention in relation to the great failures occurring in the Spanish Educational System, which allows that students whose level of the Foreign Language is low, often, very low, especially concerning their oral skills, or/and insufficiently trained in Foreign Language Teaching become official teachers of French, Italian, English, and German (this is the chronological order in which these languages have been taught from the mid-fifties to presentday).

First, I will thoroughly describe what has been happening since the aforementioned date to 2009 in relation to prepare future teachers of Foreign Languages. The reasons which produced the awkward situations presented in the Paper; the process followed by the different kinds of schools in Spain, which is abysmal; and finally, the consequences that the methods and procedures followed by our Educational System provoked in: a) the learners; b) the teachers themselves; and c) in our society.

Second, I will make an introspection into what factors interweave making the pedagogical work of teaching a Foreign Language SUCEED or FAIL; and as a natural and obvious consequence, why we still encounter (I have belonged for 20 years to the Pre-university Foreign Language Evaluating Committee) tremendously low levels of competence, proficiency and use of each of the four previously alluded to languages.

The study has been based on anonymous questionnaires’ answers. The informants were those students, who, for twenty years have been attending my Courses on "Methodology of Foreign Language Teaching"; students in their third ("Methodology of a Foreign Language Teaching" or in their fourth or fifth academic year ("Learning and Acquisition of a Foreign/Second Language"): an aspect also dealt with along the Study, at the Faculty of Philology, University Complutense of Madrid.

Three facts have been taken into consideration in order to analyze the students/ ‘informants’ answers:

A) The 1000 informants have already finished their Degrees in English, German, French, and Italian Philologies. Some explanations referring to ‘in-training’ teachers will be offered as well.

B) However, too high a number of them never enrolled in either of my Courses; quite a high number enrolled in the former but not in the second (so, they did not complete the global subject-matter); many attended the classes of the first Course but did not sit or pass their exams, and needless to say, they never turned up in the second Course. Consequently, they were never fully prepared or well trained to become effective teachers of a Foreign Language. They lacked the most basical knowledge related to FL Teacher Training existing in the four different Departments, which could, at least, provide them with fundamental issues and some vital training in order to become good future teachers of the above four mentioned languages.

C) The extremely reduced number of those students who applied for a third subject within this area: "New Technologies Applied to FLT". Their genuine answers in their questionnaires will allow us to understand why I have entitled the Paper using such strong words like "dramatically fail".

D) The reason/s why they went ahead or gave up will be clarified.

E) Also, in their self-evaluation --some questions directly alluded to this point-- as natural good or natural bad teachers were specified by themselves. But there was still an objective proof: All of them had to teach a Practical Class, either at Secondary Schools, E.O.I. (Spanish initials which stand for: Official School of Languages), or in well-known Academies, as readers can guess, out of the University --this was, from 1982 to 2009, an essential prerequisite in order to be allowed to sit for the final exam.

F) Needless to say, in the questionnaire, they were also asked to evaluate: a) their level of the Foreign Language; their didactic competence before and after attending my Courses, explaining too, the facts which made them realise of the essentiality of the concepts dealt with in our classroom; and b) adding whether they intended to go ahead with their objectives of becoming official teachers of a Foreign Language or whether they felt they had to give up. Obviously, they had to reason the motives for such decisions.
Finally, and most important of all, I will chronologically describe what the real roots underlying (State Schools VS Private Religious Schools) have been, which have allowed the Ministry of Education to accept teachers of Foreign Languages who could obtain a Degree (up to 2009), now a Título de Grado in English, French, Italian, or German, which permits them to teach any of the above mentioned Foreign Languages, even in the case that they have never attended one single course on FL Teacher Training either at the University or elsewhere.

**Key words:** foreign language teacher trainers; fail; teaching work.

1. **Introduction**

Allow me, please, to present an extremely brief diachronic panorama of Foreign Language Teaching in Spain from Educación Primaria (Primary Education) to University level.

The process which produces the negative results I want to analyze here starts, in point of fact, at the Preescolar and Educación Infantil stage (Pre-schooling or Infant Schools). Some Spanish terminology will be essential in this overview since it is confined to the Spanish educational system.

I trust that this retrospective analysis will enable readers to understand why the title of the Paper alludes to a ‘dramatic failure’ over the years, and why at present Foreign Language Teachers ‘fail’ in their jobs; by which I mean why learners do not attain the appropriate levels.

In referring to Foreign Language Teaching (FLT in continuation), three groups of FLs will be considered which are nowadays in demand in Spain:

- **Group A**: English, French, German, and Italian;
- **Group B**: Arabic and Japanese;
- **Group C**: all other languages and classical dead languages: Latin and Greek.

The order in which I have grouped and listed the FLs is the result of compiling the statistical number of learners (at whatever age) learning or studying these languages. These are two verbs the significance of which I will endeavour to enlarge upon in the course of the Paper, while at the same time they remain of course the most important source of the ‘failure’ already referred to.

2. **Aims of the Paper**

(1) To offer a retrospective view from the 1950’s up to the present day, when the first groups of learners of FLs in Spain were formed; the core of the research will focus on who studied or learned an FL.

(2) To specify and comment on the case of each group of the languages referred to above.

(3) To give clear details of the process each language has undergone.

(4) To outline the current situation whereby external factors have altered the expected panorama of FLT in favour of English:

- The PISA Report
- The Bologna Requirements
- Internal Spanish factors
- The ever-growing implementation of Colegios Públicos Bilingües (Bilingual State Schools) previously called Escuelas Nacionales (State Schools), vs Colegios Privados Religiosos/no Religiosos (Catholic Private Schools/Private Schools). Later, we shall deal with an intermediate group: Colegios Concertados.

Six items of terminology require some explanation:

- One: The term ‘Bilingual’ is only used when referring to State Schools.
- Two: Private Schools (as we have seen, may or may not belong to Catholic Communities).
- Three: The Term ‘Religious’ in Spain only alludes to Catholic Schools, although there are 5 other Religious Centres which are not Catholic. For reasons of space and time, we shall leave these aside, being mindful, however, of the fact that in the majority of cases their students reach University level.
- Four: A very high number of both Private and Religious Schools receives financial support from the Ministry of Education. The number varies from year to year; the schools are known as Colegios concertados, a term which (as far as I know) does not have an English equivalent; they are financially supported by the State (the Ministry of Education) but not on an equal basis: their commitment to Ministry rules and regulations depends on the amount of money the schools receive. In 2009, throughout the national territory, 62% of Private Religious/non-Religious schools became Concertados. (Etymologically, the Spanish term derives from concierto=agreement; concertado/s, which gives us: “under an agreement”.)
- Five: Some Catholic religious communities, whose ideology is clearly right-wing or ultra-conservative, sponsor a group of Schools. These Schools may receive 100% of the money to pay for the child’s or the student’s fees: all the children or young students obtain scholarships/grants from funds created when families favouring the school’s ideology are able to pay excessive amounts of money for their children’s/students’ fees.
Six Private, non-religious Schools are sponsored or financed by no entity other than the family. They also range from elite Schools to rather deprived small centres.

3. The Study: Reasons behind my Choice of Title

A Diachronic Perspective

The following data and explanations may serve to understand the meaning of my expression ‘fail so dramatically’.

The high-level and outstanding educational system which Spain possessed and was developing during the period of the Republic (1931-1936) was completely overturned following the end of the Civil War in 1939.

Among the countless important changes the country had to undergo, the area of Humanities and the field of language study will be the focus of this Study.

It is not difficult to grasp why things have gone downhill since that period of time. A mere glance at the drastic cuts that were made in FLL/FLT, in the serious study of English, German, French, Italian and Russian – to mention only the languages which in translation (by writers, poets, philologists and historians) via literary works reached Spanish readers – leaves us with the sad fact that the only FL which officially “survived” was French, astonishing in itself. The other languages were suppressed from our school syllabuses and our university curricula. Dead languages/classical languages like Latin, ancient Greek, classical Arabic, and biblical Hebrew maintained their status, even becoming keystones at schools when children reached 11 or 12 years of age and at the five Universities which existed in 1950.

The scholars and teachers who had been teaching up to 1936, obviously in the old traditional, grammatical way basing their courses on the deep study of grammar, with the subsequent possibility to translate texts from and into French, English, German, Italian, Russian, old Arabic, and Biblical Hebrew for the two nine-month courses at the five Faculties of Filosofía y Letras (Humanities) in three Spanish cities: Madrid, Barcelona, and Sevilla, were all of a sudden obliged to start concentrating on French alone from 1939-40.

This grammatical method, later labelled by methodologists the Synthetic Method or Approach, was incapable of going further than explaining to learners – of whatever age – the way in which French works, and helping them translate authentic literary texts, merely linguistically, with no attention paid to any of the diverse cultural or contextual aspects, and –worst of all– omitting those authors’ works which had been banned for ideological reasons, authors who had been excluded from text books after the end of the Civil War.

Extremely relevant facts concerning teaching/learning an FL passed these former scholars and teachers by owing to the isolation which Spain experienced from 1940 onwards, and – even more dramatically - because of the inaccessibility of many kinds of reading material in other languages, the impossibility of travelling abroad, importing literary works, as well as (on a universal scale) owing to the lack of communication at every level between Spanish and European or North American new pedagogical, institutional, artistic or literary trends.

Areas referring to updated FLT were ignored. For instance, the relevance of the oral use of French, which still at that time was the only language taught at all State Schools with the exception of a few private religious Centres where English began to be an optional second FL; the three basic linguistic registers: formal, informal, and slang; phraseology: how to help learners cope with the four skills in their natural order: listening, speaking, reading, and ultimately, writing; the crucial nature of the ‘silent period’; aiding learners to deduce a) the way in which all languages work; b) the way in which a particular language does; c) the fundamentals of linguistic typology; in short, making all kinds of learners feel autonomous, and so very many other aspects which sustain wider and ampler fields like Instruction, Education; Pedagogies, Didactics, The Sociology of Education, The Psychology of Teachers and Learners, Up-grading and Spiral Syllabuses etc...

It might all seem familiar to us and therefore unnecessary to describe, but it was in fact all happening in many other countries. This Study, however, intends in the first place to set out WHAT had actually been happening in Spain during four different periods: 1950-1970; 1970-1996; 1996-2001; 2001-2009 – periods which have produced four quite different instructional cycles in respect of FLT; and secondly, and most important of all, to exhaustively specify the reasons which have induced me to use such a negative expression as “fail dramatically” as a title for this Paper, concerning FL Training at University level. I will omit details concerning other Centres such as the cultural institutions of L’ Alliance Française, The British Council, Goethe Institut, and Il Instituto Italiano di Cultura, on the one hand. On the other hand, however, there will be an exposé of the factors involved in the slow but growing development of commercial private schools and academies.

We suggested earlier that this sort of thing might well be happening in many other parts of the world. We must confess, however, that this Paper will not be dealing with the various situations in South America, Japan, African countries (whose controversial state of linguistics I am very much in touch with, particularly problems arising in sub-Saharan Africa), with east European countries (whose educational systems in terms of FLL I am also very familiar with), bilingual Canada, trilingual Belgium or Switzerland, or multilingual Israel.
In the event of DECOWE choosing this field of activity for a further Project, I would be very pleased to cooperate in the Conference again, dealing with some of the countries alluded to in respect of FLT/FLL, especially sub-Saharan Africa or Iceland where I have lived and worked.

WHO, then, were the teachers of French at the Primary Education stage both at State Schools and at private Religious Institutions, from the early 50s to 1957 when the first Escuelas de Magisterio (including French as a FL and a keystone in this Study) were opened in Spain? I must comment here that this stage has been given a variety of names according to what government has been in power and it is therefore useless citing the Spanish terminology. The essential factor here is the learners’ age.

By the 60s, then, the Spanish educational system at Primary School level presented the following profile: children started school when they were six (it was never possible at an earlier age, though it could be postponed for family, personal, health or economic reasons). French was never officially taught at State schools until children were nine years old.

It appeared – the thinking went – that there was no need to train Primary Education teachers of French as a FL. Quite a few of those teachers who already had a certain knowledge of French, or who had been living in a French-speaking country, were automatically chosen by private Catholic schools to teach French. With two or three hours a week, children began to take their first steps in the language, although the method used, obviously, was to learn the alphabet, answer questions about their names and age, memorise the days of the week, the months, the seasons, the colours, thank people briefly, ask for permission, etc. By the time they were nine years old they were starting to learn how to read in French, and later to translate short but authentic texts, such as extracts from the works of Hugo, Mallarmé or Baudelaire.

At Escuelas Nacionales, however (at that time and until 1977 State schools were called ‘National’ instead of ‘Public’), neither French nor any other FL was taught until children were 12/13 years old.

When children entered the first cycle of what we nowadays call Secondary Education (a period lasting 3 years, from 9/10 to 12/13), the difference of level in French was regretfully clear. In what we still refer to as “Religious private centres”, children advanced in their oral skills, began to write their first essays and started to translate their first texts from L2 into L1.

It is quite evident that, by comparison, the situation in State schools was similar to that of a Beginners Course, if it could even approach that.

If, at the Catholic private schools, the teachers of French possessed some kind of mastery of French and some experience in oral fluency, what was the competence of State school teachers in French? Firstly, who had taught/trained them? Secondly, where had they learned their French? Thirdly, how (following what method) had they acquired knowledge and skills in a FL? Fourthly, using what kind of didactic material? Let us briefly try to answer these questions, as accurately as possible, basing our arguments upon what experience has demonstrated: sheer reality.

Scrutinising the levels of French attained, ranging from those ‘teachers’ who could hardly understand the language or produce anything in either channel of communication, to native speakers whose experience was all but non-existent in pedagogical terms, we are able to perceive that both groups had seldom received any theoretical knowledge of grammar (needless to say, pedagogical grammar), of how to present and work lexical items, or how to guide learners into asking, answering, talking. In other words, they were quite simply not suitable for the teaching business. Eventually the first Escuela de Magisterio (College of Education) which included French in its academic syllabus, was created in 1957.

WHO, then, were the persons in charge of ‘teaching’ French to 9/10 and 12/13 year-olds in State schools, presumably the fundamentals of a country’s educational system?

Returning to the profiles of teachers of French at Catholic private schools, it is worth considering the fact that this situation has lasted until the present day (though, fortunately, now on the decrease) in respect of a FL (French) which started flourishing in Spain by the second half of the ’50s, with English following in the late sixties and subsequently Italian and German.

Catholic private schools contracted ‘teachers’ of French with the following conditions attached:

- That they were native speakers of French, refugees from French-speaking areas since the end of World War Two. Obviously they had no knowledge of how to teach, and even less of how to teach an FL, even though it was their native tongue. Nor were they cognisant of the Spanish educational system, the Spanish learning/studying procedures or the Spanish regulations concerning exams. All they had to accept and adhere to were the private religious schools’ ideology, methodology and didactic impositions.

- That they came from other European countries with the ability to get by in French. Once more it concerned people who literally tumbled into Spain either before or after the Second World War. They mainly came from the Netherlands, Germany, Austria, Russia, and Ukraine. Needless to say, this latter group also lacked any kind of experience, and very few had the capacity, skill, interest or motivation to teach in general or in educational matters. They were ready and willing
to accept any and every rule. Quite a number of them changed their native names into French-sounding ones.

- A considerable number of the wives of Spanish army officers were contracted. The preference that all Catholic schools had for female ‘teachers’ was notorious. They could hardly offer any kind of specialist teaching, and it was reasonably certain that they had received no FL training at all.

- This profile of unqualified women working as ‘teachers’ of French, English, German, Italian and other languages, in various Ministries, companies and banks, persists even today.

What it all boiled down to was that being taught in an FL was something of a lottery – a lottery that very few people won.

As the prospective teachers had not been trained in any Institution or Centre, they could only start learning how to teach by experimenting with hundreds of boys and girls. These very seldom learned how to read and comprehend a text, or how to translate literally. In addition, as most of these ‘teachers’ could not understand, read or speak Spanish, children and teenagers were seldom corrected. Mistakes fossilised, and learners could attain adulthood producing the same grammatical, lexical and pronunciation errors.

Thus the Spanish educational system at Secondary Education level by the 60s was reduced to:

- Teaching no technical or artistic subjects, except for courses in Drawing: neither technical nor artistic subjects were taught by experts.
  
  (a) Deciding what to teach and what to omit in the field of sciences.
  
  (b) Limiting FLT to French, whether the teachers mastered the language or not; and whether they possessed a Degree, Diploma or any kind of Certificate or not. Such a situation was hardly the ideal way of encouraging an awareness of what FLT really signifies and requires. We shall come back to this facet later on, more in detail.
  
  (c) ‘Discouraging’ the majority of teachers of other FLs to insist on teaching any of these other languages through simply not offering courses in them in school syllabuses.
  
  (d) Taking it for granted that FLL consists of memorising a set of rules, asking learners to try to put them into practice, learning by heart the exceptions to these norms, and encouraging the young students to translate literary texts without paying attention to the aspects which contemporary research on Applied Linguistics, especially on FLT, had highlighted, and which had become so widespread all over Europe and the US: Communicative Methods and other interdisciplinary subjects such as Psycholinguistics, Pragmatics, Dialectology, or Sociolinguistics, to mention a few vital ones.

Proceeding further along our diachronic path, let us now analyse the situation as it appeared once the teenagers had passed their first cycle of Secondary Education and entered the second phase. They were 12 or 13 years old and they were expected to pass their first official national exam: the Reválida a compendium of seven subjects, both written and oral, including French as a FL.

The prospects in respect of this FL did not offer too rosy a picture as very little progress had been made in State Schools, whereas quite a lot had been done in the Catholic private schools. In order to fulfil the requirements stipulated by the Ministry of Education and the ecclesiastical authorities, priests, monks, abbots and nuns were in a position to compose the exams, choose the required Committee to mark these exams, and eventually evaluate the students’ results. There was a gap between the facilities enjoyed by the two types of school in tackling the Reválida, (an exam not necessarily common to the two) which was overly unjust for several reasons:

Catholic Schools could (and they did) choose the ‘teachers’ they thought were the best, arranged guided trips to French-speaking countries; possessed much better libraries, and offered extra-curricular classes (very often, if not always) given by the same ‘teachers’ teaching the subject at school. These lessons were offered outside the regular time-table and, needless to say, required an extra payment.

During the following years, (from 1957 to be precise), the traditional1 Escuelas de Magisterio started including French as an FL for the first time as a compulsory subject in order to complete the 3-year syllabus of these studies2 culminating in a Certificate or Diploma (not a Degree) as Primary Education Teacher. This enabled students finishing their studies to obtain a teaching post at any State School: from 1958 onwards they would be fortunate enough (or unfortunate as the case may be) to be contracted by Catholic private schools. There was however a general reluctance to employ these young teachers, and consequently these teachers’ careers and behaviour were closely watched and unfairly compared with those whose educational sources and families were Catholic. This was done to such an extent at times that any ‘act’ performed by the State group of teachers and considered improper could lead to them automatically being dismissed, regardless of teaching ability. Neither did his/her knowledge of the subject have any effect on the approval criteria of the Religious Staff. What really mattered were his/her religious and ideological attitudes, and his/her political adherence to Franco’s Regime.

1 I am using the adjective in a temporal sense, not in a qualifying or descriptive way.
2 Which socially and academically were not considered ‘University Studies’ but ‘College Studies’.

- 49 -
It is worth mentioning in this context that by the end of the 60s the body of schools known as the Colegios Concertados began to occupy a modest place in the Spanish educational system. It started with a low profile, a kind of ‘third alternative’, aimed basically at combining their Religious and ideological tuition and procedures with some of the Ministry of Education’s rules and regulations in exchange for some financial support.

The agreement reached between the Ministry of Education and the Colegios Concertados contained three requirements:

- The Colegios Concertados should prepare their young students so that they could pass precisely the same exam, called Selectividad (Pre-university exam).
- They were obliged to contract only those FL teachers of English, French, German and Italian who possessed a 5-year university Degree in Filosofía y Letras, B.A., Modern Languages.
- Monks, priests, nuns and other religious figures were also required to present their Degree titles should they want to teach an FL.

It is, however, particularly important that we clarify the real situation regarding the three requirements stated above.

The final grade or qualification a student obtains after s/he has passed the Selectividad exam is the result of the 50% global grades obtained during the course plus another 50%, the mark given at the final exam. Whatever FL the student had studied was embedded in this latter mark.

What religious and private schools have often been doing is to intensify the first 50% so that their students could be in a better position when facing the Selectividad exam. But has this unfair procedure been the only tool these Institutions have manipulated in order to obtain better and more successful results for their students? By no means, and I would venture to say quite the contrary.

Without generalising we can claim that both groups of school have – firstly – always demanded a harder and stricter discipline from teachers and pupils; and have always had more updated and varied didactic materials; secondly, have nearly always offered an extra hour of class, usually on Friday, in order to raise speaking skills, either with a teacher employed by the school or by contracting a native or bilingual speaker with no other duty than to converse and refrain from interfering in the regular teacher’s normal procedures as far as grammatical explanations, for instance, are concerned; and – thirdly - have encouraged their students to spend part or all of their summer holidays abroad (depending on the FL they were learning). Obviously, it was French during the 60s, and English from the 70s onwards. Italian disappeared as an FL in 1989 at Secondary Education level, with Il Istituto Italiano di Cultura being given charge of this language. German is being taught in 17% of Secondary Schools (both State and Private or Religious), although quite a number of students who have attended Die Deutsche Schule in Madrid, Barcelona, Las Palmas de Gran Canaria, Valencia and Sevilla considerably supplement the figure of students doing their exams in German before the Selectividad Committee. And – fourthly – they have maintained the dubious principle (from the pedagogic, social, and beneficial points of view) of separating students of the same age either according to their attitudes or in respect of their aptitude.

Unfortunately, time prevents us from discussing all the pros and cons of this decision but we can at least focus on the following:

- Those having a poorer knowledge of the FL, lesser aptitudes for acquiring the skills needed for a FL, negative attitudes to FLs or to the particular FL they are learning, are much more strongly motivated (whether the motivating methods be fair or ethical is not our concern here); extra classes are imposed on them outside the official time-table ; special tutorials must be attended; and finally, the crucial interrelation between school (FL teacher plus class tutor) and family. This is of course a factor which contributes to the student’s global achievement of his/her skills, making it possible for pupils to understand that most of their future success in life will depend on their own efforts.

All the same, this new combination of commercial interests together with the financial support of the Government had a tremendous significance for FLT. It meant the beginning of an era in which schools did business from the domain of the Catholic Church, and it gave birth to an FLT method of a different type: a triangle consisting of employer, employee, customer (the young students/their families). In spite of the multiple and varied obstacles these schools had to overcome, they very slowly started increasing in number and social status, though they were only being run in cities or large towns. Nowadays they constitute a second ‘force’ in the educational system, surpassing completely self-sufficient and autonomous private Catholic schools.

Soon after the opening of these Colegios Concertados, another extremely important event took place, this time at University level and affecting the organisation of FLL/FLT.

This was the opening of the first autonomous Faculty of Philology at the Complutense University of Madrid (UCM), independent of the former Faculty of Philosophy and Letters, which disappeared. Until 1962, all matters concerning languages, either dead or modern, were included in the Faculty of Philosophy and Letters (today 16 Faculties in Spain still work on this academic basis). Languages only represented a certain part of the Faculty curriculum, and were obliged to share the resulting Degrees (following 5 academic 9-month courses) with
Philosophy, History, Geography (!), General Linguistics, and Universal Literature, regarded as minor subjects at that period of time.

Other Faculties of Philology followed this example, such as those opened in Barcelona, Valencia, Bilbao, and Sevilla. In all of them stronger emphasis was placed on Language, Theoretical, Linguistics, and Theories of Literature. Theoretical aspects were studied plus the necessary compulsory reading of some authors' works…… the pity was that since most of the professors and lecturers gave their classes in Spanish, the students went around searching for, finding and reading the Spanish translations of these works instead of the original!! Results were clearly reflected in the increasing number of students becoming interested in the study of Applied Linguistics, Computational Linguistics, Discourse Analysis or Post-colonial Studies, to name the most relevant.

A certain degree of attention was beginning to be paid to subjects such as “Text Analysis”, “Geography”, “Institutions”, “Fine Arts/ Cultural Manifestations”, and “History”, pertaining to the different linguistic communities or countries where modern European languages are spoken (apart from the country of origin).

In the case of French, bilingualism in Belgium, Canada or Switzerland was at least being mentioned.

In the case of English, notice was being made of the famous concept of 'English around the World'.

In the case of German, Austria and parts of Switzerland were being taken into consideration.

Yet still in 2009, in one of the questionnaires I passed around among my 5th year students, 32% could not answer questions such as: “What language do they speak in Wales, Northern Ireland, Normandy, The Alps, Holland, and Lichtenstein?”

The questionnaire was handed out in November, and returned to me, filled in, on 22nd Dec., the deadline date; two possible reasons occur to me for the extreme delay in returning the questionnaire, both of them negative in substance:

(a) either the students had to consult encyclopaedias or the Internet and later check with their classmates owing to their lack of self-confidence.
(b) or they were not interested in an extra task which would certainly not raise their grades or marks.

Within seven months this 32% of students would officially become 'philologists', a title which would enable them to teach whatever foreign languages they had chosen.

In parallel from the late 60s, a wider perspective on FLT was rapidly gaining ground throughout Spain in the following direction:

The Escuelas de Magisterio we have talked about earlier cautiously began to include English in their syllabuses. Two salient problems – still in evidence today – arose however:

There were no well-trained trainers to train the new generations of future teachers of FLs at Primary Education levels.

- There was a marked scarcity of fluent trainers of these languages.

Even today, the main obstacles for students applying at Escuelas de Magisterio (where they can choose between French or English as the compulsory language they have to study, learn and pass) are:

- Firstly, the lack of appropriate University or College trainers of FLs who are able to combine a certain mastery both of the written and oral FL.
- Secondly, the fact that a very reduced number of these trainers has ever been to an English, French or German speaking country for longer than a couple of weeks (if that); their fluency in the language is therefore rather poor; and they are neither linguistically or culturally updated in the FL.
- Thirdly, a great majority –as pointed out previously– by force of circumstances became trainers of English 'out of the blue’, so to speak, owing to the relentless on-going march of English, when up until that moment they had simply been trainers or teachers of French as an FL. (!!!)
- And fourthly, they lacked the required cultural knowledge – especially on contemporary issues– and the competence required to teach an updated, informal level of English (to say nothing of the use of slang, phraseology, sayings or proverbs). Theirs was a sort of formal bookish style, unreal, and unsuitable for young students, language based on useless or unnatural expressions; they had difficulty in managing in present-day situational contexts.

The case of French was more than unfortunate: it began to be substituted by English from Secondary Education onwards; it never turned up again at Primary Education level, and finally, as a logical consequence, the study of French Philology was reduced year after year to the present-day situation: at UCM in 1965 120 students finished their Degrees in French, while in 2009 the number was no higher than: 21.

The cases of German and Italian were even worse from a pedagogical and social point of view: to start with, no trainers could be found in Spain –which does not by any means imply that there were not very good translators, philosophers or
scholars all round the country, all of them mastering the written
skills of either language. But the fact was that an extremely low
number of German or Italian speakers could really and honestly
be called future teachers of either of these two languages.

Most of them could fit into two groups: either they were native
speakers or bilinguals, but no one was officially qualified by the
Ministry of Education so as to train future teachers of German or
Italian.

Up until 2009 only trainers of French and English were suitable
for the preparation of future teachers of French and English at
Escuelas de Magisterio, though French was becoming less and less in
demand.

Parallel to the evolution we have been describing of FL training
at Escuelas de Magisterio, other important developments were
taking place at different levels and at different places.

The first has already been commented on: the opening of the
first Faculty of Philology at the UCM in 1962, a stone-­quarry
from which hundreds of future ‘teachers’ would emerge.

In spite of ‘unwritten’ university rules, even today these
hundreds of students who reach their third, fourth, and fifth (!)
courses are unable to write or speak accurately. Very often they
cannot understand native speakers, and quite often, too, they
read their compulsory didactic material in Spanish translation.

Resuming our Study, let us now focus on four recent
developments of real importance:

(1) In October 2009, the new Título de Grado in English, French,
German, or Italian Studies was put into practice, substituting
the former ‘Degree in English, French, German, or Italian
Philology’.

(2) The university curriculum of each Título de Grado is expected
to be covered in four years instead of five.

(3) I am rewriting and putting the finishing touches to this Paper
four months later (it was already presented in September
2009), but the crucial negative aspects of the earlier 5-year
Degrees still persist:

(a) More than 70 students per class are attending in subjects
like “Phonetics & Phonology”; “English³ Language I”;
“English Language II”; “Oral Skills (Comprehension and
Production of English)” is the actual name) in English I”;

(b) Teachers sharing these subjects according to different
time tables very seldom follow the same syllabus (in
spite of the fact that they really should, since a syllabus
is published as such and can also be located on the
UCM web site. Nor is there always agreement on the
composition of examination papers and the process of
evaluation (!).

(c) Not all Professors, Lecturers or Assistants teach in the
foreign language, whichever it is. Some teachers dare
not speak in the FL in public, and in the event of them
doing so, few students would be capable of following
the class.

(d) Returning to the astonishing facts previously mentioned
concerning private religious schools, up to this moment
(February 2010) in some of them a Degree in a FL Philology
is not even a requirement for teaching the FL in
question.

4) An extremely risky decision has been made by the Rectorate
of the UCM: allowing the choice to be made between two
subjects, which until Oct. 2009 could be taught in the second
or third academic year, namely: “Methodology of Teaching
English (French/ German/ Italian)”, and a second one,
strictly the second part of the other, namely: “Acquisition and
Learning of English” to be chosen in their fourth or fifth
academic year. From Oct. 2009, under the new system, both
remain; the former available, incredibly enough, in the
students' first or second year.

Oddly enough, the Diploma obtained at the Escuela Oficial de
Idiomas (Official School of Languages), the Proficiency, TOEFL,
and sometimes The Lower Certificate of Cambridge may serve
the purpose of teaching a FL. None of these Certificates includes
Cultural or Literary Manifestations of the FL nor Courses on
Foreign Language Teacher Training.

Fortunately, things are changing and soon it will be an essential
requirement to have a university Degree (Título de Grado) in order
to teach a FL, mindful as we should be of the negative aspects we
have been cataloguing in relation to these studies.

The only kind of Schools which will not be forced to demand
such a university title will be Commercial Academies, growing
fast in number in view of the immense amount of student failures
at school in the compulsory subject of EFL.

³ From now onwards, I will confine myself to the English instances for the sake
of brevity, but any of the four foreign languages we have been dealing with can
perfectly fit into the scheme. Only the names of some cultural or minor subjects
can differ, e.g. ‘Geography of England’ (!) has its homonym in ‘Geography of
Germany’ (!). In other cases, the subject-matter is completely different such as:
‘British Institutions’ vs ‘Italian Art’.

- 52 -
Summarising the curricula of the former FL degree, these are probably the more relevant data permitting me to use the expression “dramatic failure” in my title:

**One**, the English/French/German/Italian curriculum up until September 2009 was composed of:

- **Academic 8-month courses on Theoretical Linguistics.** (Average tuition hours: 70).
- **Academic 8-month courses on Diachronic Linguistics,** covering a broad and deep panorama (somewhat unnecessary in my view), a panorama starting out with the Proto-Indo-European origin of most European languages up to present-day British English, present-day German, present-day French or present-day Italian. (Average tuition hours: 40).
- **3 academic years of “English Literature”:**
  - One 8-month course on “English Prose”
  - One 8-month course on “English Poetry”
  - One 8-month course on “English Drama”
  (Average tuition hours: 40 for each subject).
- **1 academic 8-month course on “North American Literature”.** (Average tuition hours: 40).
- **Academic Courses on Cultural Studies**
  - One 8-month course on “English Art”
  - One 8-month course on “Geography of England”
  - One 8-month course on “British Institutions”
- **1 academic 8-month course on “Text Analysis”.** (30 hs).
- **1 academic 8-month course on “Methodology of TEFL”: a vital point in our Study, to which I will return in more detail.**

So many incongruences are not easy to ignore, and perhaps no further explanations are required. However, I should very much like to draw special attention to the following aspects:

**Items which speak by themselves: “English Art” VS “British Institutions”**

**Subjects “overloaded” with tuition hours VS subjects “undermanned”**

The vast tapestry of mistakes and ill-conceived policies delineated here will perhaps serve to demonstrate why for years and years up to the present day (improving of late, however), the ‘teachers’ profiles of EFL at Primary, Secondary, High School and University levels have not been adequate enough to satisfy the needs and expectations of a whole range of children, teenagers and adults.

Such a situation has fossilized old fashioned methods, inappropriate methodologies, unsuitable teaching materials, homogenous teaching styles for heterogeneous groups of learners, and so on.

What I have alluded to as the big change: “The Título de Grado in English Studies” substituting “The Degree in English Philology” will not, in my view, greatly improve the development of a better kind of teacher of English because the seed of the problem, the source of this ‘dramatic failure’, is embedded there in the vicious circle: an untrained and incompetent speaker of English can never teach infants, whether the State School is bilingual or not, and whether commercial academies are located in elite districts in large cities or in two-room apartments in small towns.

What I have alluded to as the big change: “The Título de Grado in English Studies” at the Faculties of Philology has in no way modified the negative aspects associated with FLT and FL Teacher Training.

The former Degrees achieved neither the didactic task of producing good FL speakers and writers and even less a basic academic and professional preparation of FL Trainers.

Allow me to expand on the matter of the changes which are taking place and what some of the subject matter implies:

Negatively surprising items such as:

- From “Proto-Indo-European to British English”
- North American (Literature)
- English (Art)
- (Geography of) England
- British (Institutions)
- (German) Philosophy/ Thinking

(a) The unnecessary discussion of the evolution from Proto-Indo-European roots to British English; what, then, about
American English, Scottish, Irish, Australian...? Does North American English stand for US English only or does it include Canadian English? Because the syllabuses did not.

(b) The five academic courses on “English I, II,...” (as well as the ones referring to the other 3 languages) were also theoretical, and purely grammatical lessons were always based on written materials.

(c) Did “English Literature” courses allude to or include Irish, Scottish, Australian, etc... Literatures? They did not. Why not then label the subject (a change which has not yet been made). "Literatures in English” which could and should open the doors to Post-colonial Literatures?

(d) Do Wilde, Burns, Yeats, Shaw, Stevenson and others fit into the subject “English Literature” Does this nomenclature seem orthodox?

(e) How has it been possible to maintain for so many years the division of F Literatures into three unconnected sections: Prose, Poetry, and Drama?

(f) How could it be accepted that subgenres like ‘Short Story’ or ‘Science Fiction’ were omitted in the XXI c.?

(g) Why was Literary Criticism never taken into account and taught as another subject independently of what the courses of Literature might teach or instruct about it?

(b) For years we had another compulsory subject (which I taught for 3 academic years) called: “Text Analysis”. A very substantial subject, actually, but once more no academic or departmental indications were even suggested to the teachers in charge of this matter. Each teacher in charge of it had to design his/her own syllabus, list the compulsory readings, decide whether to lecture on theoretical issues only, or whether to analyse texts without presenting the fundamentals of a linguistic or literary analysis, or a combination of the two.

What methodology could be followed?

And finally, what was the evaluation process going to be based on?

To make things worse, all the subjects included in the English (only in the English) Department were divided into two groups: morning groups: 8:30am – 2:30pm, and evening groups: 6:00pm – 9:45pm. That awkward situation gave rise to three serious problems:

(1) two different teachers were available for the ‘theoretically’ same subject, involving two types of methodology and evaluation.

(2) Six hours of teaching for the morning students was condensed into three and three quarter hours for the evening students.

(3) the students in the morning (referred to as ‘full time students’) had afternoons and evenings at their disposal to prepare their classes, read, do their homework (our morning students hardly had to work during their university studies), whereas those attending evening classes were called ‘part time students’, which is actually what they were.

How and when could this evening group of students study or read for their classes? Needless to say, the grades obtained by the morning students were always much higher, and when that was not the case, the reason unfortunately was the teachers’ misguided sense of pity.

Concerning my own field, the essence of this Study, how could anyone apart from me (I was the only teacher in charge of both groups) possibly compare the two groups’ achievement, knowledge, progress, capacity of work…and results?

In a survey I presented at a seminar called ‘European Day of Languages’ held at the University of Valladolid, I was able to demonstrate through 500 anonymous Questionnaires filled in by the students/trainees themselves that 72% of the evening students were Primary Education teachers wishing to promote themselves and gain better jobs by obtaining a degree; 8% were also working as unqualified teachers at commercial Academies or Companies; and 20% were employed in a variety of jobs.

One final comment on this aspect: only 42% of the evening students finished their degree; only 6% passed on to design a Minor Thesis after finishing their degree, and only 0,3% reached the status of a Doctor in Philology.

What the syllabuses lacked were:

(a) Oral practice in the language for each of the 5 courses.

(b) A subject explaining and exemplifying what Etymology means and the reasons for its usefulness for future teachers.

(c) Dialectology: concepts, and above all, oral examples.

(d) The concept of English Around the World.

(e) Some material on Discourse (both written and oral) Analysis, Pragmatics, Psycholinguistics, Sociolinguistics, Applied Linguistics, Corpus Analysis, Conversational Analysis, and an introduction to ESPs.

(f) Intensive classes of Phonetics and Phonology through oral practice.

4. Conclusions

An attempt could be made at enumerating the items missing in the curriculum in the English/German/ French/Italian Philologies. Similarly a critique could be offered of the excessive recourse to the theoretical aspects of these studies.
As we have pointed out, not many aspects had eventually been altered in 1994 in the endeavour to cross the main barrier: that of converting so much knowledge based on theoretical written language into a practical oral usage of the FL.

This academic course, 2009-10, when the second great revolution is expected to take place in all Spanish universities - something I might add which has not yet occurred and I do not believe will take place - our newly born “Título de Grado en Estudios Ingleses” will, hopefully, fill the previously specified gaps, alter the misleading terms (for ex. ‘Geography of England’ vs. ‘British Institutions’, or ‘Text Analysis’, or still till Sept. 09: ‘Acquisition and Learning of English’ which, quite frankly, has become a pain in the neck among the Staff at the Faculty of Philology and at the Faulty of Education (not The School of Education), with unclear concepts when labelling a subject, and blemished with vital omissions. At this very moment, while I am updating my Paper, such a host of new problems has arisen that I would need to compose another Paper. For those interested in the current situation, please consult the “www.ucm.es web site -> Departamento de Filología Inglesa I y II”, although it does not give a full picture of what is really happening. It can, in any case, be a first step.

Sadly enough, the area which most concerns us here - FL Teacher Training - is in my view going from bad to worse. Let us hope we are able to rectify some of the vital errors which have ben committed by the Ministry of Education in conjunction with the Council of Universities in their somewhat chaotic planning procedures.

The truth is that the old Modern Languages Section (1962-1994), and the four different Departments (English, French, German, and Italian, 1994-2009) did produce good philologists, researchers, scholars, translators, but very few good teachers of FLs. As far as the lingua franca is concerned, classrooms are full of bad teachers, or as George Bernard Shaw once wrote: “He who knows, learns; he who doesn’t, teaches”.

When a good teacher of a FL is discovered, the merit, the success, and his/her good pedagogic and didactic competence are the results of their own effort, individual research and, above all, extra academic training, nearly always abroad.

5. References

Although it is perhaps most unusual in Papers intended for publication, I must admit that the works cited in this Study will all be my own.

The reason for this is that the Paper consists of a diachronic overview of the root cause and reasons for the Paper sounding as negative as it does. It is, in fact, meant to be negative. What I describe is what has really been happening for the past years in the field of Foreign Language Teacher Training in Spain. It does not focus on FLT per se but on how the lack – during the 50s and 60s – of FL Teacher Trainers and the mistaken procedures followed – during the 70s and 80s – have led to the present-day situation: learners of FL can hardly get by in the most popular languages and those most in demand in Europe, i.e. English, French, German and Italian. Many professionals are incapable; university students hardly possess more than a scanty knowledge of any of these languages; young students barely pass their exams; and children are being taught by “teachers” who either have not received sufficient pedagogic instruction and training or do not master the FL they are teaching. The vicious circle is only now beginning to diminish. State School bilingual instruction lacks good teachers because they lacked good FL Teacher Trainers.

It is, therefore, my own knowledge and experience which form the basis of the study I am presenting. I cite or quote no linguist or methodologist but only my own Talks, Seminars taught, and the publication of these in Conference Proceedings. I trust readers of this Essay will understand that my objective is none other than to offer my personal view of this most relevant issue nowadays.

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Madrid Center of Teachers held in Majadahonda (Madrid, Spain) in February, 2001. Published as a Separata.


Vega, Máriá (2005) ‘Learning From Mistakes: A Realistic View and Some Urgent Decisions to Be Made on Foreign Language Teacher Training in Spain’. International 3-day Seminar held at the University of Valladolid (Spain) to celebrate the European Day of Languages in October, 2005. Published in the Seminar Proceedings.


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Vega, Máriá (2010) ‘Neuro- and Psycholinguistics for Foreign Language Teacher Trainers’ to be held from October to March, 2010 at the University Complutense of Madrid.
COUNTRY PATTERNS OF LABOUR MARKET ENTRY AND EARLY CAREER

PETER ROBERT
TARKI Social Research Institute, Inc., Budapest, Hungary

Abstract: The paper intends to find similarities and differences among 18 countries of the REFLEX and HEGESCO projects with respect to the labour market entry and early career process. Based on how close to each other or how far from each other these countries are, they will be grouped into clusters and the country types will be characterized by the typical features of labour market entry and early career of the graduates. The following features are considered in the analysis in order to develop a general typology of the 18 countries: easiness and fastness of labour market entry; match between qualification and current occupation; mobility out of first employment and unemployment experiences.

Following the existing literature, two mechanisms for grouping the 18 countries can serve as basis for conceptual predictions: the connection between the educational system and the labour market as well as employment protection legislation. These approaches have been applied and tested earlier for broader circles of labour market entrants. The paper discusses these issues for the graduate labour market. Methodologically, the statistical procedure of cluster analysis will be used. The main challenge is to link the empirical findings to the conceptual predictions.

Choosing the best cluster solutions is affected by the number of cases (18 nations) and by consideration for interpretations. The paper provides confirmation of the OLM – ILM distinction as well as to the relevance of the stronger or weaker EPL for the specific graduate labour market. Based on the typology derived from indicators on labour market entry and early career, the analysis reveals graduates' situation to be the most flexible and vulnerable in Spain and Turkey, while labour market entry and early career seem to be the most favourable for graduates in Norway, Finland, the Netherlands and Estonia.

Key words: graduates, labour market, education – occupation mismatch, career mobility, unemployment, cluster analysis.

1. Introduction: Conceptual Basis of the Study

The aim of this paper is to search for typical “combination” of countries in terms of graduates' labour market entry and early career experiences. To achieve this goal, the analysis will basically follow the next steps: 1) Dimensions are chosen that represent labour market entry and early career processes; 2) Indicators are selected or constructed that represent the given dimension; 3) A statistical procedure is performed to detect the typical combinations that express certain common patterns and place the countries in the same group on that ground. The research in this paper will be carried out on the data of a merged file from the REFLEX and HEGESCO projects including 18 countries. The country groups will be constructed by the method of cluster analysis. The paper follows some previously existing analytical examples (Gangl 2001, 2003a, Saar et al. 2008, Unt 2007) as well as projects (Smyth et al. 2001 Kogan et al. 2008).

Based on the existing literature, two mechanisms for grouping countries are discussed briefly in the next paragraphs: the connection between the educational system and the labour market as well as employment protection legislation.

Regarding the first approach of grouping countries, scholars have traditionally contrasted internal labour markets (ILM) with occupational labour markets (OLM) or production approach vs. training approach (Marsden 1999), based on differences in signalling functions of the schooling system (Spence 1974). Alternate terms for the same distinction are the organisational and qualification mobility spaces (Maurice et al. 1986, Müller and Shavit 1998). Under the conditions of OLM, labour market entry is expected to be faster and the match between qualifications and jobs is expected to be better (Allmendinger 1989).

It is important to keep in mind that previous research on school to work transition quoted above referred to a broader population of school leavers and was not restricted to graduates. Nevertheless, the issue of the variation in the degree of vocational specificity or of educational signalling is not limited to secondary education only but it holds for the higher education to some extent as well. The tertiary level of schooling in the countries with OLM involves the features of the vocational vs. academic duality, while the linear type of higher education (the Bologna system) is traditionally more characteristic for the countries with ILM.

The second approach, the employment protection legislation (EPL) is expected to affect both labour market entry and further mobility of new entrants out of first job. The basic assumption is that stricter legislation is associated with more difficult entry and lower level of mobility. As employment protection favours the insiders who are employed, it decreases the vacancies and the
availability of new jobs for new entrants. At the same time those who managed to enter the labour force will consider to move to another job to lesser extent; first employment will not become a stepping stone but young people tend to get trapped in their first jobs to larger extent. Thus, higher degree of EPL decreases the unfavourable risks for unemployment but the good chances for upward mobility, too.

Gangle (2003b) used selected countries from the EU LFS data in order to investigate the early career of labour market entrants. In this study, the Anglo-Saxon nations as well as the Scandinavian countries were considered as low EPL societies. Labour market is apparently weakly regulated in the liberal societies but the social democratic welfare states do not apply strong employment protection legislation either. Stricter EPL is more characteristic for the corporatist and the Southern European societies. Saar et al. (2008) and Unt (2007) investigated the school to work transition process for the new EU-member states in comparisons to the EU-15. They state that Hungary and Slovakia have the most flexible labour legislation followed by the Czech Republic and Poland. Estonia and Latvia occupy middle positions, while Lithuania and Slovenia have the most restrictive labour regulation.

Based on the “crossings” of these two approaches, the 18 countries involved in the analysis may be grouped as follows.

Table 1: Country groups based on the two mechanisms considered (OLM/ILM and EPL)

<table>
<thead>
<tr>
<th></th>
<th>Strict EPL</th>
<th>Less strict EPL</th>
<th>Less weak EPL</th>
<th>Weak EPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLM (high educational signalling):</td>
<td>Austria, Germany, Slovenia</td>
<td>Netherlands</td>
<td>Czech Republic, Poland</td>
<td></td>
</tr>
<tr>
<td>ILM (low educational signalling):</td>
<td>Lithuania</td>
<td>Belgium, France, Spain, Estonia</td>
<td>Finland, Norway</td>
<td>UK, Hungary</td>
</tr>
<tr>
<td>Southern Europe</td>
<td>Italy, Portugal, Turkey</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Dimensions and Indicators for Country Patterns

Following the overview above, particular dimensions were chosen for the empirical analysis, represented by concrete indicators that cover labour market entry; match between qualification and current job; mobility out of first employment and unemployment experience between labour market entry and survey time. The assumption is that OLM is more efficient for a fast and easy labour market entry and leads to stronger match between education and occupation. Weak EPL also makes labour market entry faster and generates more flexibility in the labour market resulting in higher job mobility and higher risks for unemployment.

One consequence of choosing these dimensions leads to the fact that this paper will focus only on those graduates who entered the labour force. Apparently, this limitation is important in the light of the existing literature where the rising unemployment risk among young labour market entrants is an important feature (Gangl 2002, Kogan et al. 2007). It also holds that the present analysis deals with a “selected” group of graduates. Thus, the comparative analysis of those who succeeded and did not succeed to enter the labour force is regarded as a different task.

Altogether five indicators are used as “input” measures for developing a general typology of country patterns.

(1) The easiness and fastness of labour market entry is approached by the indicator measuring the time graduates had to spend to find a job and enter the labour force. This variable is 0 by definition for those who started to work before graduation. For the rest, the variable takes the value of 1 if job search lasted longer than 6 months.

(2) For match between qualification and current job, indicators aim to cover over-education (Freeman 1976), under-employment (Livingstone 1998), performance gap or credential gap between education and jobs, based on both objective and subjective measurement approaches. The first indicator (2.1.) illustrates bad match by marking those graduates who work in ISCO major group 3-9. It is assumed that graduates working in these jobs (and not in ISCO major group 1-2, labelled as Legislators, senior officials and managers and Professionals) are plausibly underemployed. In the case of the next indicator (2.2.) respondents were asked to characterize the type of education they felt most appropriate for the work in their current job. One answer category was lower than higher education. Proportion of this category is regarded as a sign of over-education. The third indicator (2.3.) is based on a 5-point scale ranging between “not at all (1)” and “to a very high extent (5)”. The proportion of answer codes 1-3 is regarded as expressing underutilization of skills.

(3) For mobility out of the first employment job, data do not allow to make a proper distinction between cases when somebody left first employment and moved to another job or when somebody became unemployed. Thus the last indicator refers to unemployment experience and takes the form of dummy with a value of 1 for those graduates who experienced unemployment ever between labour market entry and survey time.
A longer version of this paper prepared for the HEGESCO report contains further indicators as well in each of the dimensions and investigates the country patterns for the dimensions separately as well. But this paper builds on these five indicators.

3. Results on the Country Patterns

The findings of the analysis are presented by providing two outputs from the cluster analysis. The first one is the so-called dendogram which is a graphical representation of the clustering procedure. Cluster analysis starts from 18 cases (each country represents itself) and the dendogram displays how those countries that are more similar and are closer to each other, will be grouped together. This grouping process ends when all 18 countries are united. The second output is the selected cluster solution with a given number of the clusters. The name of the countries is listed for each cluster and the differences between the clusters are interpreted on the ground of differences by the given indicators. The results appear in Figure 1 and Table 2.

The “best” group of countries involve two pairs of Norway and Estonia as well as Netherlands and Finland as shown by Figure 1. In these societies, only a small proportion of graduates required more than 6 months to find a first job. Unemployment experiences are also below the average. The same holds for the proportion of those who work currently in a job belonging to ISCO major group 3-9, though this is less the case for the Finnish and Dutch respondents. Apparently, graduates in this group feel themselves overeducated and think their skills to be underutilised to smaller extent as well (cluster 1). Netherlands is at the borderline in this latter regard. The next cluster involves only one country and this is Portugal, a case where interesting inconsistencies are present (cluster 2). On the one hand, the job search for the graduates was quite long, slightly above the average, and the occurrence of unemployment among the graduates is substantial, definitely above the average. On the other hand, the proportion of the Portuguese diploma holders in an occupation that may not require a degree is small and only a relative minority of them feels their skills to be underutilised.

The next large group includes as many as eight countries (cluster 3). Entry into the labour market seems to be fast for the majority of them, in particular in Czech Republic, Austria or Lithuania. Unemployment experiences are about the average though the situation is more favourable in Slovenia and less favourable in Poland. The mismatch between qualification and current occupation indicate a mixture. On the hand, underemployment is less characteristic for graduates in these societies either from an objective or from a subjective perspective. But on the other hand, graduates feel their skills to be underutilised in some of the countries like Poland, Czech Republic or Lithuania. Thus even if the respondents work in “proper” job which require, indeed, tertiary education, they may think in some countries (and these are all new EU member states) that their skills are not utilised in an appropriate manner.

![Figure 1. Dendogram of the hierarchical cluster analysis on LM entry and early career of young graduates in 18 countries*](image)

<table>
<thead>
<tr>
<th>CASE</th>
<th>0</th>
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<th>10</th>
<th>15</th>
<th>20</th>
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<td></td>
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<td>Norway</td>
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<td>Estonia</td>
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<tr>
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<td>Portugal</td>
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</tbody>
</table>

* Indicators: Job search was longer than 6 months; Respondent has experienced unemployment during 5 years since graduation; Current job is in ISCO major group 3-9; Respondent feels that current job does not require any tertiary education; Respondent feels that skills are underutilized in current job. Standardization: z-score; Distance: squared Euclidian; Method: Ward
The next group consists of only three countries: Italy, United Kingdom and Hungary (cluster 4). Here entry into the labour force was slower and unemployment experiences also exceed the average (chiefly in Hungary). The mismatch between qualification and current job is more pronounced in every respect. The last group of the pair of Turkey and Spain can be characterized by even worse features for graduates (cluster 5). Entry into the labour market was particularly hard for them and more than half experienced unemployment at least once. There is also a marked mismatch between education and current job (primarily in Spain).

Table 2: Country groups (4 clusters solution) for LM entry and early career of young graduates in 18 countries*

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Country</th>
<th>Spent more than 6 months with search for first job (%)</th>
<th>Unemployed ever (%)</th>
<th>Underemployed: current job is ISCO 3-9 with diploma (%)</th>
<th>Feels that current job does not require a diploma (%)</th>
<th>Feels that skills are under-utilised in current job (%)</th>
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</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>Norway</td>
<td>5</td>
<td>21</td>
<td>19</td>
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<td>Netherlands</td>
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<td>29</td>
<td>7</td>
<td>28</td>
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<td>Cluster 2</td>
<td>Portugal</td>
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<td>42</td>
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<tr>
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<td>Austria</td>
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<td></td>
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<td>8</td>
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<td>36</td>
<td>26</td>
<td>8</td>
<td>27</td>
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</table>

* Graduates who have never entered the labour force are left out from the analysis.

4. Discussion of the Results

Few remarks should be made regarding the results before summarizing them. Firstly, there is a selection effect in consequence of defining the dimensions and indicators for the analysis: those graduates who did not enter the labour force were not investigated. Secondly, the definition of the indicators may have an impact on the results. The length of the paper did not allow to present alternate solutions and the additional results for the various dimensions. Choosing between the possible cluster solutions was definitely affected by the number of cases (18 nations) and by consideration for interpretation.

Variables used in this paper were chosen by taking into account previous comparative analyses on transition from school to work. These earlier studies had two main features. On the one hand, they focused on the institutional variation in the educational system and the labour market of the European societies in terms of vocational specificity, educational signalling, tracking of the school system, employment protection legislation, insider or outsider character of the labour market. On the other hand, previous research focused on a broader circle of school leavers and was not restricted to graduates. This brings some limitations in the applicability of the prior results to the present study even if the main concepts outlined in the paper are thought to be relevant for higher education and for the specific labour market of graduates as well.

In line with the goals of providing an explorative view on the similarities and differences in these 18 countries, the cluster typology as such turned out to be well interpretable. At the same time, it seems to be uneasy to link the empirical findings to the conceptual predictions in the case of some countries, while theory works better for other cases. The next paragraphs will deal with this issue and attempts to connect the empirical finding to the predictions.

By theory, labour market entry ought to be easier and faster and the match between education and job ought to be better in those countries where vocational specificity and educational signalling is stronger, that operate under OLM and where employment protection legislation is weaker, supporting less the insider labour force against new labour market entrants. These societies are not the same even by theory. On the contrary, the classic examples for OLM like Germany or Austria are typically characterized by strict employment protection legislation.

Unlike as expected on the ground of the OLM hypothesis, graduates in Germany were not able to enter the labour market much faster than the average. But the German case would then be in line with the EPL concept where insiders are supported in
the labour market making entry into labour force more difficult. In some other OLM countries like in Austria, the Netherlands or Czech Republic data show a quite fast entry for graduates. For part of the Slovenian graduates it took quite a long time to find the first job and this is in accordance with the strict EPL there. Graduates in some of the ILM countries like the UK or Spain and also in the Southern European states (Italy, Portugal, Turkey) needed really a longer time to get to the labour market. Finding a first job was rather quick in Norway and Finland where EPL is weak though vocational specificity and educational signalling is not high. This holds for Estonia and Lithuania as well but these cases contradict the predictions as both operate along ILM and EPL is strict.

Germany and Austria confirm the theory of OLM with the good match between education and current job. But this does not hold for other similar examples like France or Estonia: these societies operate under ILM and the qualifications and jobs seem to be still well harmonized. Countries where graduates are strongly underemployed and feel that their skills are underutilized (Spain, United Kingdom, Hungary) belong to the ILM setting. One could expect a better match in the Netherlands or Slovenia as typical OLM countries by previous studies but underemployment or over-education is about the average in these countries.

As theory predicts, mobility out of first employment ought to be stronger in countries where EPL is weak and less frequent in societies, where the labour market is more regulated. Similarly chances for unemployment are probably higher in those societies where EPL is weak. The pattern represented by Spain and Turkey is rather straightforward in this regard. In both countries graduates’ unemployment experiences are particularly high. In fact, labour market entry turned out to be also rather difficult in these two countries and graduates seemed to be underemployed as well. Graduates’ circumstances seem to be the most flexible and unfavourable in these two societies and Spain and Turkey ended up in the “worst” cluster of the general typology in Table 2.

Countries in the “top” cluster represent a completely different story. Here graduates’ labour market entry was quick, match between qualification and job was good (particularly for Norway and Estonia) and graduates experienced far less unemployment than the average (holding somewhat less to Finland). Thus, it seems that the labour market operates quite favourably for the graduates in these countries: Norway, Finland, the Netherlands and Estonia. Thus, these are the countries in the “best” cluster of the general typology in Table 2.

The overview about the link between the country patterns found in the analysis and the conceptual predictions based on the literature provided both good and bad examples for the concrete countries; part of the assumptions was confirmed to more extent and part of them was proven to less extent. It is apparent that even if the explorative picture seems to be believable in terms of the structure and of the existence of the various types presented, sometimes it is more difficult to explain why certain countries belong to certain types. The excuse has been mentioned above: the concepts and the predictions are not specific for higher education and graduates’ labour market. Nevertheless, the paper can perhaps conclude with only few question marks even if, as always, unanswered and unexplained cases have remained. If nothing else, the analysis is hopefully convincing enough that the approach of a search for country patterns by applying a cluster methodology (as done already before) is not a dead end street but leads to relevant results. It is clear that the labour market in these countries does not provide homogeneous returns to the human capital investments of graduates. The institutional differences of OLM vs. ILM as well as of the degree of EPL create a variation from a theoretical perspective (see Table 1) and this appears empirically to a large extent. Both the “old” and the “new” EU member states were represented in the study in an appropriate manner and they turned out to differ from each other but not simply on this ground. It may be less surprising that the Western societies are not similar (there are more comparative studies on them) but the former socialist countries constitute a heterogeneous group as well. Apparently, as the general pattern of the countries shows, Estonia and Hungary are similarly far from each other like Norway or Spain. Further analysis of the same data with choosing other dimensions and/or defining other indicators will definitely bring further new insights and will hopefully clarify existing ambiguities.

5. References


GRADUATES’ EARLY CAREER DURING RAPID ECONOMICAL GROWTH IN LATVIA

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Abstract: Changing business environment, development of information technologies and globalization create new conditions for graduates’ transition from education to labour market and their early career. The aims of the paper are to analyse the university graduates’ career pathway and to evaluate whether their chosen career corresponds to their qualification. Thesis report the main findings of a sample survey of early careers of university graduates between 2003/2006 during Latvia’s rapid economical growth.

The analysis is based on interviews, focus group discussions and data from the national sample survey “Professional Activities of Graduates of Higher and Vocational Education Institutions after Graduation” (N=2491), which was carried out from 2005 to 2007. Another survey was carried out among the graduates of the University of Latvia with the goal of investigating the influence of the economical crisis on graduates’ early career plans (N=2141) in 2009.

Results showed that previous job experience, level of education and student support activities were elements that promoted successful transition from the education system to labour market and successful employment, which matched the acquired qualification. Current economical crisis will increase competition among graduates; therefore educational institutions will be required to improve student support in order to enhance employability of the graduates.

Key words: labour market, graduates, transition, work experience, qualification, career, career guidance, higher education, job mobility, occupational level.

1. Introduction

The beginning of graduates’ professional career is a dynamic process, which is affected by the individual’s learning outcomes and the labour market demands. Latvia’s rapid economical development formed new conditions for graduates’ transition to labour market, which in the Soviet period was regulated by state. Transition from command economy to market economy increased the role of graduates’ personality (knowledge, skills, values, and abilities) in successful employment. Current changes in the business environment, technologies, and globalisation facilitate development of a new labour market structure and define requirements for employees’ competencies.

Restructuring of economy, demographical situation forecasts and an increasing role of education and learning all have an effect on individuals’ careers. Researchers define the career for the 21st century as “a career which is the sequence of employment-related positions, roles, activities, experiences encountered by persons” (Arnold, 1997). Greenhaus and colleagues define career as “the pattern of work-related experiences that span the course of a person’s life” (Greenhaus et al. 2000, 9). DeFilippi and Arthur characterize a new career form as “intelligent career”, which is based on three ways of knowing (“knowing – why, knowing - how, knowing – whom”) (DeFilippi et al. 2006) classification as a set of career competencies. Such an interpretation of a career significantly increases the importance of individual’s ability to choose his or her own career and gain necessary competencies for a successful transition from school to labour market. Early career is an important stage in the professional development of an individual, when a person looks for the most suitable occupation that corresponds to his or her interests and motivation.

Previous studies of relationship between higher education and labour market in Latvia explored how higher education reflected graduates’ knowledge, skills and value system and to what extent it matched the requirements of the labour market (Pauna et al. 2001) as well as discussed the employment trends of graduates of the University of Latvia (Snitnikovs et al. 2001). National survey exploring professional activity of higher education graduates was carried out for the first time.

Methods

Data for the sample survey “Professional Activities of Graduates of Higher and Vocational Education Institutions after Graduation” (N=2491) were gathered in face-to-face structured interviews and focus group discussions [1]. Interviews took place at respondents’ residences or at other places that were more convenient for respondents (work or study places, or other public places).

The group of respondents were graduates of 2003 and 2005. They represented different study fields: teacher training and educational sciences, agriculture, health care and social welfare, law, engineering and technologies, production and processing, humanities and art. Respondents represented all levels of higher
education programmes: college and vocational education, bachelor and master degree programmes.

The future plans of graduates and the impact of economical crisis on their early careers were explored in an on-line survey that involved all the graduates of the University of Latvia in 2009 (N=2141) [2]. Results showed that graduates had started their professional career at different periods: before studies, during studies, and after graduation. The research focused on graduates that had found places of employment during their studies or after graduation, therefore it assessed information that was given only by these graduates. The research used one or several indication classifications for descriptive statistics, different ways of structuring, assessment and other techniques (e.g., cross table analysis, means, etc.) to explore how graduates’ employment matched their qualification, assessed their transition to labour market, job mobility, and employment during the studies, as well as analyzed their future plans. The assessment of graduates’ first, second, and third employment content (level of responsibility at work, correspondence to the obtained qualification, reasons for leaving the previous workplace, etc) provided the necessary information basis for creating a job mobility profile.

2. Results

Graduates Career Pathway

The beginning of graduates’ professional career and their transition to labour market are influenced by labour market as well as by individual factors, such as graduates’ personal goals, competencies, and work experience. Graduates early career after graduation from a higher education institution often develops in the following directions: continuation of the studies, transition to labour market and simultaneous continuation of studies, beginning of the professional career. Therefore, it was important to clarify the circumstances which affected the continuation of studies, early career, and job mobility.

Development of technologies and the growing demands of labour market make young people understand the value of education in their career development. Data showed that many students tended to continue their education. A bachelor degree is usually only a step towards the next level of higher education. 62% of all the graduates of bachelor degree programmes had continued their studies straight after the graduation either in the same or in another institution of higher education (see Figure 1).

![Figure 1: Graduates career pathways after graduation (%) (n=2491)](image)

Tendency to continue education is especially characteristic to some study fields. More than 70% of bachelor degree graduates of architecture and construction and engineering, and technologies continued their studies. Bachelor degree graduates of service, natural sciences, mathematics, and information technologies also often continued their studies.

When graduates have acquired a second level vocational higher education or a master degree, they usually do not continue their studies. Only 18% of graduates with master degree and 23% of graduates with the second level vocational higher education continue their formal education the same year or after a break. In general, 40% of all the graduates had continued their studies after graduation.

Current economical crisis and shifts in Latvia’s labour market have as well affected the graduates’ future study plans. When asked about the long-term study plans, 60% of the graduates of 2009 (n=2141) admitted that they planned to continue their formal or informal education. 41% of the respondents planned to continue their studies this year, 19% of graduates planned to do it the next year or later. 6% of the respondents were did not want to continue their studies. 50% of respondents from the undergraduate programmes planned to continue their studies the same year, while only 20% of the graduates of master degree
programmes planned to do so. Nevertheless, in comparison to 2006 the number of graduates willing to continue their studies at the next level of education straight after their graduation has decreased.

Graduates who did not plan to continue education admitted that they could not afford it due to insufficient financial support (mean=4.79) (scale from 1 to 7 where 1 - completely disagree, 7 - completely agree). 63% of respondents admitted that this was a crucial aspect. Respondents pointed out other important reasons, e.g. lack of motivation (4.36), heavy work load (4.29), and inability to combine work and studies (4.29). Some respondents remarked that they wanted to have a break after the years of studies; others wanted to devote more time to their families, etc. Assessment of the answers revealed that the main factor affecting the graduates’ future study plans was finances - an aspect directly related to the instable economic situation in Latvia (Survey of the University of Latvia, 2009).

Early career and work experience

Employment during studies has become popular among students since 1991; the tendency developed due to social-economic circumstances and employers’ motivation to attract new employees. The research of the University of Latvia in 2000 (n=1200) showed that 65% of the students were employed. 31% of all the employed students were employed full-time (Jaunzeme et al. 2001). Economic development enlarged the opportunities of finding work during the studies.

Combining work with studies has become more common: 75% of graduates who graduated in 2002/2003 were employed during their studies, but from the graduates of 2004/2005 already 79% worked during their studies. During the studies most often were employed the graduates of the following qualifications or degrees: law, teacher training and education sciences, commerce and administration; least often – students of agriculture, manufacturing and processing, services, humanities and art (see Figure 2).

Higher educational level students tend to combine work with studies more often than students of lower educational level. 67% of employed students had acquired a bachelor degree.

Figure 2: Graduates employed during their studies by fields of education (employed as % of group totals)

<table>
<thead>
<tr>
<th>Field of Education</th>
<th>Employed as % of Group Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>38</td>
</tr>
<tr>
<td>Manufacturing and processing</td>
<td>55</td>
</tr>
<tr>
<td>Services</td>
<td>63</td>
</tr>
<tr>
<td>Humanities and social sciences</td>
<td>65</td>
</tr>
<tr>
<td>Engineering sciences and technology</td>
<td>72</td>
</tr>
<tr>
<td>Social, human behaviour, information and communication</td>
<td>74</td>
</tr>
<tr>
<td>Natural sciences, mathematics and information</td>
<td>75</td>
</tr>
<tr>
<td>Health care and social welfare</td>
<td>79</td>
</tr>
<tr>
<td>Architecture and construction</td>
<td>80</td>
</tr>
<tr>
<td>Teacher training and education sciences</td>
<td>88</td>
</tr>
<tr>
<td>Law</td>
<td>88</td>
</tr>
</tbody>
</table>

Source: Krumins, J. et al. 2007, p.82

Work during studies is characteristic not only for students who pay for their studies, but also for those whose studies are financed by the government and that includes both part-time and full-time students. Research shows that 70% of full time students and 62% of state-financed students have worked during their studies, thus aligning with the labour market already before graduation.
Figure 3: Employment of graduates during their studies by educational level (%)

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Employment Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor degree</td>
<td>67</td>
</tr>
<tr>
<td>Second vocational higher education</td>
<td>79</td>
</tr>
<tr>
<td>Master degree</td>
<td>92</td>
</tr>
</tbody>
</table>

Source: Krumins, J. et al. 2007, p.83

89% of students who had to pay study fees were working during their studies; on the contrary, this ratio among the state-financed students was 62%. Therefore, students who pay for their studies themselves have already aligned with the labour market during their studies at a greater extent than the students whose studies were financed by the state. Comparison of state-financed students and self-supporting students (including full-time students) shows that the financial support from the state increases the possibility that a student will not be working during studies.

A notion about how work during studies affects future life and career pathway may be acquired by the comparison of full-time students who were working during their studies and those who were not. Students who worked more often are currently employed and are more often high or intermediate level managers. Those who had not continued the work, which they had started during studies, most often had found a new job within a month after the graduation. Duration of the search period for the first job for those graduates who had not started working after graduation was longer than 6 months; some graduates had even not started working at all.

During the three-month period after graduation, 22% of higher education institution graduates had not aligned with the labour market (i.e. they did not work), 9% of graduates had not started working and 13% of graduates had left the job which they had during their studies.

The largest part (85%) of graduates of the higher education institutions had aligned with the labour market as employees, 5% as entrepreneurs, but 3% as self-employed. 8% of the higher education institutions graduates were not working; this number has not substantially changed comparing to the graduates of 2003 and 2005.

Transition to the labour market has not always been successful. As mentioned before, 8% of the graduates did not have work at the time of the survey. However, the results of this research allow concluding that unemployment is often related to the continuation of studies or family reasons as the problem of unemployment among graduates is not an issue. Higher education institution graduates who are currently unemployed most often are on leave for child care/maternity leave (32%) or are studying (28%). Only 15% of the unemployed graduates have registered as unemployed persons. A comparatively small number of graduates who have not aligned with education or the labour market show that the higher education ensures a stable foundation for their future career.

Figure 4: Graduates of higher education institutions, who are not working (%) (n=211, 5% of the total number)

Source: Krumins, J. et al. 2007, p.71
Analysis of data on study fields shows that most often the graduates of the following fields had not aligned with the labour market: agriculture, manufacturing and processing, humanities and art. Representatives of these groups were the ones who rarely worked during their studies. Alignment with the labour market of these student groups could be improved by enlarging the possibilities of internships during their studies, developing partnerships with stakeholders and enhancing student employability skills.

In general, 1% of all graduates of higher education institutions had registered as unemployed and additional 1% were unemployed, but had not registered. Therefore, the survey data allow concluding that the unemployment problem in the group of higher education institutions graduates in 2006 is not common. The situation in Latvia can change under the influence of economical crisis when the market demand and vacancies decrease and therefore it is more complicated to start working.

3. Job Mobility of Graduates

Graduates’ early career can be assessed in context with their job mobility. At the time of interviews, 80% of graduates of 2004/2005 and 62% of graduates of 2002/2003 were employed in the same workplace where they had worked during their studies or after graduation. From all the graduates of 2003 who were employed, 27% had once changed workplace during their studies or after the graduation, but 11% of them had changed their place of work two or more times. The data shows that the graduates of higher education institutions do not tend to change their workplaces often.

The rest of the chapter assesses employment and career development of graduates of 2003 (n=1077). Since the graduation three years ago, the graduates of higher education institutions have mostly been employed by the state and municipal institutions, joint stock companies, and private enterprises. A relatively small proportion of graduates were employers themselves and self-employed persons, but some of them were professionally involved in non-governmental organizations (Figure 5).

Figure 5: Graduates of higher education institutions of 2003: employment structure by status (%) (n=1071)

When asked to evaluate the practical usefulness of knowledge obtained during their studies, 68% of respondents admitted that they apply “a lot” or “almost all” of it. In comparison to the graduates employed by state and municipal institutions, the attitude of those employed in the private enterprises is more critical: 55% admitted that they use “nothing” or “little.” Assessing the data in relation to the study fields, the obtained knowledge is more thoroughly applied by the graduates in the field of education, social sciences, commerce and law. The graduates of humanities and arts are those that hardly ever find the obtained knowledge practically applicable. The usefulness of obtained knowledge is more highly evaluated by the graduates whose profession/occupation matches their qualification.

The majority (85%) of graduates of 2003 had a status of an employee. Those that had a status of an employer were educated in the fields of social sciences, commerce and law, engineering sciences, manufacturing and construction. The survey shows that the entrepreneurial skills obtained during the studies can create a comparative advantage for the graduates in the above mentioned thematic study fields.

Thereafter, job mobility will be analyzed by assessing the motivation for changing jobs or workplaces and by studying relationship between employment and the graduates’ qualification. There are several study fields where the level of job mobility is higher than the average. At least one third of all the graduates in natural sciences, mathematics and information
technologies as well as engineering sciences and technologies have changed their place of employment.

From the total number of graduates in 2003 (n=1048) 677 persons have had a single workplace, 260 persons have been employed in two workplaces, 93 persons in three, but 18 persons in four or more workplaces. Assessment of employment at different occupational levels reveals that the major changes affect the group Specialist in a field/industry (increase from 49.9% to 51.7%) and Middle manager/head of a department/division (decrease from 15.2% to 8.3%). (Table 1)

<table>
<thead>
<tr>
<th>ISCO 1, 2, 3</th>
<th>Occupational levels by Classifier of Professions of Latvia</th>
<th>Change of graduates workplaces</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top manager (director/deputy director/board member)</td>
<td>Ones</td>
</tr>
<tr>
<td></td>
<td>Web/management assistant/college lecturer/ research assistant</td>
<td>10.1</td>
</tr>
<tr>
<td></td>
<td>Middle manager/ head of a department/division</td>
<td>15.2</td>
</tr>
<tr>
<td></td>
<td>Senior specialist in a field/industry</td>
<td>12.7</td>
</tr>
<tr>
<td></td>
<td>Specialist in a field/industry</td>
<td>49.9</td>
</tr>
<tr>
<td>ISCO 4, 5, 6, 7, 8, 9, 0</td>
<td>Qualified office worker/civil servant</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Employee in service and sales industry</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Qualified employee in agriculture and fish industry</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Qualified worker or craftsman</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Machine operator/setter</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Auxiliary/unskilled worker</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: calculated from sample survey (Krumins, J. et al. 2005-2007), unpublished results (n=1048)

Changes indicate a growing discrepancy between the qualification of graduates and their employment in the respective field; as a result, knowledge and skills obtained during the study period are less applied in practical work. The survey showed that in the first place of employment the congruence between the employment field and graduates’ qualification was 53.2%; nevertheless, this indicator is 41.5% among those that change the place of employment for the third time. Significant changes have affected the legal aspects of graduates’ labour relations. In the first place of employment 90.4% of graduates had a permanent employment contract, in the third place of employment this indicator had decreased to 78.4%.

Hence, the number of graduates with a fixed-term contract (time of employment less than 1 year) had significantly increased: in the first place of employment the number of graduates with a fixed-term employment contract was 3.8%, in the third place of employment their number constituted 11.2%.

Graduates also showed a tendency to switch places of employment to such that do not match their qualification. This group of graduates comprised 37 individuals; most of them were males that had changed their workplaces once or twice. A characteristic feature of their job mobility is movement towards larger responsibilities; this tendency is approved by an essential decrease in the number of specialists in a field/industry (from 69.2% to 45%) and increase in the number of middle managers/heads of departments/divisions (from 6.2% to 14.7%).

The two main reasons for such a change are: a more profitable job offer (54%), which is accepted due to dissatisfaction with the current salary (38%) and better career opportunities (21%).

The results of survey indicated that the current changes in the structures of organizations and labour market in Latvia limit the vertical career possibilities for the graduates; this assumption is approved by the number of graduates employed as specialists in a field/industry. An indicator that characterizes the graduates’ employment is the match between the graduates’ occupation and the qualification they have obtained during the studies. Therefore, the survey implies that the match between the graduates’ education and the labour market requirements cannot be measured by assessing the correspondence of particular professions or study programmes, but by evaluating knowledge, skills and competences acquired during the studies and the individual ability to enhance them. The results of survey confirm that switching workplaces to such that do not match the graduates’ qualification cannot be regarded as a negative aspect, as in most cases such a change has broadened the graduates’ responsibilities and upgraded their occupational level.

4. Graduates’ Job Match to Obtained Qualification

Even though payment and demand in the labour market are the most essential factors, they are not the only ones influencing the individual’s opportunities and the choice to work in the field where an individual has obtained his or her education or
choosing another professional career path. Some of the factors that motivate a person to work in a certain profession are the initially nominated requirements towards work, its usefulness for society, prestige, etc. Among other factors are awareness of the specifics of profession and the demand for certain specialists in the labour market. Young people do not always have a clear vision and sufficient information on the particular profession and employment possibilities after the graduation at the time when they choose an educational programme or a specific profession.

The significance of various aspects of work in comparison to the average indicator in all clusters of higher education institutions graduates’ showed that the main requirement for work was the necessity for good remuneration. The second most important criterion was “nice colleagues”, but “work stability – security of the workplace” was the third most important aspect.

Most often job corresponded the obtained education among the graduates of the following study fields: architecture and construction, teacher training and educational sciences, health and welfare. Rarely job matched the qualification of graduates that had studied science of arts, social, human resources, information and communication science, engineering science and technologies.

More often jobs corresponded to the acquired education among those graduates who had obtained the second level vocational higher education (83%) or a master’s degree (79%). The graduates with a bachelor’s degree were employed in jobs which did not match their qualification. Overall, it can be concluded that previous experience or education in the field as well as practical and theoretical knowledge of the subject is an important fact which defines whether the graduate works according to the acquired education. Graduates without such advantages have more difficulties in finding appropriate workplaces. It indicates that the career development support systems, including integration of career education aspects into the curricula give students an opportunity to obtain precise information about employment, create possibilities of using theoretical knowledge in practice, and promotes development of employability competencies.

Another element that characterizes the correspondence of employment and the graduates’ qualification is the occupational level. The assessment of graduates’ employment in various study fields of education according to the Latvia’s Classifier of Professions revealed that 85.8% of the total number of graduates was employed in the following groups of professions: 1. - legislators, senior officials in the state institutions, managers; 2. – senior specialists; 3. – specialists. Thus, these graduates had to apply knowledge, skills, and competences they had acquired during their studies at work on daily basis. The prevailing number of specialists was employed in the fields of education (68.3%) and health care and social welfare (60.9%). Graduates in the thematic fields of humanities and arts were proportionally more employed in the following two groups: 4. – civil servants and 5. – employees in service and sales industry. According to the survey Careers after Higher Education: a European Study, the number of graduates employed in lower occupations in EU comprises 11.3% (Teichler 2007); in Latvia the indicator was 15%. Thus, graduates had aligned with the labour market in a relatively short period of time and were employed in occupations that matched their education and qualification (see Table 2).

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Master Degree (n=227)</th>
<th>Bachelor Degree (n=326)</th>
<th>2nd level professional higher education (n=273)</th>
<th>1st level professional higher education (college) (n=106)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 – Top manager (director/deputy, entrepreneur)</td>
<td>12</td>
<td>7</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Group 1 – Middle manager (head of a department/division)</td>
<td>21</td>
<td>14</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Group 2 – Senior specialist in a field/industry</td>
<td>13</td>
<td>11</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Group 3 – Specialist in a field/industry</td>
<td>43</td>
<td>50</td>
<td>51</td>
<td>50</td>
</tr>
<tr>
<td>Lower occupational groups</td>
<td>11</td>
<td>18</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: calculated from sample survey (Krumins, J. et al., 2005-2007), unpublished results (n=1048)

The data indicate insignificant differences in employment among the graduates at the undergraduate level; nevertheless, the number of postgraduate (master) programme graduates employed at the top and middle management level was comparatively larger.

The author assumes that a completed educational programme provides the graduates with the necessary competences for fulfilling the duties of the top level occupations.
5. Conclusions

The results of analysis showed that graduates’ employment was affected by their level of education, study field and previous work experience. The main indicators that were used in the analysis of graduates’ employability and learning outcomes were the match between the job and the graduates’ qualification and occupational level. The author summarizes that in the 27 EU member countries 20% or more young employees with tertiary education are employed below the level of their theoretical skills (vertical mismatch), but 3% to 10% of graduates are employed at a relevant level of their skills, but in a field that differs from their study field (horizontal mismatch) (The Bologna Process in Higher Education in Europe 2009). The survey results showed that the vertical mismatch of graduates’ employment in Latvia reached 14% and horizontal reached 4%. Comparison of graduates’ employment by study fields showed that the situations in the EU and Latvia were very similar. Most often graduates of humanities, languages, and arts needed more time to get a job. Survey showed that in Latvia students of these study fields less often than other graduates had worked during their studies. Therefore, prior work experience is an important benefit that ensures successful transition to labour market.

During the last two years Latvia has been affected by a very rapid economical growth and a following very fast decline in the GDP. Economical situation and high labour market demand were the main factors that increase the graduates’ employment rates during their studies and promoted a successful transition to labour market. The current economical situation in Latvia, i.e. increasing unemployment rates and a changing labour market structure will limit graduates’ opportunities to work during studies and be employed right after graduation.

The ways in which education and work are combined can significantly affect the process of transition to labour market. Particularly interesting is, for example, the extent to which work (beyond the usual “summer jobs” for students, voluntary work, internships, close cooperation with stakeholders) may facilitate entering the labour market while studying.

The current economical crisis increases the competition among graduates and also demands that educational institutions improve the student support. Career guidance should be improved at all levels of education and should be integrated in the study process. It must ensure a high-quality career planning and support system. Career guidance is an important factor that strengthens the graduates’ confidence regarding their choice of study field and profession, and, if necessary, to motivate them change it; it also provides support in the transition process from school to labour market and promotes the development of competencies after the graduation.

6. References

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University of Latvia Survey „ Modeling of the students’ number, structure and motivation in the higher education” (2009) [unpublished results].


COMPARATIVE ANALYSIS OF EMPLOYERS’ COMPETENCE EXPECTATIONS AND THE COMPETENCES TAUGHT IN POLAND (ON THE EXAMPLE OF TECHNICAL UNIVERSITIES)

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Abstract: Based on the Poland’s HEGESCO survey, it is established that about 80% of technical university graduates work in line with their study programmes. Assuming a 3 to 5 year period for acquiring professionalism in a job place, it suggests that universities should cooperate closely with employers in order to meet the adopted development objectives in a given industry. Although technical university graduates are characterized by higher income (by 20% on the average), which would suggest that the demand for engineering and technical competences exceeds the supply, no increase in employers’ activities to attract the best graduates has been observed. Still the best way to get a job is individual effort to initiate contacts with a prospective employer, social networks and the Internet.

Key words: technical education, educational match, professional competences, monitoring of professional careers.

1. Introduction

Educational match has since recently been considered one of the most important factors in creating a positive link between education and growth, reflecting abundant international evidence that higher educational attainments alone do not guarantee as high returns as it is implied by theory (Siwińska 2007, pp. 675–690). Three different types of educational mismatch are recognized, as ‘over-qualification’, ‘incorrect qualification’ and ‘strong mismatch’, with possible different effects upon wages, employment and growth. Although it is quite common to associate educational mismatch with lower wages (Hartog 2000, pp. 131–147), country studies for developed and developing countries produce mixed results (Bauer 2002, pp. 221–229; Korpi & Tahlin 2009, pp. 83–193; Quin & Rubb 2006, pp. 147–156; Vahey 2000, pp. 219–227). For Portugal, it is similarly established that over-qualification and incorrect qualification are not associated with lower wages, but a strong mismatch does carry a pay penalty that ranges from 13% to 27% (Budría & Moro-Egido 2008, pp. 332–341). Such a finding falls along the lines of the assignment theory that wages are determined not as much by human capital variables as by job characteristics, including the type of educational match. Another study for Portugal claims that rapid expansion of educational system has not been met by an increase in unemployment, which is consistent with the assumption that skill-based technological change raises productivity of workers with higher schooling levels and thus attracts new workers with high qualifications on the labour market (Cardoso 2007, pp. 271–277). However, there is theoretical and empirical evidence that over-qualification is a socially wasteful activity to the extent that it consumes more resources than it raises productivity (Charlot & Decrause 2005, pp. 251–267), which puts at risk cognitive flexibility and verbal fluency, making job-worker mismatches responsible for a wage penalty of 10–17% (De Grip et al. 2007, pp. 237–253). For French graduates, over-education does not penalize wages, but produces an unfavourable short-term impact on GDP (Guironnet & Jaoul-Grammare 2007).

Traditionally, it is argued in favour of intervention policies to direct future students towards the appropriate types of educational institutions that will teach them marketable job skills (Freeman & Hirsch 2008, pp. 517–535; Zietz & Joshi 2005, pp. 297–308). As return to skill can respond to the shifts in supply and demand, it is important for a skill-based technological change (SBTC) not only to increase the supply of educated workers, but also to pursue policies that enhance the ability of the labour force to respond endogenously to increased demand (Kaboski 2009). Production of adaptive skills by the education system is not only strengthened by the technological progress, but can stimulate innovations as well (Murat et al. 2006, p. 565). From that point of view, a comparative analysis of employers’ competence expectations and the competences actually taught is of great importance.

Together with other factors, such as regional disparities or the outdated industry structure, the mismatch between the employers’ competence expectations and the ones taught is potentially among of the roots of the structural unemployment in Poland. The latter is especially acute in the traditional industry branches and construction, in spite of a considerable number of various educational programmes launched at technical universities. Adult training in Poland is concentrated among highly-educated groups, but does not have much impact on improving the human capital of older and less skilled groups (O’Brien & Paszynski 2006). Although skill shortages in CEE countries are considered a key impediment to faster labour reallocation and convergence to the EU-15 employment structures (Brixiova et al. 2009, 45–59), it could be more a result of insufficient education matching within the branches and occupations.
2. Theoretical framework

According to the human capital theory, which is at the core of modern growth theory as well as labour theory (Mauro & Carmeci 2003, pp. 123–137), any educational attainments should contribute to higher wages and income growth. Over-education may result from investment opportunities, gaining experience, job competition or high costs associated with finding a job.

As standard assumptions of human capital theories are challenged on the ground of a rather weak link between education and growth, recent research activities are focused upon reallocations of labour across sectors, as it is implied by the assignment model of the labour market (Sattinger 1993, pp. 831–880). Contrary to human capital theory, which suggests that returns on education are associated primarily with employees' characteristics, the assignment theory draws attention upon the job characteristics, having roots in the literature distinguishing between an individual's attained level of education and the education required in the job, started by Duncan & Hoffman (1981, pp. 75–86). Investments in human capital via educational attainment are limited if occupations do not utilize all of the schooling of the workers.

The largest growth effects are brought about by a SBTC in the relative productivity of skilled workers within existing sectors, being consistent with evidence that recent growth is not explained by sectoral shifts to new industries and occupations with high demand for skills (Kaboski 2009, pp. 168–182). Higher demand for skills within industries and occupations argues in favour of educational match not only across branches of industry, but within the province of competences in the first place. For an advanced transition economy as Poland, such a feature could be motivated by a fall in the relative price of physical capital for skilled workers across all sectors caused by foreign investments and financial market liberalization. Traditional SBTC through structural transformations is much less effective as the increase of productivity of the high-skilled workers in new industries and occupations is likely to be combined with decrease the productivity of the less skilled, so there are relatively little net productivity effects. Structural-oriented technological changes, as opposed to those related to an increase of intra-industry competence levels, increase returns to education, but they have smaller output gains. The smallest output gains are brought about by an increase in general education resulting in a positive supply shift. This kind of policy is associated with declining returns to education and reallocation of labour toward low-skill sectors.

While it is common to assume a direct link between unemployment and education due to lower rate of skill acquisition as more firms enter the labour market and offer employment (Burdett & Smith 2002, pp. 1439–1451), the opposite view is not without credible explanations. A combination of market segmentation, workers’ heterogeneity and self-selection in education can bring about over-education, even if education attainment and labour market ability are positively correlated (Charlot & Decreuse 2005, pp. 251–264). It is due to a composition effect, which means that the mean ability among each education group decreases when the share of the educated rises. Under a growing labour demand stimulated by higher workforce productivity, lower employment opportunities emerge for both education groups. As too many persons choose to invest in education, the ablest among the former uneducated become the least able among the educated.

Arguments in favour of endogenous reaction of labour force to demand factors are further strengthened by the link between long-term effects of over-education and skills obsolescence, among other things due to the ‘atrophy’ of a worker's skills by non-use (De Grip et al. 2008, pp. 237–253). As mismatches between workers’ abilities and their job level not necessarily induce labour market adjustments via job search, negative effects of over-education are much more severe due to the loss of their cognitive abilities. The decline in recall abilities, cognitive flexibility and verbal fluency becomes noticeable in as little as six years’ time.

3. Data

In the HEGESCO research, we have used the data on 1201 graduates of institutions of higher education, including 400 universities, 237 technical universities and 197 universities of economics, who completed their education (mostly master's degree) in year 2003. The sample used in the research is limited to the uniform master's degree and complementary master’s degree graduates, and it has been randomly selected with the use of a complex sampling pattern on the basis of the data obtained from the sources of the Central Statistical Office. For some types of schools (with a small share in the population) the selection was of two-step character. The first step was to pick the university and the second one the graduates. For the remaining types of schools, individual graduates were randomly picked from amongst all the universities. The graduates have been divided into tiers. The tier indicators were regions and types of schools.

The number of graduates in a tier has been determined with the use of proportional system (the share of graduates in a selected sample is the same as in the whole population). Within the tier, random selection has been applied. The share of graduates from each of the 4 regions has been determined, and then in each region the share of particular types of universities has been determined. The next stage was to determine the number of graduates in the sample for each randomly selected school. The sample for each school was randomly picked proportionally to the number of graduates in groups organizing study programmes. As the sampling frame we used lists of graduates of individual universities. The selected system of the sampling procedure makes the sample representative with regard to the region and...
the university type. The questionnaires have been sent out by the CUT Institute of Economics, Sociology and Philosophy and the cooperating institutions, most often career centres of the sampled universities. The response ratio for the questionnaires sent via traditional mail was 10%, sending questionnaires via email was much more effective. The interviews with employers were performed in the period of February–April 2009, with the use of the HEGESCO scenario.

4. Main results

Amongst technical university graduates taking part in the research, 18% of the respondents graduated in management, 17% in construction, 14% in engineering programmes, 8% in computer studies and automatics, 7% in environment conservation, 6% in electric engineering and energy production and 5% in transportation services. Five years after their graduation, 70% of the graduates had a permanent job contract. The average gross salary declared by the engineering staff (from their job contracts) was about 4,650, which is almost 20% higher than the average salary of graduates of the remaining institutions of higher education. The above would justify the statement that economies favour technical education (SBTC suggests a link between the level of education on the one side and work efficiency and employees remuneration on the other; however, the result obtained may just be the consequence of the demand for technical university graduates exceeding the supply).

The analysis of the generic competences self-evaluation resulted in the conclusions that graduates strong points – in the graduates’ self-evaluation, competences were rated at above 5 (in the 1–7 marking scale) are computer and the Internet literacy, the ability to work effectively with others, to acquire knowledge, effective use of time, ability to verify ideas of others as well as one’s own, alertness to opportunities, writing reports, memorandums and other documents, ability to coordinate activities, getting across to others with information, generating new ideas and solutions, acting under pressure, mobilization of others, presenting reports in public. The strong points of university education pointed out by the respondents (divided into technical schools graduates and the remaining graduates) have been presented in Fig. 1.

![Fig. 1 Strong points of university education, according to graduates](image-url)

Source: own work on the basis of the questionnaire survey

The suspected relation between mismatches in the work place and over-education was confirmed by technical university graduates, who reported that in their present job they are not required to make the full use of their competences in using computers, communicating in foreign languages, cooperation with people from different cultures or knowledge of cultural differences. Slight competence deficiencies (the difference between the evaluation of the competences required at the work
place and the ones possessed) have been diagnosed in the field of analytical thinking, ability to work under pressure, ability to use time effectively and mastering one’s field. (As the research progressed, the opinions on mastery were verified, for 47% of the graduates, the time necessary to become masters in their field amounts to 3 to 5 years after graduation.)

The weak points of university education indicated by graduates are presented in Fig. 2.

Rys.2 Weak points of university education, according to graduates

Source: own work on the basis of the questionnaire survey

Respondents asked to identify the level of education that would be most suitable for the tasks currently performed in their jobs pointed out mostly to master’s degree (55%), engineering (16%) and post-diploma studies (15%). More than a half of technical university graduates (59%) report compatibility between their education – the study programme they graduated in – and their employment, for 20% the two are related, and the remaining 20% may be concluded to be the consequence of a mismatch between study programmes and the expectations of the economy. It is also possible that the knowledge acquired during study programmes does not always respond to the requirements of the labour market (job characteristics), which results in job changes.

Entrepreneurs expect universities to provide study programmes focused first of all on developing specialist, professional knowledge, general competences and theoretical knowledge. The respondents rated the professionalism of the second degree studies at 3.3 (in the 1–5 marking scale), the acquired education was slightly better ranked as the basis for taking up a job and pursuing a professional career (3.5) and for further learning on the job and personal development (3.8). The university education was rated very low as the basis for developing the graduates’ entrepreneurship – only 3.0. Comparing these data with the mark given to the university education as a good basis for the tasks currently performed, which was 3.3, confirms the necessity of continuous learning as an answer to the technological changes acceleration.

Recruitment procedures reveal two extreme attitudes of graduates entering the labour market: excessive self-confidence and high self-esteem, accompanied by insufficient awareness of one’s limitations on the one hand, but also excessive bashfulness resulting in inadequate presentation of one’s merits, while having a high level of theoretical knowledge on the other.

In recruitment, employers prefer generic competences, in which they often include knowledge of computers and speaking a
foreign language (these preferences concern graduates of all university types). It is interesting to compare the above finding with the graduates’ reports that their competence potential in this respect is not fully exploited. It may point out to development strategies of companies now under preparation, inter alia focused on a closer cooperation with foreign partners. Entrepreneurs emphasise the importance of the ability to learn, to acquire new knowledge and to define one’s professional objectives. They are aware of graduates’ deficiencies in professional skills, yet these are easy to improve in a short time – most often 3 months’ time of on-the-job trainings and internships. Numerous companies use to that purpose their own professional training centres or supervisors – experienced employees (mentors). Promotion within a company organizational structure is associated with general competences as well as interpersonal skills – effective cooperation with others, use of time, communication, ability to motivate and mobilize others and also to use one’s authority. Employers’ competence expectations are not accompanied by any activity directed towards attracting the best graduates. In most cases (26%), first employment is the consequence of the contact with an employer initiated by the graduate. Employers made direct offers of employment to only 4% of technical university graduates. Social networks also seem efficient on the labour market – 16% of the respondents found employment with the help of their families and friends.

According to employers, universities should open more for cooperation with companies, focus a lot more on forming and developing general competences both of first and second degree students. Such attitude seems reasonable due to the necessity of adjusting the competences to the dynamically changing business environment.

5. Conclusions

The acceleration of technical and technological changes taking place in the economy brings about the necessity of developing new competences and perfecting the competences currently taught by institutions of higher education. The research that has just been completed results in the following conclusions:

1. The prevailing majority of technical university graduates (80%) work in line with the study programmes they graduated in, they are most often graduates of the second degree studies, which is a relatively high ratio and suggests that the reserves of effectiveness growth in the education system lie first of all in the adjustment of the employees’ competence levels at their work places. The process of competence adjusting in order to level out the diagnosed discrepancies between the acquired competences and the ones desired for the job performed requires that technical study curricula should have more distinctly articulated activities that teach generic competences in the field of communication, human resources management as well as foreign languages. The time necessary to acquire professionalism in a job – the status of a master, which is 3 to 5 years, suggests that universities should cooperate more closely with entrepreneurs’ consortiums while creating study curricula in order to respond to their expectations resulting from the adopted development objectives in a given industry.

2. Entrepreneurs expect universities to provide study curricula focused first of all on the development of professional skills, general competences and theoretical knowledge. They are better and better prepared to provide trainings developing specialist competences on their own, since such trainings take into account the specific character of a given company – they have programmes at their disposal that have been specially prepared for graduates taking up their first job.

3. In spite of higher (by 20% on the average) income declared by technical university graduates, which would suggest that the demand for engineering and technical competences exceeds the supply, no increase in employers’ activities to attract the best graduates has been observed. Still the best way to get a job is individual effort to initiate contacts with a prospective employer, social networks and the Internet.

Monitoring graduates’ professional careers, including data on employment history, mobility as well as level of satisfaction from the completed studies and the present job, initiated and done at the beginning by individual universities, is now transforming into systematic research covering an ever growing number of organizations and countries. The original motivation to take up the research was to control the quality of teaching at individual universities, understood as being ready to modify study curricula and teaching methods. Information received from the research is observed very attentively by institutions professionally monitoring the labour market and employers. The reports from the research projects, if made public, are for employers a source of information on competences of graduates of individual universities, they facilitate their recruitment process. Information from monitoring graduates’ professional careers makes it possible to foresee the demand of the economy for specialists in particular sectors of the economy, and thus the state educational policy may react in a flexible way to the changing trends on the labour market. We hope that the reports finalizing the HEGESCO project realization meet all these objectives.

6. Literature


MATCHING OF GENERIC COMPETENCIES WITH LABOUR MARKET NEEDS: IMPORTANT FACTOR OF QUALITY OF STUDY PROGRAMMES

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Abstract: Employment of graduates is reflected as one of the most important factors for the quality of tertiary education. Relevant learning outcomes of curriculum are the link relating higher education with the labour market needs. The aim of paper is to analyse the issue of how curriculum of Lithuanian higher education institutions provide graduates with generic competencies. The mismatch of generic competencies of Lithuanian graduates (N=1021) with the labour market needs was researched under the Erasmus programme project “Higher Education as a Generator of Strategic Competencies” (HEGESCO, No.133838-LLP-1-2007-SI-ERASMUS-EMHE) in 2008.

To Lithuanian graduates opinion, the mismatch of generic competencies is evident in competencies defined in the categories of functional flexibility and mobilisation of human resources. Over-developed competencies are considered to be in international orientation of graduates. The task for higher education institutions is to offer innovative curriculum designed for the needs of labour market. This research provided with the data necessary for improvement of quality of study programmes in Lithuanian higher education institutions.

Key words: generic competencies, study (learning) outcomes, quality of study programmes.

1. EU Policy: Empowering Young People through Education

The strategic objectives for education and training by 2010 are set “to provide a comprehensive response to the challenges of the knowledge society, globalisation and the enlargement of the European Union (…) as a whole” (Council of the European Union 2002, C 142/3). The European Commission underlined the task of education to empower people to acquire the knowledge and develop their abilities for active participation in creating own and societal welfare: “it is crucial that every young person is given the possibility to fulfil his or her potential” (European Commission, 2007,2).

Investing in youth is an investment in the future of ours. In White Paper “A New Impetus for European Youth” the European Commission (2001) states that the quality of education “has to be improved in order to ensure that young people acquire appropriate skills which enable them to become informed, active and responsible citizens and to ensure their social inclusion and readiness for working life” (European Commission 2001, 31). The imperative for lifelong learning skills, as a criterion of quality, is underlined: “young people need to be prepared for entry into the labour market but also to be able to carry on their education throughout their lives, for their personal development and to help them adapt to changing professional circumstances” (European Commission 2007, 3).

Dimensions of higher education quality are measured by graduates’ positions in the world of work. One of the most important issues of the topic is the potential of higher education institutions to develop competencies which are relevant for labour market and societal life. Higher education institutions should be aware of what competencies are needed for successful entry into the labour market, better employability and active citizenship. They have to be able to base study programmes on relevant competencies. The important question of up-to-date curriculum development is the level of required competencies that graduates possesses which provides with the guidelines for quality improvement.

The research carried out under Erasmus programme project “Higher Education as a Generator of Strategic Competencies” (Hegesco), No. 133838-LLP-1-2007-SI-ERASMUS-EMHE had an attempt to answer this question. Two main issues were explored: 1) validity of graduates competencies acquired during the studies in higher education institutions, and 2) competencies that have not been developed to the sufficient level during the studies but are crucial for development of knowledge-based economy in the EU (Figure 1).

Figure 1: EU strategy for developing knowledge-based economy and Hegesco project
The research that was carried out on graduates competencies of higher education institutions in Lithuania was an attempt to correspond to the European Commission call of the work programme of Education and Training 2010: “to modernise higher education through changes to governance, funding and curricula” and (…) to avoid mismatches between education outcomes and labour market requirements (…)” (European Commission 2007, 4).

2. Generic Competencies: What's the Request?

Specialized Knowledge and Flexibility

In business world, “many companies are moving towards customer-oriented working which means that work has to be organised in a way that would allow greater spontaneity and flexibility” (Arthur, Brennan, Weert de 2007, 44). For this reason, higher education curriculum should be designed so as to equip graduates with the competencies needed for successful performance, or at least to lay the foundation for acquisition of these competencies through work experience. Higher education curriculum designers should balance the contradictory demands such as the need for specialized knowledge and flexibility.

What are the competencies needed for graduate to be prepared for meeting problems which will arise in future job situations? One could state that the concept of competencies provided/ acquired in tertiary education is a problematic issue since the different types of competencies describe different levels of content specificity and functional importance. There is an entire spectrum of competencies to cover each particular demand that a study program is considered to meet. The large number of competencies can be reduced into two types:

- competencies that can be successfully applied across a maximum number of different tasks;
- knowledge, skills and/or strategies that are appropriate to organize available competencies in adaptive and flexible ways. (Weinert 2003, 60)

A well-known classification of competencies is built on distinction between generic that are not bound to any given context, and specific competencies that are meaningful only within a particular context. Subject-specific competencies further are refined into competencies that are specific to firms (firm-specificity), tasks (task specificity) and economic sectors (industry specificity) (Gracia-Aracil, van der Velden 2008 from Nordhaug 1993).

The match between higher education and world of work can be improved by developing competencies along with the special requirements of the labour market. Nevertheless aiming to achieve flexibility, it is necessary to provide students with a broader education and take time to develop their generic competencies.

Concept of Competency

A clear definition of a concept is to be set, since the research tools as well as methods used to explore the phenomenon depend on the features of phenomenon. For this reason the concept of competency used in this paper, is presented below.

“Competency is person's ability, formally confirmed by some document, to perform a certain valid (relevant, qualified, at a concrete quality level) and reliable (precise and fast) part or function of occupation” (Pukelis 2009, 20). Competency is an element of occupational standard described, following strict rules of description (Moon 2002). It is important to notice that during the process of education and training a person develops his/her abilities according to competencies defined in the particular occupational standard, but not the competencies themselves. Competency is like a beacon for person's abilities development that must direct educational and training process. A person develops his/her abilities during teaching/learning process, basing it on learning outcomes. (Pukelis 2009)

When describing generic competencies that are to be developed in higher education, various concepts are used in literature: key skills, transferable skills, underpinning skills, employability/ work related skills, soft skills and etc. (Bridgstock 2009, Wats, Wats 2009, Holmes, Hooper 2000, Bennett, Dunne, Carre 1999). To make clear with this wide selection of concepts of generic competencies, R. Bridgstock., 2009 proposes to characterise them by “two main types of attributes: (1) those which pertain to an individual's capacity for citizenship (including involvement in democratic processes, social cohesion, equity and human rights and ecological sustainability) and thus ability to contribute towards a well-functioning society (from Rychen, Salganik 2005), and (2) those which pertain to an individual's capacity to obtain and maintain work (from Harvey 2001 and McQuaid, Lindsay 2005) and thus contribute to economic productivity” (Bridgstock 2009, 32).

Various initiatives and practices for classification of generic (and specific) competencies that are developed in higher education have been put in place. Some of these are national approaches (as the initiative of the Dutch technical universities) whilst others are international (The Joint Quality Initiative known as Dublin descriptors, projects “Tuning Educational Structures in Europe”, “The Flexible Professional in the Knowledge Society”, etc.). They all share a common need to make the structures for higher education graduates qualifications based on required competencies.

The research on competencies of higher education graduates presented below in this paper was based on the classification of competencies of Jim Allen and Rolf van der Velden (2005). The authors of the methodology remark that higher education
graduates are expected to have developed at least five areas of
generic competencies:

(1) Professional expertise: higher education graduates are to
become experts in their professional field.

(2) Functional flexibility: higher education graduates have to be
able to take up challenges and quickly acquire new
knowledge. Graduates must possess the ability to cope with
various changes in the job content, be mobile within the
organization and to other organizations, etc.

(3) Innovation and knowledge management: higher education
graduates are expected to do more than just the prescribed
tasks – to create an environment in which knowledge
production is effective and manage innovation.

(4) Mobilisation of human resources: higher education graduates
are to be able to mobilize capacities of their own and others,
as well as direct one’s own others work.

(5) International orientation: higher education graduate should
possess strong international orientation due to globalization
processes. (Allen, Velden van der 2005, 2-4)

Above mentioned categories of competencies were listed in 22
competencies and analyzed through empirical research.

3. Generic Competencies in Curriculum of Higher
Education

The emphasis on generic competencies developed in higher
education has gained the importance over the last years in
educational research (Bridgstock, 2009, Barth et al. 2007, Canto-
Sperber, Dupuy 2001, Holmes, Hooper 2000, Bennett et al.
1999). One of the most important reasons for development of
this research is to maintain or improve the learning outcomes of
study programmes of higher education institutions. “The goal in
this case, in addition to professional training, is to promote
personality development, enabling a person to be able to cope
with complex situations, to be able to act upon reflection and to
make decisions. It is also about being able to take on
responsibility and consider ethical standards when judging on
consequences” (Barth, Godemann, Rieckmann, Stoltenberg 2007,
421).

The question of whether a study programme merits the
requirements depends on the learning outcomes of it. The
concept of learning outcomes implementation in teaching/
learning process provides human resources with more
appropriate qualifications for knowledge based society
development. Competencies are linked with job practice in a
labour market, while learning outcomes are linked with teaching/
learning environment (an attempt to simulate real job situations).

For this reason higher education institutions’ stakeholders such as
graduates, employers are able to judge if competencies required
in labour market were provided in higher education, i.e. if study
programmes were composed of relevant learning outcomes.

Aiming at the development of competencies in higher education
institutions, strategies of study process realization have to be
based on certain principles of students’ self-organization.
Competency-based curriculum “affects the approach to
educational activities and the organisation of learning, which
shifts to being guided by what the learner wants to achieve. It
also affects assessment in terms of shifting from input to output
and to the contexts of the learner (Vught van et al. 2005). In this
methodology the characteristics of a student are: active,
autonomous, curious and responsible for his/ her future career.
The duty of teachers is to develop curriculum in appropriate way,
i.e. to support and guide learning of students using appropriate
teaching methods. Most common and effective methods are such
as problem-based learning, which “engages young learners in
exploring important and meaningful questions through a process
of investigation and collaboration” (Deboer 2002, 407), project-
orientated studies where teacher coaches students and guide their
performance if needed while students are free in their task which
they plan, investigate and move towards the interdisciplinary goal.
In group work method students are encouraged to think
critically, to debate, etc. The advantage of the use of above
mentioned methods is that students, working on a single task, get
the possibility to acquire different types of knowledge and
develop not only specific but generic competencies as well.

4. Research on Coherence of Generic Competencies of
Lithuanian Higher Education Graduates with Labour
Market Requirements

Methodology of the Research

Stepping on J. Allen ir R. van der Velden (2005) classification of
generic competencies (presented in the 2.2 chapter of the paper),
the quantitative research on the match of generic competencies
of Lithuanian higher education institutions’ graduates to labour
market needs was carried out in May – October, 2008 under
Erasmus programme project “Higher Education as a Generator
of Strategic Competencies – Hegesco”.

The population of respondents was composed of graduates of
SCEAD 5A: university graduates of first and second cycles as
well as colleges (non-university higher education institutions)
graduates (in Lithuania colleges develop first cycle studies only).
The graduates were approached after 5 years of graduation (in
2003) of higher education institutions.

In 2003 there was no regulation for higher education institutions
to announce publicly the numbers of graduates. For this reason
26 out of 48 higher education institutions of Lithuania officially
presented the numbers; the sample of respondents consisted of graduates of these 26 institutions (17 universities and 9 colleges).

Method used for composing research sample was random. The cohort of respondents of research was 6000 in numbers. It was composed of 84, 11% of universities’ graduates (out of them 66, 48% were awarded of bachelor and 33, 52% of master degree) and 15, 89% colleges graduates (awarded of professional bachelor degree).

Standard questionnaires were sent to respondents by post. Respondents were asked to reply paper questionnaire since envelop with stamp was added to the package sent, either to fill online questionnaire if they found that way more appropriate. 1021 (17%) respondents replied to research questions.

Characteristics of Respondents

The biggest group of respondents consisted of university graduates that awarded bachelor degree (59, 86%), one third of the group (31, 39%) were master graduates and the rest (8, 75%) were professional bachelor graduates of colleges. Mostly (87, 31%) respondents were in position of full-time students during last years of their studies.

The respondents (82, 16%) of research were studious; the average mark when they finished studies was 8 and higher in scale of 10. Study achievements of 80, 47% of respondents were higher than the achievements of other students according to their self-evaluation.

Most of respondents (77, 16%) developed their professional career in the field of study they graduated. Respondents could be treated as qualified staff since they had experience in their jobs: 41, 75% of respondents worked in the same job that they started before or during their studies and 51, 13% of respondents started to work just after graduation in the job they were at the moment of research. Mostly (67, 26%) respondents were highly satisfied and satisfied with their current job. There were only 8, 67% of respondents that were unemployed at the moment of research.

Having such an overview of respondents’ characteristics, we could state that respondents of research were experienced enough in labour market and able to provide with valid and reliable data for research questions.

Match of Generic Competencies of Graduates with Labour Market Needs

Having a task to evaluate the quality of learning outcomes of study programmes of Lithuanian higher education institutions, the match between competencies “available” and “required” in a job place was analysed. Graduates were asked to make self-evaluation of 22 generic competencies: they evaluated their own level of competency and the level required in current job. The scale of evaluation was from 1 to 7, when 7 had a meaning of the highest ranking. In figures and tables of the paper we presented those competencies that differences between supply and demands were the most distinct.

We presume that the level of competencies that graduates possessed at the moment of the research was the outcome of their studies followed by self-development after studies. We are not able to distinguish those two and we presume that studies impact further development of a person; therefore the level of competencies possessed by graduates at the moment of a research were treated as the outcomes of studies.

Figure 1: Competencies in deficit with labour market requirements
Graduates of 4 universities composed 55.46% of cohort of respondents; cohorts of each four universities graduates differed slightly (less then 2.5%). The graduates of these four universities evaluated differently their match between required and possessed generic competencies. Nevertheless the hot points that signal the biggest mismatch between demand and supply remained unaltered: above mentioned competencies of performance under stress and time management.

Table 1: Mean difference between acquired and required in current work level of abilities of graduates’ of certain Lithuanian universities

<table>
<thead>
<tr>
<th>Abilities</th>
<th>Universities</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform well under pressure</td>
<td>-0.762</td>
<td>-0.403</td>
<td>-0.328</td>
<td>-0.297</td>
<td></td>
</tr>
<tr>
<td>Use time efficiently</td>
<td>-0.326</td>
<td>-0.466</td>
<td>-0.075</td>
<td>-0.620</td>
<td></td>
</tr>
<tr>
<td>Assert your authority</td>
<td>-0.260</td>
<td>0.178</td>
<td>-0.641</td>
<td>-0.319</td>
<td></td>
</tr>
<tr>
<td>Negotiate effectively</td>
<td>-0.694</td>
<td>-0.225</td>
<td>-0.101</td>
<td>-0.138</td>
<td></td>
</tr>
<tr>
<td>Analytical thinking</td>
<td>-0.404</td>
<td>-0.101</td>
<td>0.059</td>
<td>-0.093</td>
<td></td>
</tr>
<tr>
<td>Make your meaning clear to others</td>
<td>-0.231</td>
<td>-0.172</td>
<td>-0.189</td>
<td>-0.564</td>
<td></td>
</tr>
<tr>
<td>Work productively with others</td>
<td>-0.035</td>
<td>-0.422</td>
<td>-0.052</td>
<td>-0.292</td>
<td></td>
</tr>
<tr>
<td>Rapidly acquire new knowledge</td>
<td>-0.242</td>
<td>-0.242</td>
<td>0.236</td>
<td>0.030</td>
<td></td>
</tr>
</tbody>
</table>

In general, the demands for development of competencies differ among universities’ graduates (see 1 table). At the moment, Lithuanian universities are not composed to cover wide range of science (research) fields; they have rather narrow specifics as, for example, agriculture (Lithuanian university of Agriculture), medicine (Kaunas Medical University), etc. Out of four universities that graduates opinion is analysed, one university develops technical science, two universities develop research in social sciences and liberal arts, and the fourth university covers all fields of science and research in its study programmes. The difference of graduates’ demands for different competencies could be caused by specifics of science (research) of particular university that impact the “selection” of competencies developed in study programmes.

Most active respondents were graduates of social sciences: graduates of study programmes of administration, management and economics made 19.02% of cohort, graduates of pedagogic – 14.04%, mechanics and engineering – 12.25%, and liberal arts – 8.37%.

Table 2: Mean difference between acquired and required in current work level of abilities of graduates’ of certain fields of study

<table>
<thead>
<tr>
<th>Abilities</th>
<th>Management and administration</th>
<th>Pedagogic</th>
<th>Mechanics and engineering</th>
<th>Languages and history</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform well under pressure</td>
<td>-0.408</td>
<td>-0.436</td>
<td>-0.315</td>
<td>-0.534</td>
</tr>
<tr>
<td>Negotiate effectively</td>
<td>-0.199</td>
<td>-0.119</td>
<td>-0.325</td>
<td>-0.420</td>
</tr>
<tr>
<td>Use time efficiently</td>
<td>-0.163</td>
<td>-0.602</td>
<td>-0.284</td>
<td>-0.442</td>
</tr>
<tr>
<td>Work productively with others</td>
<td>-0.153</td>
<td>-0.443</td>
<td>0.093</td>
<td>-0.229</td>
</tr>
<tr>
<td>Analytical thinking</td>
<td>-0.010</td>
<td>-0.207</td>
<td>0.291</td>
<td>-0.396</td>
</tr>
<tr>
<td>Coordinate activities</td>
<td>0.115</td>
<td>-0.221</td>
<td>-0.041</td>
<td>-0.382</td>
</tr>
<tr>
<td>Make your meaning clear to others</td>
<td>0.040</td>
<td>-0.592</td>
<td>-0.070</td>
<td>-0.253</td>
</tr>
<tr>
<td>Assert your authority</td>
<td>-0.116</td>
<td>-0.217</td>
<td>0.022</td>
<td>0.078</td>
</tr>
</tbody>
</table>
The mismatch of generic competencies to labour market needs differs according to the fields of study programmes. The fact gives points to hypothesis that generic competencies are developed better in certain study programmes than in others (see Table 2). It could have several causes: either learning outcomes of study programmes of particular fields of studies are more relevant than others, either students’ are more concerned about their self-development personally and put more effort in it than others, either teachers of particular programmes use innovative teaching methods more often than others, etc. The statistical data show that study programmes of management and administration as well as mechanics and engineering are more popular among Lithuanian students than programmes of liberal arts or pedagogy (source: Education of Lithuania in numbers, 2003). Therefore the students in these programmes are more motivated and have higher achievements than in others, and, most probably, their mismatch between acquired and required competencies is lower.

According to graduates’ opinion, during the studies some competencies are developed more than it is required in labour market. Over-development of competencies was considered with competencies that uncloze international orientation of a person (see Figure 3).

![Figure 3: Over-development of competencies](image)

Over developed competencies are to be grouped in the category of international orientation. The topic of over-development in higher education has two sides: positive and negative. To graduates’ mind, the over-development of competencies of international orientation is positive point: these competencies were mentioned as strong points of the study programme of graduation. We could presume that in globalization processes graduates feel safer in labour when they possess these competencies.

5. Conclusions

When employer discuss on graduate’s employment, the decision depends on the graduate exhibition of his/her the competencies which ensure preparedness for the job. In order to support students in their preparation for the work during the studies, higher education institutions should permanently explore the validity of the competencies developed in study programmes, i.e. the validity of learning outcomes. Such a research guide teachers when improving learning outcomes and other elements of curriculum (students’ assessment criteria, teaching/ learning methods, etc.).

Curriculum designers and teachers of study programmes of Lithuanian higher education institution should take into consideration the improvement of development of competencies such as time management and effective performance under stress. The mismatch of other generic competencies of graduates differs among study programmes as well as universities of graduation. An issue could have several causes: a) learning outcomes of study programmes of particular fields of studies are more relevant than others, b) students’ are more concerned about their self-development personally and put more effort in it than others, c) teachers of particular programmes use innovative teaching methods more often than others, and d) etc. Therefore teachers of every study programme should individually explore the needs of their students and graduates in order to assure the quality.

6. References


QUALITY LABELS AND EMPLOYABILITY IN CHEMISTRY

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Abstract: Research on employability of chemistry bachelor graduates in Europe showed this "new" category as fully employable in some European countries and unemployable in others. Quality labels as EuroBachelor, EuroMaster, and European Chemist could play very important role in employability of young people on shared open European job market. Research results and label description will be presented and discussed.

Key words: employability, chemistry bachelor graduates, quality labels, EuroBachelor, EuroMaster, European Chemist, job market.

Quality Labels and Employability in Chemistry

Research on employability of chemistry bachelor graduates in Europe showed this "new" category as fully employable in some European countries and unemployable in others. The purpose of the study was to help better understanding and use of the chemistry bachelor degree by both the graduates as well as the employers. As the method of choice used the comparison of the known and published facts with a questionnaire survey collected from typical employers from different countries of different character and size.

There could be seen a great need to stipulate effective communication between employers and educators. The study did not started from nothing, however, as some companies are already involved in the formulation of educational pathways. As a good example we can cite the Czech generic pharmaceutical company Zentiva that actively originated the course on Synthesis of Pharmaceutical Substances at the Prague Institute of Chemical Technology. This course immediately became very popular and is considered as an 'elite' course. There are many such good examples. Companies communicate with HEIs, collaborate in sandwich internships, and organise their own courses and even universities. Moreover, the SusChem platform is involved in some activities linking academia and industry, such as the organisation of seminars, creation of committees and holding of meetings, where chemistry education is analysed from the point of view of the employer, in connection with academic institutions and the ECTN. This is the only way to help universities to avoid the creation of courses and graduates just 'l'art pour l'art' with no connection to real life and with a highly specialised qualification and very low employability. In the future it will be very useful to develop some elite bachelor courses, some at least having a quality label, many as good, and the rest as courses that will give the student a sound basis of technical and scientific knowledge together with all the necessary skills and competences. For those who will not continue their education in chemistry, the courses should provide a good basis, for example, for another type of education (MBA, Master in Patent Law, special toxicology, forensics, environmental or drug analysis, etc.), in order for graduates to obtain good employment. A sound basis for future employability must not be an extensive list of different specialised courses but rather, for the Chemistry Bachelor only, the fulfilment of the Budapest descriptors. It shows up again and again that the employable bachelor must know reasonable essentials from "chemistry" plus he/she must have a good level of the necessary skills and competences, full stop. Additional knowledge can be achieved by Life-Long-Learning, or additional study, both with the same good value for the employer. Not far from the truth, one Eastern philosopher, who was very popular in the past and who is now being slowly forgotten, wrote that practical life needs “to learn, to learn, to learn”. As stated above, the SusChem Education Team Members prepared, among other items, during the Prague SusChem conference in February 2009, skills workshops with themes such as:

What are the 5 most critical scientific / technical skills in the next 10 years for: Chemical industry managers? Engineers and scientists? Plant operators and production workers? Plant & machinery repair and maintenance workers? What are the main threats and opportunities facing the European Chemical Industry and what impact are these likely to have on employment in terms of: Numbers of scientifically/vocationally skilled people? Demand for specific skills? What regional issues are likely to affect the ability of the member state chemical industries to recruit and retain scientifically/vocationally trained people? What are the critical scientific/vocational enabling and supporting skills that are vital to the sustainable success of the European Chemical Industry, e.g. toxicology?

Answering these types of questions by people from academia, industry and SMEs together is a vital step towards the formulation of a profile, which will serve the purposes of all partners in the process of education and employment. The quality of this educational process could then be supported and certified by quality labels such as the EuroBachelor®. There still persist in Europe rather large specificities of traditionally different education systems. We see French, German, Russian, British, Irish, Austro-Hungarian and other schemes that still survive behind the unified Bologna cover painting, which look
‘Bolognese’ but if you look closely enough you will find credits mathematically calculated from “Semester-per- Woche-Stunden”, 1-2-3-4-5 or 5-4-3-2-1 grading, extremely specialised courses to please certain VIP professors, a lack of a good proportion of mathematics and other basic technically oriented educational disciplines on the one hand or biochemistry on the other, no collaboration “across national borders”, and material form a 5-year study programme packed into a 3-year bachelor programme.

There is a need for a lot of educational, political and media actions to reach some point of common language and common understanding. A mapping of the “former” and the “contemporary” educational schemes in all European countries as was done in the 1990’s will definitely help to overcome at least the major discrepancies and non-homogeneities in the European Higher Education Area. There are signs that these “Qualification Tables” originally created in chemical education by the ECCC are to be revitalised in a new initiative from EuCheMS.

Very interesting is also a comparison the analysis of the employability of chemists in the US. European educational institutions shall link much more effectively with the American schemes, for example via the American Chemical Society, in chemistry. Such a link will help to prevent the creation of two separated educational systems in the US and in Europe that will not be compatible enough to enable the free exchange of students, researchers and even employees. Both systems will have some problems with their own technically well educated people on the job market in the future. We can also see that visa issues for Far Eastern students coming into the US are causing problems in some universities, as well as the situation in Europe where some countries (such as the Czech Republic) are not fully prepared for the influx of a qualified workforce and students. A harmonised policy in Europe will help the future development of both the HEIs and the job market.

The ECTN employability working group will continue its work in the future period, for example by helping EuCheMS with the “Qualification Tables”. The working group will collaborate with the Label Committee of the ECTNA in further promoting the idea of Quality Labels as the key quality indicator for universities, employees and the general public. Last but not least, the working group will maintain a good link with SusChem as this is the link with the “practical world of chemistry”. The ECTN may, in the future, help the harmonisation (or tuning) of the university teacher qualification, possibly by reaching the status of a registered profession for them. Among the main future actions could listed themes as:

- Employers as well as students must be better informed about the bachelor degree.
- Employers as well as students must get ready for demographic, political, and economical changes.
- Continue optimizing the degree(s) but also address attitudes, behaviour and mentalities in students and employers. Courses should in some extent touch management skills, law, regulations and economical aspects.
- Help the dialogue between employers and HEI.
- Collaborate further with EUCheMS, SusChem and CEFIC.
- Inform politicians there could be surplus of bachelors on the job market.
- Compare the situation after several years, compare the situation of chemists with other disciplines, and keep comparing with the US. Compare the situation with companies that “do not employ chemists”.
- Help the secondary educational institutions (CITIES, e.g.).

The quality of educational process itself, as it was stated, could then be supported and certified by quality labels such as the Eurobachelor® and distant internet testing (E-Chem Test). Here is a need for a lot of educational, political and media actions to reach some point of common language and common understanding. A mapping of the “former” and the “contemporary” educational schemes in all European countries as was done in the 1990’s will definitely help to overcome at least the major discrepancies and non-homogeneities in the European Higher Education Area. There are signs that these “Qualification Tables” originally created in chemical education by the ECCC are to be revitalised in a new initiative from EuCheMS. Good link with the US HEIs will help to prevent the creation of two separated educational systems in the US and in Europe that will not be compatible enough to enable the free exchange of students, researchers and even employees. Both systems will have some problems with their own technically well educated people on the job market in the future. A harmonised policy in Europe (and the US) will help the future development of both the HEIs and the job market. Moreover, the ECTN may, in the future, help the harmonisation (or tuning) of the university teacher qualification, possibly by reaching the status of a registered profession for them.

1. References


SOCRATES PROGRAMME / ERASMUS 3, Chemistry Thematic Network / 230393- CP -1-2006-1- FR - ERASMUS – TNPP.


Section 2
Higher Education and the Supply of Competencies
INVESTMENTS IN HIGHER EDUCATION AS THE INFLUENCING FACTOR IN FINDING AN APPROPRIATE JOB

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Abstract: Currently the share of highly educated first time job seekers is on the rise across the EU and in individual study fields such as humanities, art, social sciences, there are too many overqualified people on the labour market. A share of university graduates are joining the hordes of the unemployed (approximately 10%, varies throughout the different EU countries), and part of them are unable of finding work suitable to their education (approximately 30%). In certain aspects the Slovene youth labour market more and more resembles the labour markets in other EU countries. In this paper we mainly focus on adjustments made to the market demands and the response of the young graduated job seekers and their investments in extracurricular knowledge and skills, necessary to match a proper job.

Key words: Investments in higher education, first job seekers, job mismatch, social capital, human capital.

1. Introduction

EU countries are facing a paradox in which, regardless of the general orientation towards a learning society and the expansion of higher education, an increasing number of higher education graduates cannot find appropriate employment. The first part of this paper presents the general changes in the field of youth employment, with special emphasis on EU countries. The characteristics that contribute mostly to the positioning of young graduates as hard-to-employ with an uncertain future are discussed in detail.

The second part of the paper discusses the Slovene context and attempts to find answers to the above mentioned paradox. The sample of young university students and graduates from study programs for which there is no large demand on the Slovene labour market is presented as a case study with a view of illustrating the question whether students with poor employment prospects invest more in obtaining additional knowledge and skills. The question whether they invest in a flexible career and social capital will also be explored.

2. Employment Trends for Young Graduate Job Seekers

Empirical evidence regarding employment/unemployment trends shows that the young – when entering the labour market as first job seekers (after completed education) – are, despite being well educated, socially the most deprived group regarding access to employment. They will most likely be included in insecure forms of employment, such as temporary and occasional work, fixed-term and part-time jobs, which often do not enable personal career-building. Another issue is over-education, referring to the group of graduates from some higher education programs. In this respect we can speak of market in-deficiency of particular academic disciplines and market saturation of highly educated young graduates of these specific educational fields.

The results of a study (carried out by Kogan and Shuert in 2003 in Podmenik, Ivančič, 2009) on the transition of youths (in general) from the educational process to employment, collected with ad hoc module in the frame of EUROSTAT in 20 countries of the EU (Spain, Finland, Ireland, France, Italy, Sweden, Greece, Great Britain, Denmark, Portugal, the Netherlands, Austria, Luxemburg, Hungary, Slovenia, Slovakia, Lithuania, Latvia, Romania, Estonia) show that young people that are about to complete their studies have most difficulties in finding jobs immediately after entering the labour market. Their position is however improving with longer period of inclusion in the labour market. Differences among the countries are significant. In Austria, the Netherlands, Denmark, and also in Sweden, Ireland, Great Britain and Portugal, low levels of youth unemployment are being maintained and are more or less constant regardless the time of education completion. In Slovenia, Belgium, Luxemburg and Hungary, the degree of youth unemployment is under the EU average; nevertheless the young are experiencing significant problems in entering the labour market. It has to be stressed that in EU countries, the student population in tertiary education continues to rise relatively fast - over 10% in 2008 compared to 2001. According to the demographic data, the Baltic countries, Nordic countries, Greece, Poland and Slovenia are those with the highest enrolment rate of adults aged 18-39 in tertiary education (their participation rates are over 12.5%). These countries are also among those in which the position of tertiary education compared to all educational levels is the strongest. (Ibid.) The vast majority of all EU students enrolled in tertiary education are in programs that are ‘theoretically based’, ‘research-preparatory’ or give access to ‘professions with high skill requirements’ as opposed to those doing shorter, more practice-oriented programs. (Education and Culture DG 2007).

Although better education decreases the risk of unemployment, some research results indicate that almost one third of graduates
end up in jobs that do not match their educational qualifications very well. (Wolbers 2003). The transition from school to work takes place in stages and is a turbulent and uncertain period. School leavers have to compete for available jobs with those who have already gained a position in the labour market. Their lack of work experience often forces them to face unemployment, or experience job mismatches. According to the author's opinion, job mismatches occur as the result of incomplete information regarding the abilities of school leavers and the characteristics of jobs offered by employers. Wolbers investigated job mismatches among school-leavers in Europe on the basis of data from the EU LFS 2000 ad-hoc module on school-to-work transition. He notes that the highest levels of job mismatch (around 40%) are found in school leavers with higher secondary education (ISCED 3-4), while 30% of those with the highest educational level (ISCED 5-6) were still not able to settle in jobs proportionate to their education (Figure 1).

Figure 1: Incidence of job mismatches by level of education and country

* Analysis covers twelve countries: Austria, Belgium, Denmark, Spain, Finland, France, Greece, Hungary, Italy, the Netherlands, Sweden, and Slovenia for which reliable data are currently available. Data from Ireland, Lithuania, Luxembourg, Latvia, Portugal, Romania, Slovakia, and the United Kingdom are excluded, because of small sample sizes.

The incidence of job mismatches differs between fields of education. The school leavers who attended a vocational program in humanities/arts, agriculture or sciences are most likely to be employed outside their own occupational domain. More than two thirds of those who left education with a vocational program in humanities/arts, have a job that does not fit their field of education. A much closer link exists between the field of education and occupation in the education and health/welfare sectors – Table 1.

<table>
<thead>
<tr>
<th>Field of education</th>
<th>A</th>
<th>B</th>
<th>DK</th>
<th>E</th>
<th>FIN</th>
<th>F</th>
<th>EL</th>
<th>HU</th>
<th>I</th>
<th>NL</th>
<th>S</th>
<th>SI</th>
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<tr>
<td>Education</td>
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<td>46</td>
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<td>32</td>
<td>56</td>
<td>28</td>
<td>69</td>
<td>29</td>
<td>43</td>
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<td>Humanities, arts</td>
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<td>67</td>
<td>86</td>
<td>65</td>
<td>67</td>
<td>62</td>
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<td>Health, welfare</td>
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<td>35</td>
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<td>35</td>
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<td>40</td>
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</tr>
</tbody>
</table>

School leavers who have a job that does not fit their field of education are employed more often on a temporary basis than school leavers with a fitting job.

It has to be stressed there are still social limitations regarding access to high educational systems. The World Bank International comparative studies of the transition states in 1992 to 1996(7), including Slovenia, showed inequality in access to education and foreign (poor results in functional literacy) and inner inefficiency of educational systems. Regardless of some missing data, it was found in the study that from the perspective of educational economical benefits, individual investments in human capital (education and work experience) and social capital are increasing, referring in particular to those highly educated.
The contemporary views on learning lean away from individualist approaches and emphasize the meaning of interactions between individuals and social components. Interactive knowledge framed in a social context also exposes social capital (Wenger in Jelenc, Kump, 2007) of young well educated job seekers. Social capital provides the young graduated first job seekers with resources, which enable more successful intermediation between crucial/key factors in the process of employment.

3. Social Capital as a Mediator between Education and Work

In comparison with earlier approaches to the role of education as a factor increasing individual competitiveness on the labour market, contemporary approaches emphasize the significance of social capital. Based on the writings of two important founders of social capital (Bourdieu and Coleman) it could be assumed that human capital, as an individual and social investment into education (Becker, 1967), does not enable proper job matching without accompanying investments in social capital. Coleman’s (1988) statement that social capital is complementary to human capital has been confirmed by the results of recent studies, which show that social and human capital have a reciprocal empowering effect. Dika and Singh (2002) examined the relationship between social capital and educational achievements in fourteen studies, and in the majority of them a positive correlation was discovered.

Although current studies confirm Coleman’s conceptualization of the significance of the social capital, they also draw attention to certain challenges. Since Coleman builds on the rational decision theory, it is not entirely clear why individuals should invest in social capital if they are pursuing their own individual interest. According to Coleman, individuals do not create social capital as such, rather it arises as an unintended consequence of fulfilling their individual interests. (Ibid.) Coleman’s understanding of social capital is limited to the family and primary social environment. He defined social capital as “the set of resources that are set in family relations and in community social organization and that are useful for the cognitive or social development of a child or young person.” (Coleman, 1994, p. 300)

Since he was primarily interested in adolescents’ relationships, his view was biased towards a single type of educational institution and he paid little attention to the later stages of the formal education system, and none to learning in informal settings such as the workplace (Field 2003, 48).

The second founder of social capital, Pierre Bourdieu (1985), did not pay enough attention to the impact of social capital on the students’ position in academic institutions and the labour market. According to Bourdieu, a positive correlation exists between cultural capital, social capital and educational achievements. Similar to cultural capital, social capital is located in the individual’s early primary environments; family and community. Bourdieu understands social capital as a long-term investment into the social network, which is enabled by the network of existing and potential relations. The size of the social capital depends on the quantity and diversity of the relations; i.e. on the breadthness of the network of relations and links that the individual can successfully mobilize.

In the transfer of knowledge from the academic to the enterprise environment, social capital plays an important transmission role, as human capital does not ensure appropriate interaction between the two very different environments. Individuals who step from the academic to the economic environment need not only to have high levels of education but also to be trained for teamwork, cooperation and communication (Lenarčič, 2008), as well as be experienced in establishing and expanding social networks.

As ascertained by Adam and Rončević (2003, 25), social capital can be defined as a “catalyst of the dissemination of human and intellectual capital”.

It could be stated that there is an important lack of theoretical and empirical studies on the influence of social capital on the educational achievements of university students and especially on the influence of social (and other types of) capital on the success of youths’ matching appropriate jobs.

4. Investments in Education and Preparation for the First Job – the Case of Slovenia

As in other European countries in the last decades, the expansion of education is also typical of Slovenia. After completed primary school, 90% of youths continue their education on the secondary level. Since the beginning of the 1990s – also due to limited employment possibilities – there is increasing trend of inclusion in tertiary education and, consequently, also an increase in the share of well-educated young people seeking their first employment. Huge disproportions exist between the areas of education; to the largest extent, young people are included in social sciences and business-administrative programs, whereas inclusion in programmes such as natural sciences, mathematical and technical studies, is significantly smaller. According to statistical data, the number of those enrolled in full-time higher and university study programmes increased from 43,654 in the 1998/99 study year to 68,354 in the 2008/09 study year (SORs 2000; 2009). Taking also part-time students into account, enrolment in 2008/09 may have increased by at least 20%. As expected, the number of graduates has also increased; in 1999,

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1 His major work on higher education in France (Bourdieu, 1988) dealt with academic staff and their use of social capital in improving their position in the school hierarchy.

2 According to some data, in recent years almost 60% of the generation is included in tertiary education.

3 Despite the fact that the graduation rate from higher and university education is rather low in Slovenia.
there were 9,345 graduates while in 2008, this increased to 13,786 (SORS, 2000; 2009).

During 1998 to 2005, differences among fields of study have also increased; the highest increase in the number of graduates appeared in services (407%), social sciences (283%), agriculture (248%), and health and social care (241%) (SORS, 2006). Some of these increases overgrew the demand for such jobs on the labour market and as a result, a surplus of higher educated young first job seekers has appeared. At the end of 2005 there were 2,878 young unemployed graduates registered at the National employment office, while with regards to studying fields, the greatest discrepancies between enrolment and employment occurred in agriculture (the rate of unemployed vs. enrolled amounted to 40%); arts and humanities (22%); social sciences (20%) and education (19%) (National employment office, 2006).

From 2005 to the end of 2009, the number of young graduated first job seekers did not change significantly (2,841 in 2009), but differences among study fields with regard to the increase of registered unemployed graduates changed; they grew enormously in the field of health and social care (+86%), less in education (+49%); art and humanities (+25%); and business & administration (+20%), while they decreased in natural sciences (-9%) and social sciences (-8%) (National employment office, 2009).

As in all other European countries, Slovenian employers also tend to increase, due to global economic pressures, short-term workforce productivity by demanding greater labour market flexibility. That is reflected mostly in a reduction of employee dismissal expenses and in a reduction of limitations related to flexible forms of employment - to which, according to the data, young first employment seekers are predominantly exposed. The extent of secondary work with non-typical forms of employment – i.e. not protected by labour legislation or collective agreements – is increasing. Since higher education institutions and their study programmes are not able to adapt to changing demands of employers, the problem of unemployed high educated young first job seekers has became more and more acute. One of the possibilities to improve the position of highly educated young job seekers on the labour market is to increase their investments in education - in additional extracurricular knowledge and skills, work experience and social capital.

A study of investments in formal and informal studying activities as well as in work experience and (professional) social networks was carried out in the frame of research project entitled “Evaluation of investments into educational capital and the youth work market.”

The study is concentrated on a sample of students in their final years and graduates from courses that are not in great demand on the Slovene job market. Compared to other studies that deal with these issues mainly on the explanatory level through studying the conditions and trends using statistical and public opinion data, this is one of the rare studies in Slovenia that sheds light on the micro level as regards the situation on the youth job market. It encompasses two target groups: third and fourth year students from hard-to-employ studies from the Faculty of Arts, Faculty of Social Sciences, Faculty of Social Work in Ljubljana and the Faculty of Humanistic Sciences in Koper and graduates from social sciences and humanities that have been seeking employment for a longer period of time. The samples were chosen deliberately and two approaches to data gathering were used: a questionnaire for 150 students and semi-structured interviews for 12 young graduates seeking employment. In the data analysis, quantitative as well as qualitative approaches were used.

Investment in Obtaining New Knowledge

The research results show that respondents from the final years of non-deficit study courses mainly invest in formal education, and less in additional forms that would enable them to obtain additional knowledge, which is highly respected by employers.

This lack can be seen in the financial and time investments into extracurricular activities. As shown in Figure 3, the greatest share of financial investment (almost 50% of monthly expenses) is earmarked for housing and food. The third highest expense is represented by transport costs to the place of education, which on average amounted to almost 10% of the monthly expenses.

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4 The study was commissioned by the Ministry of Education and Sport of the Republic of Slovenia and the Ministry of Higher Education, Science, and Technology. It took place between 2004 and 2006 and the data was gathered in spring 2005.
5 The data gathered with the questionnaire was analysed on the descriptive level (frequency division and relative shares), while the results were additionally documented with qualitative data obtained through interviews.
6 It should be taken into account that approximately half of the respondents live with their parents, which to a certain extent reduces the average housing and food costs. All students also have access to subsidised food and transport.
7 It should be taken into account that approximately half of the respondents live with their parents, which to a certain extent reduces the average housing and food costs. All students also have access to subsidised food and transport.

4 Services 18.6%; health and social care 13%; natural sciences 12%.
5 According to Kanjuo-Mrčela and Ignjatovič (2004), among all those employed 10.5% are employed temporarily, whereas in the population aged 15-24, the share of temporary employment is 42.9 %.
The comparison of time investments into regular study activities (lectures, workshops, seminars) and extracurricular activities (attending non-obligatory lectures, round tables, study trips in Slovenia and abroad) shows a lack of investment into extracurricular activities. The fact that investments in trips abroad are too low is also shown by the results obtained from the Eurostudent 2005 study. Only 9.3% of the respondents travelled and/or stayed abroad for study purposes, 3% of those questioned attended a part of their course abroad and only 14.3% of the respondents had a serious intention of travelling and/or staying abroad. The frequent attendance of regular study activities shows the prevailing diploma-reaching orientation of the respondents and their unawareness of the problem regarding employability.

The interviewees representing those graduates who had already experienced issues with employability did not mention that they had failed to invest enough in extracurricular activities and/or additional skills and experience.

In regard to interviewees’ financial investments during the studies they mentioned that investments had not been too high:

- I lived with my parents, so I had no living expenses… I should have paid for my MA course, but my parents paid for it, and the rest, I don’t know… I didn’t really have any specific expenses, except for buying a book every so often. (Maja, an MA from the Faculty of Arts);

and that their investment into regular and extracurricular activities were selective:

... I would say that in most cases I chose the easy way. I invested a lot more time and effort into things that captured my imagination than the study curriculum forced, I read a lot of additional literature... I also worked abroad on topics that interested me and then I combined my experience with my studies. (Vlado, a political sciences graduate.)

Investments in Career and Social Network Building

Nearly all of the questioned students (89%) often or very often think about what they want to become, and almost all of them think about becoming financially independent. However, a third of them do not know what they will do once they graduate. Slightly less than one third plan to continue their studies, slightly over one quarter of the respondents have some ideas as regards their future employment and only 4 percent have planned how they will find employment – Table 2.

Table 2: Do you think about your employment and professional career after graduation?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I have a plan how to find employment</td>
<td>5</td>
</tr>
<tr>
<td>Yes, I have an idea how I could find employment</td>
<td>41</td>
</tr>
<tr>
<td>Yes, I intend to continue with my studies</td>
<td>44</td>
</tr>
<tr>
<td>Yes, I have different ideas as regards what I will do once I graduate</td>
<td>10</td>
</tr>
<tr>
<td>No, I do not know yet what I will do once I graduate</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

An important piece of information as regards the plans for the future is whether the respondent has a role model and if so, is he/she in contact with him/her. Over half of the respondents (58%) do not have a role model and only a minority (17%) have a role model with whom they are in touch.
However, even though most respondents do not have a role model, 91% have someone to discuss their future plans with. In most cases the exchange of ideas takes place in the narrowest social circle; amongst friends (81%) and study colleagues (64%); parents (62%) and partners - those who have them (55%). There is an extremely low share of those who discuss their plans with mentors (7%) and role models (3%).

A similar situation can be noted as regards personal contacts. The respondents have regular contacts mainly with colleagues and friends. But regular professional contacts with professors and mentors are surprisingly rare (61% «rarely» or «on special occasions»).

The majority of respondents regularly work for money (88% often or very often) but they do not discuss their studies and careers within a working environment (one third ‘never’ and more than one half ‘rarely’/‘on special occasions’). It could be assumed that respondents do not improve their professional abilities at work neither establish (professional) social contacts. It also could be concluded that the work they perform is not related to their studies and their future careers.

Most of the interviewed graduates did also not intentionally invest into their social capital or social networking in order to open paths for their professional career or improve their employment possibilities. In their contacts with colleagues and friends as well as ‘significant others’ their main goals were linked to their studies. Maja had the following to say:

No, I am not that selfish …no, I was more interested in the contents. I am connected to people with whom I share the same problems, interests and I thought…you know…experts in our fields …In fact that was my only focus, I would say. And everything followed from there.

Regardless of this, respondents realize that social connections are important, especially when searching for employment. As is apparent from the words of Mira, a graduate of the Faculty of Arts, some also see political involvement to be important.

Of course they were (social inputs important, note by P.D.) … and in fact they are increasingly so. Unfortunately, that is the way it is and to tell you the truth this is extremely important…to which side you belong … Where you stand politically. This is very important, even if you do not define it yourself …I personally do not define this myself, and I was especially opposed to doing so when I was younger …But that is the way it is, if you do not define yourself, others do it for you. For me it is important that I work, that I am good at it.

The results from questionnaires as well as from interviews point towards the fact that most respondents were connected in networks on the primary social level, i.e. with people closest to them; their social networks on other levels, especially on the professional level are in most cases weak and insufficient for successful career building.

**The Influence of Human Capital on Students’ Educational and Social Capital**

In this study, human capital was indicated as education of the respondents’ parents and has proved to be the main determinant of the scope of the various investments made by the questioned students. The data in table 3 shows the average annual expenses of the respondents in relation to the education of their parents. Except for the expenses for study accessories and transport costs, the expenses of those with higher educated parents are higher than the expenses of those with less educated parents.

<table>
<thead>
<tr>
<th>Expense in €</th>
<th>Primary</th>
<th>Secondary</th>
<th>Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study accessories</td>
<td>153</td>
<td>158</td>
<td>145</td>
</tr>
<tr>
<td>Living costs</td>
<td>1213</td>
<td>1231</td>
<td>1587</td>
</tr>
<tr>
<td>Food</td>
<td>01</td>
<td>748</td>
<td>841</td>
</tr>
<tr>
<td>Travel expenses</td>
<td>583</td>
<td>489</td>
<td>548</td>
</tr>
<tr>
<td>Travelling and study trips</td>
<td>309</td>
<td>279</td>
<td>381</td>
</tr>
<tr>
<td>Social contacts and attending events</td>
<td>88</td>
<td>115</td>
<td>254</td>
</tr>
<tr>
<td>Other</td>
<td>496</td>
<td>601</td>
<td>652</td>
</tr>
</tbody>
</table>

* the value 0 € is not included

In the data shown above we also have to take into account that parents with secondary and higher education cover larger shares of expenses for their studying children (on average 53 and 55%), compared to parents with primary education (on average 40%). Students with less educated parents are more likely to have paid jobs (in 40% of cases); 35 percent of those with parents with secondary education have paid jobs and 36 percent of those with parents with higher education. Grants have proven to be a very modest source of income which cover the greatest part of expenses, i.e. 19 percent of student expenses in less educated families; 9 percent of student expenses in families with secondary education and 7 percent of student expenses in more well educated families.

The data confirms that the parents’ social position has a decisive influence on which extracurricular activities the respondents will
respondents stated that the faculties gave them sufficient acquaintance with these possibilities; only 11 percent of respondents stated that their faculties gave them sufficient information on employment possibilities. Most respondents also estimated that their faculties did not set up enough contacts with future employers (68%), to a certain degree such contacts were provided to one quarter of respondents, while only 7 percent were of the opinion that contacts were sufficiently established.

The interviewed graduates who are seeking employment have two types of work experience, those gained during their studies and those gained after they completed their studies in their search for the right employment. One of the female respondents stated:

I have been working since the age of 14 and when I once added up all my work experience I discovered that I would have five years of work experience … I think that I have quite a lot of work experience … I also have organisation experience from when I used to work in a shop (Jana, international relations graduate).

After completing their studies, almost all of the graduates have searched for the right job, even those who were already part-time employed and those who decided to continue with their studies. The ways of job hunting are similar; most of them have experience with the job centre through which they have performed various temporary, often also public works. Alja, human resource management graduate, stated:

Yes, I registered at the job centre, I followed all job add, didn’t I… newspaper, the internet, you go to interviews, good ones as well as bad ones, appropriate ones or inappropriate ones… I just continued sending my applications, I think I got employed in public works quite quickly… mainly I was a business secretary and I did all sort of things. … But then, after one year, the public works ended, they extended them for a while but then I was back at the job centre… What I want to say is that every work you accept, even if it is for a lower level of education or a lower salary, can help you in the long run.

Their experience with employers (that the respondents describe as varied and interesting) most often results in rejection. A female graduate who worked in numerous agencies during her studies wished to gain permanent employment once she graduated or at least to gain employment for a specified period. She described her experience as follows:

I got called for an interview, the agency that represented the employer, I saw the advertisement in the newspaper Delo, where the actual employer was not stated, but providing it proved to be a company dealing in cosmetics, I thought: ‘This is a job for me.’ The work position was for an assistant marketing manager and in my interview with a Russian gentleman I was very successful. They were looking for someone who spoke English and French, the interview took place in French … at the interview I could not pick up on anything, not like some of our companies that treat you like meat at the market, but the gentleman told me already at the interview that he wished they had a better position they could offer me … (Jana)

Most interviewees ascribed part of the responsibility for the problems of accessing employment to the lack of information

participate in as well as the extent of their social circle they will have when thinking about their future plans.

Most often those with parents with secondary school or university education go abroad and visit symposiums, round tables and additional lectures, while students with parents with primary education are less likely to do so. The frequency of contacts with colleagues and friends does not depend significantly on parents’ education, however there are important differences in the frequency of talks with professors, mentors, and ‘others of importance’. Questioned students from lower educated families discuss their studies and career with these people less often than their colleagues with higher educated parents. Those with parents who have university education have the most diverse social networks of them all. And respondents whose parents have only primary school education seem to have less role models then other students and they are the more likely to consider their future plans on their own.

The differences in the social position of students during their studies were recognised by some of the interviewed graduates, such as for instance Vlado, a political science graduate:

… We students have very different lifestyles and I think that we might not have the best system for defining the investments, even financial ones, that a student would have to make in the course of his studies; for instance: I am from Ljubljana and I am middle class, let’s say, and we have no financial problems, and I get subsidised food tokens and a subsidised bus pass and if my fellow student who lives with her mother who is on minimum wage gets the same benefits as me, I think there is something wrong with the system …

Investments in Employment Experience

Even though most respondents performed various jobs during their studies, only a few of them had the opportunity to participate in jobs from their field of education or at least in a similar field. Later on, once they graduate (as can be seen from the interviews with the graduates) these occasional jobs will prove to be helpful; they will give them the skills to cooperate with employers and overcome any administrative employment procedures. Less than one third of respondents often participate in activities that complement their studies and actively seek information over the Internet, while approximately a mere quarter have plans to obtain new skills and broaden their social contacts outside their study obligations. The rest leave these possibilities more or less to chance.

As regards the role of educators in training for their appearance on the job market, 40 percent of the interviewed students replied that their faculties did not teach them enough about employment possibilities, while 50 percent stated that they were only partially acquainted with these possibilities; only 11 percent of respondents stated that their faculties gave them sufficient information on employment possibilities. Most respondents also
that they received at their educational institutions. As described by Tea, a sociology graduate:

*During my studies I was suddenly hit hard with the realisation that it is hard to find employment. Of course our professors warned us about this beforehand and told us that we should join various projects and that we should expand our social networks already now and so on… and that all this would make it easier to find employment… if you are already active before. I think that they talk very positively, too positively, the professors, as if we can find employment somewhere… but this is just not true.*

5. Conclusion

The theoretical concepts as well as the empirical conclusions expose the level of education as key for obtaining suitable employment. However, employers who are adjusting to the economic and market structural changes are increasingly demanding trained and educated staff that have more than merely formal education. Currently the share of highly educated first time job seekers is on the rise across the EU and in individual study fields such as humanities, art, social sciences, there are too many overqualified people on the labour market. A large proportion of youths with university education are joining the hordes of the unemployed (approximately 10%, varies throughout the different EU countries), and a part of them are unable to find work suitable to their education (approximately 30%). In certain aspects the Slovene youth labour market more and more resembles the situation on the European market; however there are also some specific characteristics that are typical for the specific national context. In this paper we have mainly focused on adjustments made to the market demands and the response of the young job seekers to the surplus investments on the level of university education.

The results of the *Evaluation of investments into educational capital and the youth labour market* study on the sample of Slovene students (from market non-deficit study fields, especially social sciences and humanities) show that they are insufficiently prepared for the problems awaiting them once they step onto the job market. They do not sufficiently participate in extracurricular study activities, neither other activities that would complement their studies and professional careers. Rarely do they have a clearly outlined career, and when building social networks they mostly limit themselves to their primary social environment and they do not spread their networks into the professional sphere, they have insufficient active contacts with professors, mentors and role models. They are also not oriented towards searching for possibilities for employment and career building in other EU countries. Apart from this, investments into educational and social capital are importantly determined by social origins; questioned students from lower educated families are deprived compared to their colleagues whose parents have higher education, which points towards social inequality in the process of career building and finding appropriate employment.

Most of the interviewees from the sample of interviewed graduates, first job seekers, are not critical in regard to their investments into their curricular and other activities during their studies. They positively evaluated experience gathered through work, as they view this as developing practical skills that are necessary for finding appropriate employment. They practice different approaches to adjusting to the situation on the labour market and with regard to these approaches they can be divided into three types:

1. Active; those who adjust to new, even global challenges and seek new strategies by gaining new knowledge as well as by seeking and quickly adjusting to the new possibilities;

2. Adjustable; those who are prepared to neglect their investments into educational and social capital as well as their personal aspirations and find a relatively satisfying employment on account of this;

3. Passive and indecisive; those who will either leave the choice of employment to a ‘lucky’ coincidence or are still thinking and daydreaming. This is the smallest group of the three.

The ‘active’ are known for their high level of flexibility to adjust to the situation in the job market. They are also known to be active in multiple fields at the same time, i.e. they are active in a number of fields and in a number of ways; for instance they are studying and/or in the process of pre-qualification, while at the same time working (in some cases in different places) and looking for new employment possibilities as well as being active in extracurricular activities that could help them find employment. The active also mention other possibilities apart from continuing their studies, for instance one of the female respondents described the possibility of self-employment within the family company.

The ‘adjustable’ have tried or sought various employment possibilities that would enable the fulfilment of their motivations and aspirations, however at a certain stage they realised that they are currently seeking regular employment and this is the most important. Also typical for them is that they have not given up their aspirations completely, but they have only postponed them until the more distant future.

The ‘passive’ and ‘indecisive’ do not have a clear perspective nor clear experience, for they have not obtained it during their studies.

6. References


Abstract: The main question of this paper is the importance of life-balance for university graduates and how they are able to realize their expectations in different working situations. The main challenges for employees are changing working conditions and the requirement of being flexible and mobile, just in a time period where family time should be available, if there is/was not a decision against family/children before. The statistical data show that this effect is noticeable, especially for more highly educated women.

The progressive dissolution of the separation between work and life very often results in a requirement of individual problem solving – employers expect best working results at all times.

Further questions are: Is this only a female problem? What are the differences between large and small enterprises, different sectors, global or local players? Are self-employed graduates in a better position to balance their life?

The purpose of the presentation is to show the different expectations of graduates regarding work-life-balance on the one hand and the differences in realizing them in diverse working situations, comparing two countries: Austria and Italy. The main methodological basis is factor analysis.

Key words: values and orientations for work, flexibility, life-balance, working situation, employment status, family roles, Austria – Italy.

Life in Balance – Reality for Higher Education Graduates?

The main question of this report revolves around the importance of life-balance for university graduates and how they are able to realize their expectations in different working situations.

This report will first provide a short outline of the problem and afterwards focus on specific questions relating to the data, especially the Austrian results of the REFLEX-Project. Is life-balance mainly a female problem? What are the differences between large and small enterprises, different sectors, global or local players?

Are self-employed graduates in a better position to balance their life?

1. Background: Flexibility for Life Balance?

The main challenges for employees lie in the changing working conditions and the requirement to be flexible and mobile, just in a time period where family time should be available, if there is/has not been a decision against family/children before. The title of the EU-Project: The Flexible Professional in the Knowledge Society already suggests that individual solutions have to be found to match all the different expectations.

Flexible Professional – flexibility in working life means more time-flexibility and areal mobility for the employee. The important question is, to which extent is the employee free to decide about time and areal availability, how large is the freedom of action: May she/he decide about working time and working place, or has he/she to be flexibly available at the demand of the employer? An additional aspect of modern working life is its discontinuity over the working-biography. Numerous changes within and between fields of activity and/or organizations during an adult life are normal.2

This development causes changes not only in the working life, but also in the everyday life, in social relations, families and health of the individual. The dislimitation of work affects the time available for personal recreation as well as for everyday life duties, family care and social contacts. If there is no fixed end of work, no common weekend, where friends can meet, weekly changing spare-time for each person, meetings and duties need complicated organization, which is often – after a hard day – not achievable. In the long run individuals tend to become unilaterally work-orientated, often lonesome and without the ability to recover from the work burden. This more and more often ends in burnout, physical and mental diseases.

This is why it seems very important to have a look at the values and orientations of graduates for work and the extent to which they can realize them. Modern working life focuses too much on the career orientated, always available and powerful person, not taking into account, that nobody is able to perform without having the time and ability to recreate and develop personal

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2 There is a broad discussion regarding the different sociological aspects of flexibility, which cannot be presented here, cf. Vobruba, Georg 2006

3 Cf. Jureczyk, Karin, 2002
abilities not only in, but also outside of paid work. To be able to recognize personal requirements for a healthy, contented life, which makes sense for her/him is very important for the individual, but also for society and the effectiveness of its economy.

2. Orientations and real working situations of graduates in Austria and Italy

Values for work and their realization in the working situation

In general university graduates have high expectations regarding their jobs, which are not all reached in the first years in work.

Just to give an overview regarding the position of Austrian graduates, a comparison of their orientations and realization in the current working situation with Italian and Finish graduates (only ISCED 5a with at least 4 years diploma-studies) may be presented.

Without going too much into detail, some differences between countries seem worth mentioning: While Austrians emphasize work autonomy and new challenges as highly important, much more than high earnings, career prospects and job security, Italian graduates stress these last mentioned aspects noticeably more. One reason for this might be the real job situation in the different countries.

Looking at gender differences, women still focus more on a good chance to combine work with family tasks, while especially for Austrian men this aspect is less important.
The realization in current work in general is below the ideal conception. Austrian and Finnish graduates have much lower career prospects. Leisure time and the chance to combine work with family tasks are realized considerably less than wished. The gender difference is remarkable: Women realized the family orientation more (except in Finland) – but this might be an effect of working part-time.

All further questions are based on data from Austrian and Italian graduates (REFLEX-Project).

**Work-orientations and realization**

Based on a factor analysis (varimax-rotation) as well the importance as the realization of work orientation show three key aspects (which are confirmed as scales by Cronbach's Alpha):

### Table 1

**Austria**

<table>
<thead>
<tr>
<th>Importance (54% explained)</th>
<th>Realization (57% explained)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career orientation</td>
<td>Career orientation</td>
</tr>
<tr>
<td>High earnings (.823)</td>
<td>High earnings (.761)</td>
</tr>
<tr>
<td>Good career prospects (.741)</td>
<td>Good career prospects (.734)</td>
</tr>
<tr>
<td>Social status (.660)</td>
<td>Social status (.611)</td>
</tr>
<tr>
<td>Challenging work</td>
<td>Challenging work</td>
</tr>
<tr>
<td>New challenges (.802)</td>
<td>New challenges (.759)</td>
</tr>
<tr>
<td>Opportunity to learn new things (.772)</td>
<td>Opportunity to learn new things (.745)</td>
</tr>
<tr>
<td>Work autonomy (.574)</td>
<td>Work autonomy (.629)</td>
</tr>
<tr>
<td>Life orientation</td>
<td>Life orientation</td>
</tr>
<tr>
<td>Good chance to combine work with family tasks (.703)</td>
<td>Good chance to combine work with family tasks (.838)</td>
</tr>
<tr>
<td>Enough time for leisure activities (.688)</td>
<td>Enough time for leisure activities (.833)</td>
</tr>
</tbody>
</table>

**Italy**

<table>
<thead>
<tr>
<th>Importance (50% expl.)</th>
<th>Realization (58% expl.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career orientation</td>
<td>Job security</td>
</tr>
<tr>
<td>High earnings (.774)</td>
<td>Job security (.815)</td>
</tr>
<tr>
<td>Good career prospects (.714)</td>
<td>High earnings (.674)</td>
</tr>
<tr>
<td>Social status (.608)</td>
<td></td>
</tr>
<tr>
<td>Challenging work</td>
<td>Challenging work</td>
</tr>
<tr>
<td>Opportunity to learn new things (.729)</td>
<td>Opportunity to learn new things (.741)</td>
</tr>
<tr>
<td>New challenges (.653)</td>
<td>New challenges (.762)</td>
</tr>
<tr>
<td>Chance of doing something useful for society (.559)</td>
<td>Social status (.611)</td>
</tr>
<tr>
<td>Life orientation</td>
<td>Life orientation</td>
</tr>
<tr>
<td>Good chance to combine work with family tasks (.759)</td>
<td>Good chance to combine work with family tasks (.876)</td>
</tr>
<tr>
<td>Enough time for leisure activities (.718)</td>
<td>Enough time for leisure activities (.871)</td>
</tr>
<tr>
<td>Job security (.555)</td>
<td></td>
</tr>
</tbody>
</table>

While for Austrian graduates the three factors for important aspects of work are the same as those applying to the current working situation, in Italy the result is different. It may be that higher unemployment rates result in a higher accentuation of 'job security' rather than 'career orientation'. For Austria the result shows three very clear positions, regarding importance as well as realization in work: Having a 'career orientation', preferring mainly to perform 'challenging work' or having a more integrated 'life orientation'. That, obviously, does not mean that graduates have either the one or the other orientation – of course all three main aspects are relevant, but not focused in the same way. On the one hand the more conservative role orientation towards more family-orientation is to be found for females, but at the same time they also want a challenging job and fair payment. On the other hand it becomes very evident, that there are differences in what graduates expect from work and from life beyond the job – so the question of balance in life is individually different. The chance for 'life balance' is a question of possibilities and infrastructure, but at the same time of individual preferences and expectations of personal development (compare to the Work-Life Balance discussion: Arthur, Lore 2004).

**Background of different types of orientation**

One could assume that graduates from different study fields differ in their work-orientation, because opting for a specific study field already represents a selection, based on former socialization.
Looking at main study fields it becomes obvious, that – besides the already mentioned high voting of all for challenging work with opportunities to learn new things – graduates from Education see time for family and leisure as an important value – similar only to female graduates from Health. The ‘career orientation’, in comparison, is the most important for male graduates from Engineering/Manufacturing and from Social Sciences, Business and Law. The highest preference for ‘challenging work’ was expressed by female graduates from Humanities and from Social Sciences, Business and Law.

While Education graduates realized the family-orientation in their working life, Health graduates were much less ‘successful’ in this regard. The effect on the other two working dimensions is a renouncement of high earnings and – for men, but not for women – also of challenging work. While female graduates from Humanities could not realize the desire for challenging work to the same extent, contrary to them, female graduates from Engineering experience very challenging working situations.

**Graph 2a**

The presented means are based on two value-scales:

- High earnings + good career prospects
- New challenges + opportunity to learn new things
- Good chance to combine work with family tasks + enough time for leisure activities

**Graph 2b**

The presented means are based on two value-scales:

- High earnings + good career prospects
- New challenges + opportunity to learn new things

- 102 -
Good chance to combine work with family tasks + enough time for leisure activities

In a country comparison (cf. Graph 2a and 2b), Italian and Austrian graduates from Humanities show very similar orientations regarding time for leisure and family work. Male graduates from Business and Law, as well as from Engineering in both countries focus on high earnings, which they can realize better than their female colleagues and graduates from Humanities.

In Italy graduates from technical subjects expected new challenges in their work slightly less than Austrians, and the real job situation for men and women seems not to provide such an amount of opportunity to learn new things and face new challenges as it does in Austria.

Looking at gender differences, the importance of income and career, noticeable for male graduates a bit more than for females, could not be realized to the same extent, especially not by women. Regarding high earnings and career the gender differences in Italy are lower than in Austria, looking at the importance as well as realization. While female graduates in Austria want to have a challenging job, also allowing them to combine work and family duties – which means an effort to reach both – Italian male graduates wish more time for leisure and family duties to the same extent as their female colleagues, but the level of realization seems to be unsatisfying in both countries.

3. Influences of workplace-conditions

Impact of working sector on realization of orientations

Looking at the different sectors of the current work it becomes very evident, that graduates with a lower career orientation, setting higher value on family and leisure time are working in the Public Sector, where they can realize their conceivability. By contrast, those with higher career orientation, who rate time for family much lower, work in the Private Profit Sector. The Italian results are very similar, especially regarding the realization of

having time for family duties: Working in the public sector provides more chances to realize this wish. Looking at different industries, graduates with high career orientation work in the Financial sector, those seeking challenge are more frequently found in Health and Social Work, family- and leisure-orientated in Education.

Regarding realization, a career orientation seems to be best realized in the Financial sector, Electricity, but also in Public Administration and in the Manufacturing Sector graduates see their orientation well realized. Most challenging working situations are to be found in the sectors of Education and Health – as opposed to Financial Intermediation (also Transport and Storage or Wholesale and Retail). The best sectors to work in and at the same time have enough time for leisure and family duties in both countries seem to be Education and Public Administration – not surprisingly. Of course there are analogies between fields of study and working sectors – many graduates from Education or Humanities work in these last mentioned sectors.

The impact of size of the organization on value-realization

One could assume, that – the larger the enterprise the better the career prospects. This seems to be true (Table 2a and 2b). Graduates working in organizations with more than 1000 employees in the total organization have a higher score regarding realization of career and high earnings. The price for this are less challenging jobs and not so good chances to combine work and family tasks. The highest challenge and opportunity to learn new things is offered by small enterprises, the chance to combine work with other life options seems to be best in enterprises with between 50 and 99 employees (esp. in Austria – not so distinctively in Italy). The reason might be, that – on the one hand, there are colleagues who could replace a person, but also a better opportunity to interact with colleagues and negotiate working conditions with them, where large enterprises may have a too bureaucratic structure.
Table 2a: Characterization of Organization – Work Orientation and Realization (Austria)
Factormeans on different items:

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>Career Orientation</th>
<th>Challenging Work</th>
<th>Life Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Importance Realization</td>
<td>Importance Realization</td>
<td>Importance Realization</td>
</tr>
<tr>
<td>Public - Private Sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector (465)</td>
<td>-1223836,-2061607</td>
<td>.0316830,1415806</td>
<td>.2048138,3176626</td>
</tr>
<tr>
<td>Private non-Profit sector (142)</td>
<td>-.3347111,-4724047</td>
<td>-.0431142,3167483</td>
<td>.1809827,2784764</td>
</tr>
<tr>
<td>Private Profit sector (735)</td>
<td>.2267569,2434804</td>
<td>.0240944,-1709094</td>
<td>-.2251126,-2351295</td>
</tr>
<tr>
<td>Int. Standard Industrial class.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing (206/200)</td>
<td>.2362838,3097211</td>
<td>.0268166,-1828743</td>
<td>-.2136046,-2404308</td>
</tr>
<tr>
<td>Financial intermediation (90/88)</td>
<td>.4574416,5284315</td>
<td>.0971416,-3397236</td>
<td>-.2793615,-1490426</td>
</tr>
<tr>
<td>Real estate, business activities</td>
<td>.0962298,1409122</td>
<td>.0314250,0358979</td>
<td>-.1701468,-1800881</td>
</tr>
<tr>
<td>Public administration, compulsory social sector (90/87)</td>
<td>.0789994,3860709</td>
<td>-.1737513,-0797811</td>
<td>.0795565,4735543</td>
</tr>
<tr>
<td>Education (272/269)</td>
<td>-.2531637,-5733577</td>
<td>.0565947,2797933</td>
<td>.2960960,3968231</td>
</tr>
<tr>
<td>Health and Social Work (159/155)</td>
<td>-.0767107,-1973988</td>
<td>.1532611,2367791</td>
<td>.1978801,-0191753</td>
</tr>
<tr>
<td>Scope</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local (127)</td>
<td>-.1537726,3191104</td>
<td>.0057131,-1385038</td>
<td>.3311069,3045735</td>
</tr>
<tr>
<td>Regional (407)</td>
<td>-.1480644,2164812</td>
<td>-.0708572,1164386</td>
<td>.1945887,2304932</td>
</tr>
<tr>
<td>National (282)</td>
<td>.0995221,0802288</td>
<td>-.0018451,-0696814</td>
<td>.0733861,-0105274</td>
</tr>
<tr>
<td>International (556)</td>
<td>.2015563,2155250</td>
<td>.1053561,-0364774</td>
<td>-.2639626,-2252639</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 9 (213)</td>
<td>-.1745202,1982740</td>
<td>.1390224,2591246</td>
<td>.0847493,-0125786</td>
</tr>
<tr>
<td>10 - 49 (235)</td>
<td>-.0342619,0542778</td>
<td>-.1267768,0134746</td>
<td>.0968740,0317188</td>
</tr>
<tr>
<td>50 - 99 (119)</td>
<td>-.0657122,2633088</td>
<td>-.0531668,.0664888</td>
<td>.2684617,2418626</td>
</tr>
<tr>
<td>100 - 249 (129)</td>
<td>-.1048014,0865402</td>
<td>-.1272363,.1541572</td>
<td>-.0894166,-0200377</td>
</tr>
<tr>
<td>250 - 999 (175)</td>
<td>.1708031,-1002598</td>
<td>.0055185,.1659523</td>
<td>-.1496279,.000181</td>
</tr>
<tr>
<td>1000 or more (462)</td>
<td>.2196754,2756650</td>
<td>-.0364945,.0867177</td>
<td>-.2059737,.0830606</td>
</tr>
<tr>
<td>Role in Innovation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization is adopting innovations mainly at forefront (730)</td>
<td>.1094176,1906537</td>
<td>.1266728,.1932254</td>
<td>-.0965048,-0739873</td>
</tr>
<tr>
<td>Organization is adopting innovations mainly as a follower (215)</td>
<td>-.0629040,-2779383</td>
<td>-.0494282,.4431551</td>
<td>.0646660,1535760</td>
</tr>
</tbody>
</table>
Table 2b: Characterization of Organization – Work Orientation and Realization (Italy)
Factormeans on different items:

<table>
<thead>
<tr>
<th>Type of Organization</th>
<th>Career Orientation</th>
<th>Job Security</th>
<th>Challenging Work</th>
<th>Life Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Importance</td>
<td>Realization</td>
<td>Importance</td>
<td>Realization</td>
</tr>
<tr>
<td>Public – Private Sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Sector (492)</td>
<td>-0.80</td>
<td>0.41</td>
<td>0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>Private non-profit (180)</td>
<td>-0.82</td>
<td>0.07</td>
<td>0.16</td>
<td>0.20</td>
</tr>
<tr>
<td>Private profit (1142)</td>
<td>0.10</td>
<td>0.19</td>
<td>0.01</td>
<td>0.05</td>
</tr>
<tr>
<td>International Industrial classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing (287/276)</td>
<td>0.11</td>
<td>0.41</td>
<td>0.04</td>
<td>0.17</td>
</tr>
<tr>
<td>Financial interme-diation (164/150)</td>
<td>-0.20</td>
<td>0.66</td>
<td>0.19</td>
<td>0.28</td>
</tr>
<tr>
<td>Real estate, renting, business activities (553/522)</td>
<td>0.08</td>
<td>-0.11</td>
<td>0.02</td>
<td>-0.17</td>
</tr>
<tr>
<td>Public administration, compulsory social security (102/96)</td>
<td>0.00</td>
<td>0.11</td>
<td>0.13</td>
<td>0.09</td>
</tr>
<tr>
<td>Education (259/251)</td>
<td>-0.23</td>
<td>0.59</td>
<td>0.09</td>
<td>0.18</td>
</tr>
<tr>
<td>Health and social work (145/131)</td>
<td>-0.19</td>
<td>0.49</td>
<td>0.15</td>
<td>0.16</td>
</tr>
<tr>
<td>Scope</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local (472)</td>
<td>-0.01</td>
<td>-0.18</td>
<td>0.00</td>
<td>0.09</td>
</tr>
<tr>
<td>Regional (266)</td>
<td>0.04</td>
<td>-0.12</td>
<td>0.02</td>
<td>-0.07</td>
</tr>
<tr>
<td>National (519)</td>
<td>0.02</td>
<td>0.05</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>International (587)</td>
<td>0.06</td>
<td>0.18</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9 (413)</td>
<td>0.04</td>
<td>-0.22</td>
<td>0.01</td>
<td>-0.20</td>
</tr>
<tr>
<td>10-49 (266)</td>
<td>-0.09</td>
<td>-0.04</td>
<td>-0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>50-99 (147)</td>
<td>-0.13</td>
<td>-0.07</td>
<td>0.05</td>
<td>-0.01</td>
</tr>
<tr>
<td>100-249 (189)</td>
<td>-0.04</td>
<td>0.07</td>
<td>0.06</td>
<td>0.17</td>
</tr>
<tr>
<td>250-999 (183)</td>
<td>0.01</td>
<td>0.12</td>
<td>0.04</td>
<td>0.20</td>
</tr>
<tr>
<td>1000 or more (465)</td>
<td>0.05</td>
<td>0.17</td>
<td>0.07</td>
<td>0.14</td>
</tr>
<tr>
<td>Role in Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mainly at forefront (687)</td>
<td>0.11</td>
<td>0.08</td>
<td>0.07</td>
<td>0.19</td>
</tr>
<tr>
<td>Mainly a follower (394)</td>
<td>0.04</td>
<td>-0.03</td>
<td>-0.12</td>
<td>-0.32</td>
</tr>
</tbody>
</table>

Impact of scope and the innovative power of the organization

Corresponding with the size of the enterprise also the scope of operations seems to be relevant regarding the realization of values in the working situation. While high earnings and career prospects could be realized best in international working companies, the opportunity to learn new things seems to be greater in regional enterprises operating regionally. Local and regional organizations are the best regarding the chance to have
time for leisure and family. Also in this regard the Italian results are very similar.

Are more innovative organizations better for career prospects? The data show a clear affinity between an innovative character of the enterprise and realization of career and challenge orientation – innovative power is based on the employees’ work, where leisure orientation might not be accomplishable in the same way.

Impact of the employment status – employed – self-employed

Looking at flexibility chances, it could be a current opinion, that self-employment – leaving the individual more options in timing – is better applicable to combine work and life affairs. Self-employed female graduates in fact show high affinity to the family aspect – but the real situation is only slightly satisfying – the women in employment status show more closeness to the realization (Cf. Sagmeister 2007). It seems to be better to have a part-time job fixed than to decide to stop working – always risking the loss of clients. Maybe this is also the reason for the high rating of challenge by female self-employed graduates: having the classical role-play in the family, for them it is highly challenging to face the demands of self employment and family/leisure time at the same time. The coordination of all different work- and life-tasks for the self-employed gets even more ambitious and often causes emotional ambivalences – it is like walking on a tightrope, especially in partnerships with old role models (Cf. Lange/Szymenderski/Klinkhamer 2005).
Taüle 3a: Characterization of challenging work – Austria

<table>
<thead>
<tr>
<th>Career Orientation</th>
<th>Challenging Work</th>
<th>Life Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
<td>Realization</td>
<td>Importance</td>
</tr>
<tr>
<td>knowledge and skills not utilized in current work (112)</td>
<td>-0.263326</td>
<td>-2.868684</td>
</tr>
<tr>
<td>knowledge and skills highly utilized in current work (235)</td>
<td>0.0571467</td>
<td>0.0746330</td>
</tr>
<tr>
<td>current work is not demanding more knowledge (607)</td>
<td>0.0108405</td>
<td>-1.495187</td>
</tr>
<tr>
<td>current work is highly demanding more knowledge (385)</td>
<td>1.116792</td>
<td>1.488523</td>
</tr>
<tr>
<td>I supervise staff members (431)</td>
<td>2.702226</td>
<td>3.656677</td>
</tr>
<tr>
<td>no (952)</td>
<td>-0.0547006</td>
<td>-1.493709</td>
</tr>
<tr>
<td>Very dissatisfied (134)</td>
<td>1.016243</td>
<td>-0.6176061</td>
</tr>
<tr>
<td>Very satisfied (1045)</td>
<td>0.0421072</td>
<td>1.565193</td>
</tr>
</tbody>
</table>

4. Working situation in the individual view in regard to orientations and their realization

Challenging work

Graduates, experiencing their work as challenging, have to use their knowledge and skills to a high extent – the opposite to those, who realized their life orientation more. This is especially true for those working part-time. Parallel to this finding there is a correspondence with challenging work and the demand for more knowledge than the graduates can actually offer. To have time for leisure activities and family is only possible, if the demand of work is fitting and not causing a deficit-feeling.
Table 3b: Characterization of challenging work – Italy

<table>
<thead>
<tr>
<th>Career Orientation</th>
<th>Job Security</th>
<th>Challenging Work</th>
<th>Life Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance</td>
<td>Realization</td>
<td>Importance</td>
<td>Realization</td>
</tr>
<tr>
<td>knowledge and skills <strong>not utilized</strong> in current work (193)</td>
<td>-.0850526</td>
<td>.0483160</td>
<td>-.3063302</td>
</tr>
<tr>
<td>knowledge and skills <strong>highly utilized</strong> in current work (1271)</td>
<td>.0250458</td>
<td>-.0596928</td>
<td>.1068052</td>
</tr>
<tr>
<td>current work is <strong>not demanding</strong> more knowledge (817)</td>
<td>-.0130034</td>
<td>.0296531</td>
<td>-.0169690</td>
</tr>
<tr>
<td>current work is highly demanding <strong>more</strong> knowledge (432)</td>
<td>.0601166</td>
<td>-.0885797</td>
<td>.1594429</td>
</tr>
<tr>
<td>I supervise staff members (670)</td>
<td>.1226153</td>
<td><strong>2146617</strong></td>
<td>.0256583</td>
</tr>
<tr>
<td>no (1262)</td>
<td>-.0448191</td>
<td>-.1061379</td>
<td>-.0106813</td>
</tr>
<tr>
<td>(Very) dissatisfied (320)</td>
<td>-.0347560</td>
<td><strong>-3622470</strong></td>
<td>-.0920212</td>
</tr>
<tr>
<td>(Very) satisfied (1125)</td>
<td>.0464014</td>
<td><strong>1140385</strong></td>
<td>.0890353</td>
</tr>
</tbody>
</table>

Looking at the correspondence of being a supervisor for other staff members with the realization of work orientations it becomes evident, that in Austria as in Italy there is a clear positive connection between career orientation and supervising others. On the other side, the realization of life orientation is more likely negative corresponding with supervising others – especially in Austria. The higher correspondence with challenging work in Italy might be explained by the item ‘social status’ as part of challenging work, which is part of this factor in Italy.

Satisfaction with current work

Looking at the extent of satisfaction with current work and the correspondence to the realization of work orientations, the highest impact on satisfaction results from challenging work. Being able to use one’s knowledge, facing a demanding work, is satisfying for higher education graduates in Austria as well as in Italy. The positive connotation of career aspects and time for life orientation beyond that gives a hint to the importance of all three aspects. Of course earnings are not unimportant and time for family and leisure activities plays a role for a healthy life in a holistic view, taking into account, that reproduction of working power is necessary (Cf. Jürgens, Kerstin 2006). The ability to recover work and vital force needs a limitation of requirements coming from the job – a challenge especially for career-starting graduates, which many probably face in a later phase of their working life. For employers – vice versa – it is important to realize, that employees need more than money to achieve their best. If life balance is not possible for the employees, this reduces the achievement of the enterprise (Cf. Stock-Homburg, R.; Bauer, Eva Maria 2007).

The needs differ according to age and family status:

5. Family situation in regard to work

The classical role model is – not surprisingly – well pictured in the graph, showing the correspondence of work orientation for men and women with or without children:

Women with children focus very clearly on family time (esp. Austria) and realized this value, but at the cost of earnings and career. Also for men with children career is not in the same way important as for men without children, especially Italian fathers seem to realize their conception of earnings better. Men without children in both countries show much more affinity to the career orientation.
6. Conclusion

While at the time of the survey the topic ‘flexibility’ in working life was discussed and the effects on everyday-life came to the fore – especially regarding women the question of work-life-balance arose – the last months’ financial crisis has led to the question, if not the fact to have paid work is the most important and balance topics fall to the background.

The Italian results point in this direction, when the factor for important values: ‘Life orentation’ includes the item ‘job security’. Also the differences between the three dimensions of work-orientation are less distinct than for the Austrian graduates. The realization of work-orientation shows great differences for both countries, especially for the dimensions of career and life orientation.

The main results of this report are, that life orientation as an important value corresponds with study fields like Education and Humanities, seems to determine the decision for the type of organization of work in favor of the Public Sector, local organizations with between 50 and 100 employees.

The high use of knowledge or even demanding more corresponds with the factor ‘Realization of Challenging Work’, but not with ‘Life Orientation’. Being in a management position and supervising others is positive related to ‘Career Orientation’.
Orientation’, but not to ‘Life Orientation’ (apparently more for Austrian graduates).

Gender differences regarding ‘Life Orientation’ are slightly more clear in Austria than in Italy, where the importance is more or less the same for male as for female graduates. The realization is better for women, but it has to be taken into account that those women, having children and being employed, often work parttime.

The question of satisfaction of the graduates with their working situation shows the importance of all three dimensions, although challenging work seems to be the focus in the first years of the career.

This result makes evident, that the political support for families, offering care for children is only one aspect of improving balance. The overlapping of personal and social needs, health demands, with expectations of gainful employment should be seen in a more differentiated way: Each person and family has an individual approach and society has an interest in healthy and content members, the employers in effective staff. So solutions only can be developed by all three groups of interest. The offer of good public care facilities has to go together with new and more flexible career models for men and women, giving more options over a longer life period, better meeting the needs of different life- and family- phases. At the same time the role models in partnerships have to change to more equal responsibility of both partners for all life-dimensions. Creative solutions of lifestyle seem to be an option, also to empower people to develop and use their competencies best.

7. References


GRADUATE COMPETENCES AND RELATIONSHIPS WITH THE LABOUR MARKET: THE UK CASE

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Abstract: The paper compares the early employment experiences of graduates from the shorter UK bachelors degree with those from the somewhat longer masters programmes to be found in continental Europe. The UK graduates appear to be less prepared for entry to employment and to find their degrees to be less appropriate to that employment. However, many of the differences between UK and other European graduates in the labour market have largely disappeared five years after graduation. And there are many similarities in the perceptions of graduates from different countries about the competences required by employers. The paper sets these differences and similarities within the context of the different higher education and labour market traditions of the UK and the rest of Europe and raises questions about the consequences of greater labour mobility across Europe and the Bologna harmonisation of qualification structures.

Key words: Competences, graduate employment, qualifications, higher education, degree programmes, work preparation.

1. Introduction

Public funding of expanded higher education systems has in most countries its main justification in the belief that this is necessary to meet the requirements of the labour market. However, and notwithstanding this widespread emphasis on economic need, expansion in the numbers of graduates also encounters periodic cultural scepticism about whether the necessary jobs actually exist and whether the growing numbers of graduates in the working population are able to find suitable employment which meets either their own or society’s needs. Thus, we encounter concerns about graduate unemployment and about whether graduates are in fact obtaining ‘graduate jobs’ or something less suited to their competencies and aspirations.

The concern about the ‘suitability’ of jobs is frequently matched by a concern about the ‘suitability’ of the graduates. Do graduates possess the knowledge and competencies that employers need? In the UK, many of the studies of graduate employment in recent decades have had as their prime focus questions about whether graduates obtain jobs, about the kinds of jobs they get, and whether they are competent to perform them (e.g. Purcell and Elias, 2004, Purcell et al, 2005).

The focus of this paper is less on whether graduates get jobs but on why. It is less about the characteristics of the jobs (wages, status, employment sector) and more about what it is that graduates bring to them – their knowledge, competences and dispositions. And the focus is upon graduates from universities in the United Kingdom who have obtained employment in that country. Their experiences, however, will be compared and contrasted with those of graduates from other European countries. In doing so, it will draw heavily upon two separate EC funded surveys of graduates. One was a twelve country survey of graduates three years after their graduation in 1995 (Brennan et al, 2001, Schomburg and Teichler, 2006, Teichler, 2007) and the other is the more recent ‘REFLEX’ study based initially on an 11 country survey of graduates five years after their graduation in 2000 though with additional countries added subsequently.

In focusing on the UK case, we are of course reflecting our own contexts and origins. However, we believe that the UK case possesses a wider relevance in Europe at the present time. The reason is of course ‘Bologna’. The process of harmonising structures and qualifications across European higher education initiated by the Bologna agreement is initiating changes across the continent with implications for universities, their students and for the future employers of those students. We are aware, for example, that in many parts of Europe there is some concern about whether the new three year bachelor qualification will meet either student or employer needs.

However, within the UK, Bologna has received scant attention. This is because, superficially at any rate, the Bologna model of a two stage bachelors and masters structure fits the British tradition and does not require radical change. It is what we are already familiar with. Insofar as there is discussion about qualification structures, it concerns whether students actually ‘need’ the three years to complete a bachelors degree and two-year or other fast-track alternatives are being given consideration in some quarters.

(And we already have a two-year degree qualification in terms of the Foundation degree, a work-related vocational qualification though used by many students as a first phase of a longer higher education.)

The relative brevity of UK higher education for most students is, therefore, the starting point for this paper. (As well as the

1) Careers after Higher Education – a European Research Study (CHEERS) was an EU funded study within the Targeted Socio-Economic Research Programme. (ii) The Flexible Professional in the Knowledge Society (the REFLEX project), an EU 6th Framework Programme.
While the economic importance attached to higher education and its graduates is today given ‘global’ attention through notions of knowledge societies and economies, meanings and practices associated with graduate employment also reflect local and cultural traditions and histories. Educational historians have traditionally referred to the ‘Humboldthian’, the ‘Napoleonic’ and the ‘Anglo-Saxon’ traditions within European higher education (and exported around the world during the colonial period). Gellert has referred to them as the ‘research’, the ‘training’ and the ‘personality’ models (Gellert, 1993). While these models refer effectively to the elite higher education systems of more than a century ago, they may still have relevance to an understanding of differences in the relationships between higher education and employment in different countries today. Thus, then and now, professional training at a Grande Ecole provides entry to French elites far more effectively than does going to university. Whereas in England (though not necessarily all of the UK) it is the ‘character formation’ or ‘liberal education’ provided by the ‘collegiate ideal of education’ (Halsey, 1961) at a few elite universities that has been prized and provides a similar route to elite entry. In Germany, education through research was seen as central to the Humboldtian tradition whereas in England research was not even a necessary attribute of university life.

Of course today research, professional training and personality development are features of all higher education systems. But there remain differences in emphasis. It is interesting that there has not been as much debate about ‘employability’ and ‘graduate skills’ in continental Europe as in the UK. One explanation is that in the UK it has been necessary to compensate for the historical ‘character formation’ tradition of higher education (Brennan, 2008). As higher education has expanded, consuming ever more public funds, it has been forced to justify itself in terms of economic pay-off. This was perhaps more difficult to do for the ‘personality’ focused English model than for many of its European counterparts.

2 The Humboldthian research tradition reached the UK circuitously via its initial export from Germany to the US.
A first job is of course just that. The REFLEX survey also asked graduates to report on the level of education required by their current jobs, i.e. the jobs held five years after their graduation. Here (Figure 2) we can see that for UK graduates, the proportions in ‘sub-graduate’ level employment had dropped (from 38 per cent to 28 per cent) and, moreover, it was only one per cent higher than the European average (27 per cent). Although it must also be noted that this European average hides some rather large differences between individual countries.

If the level of education required by the job was often less than the level of education which the graduates possessed, the content of that education was also often not ‘required’ by the job. As also illustrated in Figure 1, 35 per cent of UK graduates thought that their first jobs did not require a particular field of study. And again we see a huge difference with the rest of Europe where only 13 per cent of graduates thought the same way. (The next highest figure to the UK 35 per cent was Spain with 20 per cent of graduates holding this view.) In terms of the utilisation of knowledge and skills acquired in higher education, in comparison with the rest of Europe, UK graduates were nearly twice as likely to believe that their first jobs after graduation had not utilised their higher education (33 per cent against 19 per cent across the rest of Europe).

In making comparisons of this sort, it is important to remember and to emphasise that a clear majority of UK graduates (in common with European graduates as a whole) believed that their first graduate jobs did require a tertiary level education, did require study in a particular field, and did utilise the graduate’s knowledge and skills acquired in higher education. But UK graduates were much less likely to believe these things than their European counterparts.

In exploring the reasons for and the consequences of these relatively weak relationships between courses studied and subsequent employment, it is of course necessary to consider both supply and demand factors. Is the relationship a function of higher education traditions and their implications for the supply of new graduate labour? Or is it more a function of the characteristics of employer demand for new labour, perhaps reflecting a greater concern with factors such as ‘who you are’ rather than ‘what you know’. Supply and demand factors are of course intimately connected. In particular, employers must adapt their recruitment practices to the characteristics of the supply of new graduates from universities. And, in the specific UK context, debates about the employment readiness of graduates have tended to emphasise the more generic skills and competencies that might be expected of graduates irrespective of what they have studied.

These figures could suggest a) that there is a somewhat different division of labour between higher education and employers in the UK and the rest of Europe in preparing and training students for working life (with UK employers taking a greater share of the responsibility), and b) that there may be greater flexibility in the UK graduate labour market arising from the lower specification of the education/training required by employers. In other words, there is still some evidence of the continued existence of the UK tradition of a ‘broad general education’ as part of a first degree followed by more professional education provided by employers themselves or by postgraduate courses or by some combination thereof. And this contrasts with the traditions of more professional, occupation-linked higher education courses found in some other European countries.

If these figures suggest that UK graduates take less employment-related knowledge, skill and competence into the labour market, there is also evidence to suggest that UK employers require less of their graduate entrants. Thus, UK graduates were more likely than other graduates to believe that they were ‘not utilising their knowledge and skills in their first job’ (31 per cent against 18 per cent), were slightly less likely to believe that their work ‘demanded more knowledge and skills than one could offer’ (22 per cent against 27 per cent), and far more likely to believe that a much lower level of education would be most appropriate for their current work (36 per cent against 17 per cent). In other words, they were suggesting that they might be rather ‘overqualified’ rather than underqualified for the jobs they were getting.

Not only does this suggest that the lower amounts and levels of higher education of UK graduates, plus its less professional focus, do not appear to present a problem for UK employers, it suggests that these could be lowered even further without detriment to the apparently ‘low-skill’ needs of many UK employers. To complete the picture, we find that UK graduates are more likely than other graduates to feel that their work is being closely monitored by their superiors (48 per cent against 41 per cent) and less likely to believe that they have a lot of autonomy in their work situations (59 per cent against 76 per cent). They are also less likely to believe that their work colleagues rely on them for ‘authoritative advice’ (51 per cent against 61 per cent), perhaps because they have less to give.
The earlier European study (CHEERS) shows a similar but more complex picture and one in which differences between the UK and other European countries again stand out. In this study, we again note a convergence, this time four years after graduation, between the UK and other European graduates with, here, a slightly higher proportion of UK graduates than the European average believing that their current work was ‘completely appropriate to their level of education’, with 40 per cent of UK graduates believing this against a European average of 36 per cent (Figure 3). The latter figure again hides some important country differences with, for example, only 19 per cent of Italian graduates feeling their work was appropriate to their education against 55 per cent of Norwegian graduates who felt this way.

However, in answer to a rather different question, concerning the usefulness of their degree courses as preparation for their current jobs four years after graduation, only 49 per cent of UK graduates rated this highly against 61 per cent of European graduates as a whole. Again, country differences can be discerned with the European average figure hiding a high of 76 per cent among Swedish graduates and a low of 41 per cent among French graduates.

We can in part account for the discrepancies between the two sets of figures by making the distinction between the ‘job’ and the graduate’s ‘preparedness’ to undertake that job. The types and levels of jobs available to graduates will reflect a whole range of factors – not least the nature and performance of the national economy at the time of the student’s graduation – whereas the graduate’s preparedness to perform the job will reflect the nature of the education and training experienced by the graduate, not just within higher education of course, but from a whole range of experiences – work-based and other – which will have been obtained before, during and after higher education. It is in this latter respect that other data indicate differences between the UK and other European countries. Thus, only 56 per cent of UK graduates compared with 81 per cent of European graduates regarded their field of study as the ‘most appropriate’ to their current work four years after graduation and only 39 per cent of UK against 50 per cent of European graduates believed that their higher education was a good basis for performing their current work tasks (Schomburg and Teichler, 2006).

We might summarise the differences between UK and other European graduates rather provocatively as being (i)
‘underqualified’ in comparison to their continental counterparts, (ii) ‘overqualified’ (in terms of perceived employers’ requirements) for the jobs they get, and (iii) more closely supervised by their employers. On the other hand, they may be more flexible, less tied to particular jobs or fields of employment and possessing rather more by way of generic and transferable skills. (We must note, however, that surveys of employers tend to come up with a rather different views about the employability-readiness of UK graduates, e.g. Hobsons, 2006.)

As we have noted, higher education helps to prepare new entrants for the labour market. But it also helps employers to select new entrants to the labour market. Within the UK, competitive entry to a steep hierarchy of higher education institutions helps employers to select – employers seeking the ‘best’ graduates tend to assume that they are concentrated in a limited number of ‘top’ universities. Thus, ‘screening’ may be more important than ‘human capital’ theories to explaining the relationship between higher education and the labour market in the UK.

All of this suggests a somewhat different division of labour between higher education and employers in the UK than in other European countries with employers taking greater responsibility for initial professional education and training. Higher education provides the raw material for that training by identifying and selecting the ‘most able’ and providing them with a strong education foundation on which subsequent work-related training can be built.

### 5. Are UK graduates ‘less competent’ than those in other European countries?

In the above, we have described differences between UK and other European graduates’ views on the relationship between their higher education and current employment. We have also suggested that though UK graduates may be both ‘underqualified’ and ‘overqualified’, they may be more flexible, less tied to particular jobs and may possess more generic and transferable skills. In fact, within modern economies there is an expectation that highly qualified workers will both have specialist knowledge and skills to undertake specific professional roles and will be sufficiently flexible to adapt to new challenges in work situations not necessarily related to their field of study.

But regardless of the possession of such knowledge and skills, a further question is whether these are being put to good use in graduates’ current jobs. The REFLEX study provides some data on this, from graduates’ perspectives. In broad brush terms, two thirds or more graduates considered they were using their knowledge and skills to a large extent in their current work (five years after graduation) – and UK graduates were no different in this respect. Of course, such ‘usage’ is related to what graduates’ current jobs entail, and what competences are required in these jobs. Graduates were asked to indicate the extent to which some nineteen competences were required in their current jobs. In Table 1 below we show, for each of the competences the proportion of graduates indicating it was highly required.

### Table 1: Graduates’ perceptions of highly required competences, rank ordered by overall, and detailed by country (%)

<table>
<thead>
<tr>
<th>Ability</th>
<th>All</th>
<th>UK</th>
<th>IT</th>
<th>ES</th>
<th>FR</th>
<th>AT</th>
<th>DE</th>
<th>NL</th>
<th>FI</th>
<th>NO</th>
<th>CZ</th>
<th>CH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to use time efficiently</td>
<td>81</td>
<td>87</td>
<td>81</td>
<td>80</td>
<td>81</td>
<td>86</td>
<td>87</td>
<td>80</td>
<td>84</td>
<td>75</td>
<td>82</td>
<td>76</td>
</tr>
<tr>
<td>Ability to perform well under pressure</td>
<td>80</td>
<td>84</td>
<td>79</td>
<td>73</td>
<td>71</td>
<td>88</td>
<td>89</td>
<td>77</td>
<td>81</td>
<td>78</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Mastery of your own field or discipline</td>
<td>78</td>
<td>73</td>
<td>81</td>
<td>71</td>
<td>72</td>
<td>88</td>
<td>86</td>
<td>78</td>
<td>70</td>
<td>77</td>
<td>84</td>
<td>76</td>
</tr>
<tr>
<td>Ability to work productively with others</td>
<td>77</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>73</td>
<td>82</td>
<td>81</td>
<td>78</td>
<td>78</td>
<td>69</td>
<td>78</td>
<td>75</td>
</tr>
<tr>
<td>Ability to rapidly acquire new knowledge</td>
<td>76</td>
<td>70</td>
<td>78</td>
<td>71</td>
<td>69</td>
<td>82</td>
<td>82</td>
<td>68</td>
<td>79</td>
<td>64</td>
<td>86</td>
<td>71</td>
</tr>
<tr>
<td>Ability to coordinate activities</td>
<td>76</td>
<td>80</td>
<td>75</td>
<td>73</td>
<td>68</td>
<td>84</td>
<td>82</td>
<td>71</td>
<td>75</td>
<td>71</td>
<td>82</td>
<td>73</td>
</tr>
<tr>
<td>Ability to make your meaning clear to others</td>
<td>76</td>
<td>82</td>
<td>71</td>
<td>81</td>
<td>81</td>
<td>72</td>
<td>73</td>
<td>78</td>
<td>77</td>
<td>81</td>
<td>78</td>
<td>65</td>
</tr>
<tr>
<td>Ability to use computers and the internet</td>
<td>76</td>
<td>75</td>
<td>78</td>
<td>70</td>
<td>60</td>
<td>84</td>
<td>80</td>
<td>66</td>
<td>81</td>
<td>64</td>
<td>88</td>
<td>76</td>
</tr>
<tr>
<td>Ability to write reports, memos or documents</td>
<td>71</td>
<td>69</td>
<td>75</td>
<td>68</td>
<td>60</td>
<td>74</td>
<td>73</td>
<td>60</td>
<td>64</td>
<td>68</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>Ability to come up with new ideas and solutions</td>
<td>70</td>
<td>64</td>
<td>72</td>
<td>71</td>
<td>60</td>
<td>73</td>
<td>74</td>
<td>71</td>
<td>73</td>
<td>61</td>
<td>74</td>
<td>66</td>
</tr>
<tr>
<td>Analytical thinking</td>
<td>69</td>
<td>65</td>
<td>73</td>
<td>58</td>
<td>73</td>
<td>76</td>
<td>73</td>
<td>66</td>
<td>63</td>
<td>49</td>
<td>77</td>
<td>73</td>
</tr>
<tr>
<td>Willingness to question your own and others’ ideas</td>
<td>65</td>
<td>64</td>
<td>69</td>
<td>58</td>
<td>56</td>
<td>61</td>
<td>64</td>
<td>68</td>
<td>64</td>
<td>59</td>
<td>73</td>
<td>60</td>
</tr>
<tr>
<td>Ability to negotiate effectively</td>
<td>60</td>
<td>58</td>
<td>68</td>
<td>56</td>
<td>45</td>
<td>64</td>
<td>61</td>
<td>51</td>
<td>60</td>
<td>45</td>
<td>73</td>
<td>54</td>
</tr>
</tbody>
</table>
As we see, over three quarters of graduates rated the following competences as highly required in their current job:

- Ability to use time efficiently, to perform well under pressure;
- Ability to work productively with others, to coordinate activities and make your meaning clear to others;
- Mastery of own field and ability to rapidly acquire new knowledge;
- Ability to use computers and the internet.

Such requirements lend some weight to the rhetoric of ‘flexible professionals’: good specialist knowledge and the ability to acquire new knowledge (which could be construed as being adaptable in terms of continually updating one’s own knowledge), a professional attitude to mobilising their own capabilities (in terms of using time efficiently and performing well under pressure) and mobilising the capacity of others (in terms of working productively with others, coordinating activities, making your meaning clear to others) were all rated highly by a large majority of the graduates as requirements of their current job.

Other competences rated as highly required by a majority (60 per cent or more) of graduates were:

- Analytical thinking, ability to come up with new ideas, willingness to question your own and others’ ideas;
- Ability to mobilise the capacity of others and to negotiate effectively;
- Ability to write reports, memos or documents.

Such competences can be seen as characterising aspects of innovation and knowledge management (for example, ability to come up with new ideas, willingness to question your own and others’ ideas) and mobilising others. Thus it seems that graduates need a range of general and arguably transferable skills. But there seemed to be less of a requirement to assert authority and to be a generalist, in terms of having knowledge of other fields or disciplines (with less than half of the graduates rating this requirement highly).

There were only three competences which UK graduates rated as being required in their current work to a greater extent than the rest of the sample (a five-percentage-point difference in those rating them highly): using time efficiently, working productively with others and making your meaning clear to others.

On the other hand, lower levels of competence requirement than the whole sample (again based on a five-percentage-point difference in rating) were identified by UK graduates for:

- Mastery of own field, rapidly acquiring new knowledge, knowledge of other fields;
- Coming up with new ideas and solutions;
- Presenting products, ideas or reports to an audience;
- Foreign language competence.

It is difficult to draw any firm conclusions from the above, though it would seem that UK graduates’ current job requirements tended to emphasise aspects of mobilisation of resources (using time efficiently, working productively with others, making meaning clear to others) more than aspects of professional expertise (in terms of subject knowledge per se). Such findings might suggest that UK employers require a rather different set of competences from their graduate employees than employers in other European countries, one which fits the more generalist traditions and more open relationships between credentials and employment in the UK labour market.

But alongside questions of competences required in graduates’ current jobs, there is a further issue of whether the graduates considered they possessed the required competences. Although the majority considered their current job did not need more knowledge and skills than they could offer, around a quarter did feel their jobs required much more knowledge and skills than they possessed. Table 2 below lists the ten most common deficits in competences, as perceived by the graduates.
Table 2: Ten most common deficits in competences, overall and for UK, France, Germany

<table>
<thead>
<tr>
<th>All</th>
<th>UK</th>
<th>France</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Using time efficiently</td>
<td>1 Using time efficiently</td>
<td>1 Asserting authority</td>
</tr>
<tr>
<td>2</td>
<td>Asserting authority</td>
<td>2 Mastery of own discipline</td>
<td>2 Asserting authority</td>
</tr>
<tr>
<td>3</td>
<td>Negotiating</td>
<td>3 Asserting authority</td>
<td>3 Making meaning clear to others</td>
</tr>
<tr>
<td>4</td>
<td>Mastery of own discipline</td>
<td>4 Negotiating</td>
<td>4 Using time efficiently</td>
</tr>
<tr>
<td>5</td>
<td>Presenting products, ideas, reports</td>
<td>5 Making meaning clear to others</td>
<td>5 Negotiating</td>
</tr>
<tr>
<td>6</td>
<td>Mobilising others</td>
<td>6 Presenting products, ideas, reports</td>
<td>6 Foreign language competence</td>
</tr>
<tr>
<td>7</td>
<td>Making meaning clear to others</td>
<td>7 Mobilising others</td>
<td>7 Mobilising others</td>
</tr>
<tr>
<td>8</td>
<td>Foreign language competence</td>
<td>8 Knowledge of other disciplines</td>
<td>8 Presenting products, ideas, reports</td>
</tr>
<tr>
<td>9</td>
<td>Knowledge of other disciplines</td>
<td>9 Alertness to new opportunities</td>
<td>9 Coming up with ideas and solutions</td>
</tr>
<tr>
<td>10</td>
<td>Alertness to new opportunities</td>
<td>10 Coming up with ideas and solutions</td>
<td>10 Working with others</td>
</tr>
</tbody>
</table>

Source: Little, Braun and Tang, 2008, Table 6

The biggest deficit for graduates overall was in using time efficiently (affecting 15 per cent of all graduates) and only 9 per cent of all graduates perceived a deficit in being alert to new opportunities. There was little difference in the lists of top ten deficits between the overall sample and the UK. Although graduates perceiving deficits represented only a minority of the graduates overall, certain aspects of professional expertise (in the shape of asserting authority and mastery of own discipline) were among these competence deficits. On the other hand, rather larger proportions of graduates considered they had more than way of certain competences than were currently required in their jobs. Table 3 below provides the detail.

Table 3: Ten most common surpluses in competences, overall and for UK, France and Germany

<table>
<thead>
<tr>
<th>All</th>
<th>UK</th>
<th>France</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Performing well under pressure</td>
<td>1 Performing well under pressure</td>
<td>1 Performing well under pressure</td>
</tr>
<tr>
<td>2</td>
<td>Foreign language competence</td>
<td>2 Foreign language competence</td>
<td>2 Use of computers and the internet</td>
</tr>
<tr>
<td>3</td>
<td>Questioning ideas</td>
<td>3 Writing reports, memos, documents</td>
<td>3 Foreign language competence</td>
</tr>
<tr>
<td>4</td>
<td>Alertness to new opportunities</td>
<td>4 Questioning ideas</td>
<td>4 Alertness to new opportunities</td>
</tr>
<tr>
<td>5</td>
<td>Use of computers and the internet</td>
<td>5/6 Use of computers and the internet; Presenting products, ideas, reports</td>
<td>5 Knowledge of other disciplines</td>
</tr>
<tr>
<td>6</td>
<td>Knowledge of other disciplines</td>
<td>7/8 Alertness to new opportunities; Knowledge of other disciplines</td>
<td>6 Acquiring new knowledge</td>
</tr>
<tr>
<td>7</td>
<td>Presenting products, ideas, reports</td>
<td>7 Writing reports, memos, documents</td>
<td>7 Mobilising others</td>
</tr>
<tr>
<td>8</td>
<td>Writing reports, memos, documents</td>
<td>8 Questioning ideas</td>
<td>8 Negotiating effectively</td>
</tr>
<tr>
<td>9</td>
<td>Acquiring new knowledge</td>
<td>9 Acquiring new knowledge</td>
<td>9 Coming up with ideas and solutions</td>
</tr>
<tr>
<td>10</td>
<td>Coming up with ideas and solutions</td>
<td>10 Coming up with ideas and solutions</td>
<td>10 Presenting products, ideas, reports</td>
</tr>
</tbody>
</table>

Source: Little, Braun and Tang, 2008, Table 5

There were no differences between the top ten lists of surpluses for graduates overall, and graduates in the UK. The proportion of graduates overall perceiving surpluses was quite large with the main surpluses, namely capacity to perform well under pressure, and foreign language competence being identified by almost a third of all graduates. Additionally, around a fifth of all graduates perceived surpluses relating to:
• Innovation and knowledge management (questioning ideas, alertness to new opportunities, use of computer and the internet);
• Functional flexibility (knowledge of other disciplines, acquiring new knowledge);
• Communication capabilities (writing reports, presenting products, ideas, reports).

We have previously suggested that, in comparison with European graduates overall, UK graduates might be rather ‘overqualified’ for their jobs. But the above description of competence deficits and surpluses suggests that it may not only be UK graduates who are ‘overqualified’ and by implication, underused. Rather, the above data seems to suggest that for a fifth (or more) of graduates overall, employers are not necessarily tapping in to the graduates’ full range of capabilities, whether these were acquired in the longer masters programmes common in continental Europe or the shorter bachelors programmes in the UK.

6. Different routes or different destinations?

As we have seen above, there are large differences between UK graduates and those of other European countries in their preparedness for their first jobs after graduation and in their perceptions of its appropriateness. The latter differences have largely disappeared five years on while the former differences remain. How do we account for these differences and why do some of them disappear?

Taking the first of the above questions for the moment, it may be that the differences reflect the effects of some of the deep-rooted traditions and characteristics of UK education and society pointed to by writers such as Gellert (1993). Thus, the UK traditions of a ‘broad liberal education’ imply a somewhat looser relationship between that education and subsequent employment requirements. Within such a tradition, employers may seek to recruit graduates for the ‘kinds of people they are’ rather than for the ‘knowledge and skills they possess’. Of course, where the focus is the former, it raises the question of whether the people characteristics have been formed during or prior to higher education, in other words whether higher education has performed a ‘socialisation’ or a ‘screening’ function. The two are not mutually exclusive.

All of this suggests that UK universities are playing a smaller role in the preparation of their students for entry and performance in the labour market. There is some evidence to support this view. UK graduates were more likely to experience an initial formal training period from their employer when they obtained a job (23 per cent in the UK compared with 15 per cent in Europe) and such periods tended to be longer (11.3 months compared with 8 months in Europe).

We might characterise the differences in routes to employment taken by UK and other European students and graduates as being between a) a two phase sequence of a relatively short phase of higher education followed by a phase of work-related education and training provided by both employers and educational institutions in the UK, and b) a considerably longer single phase of education and training in Europe which, although higher education based, is likely to contain substantial periods of work placements and internships. Thus, by their late twenties, UK graduates may not be too dissimilar from other European graduates in terms of the levels of jobs they have obtained although their competence to perform those jobs may owe less to higher education than would be the case for their European counterparts.

7. Conclusions

Most graduates obtain good jobs (notwithstanding periodic media scares to the contrary). Most of these jobs appear to be appropriate to the level and content of education obtained by the graduate. This appears to be true across Europe. But UK graduates are less likely to use their knowledge and skills from higher education and appear to need greater supervision and training from their employers during their first few years in the labour market. They are also on average likely to be significantly younger.

These and other differences in the way people are prepared for jobs in the ‘knowledge economies’ of different European countries raise a number of questions. Are the differences related to distinctive features of the economies of different European countries, for example the balance between mainly manufacturing and mainly service economies? To what extent do they reflect different social and educational traditions and cultures of these countries? And do the differences have consequences? Is one model superior to the other?

The looser fit between higher education and the labour market in the UK may be advantageous in terms of allowing greater flexibility and adaptability to changing labour market requirements. It may reduce the dangers of both shortages and surpluses of particular kinds of graduates. On the other hand, there may be a cost to employers of the UK model in that they may need to invest more time in the education and training of their graduate recruits than would be necessary for their European competitors. For the latter, higher education has done more of the job for them. Whether it has done a ‘better’ job than they could do themselves is another matter. And which has done a ‘better’ job for the long-term labour market needs of the economy and the long-term career needs of the graduate is a question which only long-term experience, and possibly, further research will answer.
Data on graduate employment across Europe produces some contradictions. As we have seen, graduates from the shorter bachelor's programmes which are traditional within UK universities are more likely to feel ill-prepared for their employment after graduation and more likely to find their employment inappropriate to their qualifications. Yet, the UK graduates did not differ significantly from other European graduates in their perception of the competencies required of them and the extent to which they were possessed. We might surmise that there is an inevitable element of accommodation by employers and universities to the labour market traditions of their host countries. Whether greater labour mobility between countries and attempts at harmonising qualification structures will upset existing forms of accommodation is something that remains to be seen.

8. References


Abstract: Modern economic environment creates additional challenges for a university: marketing its programs, ensuring graduates employability, ensuring degrees recognition by the labour market, teaching students with different educational backgrounds in one group, etc. The paper analyses some of these challenges and their impact on students' satisfaction with their university experience based on a series of research projects carried out between 2007 and 2009. The paper provides some ideas on satisfaction enhancement through course content, teaching methods and study process administration.

Key words: education services, transition economies, transformation management, customer satisfaction management, marketing university programs, competencies development.

1. Introduction

Business education in Russia is following the general global pattern though data on Russian higher education is seldom found in the articles and surveys of international associations and research centres, which are more focused on the developments in China and India. However, even from the historical perspective Russian business education is comparable to the European and global HE systems. Higher Commercial School (now Plekhanov Russian University of Economics) was founded by a group of Russian merchants in 1907 to provide undergraduate and graduate education in a variety of business related areas.

Analysing modern tendencies of business development one can define some educational needs arising from and linked to this development (Lorange, 2002). Globalization required graduates to be able to work in multicultural teams, adapt to fast changes and new environments. Deployment of separate stages of the value creation chain in different parts of the world requires an ability to work under insufficient information and high uncertainty. Growing importance of environmental issues and sustainability needs strategic thinking and a responsible approach to business decision making.

Business education is often criticized for late reaction to the changing needs of the industry, excessive academism and high proportion of theory in its programs. Universities fail to provide interpersonal communications and leadership skills. Business programs are accused of being too general or too specialized.

2. Education in Transition Economy

Higher education sphere in Russia as in many other transition economies is characterised by high level of risk and uncertainty. There is a need to challenge and change what successfully worked in the past, which creates resistance both within universities and in society at large. Transformation in higher education should balance global market requirements against national needs and existing standards, be customer oriented, transparent and publicly accountable and include mechanisms to manage fast change. Education systems in transition economies are mandated with strengthening the market-based economy, improving local universities competitiveness both locally and internationally and generating additional income flows to support transformation.

Transformations in education can take the form of product innovations, new technologies and new markets. Product innovations are about introducing changes in the programs content and evaluating knowledge and skills of the graduates. Technologies concern with the programs format, teaching process and faculty competences. Market innovations are linked to the decisions about program positioning, selecting its target consumers and defining the most convenient channels of distribution.

Education services are a complicated type of services combining the characteristics of both professional and mass services (Sagina, 2005). On the one hand, students are dealing with people but not equipment (though a distance-learning format involves enough of technology to enable students to study online almost without visiting the university campus). There are standard education services which are mass in character, but some professional or executive courses can be highly customised, and coaching which has become very popular lately can be really an individual one-to-one education. Even mass programs give students opportunity to select a considerable proportion of the subjects studied, thus creating their personalised offering. The core value of education is delivered by the teaching staff, but support staff such as secretaries, security guards or accountants can also influence customer perceptions of the value of the services provided.

University product that is offered to both students and companies of the labour market is its education program, which
can be defined as a combination of educational and support services aimed at improving or changing the level and/or area of customer’s education and provided with the adequate resources of an educational institution. The success of the program is measured by its graduates for whom quality parameters include employability in their special area within certain period of time (for many professions within 6 months), level of entry salary, career development path and speed, employer’s evaluation and work satisfaction.

3. Variables Affecting Customers Satisfaction

These are the criteria often used in business schools and study programs rankings. However alumni feedback and students’ satisfaction surveys carried by the Plekhanov Graduate School on a regular basis suggested there are some intangible factors enhancing or diminishing students’ satisfaction. Research projects of summer 2008 and winter 2009 enabled us to pinpoint some most relevant intangible criteria for students’ satisfaction: flexibility and divergent thinking, personnel friendliness, faculty professionalism. Participating in 2009 Corporate recruiters survey organised by the Graduate Management Admission Council (GMAC), European Foundation for Management Development (EFMD) and the MBA Career Services Council (CSC) proved our earlier findings. Survey sample represented a cross-section of graduate management industry worldwide, as 157 business schools provided contact information for employers that recruited their graduates. A sample of 28000 employers were invited to answer survey questions of which 2825 (10%) completed the online questionnaire. According to survey results good communication skills (89%), ability to perform (73%), initiative (82%), professionalism (81%) and integrity (81%) were among the most demanded intangible traits sought in the graduates. Factor analysis using principle component analysis with varimax rotation was applied to summarize tangible and intangible aspects in graduates selection process. The examined tangible variables formed 4 factors: ability to manage, technical foundation, work experience, and execution. Intangible variables centred around 3 factors: professionalism, divergent thinking, and interpersonal skills. A correlation analysis of the relationship of intangible factors with each of the tangible factors showed that when the choice was driven by the ability of the graduates to manage, candidates’ interpersonal skills were primarily considered (Fig.1).

Figure 1: Relationship between tangible and intangible selection factors
When more attention was paid to the technical foundation, professionalism was valued. Although a strong relationship was observed between work experience and interpersonal skills, it appeared that when work experience was sought, graduates were not expected to be strong divergent thinkers; divergent thinking instead was correlated with the ability to execute.

Survey results gave us a clear picture of what employers are looking for in a business school product and what we should pay attention to in order to increase their satisfaction and thus graduates employability.

However universities also have another target audience to satisfy – current and potential students. Comparing the findings of our previous students’ satisfaction surveys with the results of the GMAC project we defined tangible and intangible factors enhancing students’ satisfaction with their university experience. Applying the same technique of factor analysis to the findings of students’ satisfaction surveys we centred all tangible variables related to the course content around 4 main areas: broad managerial competences, technical skills, practical competences, and international perspective (Table 1). Intangible variables related to course administration and students-faculty interrelations and were also centred around 4 areas: program flexibility, personnel friendliness, faculty professionalism and university/business school brand (Table 1).

Table 1: Tangible and intangible factors affecting students satisfaction

<table>
<thead>
<tr>
<th>Tangible factors</th>
<th>Intangible factors</th>
</tr>
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<tbody>
<tr>
<td>Broad managerial competences</td>
<td>Program flexibility</td>
</tr>
<tr>
<td>Technical skills</td>
<td>Personnel friendliness</td>
</tr>
<tr>
<td>Practical competences</td>
<td>Faculty professionalism</td>
</tr>
<tr>
<td>International perspective</td>
<td>University/school brand</td>
</tr>
<tr>
<td>Strategic management</td>
<td>Individual study track</td>
</tr>
<tr>
<td>Quantitative skills</td>
<td>Personnel interpersonal skills</td>
</tr>
<tr>
<td>Research projects experience</td>
<td>Professionalism</td>
</tr>
<tr>
<td>International aspects of different subject areas</td>
<td>Experience and traditions</td>
</tr>
<tr>
<td>Planning</td>
<td>Included placements or study abroad periods</td>
</tr>
<tr>
<td>Presentation and reporting skills</td>
<td>Empathy</td>
</tr>
<tr>
<td>Team work and management experience</td>
<td>Motivation</td>
</tr>
<tr>
<td>Study abroad experience</td>
<td>Quality of graduates</td>
</tr>
<tr>
<td>Risk management</td>
<td>Innovation and creativity in program content, design</td>
</tr>
<tr>
<td>Marketing research skills</td>
<td>and administration</td>
</tr>
<tr>
<td>Guest lecturers from companies providing insights into</td>
<td></td>
</tr>
<tr>
<td>the changing business environment in the country, region,</td>
<td></td>
</tr>
<tr>
<td>industry</td>
<td>Cross-cultural communication and management skills</td>
</tr>
<tr>
<td>Project management</td>
<td>Project management</td>
</tr>
<tr>
<td>Information analysis and decision making skills</td>
<td>Information analysis</td>
</tr>
<tr>
<td>Additional professional qualifications/ certificates</td>
<td>Decision</td>
</tr>
<tr>
<td>Foreign guest lecturers</td>
<td>Listening skills</td>
</tr>
<tr>
<td></td>
<td>Discipline</td>
</tr>
<tr>
<td></td>
<td>Visibility and prestige</td>
</tr>
<tr>
<td></td>
<td>Collaboration and initiative</td>
</tr>
<tr>
<td></td>
<td>Networks and partnerships</td>
</tr>
</tbody>
</table>

Russian national education standard describing the society expectations and requirements for HE graduates defines competences critical for the success of a transition economy. These can be classified into three groups:

(1) Personal competences include communication and interpersonal skills, ability to socialise and adapt in a new environment and tolerance to any form of diversity: cultural, national, religious, etc.

(2) Professional competences depend on the study program profile and subject area, but more and more interdisciplinary and cross-functional knowledge and skills are required. Business ethics and corporate social responsibility are also of great importance among professional competences.

(3) Development competences include the ability to learn and regularly update one’s knowledge base, personal development planning and exercising. In knowledge economy no university program can provide a student with the knowledge and skills sufficient and relevant during their entire professional career. Graduates should be able to identify the need for additional education or training, be able to use upcoming opportunities, find and analyse possible alternatives and plan their
professional and personal development in an effective and efficient way.

Research findings defined university target markets' requirements to a quality educational product offering, which can be summarised in a set of tangible and intangible factors (Fig.2).

Figure 2: Tangible and intangible factors reflecting the needs of all target markets

4. Entrepreneurial Approach

Economic downturn, a virus-like collapse of property and financial markets and failure of confidence in global economic system initiated new criticisms of the business education. It is believed to serve business well in times of stability but now lacks entrepreneurial approach which is called for. It is said to be training technocrats rather than responsible and morally focused professionals (Waddock, 2009). Its short-term orientation and lack of systems thinking are said to account for business leaders' inability to deal with modern complicated and dynamic world.

Measures to be taken by individual universities to meet the requirements of all universities' stakeholders, as well as the new challenges, depend on specific market situation and universities' positioning and strategy. However it is necessary to emphasise the importance of considering not only university product offerings but the overall study experience students have. Interestingly it is in line with the overall tendency in marketing, something which universities still use to a very limited degree.

Changes in the nature and role of marketing in the 21st century and universities’ responses to some of them are summarized in Table 2.

Table 2: Universities response to the changes in marketing in the 21st century

<table>
<thead>
<tr>
<th>Changes</th>
<th>Marketing strategies</th>
<th>Organisation</th>
<th>Universities' response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some markets are fashionable, some are not</td>
<td>Shorter PLC, New products are developed more speedily</td>
<td>Hierarchy</td>
<td>Attention to product portfolio New products being developed to cater for the needs of new emerging audiences</td>
</tr>
<tr>
<td>Micromarkets development</td>
<td>Products customisation</td>
<td>Smaller business units</td>
<td>Business schools are set both independent and within universities Corporate universities branch in most sectors</td>
</tr>
<tr>
<td>Growing customer expectations (“made in ..” no longer works)</td>
<td>Quality is key (all is made in China)</td>
<td>Self-managed teams</td>
<td>Traditional education centres are still preferred (UK, USA), though strong business schools emerge in other regions (Europe, China, Australia)</td>
</tr>
<tr>
<td>Macro crisis</td>
<td>Innovations are key</td>
<td>Breakthrough brands</td>
<td>Universities are developing their brands</td>
</tr>
<tr>
<td>New technologies</td>
<td>Information networks creation</td>
<td>Reengineering</td>
<td>Learning networks are created, distance learning is spread</td>
</tr>
<tr>
<td>Growing competition</td>
<td>Focus on core competences</td>
<td>Entrepreneurial flexibility</td>
<td>Is visible in the leading business schools only</td>
</tr>
</tbody>
</table>
Universities should acquire this entrepreneurial approach to marketing its products, which means a flexible organisation to enable free generation of ideas which are then filtered and developed into product offering by teams of specialists and integrators (project managers).

The reality of executive business education has already called for such an entrepreneurial approach. Even in a big university centre like Moscow with over 10 million population and over a million students attending classes in more than 110 government and over 140 non-government institutions of higher learning the pool of faculty able to teach at executive level is limited to about 200 people. So many of them, though formally linked to one university, participate in several educational projects, bringing in their specific expertise and skills. Some business schools are adapting a “choice board” model, when the university designs its courses to meet a variety of needs of both applicants and the labour market, and individual students are then allowed to choose, constructing their own programs and study tracks. It is this choice, university flexibility in terms of program structure, content and study path linked with a customised approach and individual attention, supported by a strong brand and reputation, that influence student’s experience and form their satisfaction level.

5. Enhancing Students’ Satisfaction

Over 10 years of experience of applying entrepreneurial marketing model to graduate business studies at a leading Russian school of Economics developed some tools which can be recommended to enhance students’ satisfaction with their study experience. The tools will be linked to the tangible and intangible factors sought by students and companies.

Friendly Front-office Staff

Management competences, interpersonal communication skills and professionalism can be developed in students only when these are clearly demonstrated by faculty and staff. Obvious as it may seem, it is not often supported by dean’s office secretaries and students support staff. This is a common shortcoming of many professional services (Saginova, Nefedova, 2006). Professionals do not seem to see the need in explaining their actions to their clients. Students and applicants often complain about information being scarce and given by staff with difficulty (“you should know it” attitude), in an unfriendly manner (“don’t bother me” attitude), and without customisation (“I’m not changing any rules for you” attitude).

To develop a customer-oriented attitude three things work effectively and fast: involving staff in surveying customer satisfaction, providing special training to staff and supporting front-desk contacts with sufficient information. When dean’s office secretaries are participating in collecting and analysing responses about students’ satisfaction, they understand the importance of customer-oriented attitude and are motivated to be friendly and helpful. Special training can also help; this can be provided internally as topics like time management, active listening, empathy or cross-cultural communication are often on any business school curriculum.

An important thing is sufficient support information for the front-office staff. Office staff was asked to complete a list of frequently asked questions, and this information was developed and put on the web-site, so that secretaries can just refer to the relevant section of this site. Proper signage (like office hours, lists of documents required, schedules and timetables, etc.) both on paper on the notice boards, and on the web make things a lot easier.

Developing this support information to enhance customer-oriented attitude leads to another important factor to develop professionalism, interpersonal skills and divergent thinking: clear definition of all the rules and regulations.

Clear Rules of the Game

Misunderstanding causing stress and dissatisfaction often arises from lack of information about rules and regulations. True, students may pretend they did not know something to cover their own mistakes, but many academic rules and regulations (especially in high context cultures like Russian) just do not exist on paper, being part of oral norms. Modern IT can dramatically improve the situation. A simple spreadsheet on the students’ web-site can show graduate students the percentage of semester coursework completed, it takes an hour a week for a secretary to fill in, and saves hours of unpleasant discussions with students. A spreadsheet registering submission of graduation assignments for external revision we introduced two years ago changed the number of papers submitted by the deadline from 60% to 90% in just one year.

Guests are Welcome

Practical experience, international perspective and professionalism can be developed though involving visiting and adjunct professors as much as possible. This is no novelty; many institutions have been using them for years. However, they can be difficult to manage and sometimes put additional pressure on university staff and budget. Trying to integrate a visiting or an adjunct professor into the academic schedule is not easy, and executives tend to change the timing of their guest lectures at short notice to fit their business schedule. We solved this by providing slots in our academic calendar for guest weeks. When these weeks are planned for a year to come, it’s easier to allocate incoming guest lecturers, and changes do not affect regular courses, and provide a lot of flexibility and choice for the students. Some courses within this week are credited, some non-
credited, but can accommodate many company presentations, special events and support faculty mobility.

**Adding Value through Cross-selling**

Any university or a business school now has a portfolio of different programs they offer to various publics. It is possible to develop technical skills, practical experience and divergent thinking by cross-selling these programs. We started offering individual courses and lectures within our guest weeks first to our corporate partners, and then to the open market. Modules providing training for international qualification exams (like CIM and ACCA) were offered to current students replacing similar subjects in the program. Some highly specialized subjects from Master's programs (like Luxury Brand Management or Sports Marketing) are offered to our corporate partners and alumni. This helps to generate some additional revenue, but what’s more important, adds value to our graduate offering, enhancing students’ satisfaction and demonstrating the competences we are aiming to develop.

6. **Conclusion**

For universities to be competitive in the modern business environment, it is important to define the factors affecting customers’ satisfaction with their university experience as well as requirements of employers, but of no less importance is to demonstrate the required factors through the content, organisation and administration of the study programs, using the same competence oriented approach HE establishments now use to report the compliance of their programs with government and international standards.

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GRADUATES’ CHARACTERISTICS AND LABOUR MARKET ENTRY: POLISH EXPERIENCE

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Abstract: In this study, I concentrate on graduates' characteristics and labour market entry chances. The research question is to what extent labour market entry success is affected by graduates' characteristics and how different groups of graduates differ in chances of finding a job. The study of chances of young people in entering the labour market is important for a number of reasons. It is important from the point of view of education policy and its success in matching labour demand with labour supply. It is also important from the point of view of the human capital formation and long run macroeconomic performance of the economy. Successful entry into labour market reduces the problem of human capital depreciation and results in more flexibility in the labour market. The analysis reveals that demographic variables, marital status, age, level of education, various measures of human capital as well as social capital characteristics play important role in determining the chance of finding first job for a graduate. Groups of graduates with higher chances are: men, graduates with tertiary education, graduates living in larger cities, with high levels of various measures of human and social capital characteristics. There are also interesting regional disparities as well as important role of a business cycle.

Key words: labour market entry, graduates, survival analysis.

1. Introduction

Studying early professional careers of young people and their transition from education system into labour market is important for a number of reasons. Successful entry into labour market after graduation is a sign of a good coordination between education sector and labour market requirements. It is the place where labour supply characteristics meet with labour demand requirements. Matching efficiency as suggested by 'job search and matching' theory approach is a crucial factor determining unemployment rates and unemployment (search) spells. Young people are typically characterized by higher unemployment and turnover rates and more frequent job changes (job shopping) than other groups on the labour market. Difficulties in finding job soon after graduation reveal structural problems of matching labour supply and demand. Long lasting unemployment results in human capital depreciation and might potentially affect whole future professional career (e.g. wage formation in the life cycle).

This study focuses on how different personal and other characteristics affect chances in finding first job for graduates in the Polish labour market. A survival analysis models are used and estimated using data on 20,000 Polish graduates.

2. Short Literature Review

The links between the labour market outcomes and graduates personal characteristics were studied by Boone et al. (2005) for the Dutch market. In this study, they explore the role of personality characteristics in explaining success in labour market entry. Study is done on a sample of graduates in economics from the Maastricht University. The paper addresses the following twofold research question: does personality explain labour market outcomes, and how much weight does this factor have compared to traditional human capital and individual preference variables? The results reveal significant personality effects, which are independent from the effects of traditional human capital variables.

Maurin and Xenogiani (2005) examine the effects of the abolition of the compulsory conscription in France on the demand for education and labour market outcomes. Before the reform, staying on in education was a way to defer the national service and get access to more interesting forms of the military service. After the reform, these specific incentives to stay on in education have disappeared and the relative cost of education for men has plausibly increased. The data reveal that the reform has been followed by a significant decrease in the number of years spent at school by male students, as well as in the proportion of male degree holders. In contrast, the reform had no significant effect on the demand for education for women nor for men of high socio-economic background.

Freeman and Hirsch (2008) also show empirically that there exists a strong relationship between the choice of education type and observed labour market conditions. They examine degrees and fields of study with measures of the knowledge content of jobs for the US economy. They find that the choice of college major is responsive to changes in the knowledge composition of jobs and, more problematically, the wage returns to types of knowledge. Women's degree responsiveness to knowledge content appears to be stronger than men's, but their response to wage returns is weaker.

Transition from the education to labour market was studied in comparison between old and new EU member states by Saar,
Un and Kogan (2008). Central research question of this article is how educational systems, and related modes of labour markets and welfare provisions, affect the aggregate effectiveness of youth labour market integration. The study uses the European Union Labour Force Survey 2004. Results provide support for distinct patterns of labour market entry in different CEE countries. Authors point out that in Poland the situation for school leavers is the worst among all CEE countries. They find signs of the formation of an insiders-outsiders labour market. Due to growing unemployment, young school leavers have increasing difficulties in smoothly entering the labour market. Relatively low mobility rates are matched with long duration of unemployment.

3. Data and Methodology

The main data source used for empirical analysis of chances in finding first jobs by graduates is a special survey done in 2007 by Polish Central Statistical Office for over 20,000 individuals who graduated in the period 1.01.1998-31.12.2005 and in the moment of graduation were under 27 years old. Time interval between the last and previous education level could not be longer than 12 months. The most important variable from the point of view of this study is the first job. In the survey it is defined as undertaking formal and legal employment or starting own business.

To estimate chances of finding first job it is necessary to construct a statistical model. The most obvious choice is to exploit survival analysis type of models and try to conduct nonparametric or (semi)parametric analyses of the first job search time (or equivalently first post-graduation unemployment spell) and relating them to various personal characteristics of graduates. Survival analysis concerns analyzing time to the occurrence of certain event, called traditionally a failure. Examples of such analyses can be time to break-down of a machine, time to death of a patient treated with certain medication etc. The same methodology can be applied to the analysis of unemployment spell. However, this time the ‘failure’ would be interpreted as a termination of a period of job search, which is a success rather from the point of view of the unemployed graduate. Nevertheless the terminology, methods used in the analysis are obviously the same. Two approaches will be used within survival analysis: nonparametric and semiparametric one. The former will be based on estimating so called Kaplan-Meier estimator and running tests for equality of survivor functions of job search between different groups of graduates. Nonparametric method is built on the philosophy to let the data speak for itself without making any assumptions on the functional form of the survivor function. Kaplan-Meier estimator is a nonparametric estimate of the survivor function $S(t)$ (see below), which is the probability of survival beyond time $t$ or equivalently of no failure before time $t$. For a dataset with observed failure times $t_1, \ldots, t_n$, where $k$ is the number of distinct failure times observed in the data, the Kaplan-Meier estimate at any time $t$ is given by:

$$S(t) = \prod_{j=1}^{k} \left(1 - \frac{d_j}{n_j}ight),$$

where $n_j$ is the number of individuals at risk at time $t_j$ and $d_j$ is the number of failures at time $t_j$ (Cleves et al. 2008). A convenient way of using Kaplan-Meier estimator is to graph its values against time. At any point in time it shows the probability of surviving past this time. In our context it will be the probability that the search for job continues (so the graduate is still unemployed).

There are several nonparametric tests available, to test for the equality of survivor functions across different subgroups in a sample: log-rank test (Mantel and Haenszel, 1959), Wilcoxon (Breslow 1970, Gehan 1965). All these test compare global, overall survivor functions and differ only in respect to how they weight each of these individual comparisons that occur at each failure time when combining these comparisons to form one overall test statistic.

The most widely used model for semiparametric methods is the Cox proportional hazards model. It assumes that the covariates multiplicatively shift the baseline hazard function:

$$h(t|x_j) = h_0(t) \exp(x_j\beta),$$

where the regression coefficients, $\beta$, need to be estimated from the data. The vector $x_j$ is a set of personal characteristics that describe an individual and are believed to have an impact on the hazard function. Estimated regression coefficients, $\hat{\beta}$, indicate the impact of each variable on the hazard function and most conveniently are reported in terms of hazard ratios, that is they show by how much the hazard changes with respect to the baseline hazard function if a given variable changes by 1 unit.

The most convenient feature of this model is that the baseline hazard function, $h_0(t)$, can be left unestimated and needs no particular functional form. The only thing that is assumed is that the baseline hazard function is the same for every individual in the sample. Each subject’s hazard is therefore treated as a multiplicative replica of the others. It is good to remind the interpretation of a hazard itself in order to understand the model. Hazard is a rate and is measured in $1/t$ units. It is a conditional failure rate. It is the probability of a failure occurring in a given infinitely small interval of time, provided that a subject has survived until that interval, divided by the length of the interval (see below). For instance, if the hazard rate of some event is 3 and time is calculated in months, then if the hazard were to remain constant, we would expect 3 failures (or events) during a month. One could also easily calculate the probability of observing at least one failure (if they are repeated events) in the time period as $1 - \exp(-3) = 0.95$. Another, even more
straightforward interpretation of the hazard rate is that its reciprocal gives the average time to the failure (occurrence of event). In our example it would take 1/3 of a month on average to the first record of a failure. There exists mathematical relationship between hazard function \( h(t) \), survivor function \( S(t) \), distribution \( F(t) \) and probability density function \( f(t) \):

\[
S(t) = 1 - F(t) = P_r(T > t) \\
\frac{d}{dt} \left( 1 - S(t) \right) = -S'(t) \\
f(t) = \frac{dF(t)}{dt} = \frac{d}{dt} \left( 1 - S(t) \right) = -S'(t) \\
h(t) = \lim_{\Delta t \to 0} \frac{P_r(t + \Delta t > T > t | T > t)}{\Delta t} = \frac{f(t)}{S(t)}
\]

Personal characteristics variables included in the vector \( X_j \) were constructed according to what is shown in the Table 1 below. Reference categories in each of the categorical variables are marked with asterisks.

Table 1: Characteristics variables used in the probit and survival model

<table>
<thead>
<tr>
<th>Sex</th>
<th>1 Women*</th>
<th>2 Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>1 Basic vocational</td>
<td>2 Secondary (general)</td>
</tr>
<tr>
<td>Settlement unit class</td>
<td>1 Town 100 th. inhabitants and more</td>
<td>2 Town up to 100 th.</td>
</tr>
<tr>
<td>Foreign language</td>
<td>0 Basic knowledge*</td>
<td>1 Advanced</td>
</tr>
<tr>
<td>Practical experience</td>
<td>0 Low to medium*</td>
<td>1 High</td>
</tr>
<tr>
<td>School grade average</td>
<td>1 Less than 3.0*</td>
<td>2 3.1 – 3.5</td>
</tr>
<tr>
<td>Marital status</td>
<td>1 Single*</td>
<td>2 Married</td>
</tr>
</tbody>
</table>

| Physical disability | 0 None* | 1 Certified disability |
| School type | 0 Public* | 1 Non public |
| Driving license | 0 No* | 1 Yes |
| High computer skills | 0 No* | 1 Yes |
| High leadership skills | 0 No* | 1 Yes |
| Contacts in the professional environment | 0 No* | 1 Yes |
| Cultural activity | 1 At least once in a month attendance: cinema, theater, concerts, exhibitions etc. | 0 Less frequently than above* |
| Social activity | 1 At least once in a week attendance: family meetings, parties, meeting with other people | 0 Less frequently than above* |
| Intellectual activity | 1 At least once in a week reading a book, using Internet | 0 Less frequently than above* |
| Public activity | 1 At least once in a month attendance: social, charity and local organizations and societies | 0 Less frequently than above* |
| Aid of non-public job search intermediaries | 1 Yes | 0 No* |
| Aid of public job search intermediaries | 1 Yes | 0 No* |
| State programs | 0 None* | 1 „First job” | 2 „First business” | 3 Other state program |
| Voivodship | 2 dolnośląskie* | 4 kujawsko-pomorskie | 6 lubelskie | 8 lubuskie | 10 łódzkie | 12 małopolskie | 14 mazowieckie | 16 opolskie | 18 podkarpackie | 20 podlaskie | 22 pomorskie | 24 śląskie | 26 świętokrzyskie | 28 warmińsko-mazurskie | 30 wielkopolskie | 32 zachodniopomorskie |
4. Stylized Facts

Polish labour market in the transformation era has undergone few stages of its evolution. Initial period of economic transformation resulted in a massive increase of unemployment (first wave of Polish unemployment) and was strictly result of restructuring of economy. The situation improved and stabilized in the period 1994-1997, when unemployment rates remained fairly constant with slightly declining trend. After 1998 we observe so called second wave of Polish unemployment, which lasted until 2003, when unemployment rates where historically high, reaching 20%. After 2004 situation began to improve again, resulting in historically low unemployment rates recorded in 2008 (7.2%).

Due to missing data it is impossible to see the evolution of graduates unemployment rates for the whole transformation period. As a proxy let us look at the age group 15-24. The pattern of the unemployment rate is the same as for the whole economy. It is however worth noting that young people experience much higher unemployment rates, with the ratio to overall reaching 2.39 in some years. The ratio itself remains fairly stable for the whole period, however it seems to steadily increase after 2005 (both in Poland and EU-15 countries).

Table 2 shows characteristics of the first job search time distribution broken down by subgroups. It reveals a few interesting facts. Average time of the first job search for a graduate is 8.2 months for the whole sample. However half of the graduates succeed in finding first job within first 4 months after graduation and 75% of the graduates succeed in finding first job no later than 12 months after leaving school. Men seem to be rather more successful than women in finding first job (shorter average time of first job search). Education level seems to play important role in influencing average unemployment spell before the first job. And this is important insight for the empirical study. Chances of finding first job after graduation seem to be highly procyclical (search time is significantly lower for 2004-2005 graduates cohorts), which seems to suggest that to large extent we have demand driven employment and unemployment rates in Poland.

5. Empirical Results

Nonparametric analysis of the data can be summarized by graphing Kaplan-Meier estimators for distinct subgroups in the sample: men and women and for different education levels completed by graduates. Figures 1a and 1b present this Kaplan-Meier estimator of the survivor functions. Left panel of the figure 1a reveals that the survivor function for men lies below the one for women. To survive means here to continue searching for the first job and as we remember failure is in fact the termination of

---

Table 2: Unemployment rates in Poland and European Union

<table>
<thead>
<tr>
<th>Year</th>
<th>Poland</th>
<th>EU-15</th>
<th>Poland</th>
<th>EU-15</th>
<th>Poland</th>
<th>EU-15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>15-24</td>
<td>Ratio</td>
<td>Total</td>
<td>15-24</td>
<td>Ratio</td>
</tr>
<tr>
<td>1992</td>
<td>13.3</td>
<td>27.8</td>
<td>2.09</td>
<td>9.6</td>
<td>18.3</td>
<td>1.91</td>
</tr>
<tr>
<td>1993</td>
<td>14.0</td>
<td>30.0</td>
<td>2.15</td>
<td>10.7</td>
<td>20.5</td>
<td>1.92</td>
</tr>
<tr>
<td>1994</td>
<td>14.4</td>
<td>32.6</td>
<td>2.25</td>
<td>11.1</td>
<td>20.8</td>
<td>1.88</td>
</tr>
<tr>
<td>1995</td>
<td>13.3</td>
<td>31.2</td>
<td>2.34</td>
<td>10.6</td>
<td>20.4</td>
<td>1.92</td>
</tr>
<tr>
<td>1996</td>
<td>12.4</td>
<td>28.5</td>
<td>2.31</td>
<td>10.7</td>
<td>20.6</td>
<td>1.92</td>
</tr>
<tr>
<td>1997</td>
<td>11.2</td>
<td>24.7</td>
<td>2.20</td>
<td>10.6</td>
<td>20.0</td>
<td>1.89</td>
</tr>
<tr>
<td>1998</td>
<td>10.7</td>
<td>23.2</td>
<td>2.17</td>
<td>9.9</td>
<td>18.4</td>
<td>1.86</td>
</tr>
<tr>
<td>1999</td>
<td>12.5</td>
<td>30.0</td>
<td>2.39</td>
<td>9.2</td>
<td>17.4</td>
<td>1.90</td>
</tr>
<tr>
<td>2000</td>
<td>16.1</td>
<td>35.2</td>
<td>2.18</td>
<td>8.2</td>
<td>15.7</td>
<td>1.90</td>
</tr>
<tr>
<td>2001</td>
<td>18.2</td>
<td>41.0</td>
<td>2.25</td>
<td>7.4</td>
<td>14.0</td>
<td>1.90</td>
</tr>
<tr>
<td>2002</td>
<td>19.9</td>
<td>43.9</td>
<td>2.20</td>
<td>7.7</td>
<td>14.7</td>
<td>1.91</td>
</tr>
<tr>
<td>2003</td>
<td>19.6</td>
<td>43.0</td>
<td>2.19</td>
<td>7.9</td>
<td>15.3</td>
<td>1.94</td>
</tr>
<tr>
<td>2004</td>
<td>19.0</td>
<td>40.8</td>
<td>2.15</td>
<td>8.1</td>
<td>15.6</td>
<td>1.92</td>
</tr>
<tr>
<td>2005</td>
<td>17.7</td>
<td>37.8</td>
<td>2.13</td>
<td>8.1</td>
<td>16.4</td>
<td>2.02</td>
</tr>
<tr>
<td>2006</td>
<td>13.8</td>
<td>29.8</td>
<td>2.15</td>
<td>7.7</td>
<td>15.8</td>
<td>2.04</td>
</tr>
<tr>
<td>2007</td>
<td>9.6</td>
<td>21.7</td>
<td>2.26</td>
<td>7.0</td>
<td>14.8</td>
<td>2.11</td>
</tr>
<tr>
<td>2008</td>
<td>7.2</td>
<td>17.3</td>
<td>2.39</td>
<td>7.0</td>
<td>15.0</td>
<td>2.13</td>
</tr>
</tbody>
</table>

Source: Own calculations based on LFS data, OECD Statistics.

2 It is interesting question whether this change is a signal for growing structural mismatch between labour supply and demand, and as such a sign of increasing mismatch between education sector and labour market reality.
this search period by finding first job. From the shape of the survivor function we can expect that men on average have shorter time to failure, i.e. to an end of unemployment and finding first job. Looking at the right panel of the figure 1a we can see survivor functions for different education levels of the graduates. The line which lies the lowest is the one representing tertiary graduate education level. This indicates that the average first job search time is shorter for those with highest education levels. Looking at Figure 1b one can conclude that survivor functions are possibly different also for groups of graduates broken down by the place of their living.

Survivor functions for cohorts of graduates for different years of graduation look also different and what’s even more they don’t seem to be a multiplicative versions of each other, which will have its important implication for the empirical procedures. It is the consequence of the fact that different groups of graduates in this dimension do not have the same time analysis horizon.

Figure 1a. Kaplan-Meier survivor function estimators for different groups of graduates

![Graph](image1a.png)

Source: Own calculations based on Central Statistical Office Survey, 2007

Figure 1b. Kaplan-Meier survivor function estimators for different groups of graduates

![Graph](image1b.png)


To confirm these differences in survivor functions one needs to run formal tests of survivor functions equality. Tests are run under null hypothesis that the survivor functions of all subgroups are identical. Log-rank and Wilcoxon tests results are presented in the Table 4. Both tests suggest strong null hypothesis rejection in all cases, which means that survivor functions for all studied groups can be treated as different at reasonable confidence level.
Table 4. Tests for equality of survivor functions

<table>
<thead>
<tr>
<th></th>
<th>Log-rank test</th>
<th>Wilcoxon test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Events observed</td>
<td>Events Expected</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>7253</td>
<td>7521</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>5273</td>
<td>5005</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12526</td>
<td>12526</td>
</tr>
<tr>
<td></td>
<td>chi2(1) = 29.06</td>
<td></td>
</tr>
<tr>
<td><strong>Basic vocational</strong></td>
<td>2660</td>
<td>2955.68</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td>1883</td>
<td>1899.85</td>
</tr>
<tr>
<td><strong>Technical secondary</strong></td>
<td>3787</td>
<td>3915.2</td>
</tr>
<tr>
<td><strong>Upper secondary</strong></td>
<td>854</td>
<td>838.42</td>
</tr>
<tr>
<td><strong>Tertiary undergraduate</strong></td>
<td>924</td>
<td>921.21</td>
</tr>
<tr>
<td><strong>Tertiary graduate</strong></td>
<td>2418</td>
<td>1995.64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12526</td>
<td>12526</td>
</tr>
<tr>
<td></td>
<td>chi2(5) = 152.57</td>
<td></td>
</tr>
<tr>
<td><strong>Town 100 th. +</strong></td>
<td>3449</td>
<td>2788.63</td>
</tr>
<tr>
<td><strong>Town &lt; 100 th.</strong></td>
<td>4556</td>
<td>4685.65</td>
</tr>
<tr>
<td><strong>Village</strong></td>
<td>4521</td>
<td>5051.72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12526</td>
<td>12526</td>
</tr>
<tr>
<td></td>
<td>chi2(2) = 266.91</td>
<td></td>
</tr>
</tbody>
</table>
| Source: Own calculations.

Next step is to estimate the Cox proportional hazards model as described before. We assume that the time of job search is affected by a number of factors, like sex, education, year of graduation, class of the place of residence, practical experience earned at school, foreign language skills, marital status, physical disability, various measures of social capital, job intermediaries help and state programs for promoting graduates' employment. All these variables were included as explanatory in the Cox proportional hazards model regression as described in Table 1. Specification of the model has been chosen in such a way that it does not violate the proportional hazards assumption (see Linktest and Grambsch & Therneau test statistics). Important thing is that the period of graduation variable was used to stratify the sample rather than include it among explanatory variables.

The reason for doing so is that it reflects the idea that different cohorts of graduates were trying to find their first jobs in different macroeconomic environment, so in fact they are different samples of graduates. Including this variable in the set of explanatory variables leads to violation of the proportional hazards assumption (confirmed by statistical tests) which is crucial for the Cox model. Period of graduation therefore is a variable included in the model in such a way as to allow for the baseline hazards to have different shapes for each cohort of graduates. This approach allows for the different baseline hazard functions for each cohort. Table 5 presents the estimates of Cox proportional hazards model for the first job after graduation search time.
Table 5: Cox proportional hazards model estimates

<table>
<thead>
<tr>
<th></th>
<th>Hazard ratio</th>
<th>Std. dev.</th>
<th>z</th>
<th>P &gt;</th>
<th>z</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>1.124</td>
<td>0.025</td>
<td>5.22</td>
<td>0.000***</td>
<td>1.076</td>
<td>1.174</td>
</tr>
<tr>
<td>EDU: secondary</td>
<td>1.013</td>
<td>0.039</td>
<td>0.35</td>
<td>0.728</td>
<td>0.940</td>
<td>1.092</td>
</tr>
<tr>
<td>EDU: technical secondary</td>
<td>0.991</td>
<td>0.030</td>
<td>-0.28</td>
<td>0.776</td>
<td>0.934</td>
<td>1.052</td>
</tr>
<tr>
<td>EDU: upper secondary</td>
<td>1.007</td>
<td>0.049</td>
<td>0.15</td>
<td>0.883</td>
<td>0.915</td>
<td>1.108</td>
</tr>
<tr>
<td>EDU: tertiary undergraduate</td>
<td>0.939</td>
<td>0.045</td>
<td>-1.31</td>
<td>0.191</td>
<td>0.854</td>
<td>1.032</td>
</tr>
<tr>
<td>EDU: tertiary graduate</td>
<td>1.113</td>
<td>0.043</td>
<td>2.74</td>
<td>0.000***</td>
<td>1.031</td>
<td>1.201</td>
</tr>
<tr>
<td>School average: 3.1-3.5</td>
<td>1.071</td>
<td>0.064</td>
<td>1.15</td>
<td>0.252</td>
<td>0.953</td>
<td>1.203</td>
</tr>
<tr>
<td>School average: 3.6-4.0</td>
<td>1.091</td>
<td>0.064</td>
<td>1.5</td>
<td>0.134</td>
<td>0.974</td>
<td>1.224</td>
</tr>
<tr>
<td>School average: 4.1-4.5</td>
<td>1.133</td>
<td>0.069</td>
<td>2.05</td>
<td>0.040**</td>
<td>1.005</td>
<td>1.276</td>
</tr>
<tr>
<td>School average: 4.6-5.0</td>
<td>1.134</td>
<td>0.075</td>
<td>1.9</td>
<td>0.057*</td>
<td>0.996</td>
<td>1.290</td>
</tr>
<tr>
<td>School average: More than 5.0</td>
<td>1.132</td>
<td>0.131</td>
<td>1.07</td>
<td>0.284</td>
<td>0.902</td>
<td>1.420</td>
</tr>
<tr>
<td>School type: non public</td>
<td>0.882</td>
<td>0.035</td>
<td>-3.15</td>
<td>0.002***</td>
<td>0.816</td>
<td>0.954</td>
</tr>
<tr>
<td>Driving license</td>
<td>1.108</td>
<td>0.025</td>
<td>4.61</td>
<td>0.000***</td>
<td>1.061</td>
<td>1.158</td>
</tr>
<tr>
<td>High computer skills</td>
<td>0.984</td>
<td>0.024</td>
<td>-0.64</td>
<td>0.521</td>
<td>0.938</td>
<td>1.033</td>
</tr>
<tr>
<td>High leadership skills</td>
<td>0.965</td>
<td>0.027</td>
<td>-1.29</td>
<td>0.198</td>
<td>0.914</td>
<td>1.019</td>
</tr>
<tr>
<td>Professional contacts</td>
<td>1.247</td>
<td>0.039</td>
<td>7.04</td>
<td>0.000***</td>
<td>1.172</td>
<td>1.326</td>
</tr>
<tr>
<td>Foreign language</td>
<td>1.033</td>
<td>0.025</td>
<td>1.37</td>
<td>0.170</td>
<td>0.986</td>
<td>1.083</td>
</tr>
<tr>
<td>Practical experience</td>
<td>1.092</td>
<td>0.024</td>
<td>3.96</td>
<td>0.000***</td>
<td>1.045</td>
<td>1.141</td>
</tr>
<tr>
<td>Town 100th. +</td>
<td>1.352</td>
<td>0.036</td>
<td>11.43</td>
<td>0.000***</td>
<td>1.284</td>
<td>1.424</td>
</tr>
<tr>
<td>Town up to 100 th.</td>
<td>1.067</td>
<td>0.026</td>
<td>2.67</td>
<td>0.008***</td>
<td>1.017</td>
<td>1.119</td>
</tr>
<tr>
<td>Married</td>
<td>1.066</td>
<td>0.026</td>
<td>2.61</td>
<td>0.009***</td>
<td>1.016</td>
<td>1.118</td>
</tr>
<tr>
<td>Divorced</td>
<td>1.057</td>
<td>0.112</td>
<td>0.53</td>
<td>0.599</td>
<td>0.860</td>
<td>1.300</td>
</tr>
<tr>
<td>Widow</td>
<td>2.336</td>
<td>0.708</td>
<td>2.8</td>
<td>0.005***</td>
<td>1.289</td>
<td>4.233</td>
</tr>
<tr>
<td>Physical disability</td>
<td>0.788</td>
<td>0.076</td>
<td>-2.48</td>
<td>0.013**</td>
<td>0.653</td>
<td>0.951</td>
</tr>
<tr>
<td>Cultural activity</td>
<td>1.138</td>
<td>0.043</td>
<td>3.450</td>
<td>0.001***</td>
<td>1.058</td>
<td>1.225</td>
</tr>
<tr>
<td>Social activity</td>
<td>0.934</td>
<td>0.020</td>
<td>-3.160</td>
<td>0.002***</td>
<td>0.895</td>
<td>0.974</td>
</tr>
<tr>
<td>Intellectual activity</td>
<td>1.150</td>
<td>0.032</td>
<td>5.030</td>
<td>0.000***</td>
<td>1.089</td>
<td>1.214</td>
</tr>
<tr>
<td>Public activity</td>
<td>1.080</td>
<td>0.043</td>
<td>1.910</td>
<td>0.056*</td>
<td>0.998</td>
<td>1.169</td>
</tr>
<tr>
<td>Aid of non public intern.</td>
<td>1.029</td>
<td>0.041</td>
<td>0.720</td>
<td>0.474</td>
<td>0.952</td>
<td>1.112</td>
</tr>
<tr>
<td>Aid of public intern.</td>
<td>0.540</td>
<td>0.171</td>
<td>-1.940</td>
<td>0.052*</td>
<td>0.290</td>
<td>1.005</td>
</tr>
<tr>
<td>Public program - 'first job'</td>
<td>1.970</td>
<td>0.629</td>
<td>2.120</td>
<td>0.034**</td>
<td>1.054</td>
<td>3.685</td>
</tr>
<tr>
<td>Other public programs</td>
<td>1.511</td>
<td>0.486</td>
<td>1.280</td>
<td>0.199</td>
<td>0.805</td>
<td>2.839</td>
</tr>
<tr>
<td>Number of observations</td>
<td>10299</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Log likelihood</td>
<td>-70409</td>
<td></td>
<td></td>
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<td>522.76</td>
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<tr>
<td>LR chi²(32)</td>
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<tr>
<td>Prob &gt; chi²</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td>0.178</td>
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<td>42.72</td>
<td></td>
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<tr>
<td>Gramlsh &amp; Therneau chi² (32)</td>
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<td>0.100</td>
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<tr>
<td>Prob&gt;chi²</td>
<td></td>
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</tr>
</tbody>
</table>

Note: Voivodship coefficients omitted for brevity. Significance levels denoted by asterisks (1% – ***, 5% – **, 10% – *).
 Obtained estimates reveal a number of interesting facts. First, men have higher hazard than women by 12.4%. It means that the ‘risk’ of finding a job is higher for men in the unit of time by 12.4%. Equivalently one could say, that men on average need only 89% of the time for women to find their first job. Other significant result is that graduates with tertiary graduate education level have hazard rate higher by 11.3% compared to graduates with basic vocational education level, all else equal. The interesting fact is that for other levels of education there is no statistically significant difference in the hazards of finding first job. Growing popularity of tertiary education seems to add to the fact that it is more and more difficult to find a job without the highest level of education. This can also be an element of a signalling theory of education (Spence 1973). According to this approach, education is treated only as a signal of potential future productivity, serving as a tool to break the imperfect information problem. On the other hand, the education can be interpreted in terms of a screening device (Arrow 1973).

Practical experience earned at school also seems to be significant predictor of the time to finding first job (hazard higher by 9.2%). This requires a brief comment. The variable captures in fact a subjective perception of practical experience earned during school education, not the objective fact. Those graduates who evaluate their experience as high and valuable, face higher hazards of finding first job. It is therefore questionable if this is the effect of actual experience or subjective perception or other (possibly unobservable) personal characteristics of the individual correlated with this perception. Knowledge of foreign languages seems to be insignificant predictor of the search time for the first job.

Class of settlement unit of graduates shows another important fact. There is a strong difference between inhabitants of the largest cities, medium towns and inhabitants of rural areas. Graduates coming from the largest cities face higher hazards by 35.2% than their rural counterparts. Higher hazards by 6.7% are faced by inhabitants of medium towns, as compared to the same reference group. This suggests that the job opportunities are highly concentrated in the most populated areas and is in order with the core-periphery theory of economic expansion.

Marital status of graduates also seems to play important role in finding first job. Married graduates face hazards higher by 6.6% than singles (family duties probably play important role in intensification of search effort). Widowed graduates face enormously high hazards of finding first job, but since there are only 17 widowed individuals in the sample it is difficult to infer any meaningful predictions.

Physical disability, as expected, indicates a negative chance of finding first job. Graduates with various kinds of disability face the hazard of finding first job that is only 78.8% of the baseline hazard.

School leavers with higher school average grades tend to perform better on the job search. The same applies to those possessing driving license. Very strong positive predictor of the first job search time is having personal contacts in the professional environment.

Important results are obtained by studying influence of various types of personal activities of graduates on the chance of finding first job. There were four dimensions of personal activities that were included into the model. Those who present high cultural activity face higher hazards by 13.8%. It seems therefore that being more culturally oriented and active makes it more likely to find first job sooner. Surprisingly, graduates who indicate frequent attendance in various family events, meetings, parties and other social events, exhibit slightly lower hazards of finding first job. This is surprising since it could be argued that a reach social life is rather a sign of outward oriented personality. Furthermore, the dominating method of job seeking in Poland as reported by Labour Force Survey is by friends and relatives (78.9% of total number of unemployed) leaving Labour Office in the second position (69.2%). Graduates who indicate high level of intellectual activity face higher hazards by 15%. The last type of social capital dimension captures activity in various social organizations like charity groups, NGOs and local societies. Graduates with high activity of this type also face higher hazards by 8%. Last group of variables reflects the influence of intermediaries (public and private) and state programs of employment promotion. None of these variables appears to be significant predictor of the time of finding first job by graduates apart from the ‘first job’ program. This program was originated by the Ministry of Labour and Social Policy in 2002. A very strong positive influence of this program needs caution since the quality of jobs was not studied here. This aspect of study is a natural step to continue empirical analysis of graduates’ chances of finding first jobs and the stability of their employment.

6. Conclusion

This study focused on how different personal and other social characteristics affect chances in finding first job for graduates in the Polish labour market. Key finding is that both personality and traditional human capital variables play a role in determining success in the labour market entry for Polish graduates. Strong positive predictors of success are high education level, good school performance (high average grade), fact of living in the largest cities, personal cultural, public and intellectual activity and fact of having contacts in the professional environment.

7. References


Abstract: Although the importance of critical thinking skills in nursing is increasingly being recognized world-wide, there are only a limited number of research reports on this subject in nursing in Turkey. The aim of this descriptive study was to determine the level of critical thinking and the factors that affect level of critical thinking of nursing students. All the students, registered to a nursing school, were invited but in total 312 baccalaureates and 22 master's degree students accepted to participate. The response rate was 84.7 %. The research data were collected with two tools, a “Personal Information Form” and the “California Critical Thinking Disposition Inventory”. The students’ CCTDI total mean score was $X=230.36$. It was determined that as age, grade point average on transcript and class increased the levels of critical thinking were increased. In addition those who had lived in a city or metropolitan city prior to coming to university and those with nursing experience were found to have higher levels of critical thinking than the others ($p<0.05$). The students’ CCTDI total mean score was found to be low. Based on the findings obtained in the research it is recommended that students' critical thinking skills should be enhanced during their nursing education.

Key words: critical thinking, nursing students, nursing education, California Critical Thinking Disposition Inventory, Turkey.

1. Introduction

Rapid developments and changes are occurring in the information age in which we live and the accumulation of knowledge is rapidly increasing. Scientific and technologic developments are increasing the need for a qualified workforce. This situation today makes it necessary for people to know themselves well, to be aware of their rights and responsibilities, to give importance to individual and social development, to be sensitive, thoughtful, inquisitive to research and make intelligent decisions, and to have critical thinking skills (Kaya, 1997; Taşocak, 1997; Ulupınar, 1997; Semerci, 1999; Karageç, 2003; Taşçı, 2005). The development of critical thinking skills is very important for nurse professionals who believe in knowledge, search for scientific truths and apply them and who implement evidence-based practice (Taşocak, 1997; Daly, 1998; Dil Coşkun, 2001; Özer, 2002; Karageç, 2003).

The members of all professions today need to be able to adapt easily to developments and innovations, choose knowledge wisely, think creatively, be flexible, be interested in and sensitive to subjects outside their profession, improve themselves, in short, they need to have gained modern professional qualifications. It is possible for students to be able to gain these qualifications so they can easily adapt to innovations brought by the age with modern education aimed at having students assimilate basic concepts using critical thinking to acquire problem solving skills (Çörrkç, 1992; Kaya, 1997; Öztunç, 1999). For this to occur, it is vitally important for universities to be defined as places where people think globally (Kaya, 1997; Kürüm, 2002; Kökdemir, 2003a). In a modern educational understanding instead of training individuals to accept prepared facts without question, the goal is to train individuals who know the necessity of learning why and how, who use knowledge they have learned, and who improve and create new information. For this reason one of the most important roles of the education system today is the training of individuals who think critically for society (Akşiyük, 2002; Kürüm, 2002).

The importance of critical thinking in nursing, as in all professions, is emphasized by Turkish and international nursing organizations, and having the ability to think critically is accepted as one of the foundations of nursing practice (Facione, Facione and Sanchez, 1994; Ford and Profetto-McGrath, 1994; Kataoka-Yahiro and Saylor, 1994; Kaya, 1997; Angel, Duffey and Belyea, 2000; Martin, 2002).

The importance given to critical thinking ability has led to requiring the development of critical thinking ability to be supported by educational programs (Kayabaş, 1995b; Kaya, 1997; Simpson and Courtney, 2002). In the development of these programs priority needs to be given to the evaluation of current scientific research results, and based on these, determination of policies and strategies, and action need to be taken (Kayabaş, 1995b; Kaya, 1997). Although the importance of critical thinking skills in nursing is increasingly being recognized world-wide, there are only a limited number of research reports on this subject in nursing in Turkey.
2. Literature Review

The inadequacy of critical thinking ability, which is the dynamism of the quality and contents of nursing care, can have a negative effect on quality, effectiveness and adequacy of care, and the professionalism, autonomy and power of the profession. For this reason to the extent that members of the nursing profession can acquire critical thinking ability, that is the level they will be able to give care that will protect and improve the health of society and improve quality of life. To be able to train nurses who can give this kind of care in the future it is important that nursing students acquire critical thinking skills during their education (Dil Coşkun, 2001). However in studies conducted in Turkey, with university students, the conclusion has been reached that there is an average level of critical thinking ability, that their university education does not adequately develop their critical thinking skills, and that it is necessary for this subject to be reviewed (Kaya, 1997; Dil Coşkun, 2001). The results of studies on the subject of academic branch, another of the factors affecting critical thinking, have supported one another. In a study by Walsh and Hardy (1999) the relationship between factors of academic branch (English, Psychology, Nursing, History, Education, Business) and gender with critical thinking were examined with 334 students from six different school branches. In the research the academic branch was found to have a significant effect but gender did not. In research comparing academic branches with practical classes (nursing, psychology, education) and academic branches without practical classes (history, English, business) it was determined that branches that have practical classes had lower scores, that is, the level of critical thinking was lower for branches with practical classes (Walsh and Hardy, 1999). In our country, similarly, in a study conducted by Kaya (1997) with 224 students in science, health, social and engineering divisions, significant differences were found between the branches for students' critical thinking ability. The nursing students in the Health Sciences Division were found to have lower critical thinking ability than the other branches. In addition it was determined that as students' socioeconomic level increased their critical thinking ability increased. Also it was determined that students who participated in socio-cultural and scientific activities had higher levels of critical thinking ability than the other students which is supported by other research. A significant difference was found between the students for critical thinking ability for those who defined themselves as risk takers and researchers (Kaya, 1997).

In a study in Turkey by Dil Coşkun (2001) with 92 nursing students, it was determined that the students' had an average level of critical thinking, and that as they progressed into higher social classes their level of critical thinking increased. However the study by Kaya (1997) found that socioeconomic level did not have an effect on critical thinking level. In Dil Coşkun's study students who graduated from high schools in the Central Anatolian region of Turkey had higher levels of critical thinking compared to the students from other regions, but their age, marital status, parent's educational level and parent's employment status did not have an effect of their level of critical thinking.

The factors that affect the development of critical thinking skill, as discussed in relevant literature, are education, age, academic branch, academic achievement, socioeconomic level, participation in scientific and social activities, parent's educational level, and parent's occupation. There are conflicting results from studies regarding education as one of the factors affecting critical thinking. In a study by Shin (1998) comparing associate degree (n=119) and baccalaureate degree (n=115) nursing students’ critical thinking and clinical decision making skills significant differences were determined in a positive direction with the baccalaureate degree students. However, in contrast to this finding, in studies conducted by Martin (2002) and Erdem (1995) in our country, the level of education was not found to have an effect on critical thinking level.

There has been considerable interest shown in the topic of critical thinking recently in the nursing field. The reasons for the interest in critical thinking in education could be the enlivening of teaching methods which is the goal of critical thinking development, the rapid changes in the area of health care, developments in the professional roles of nurses, and an increase in the expectations of nurses (Kayabaş, 1995a; Simpson and Courtney, 2002).

3. Methodology

Setting and Sample

This descriptive study was conducted in the University of Cumhuriyet, School of Nursing in Sivas province where located in Central Anatolia in Turkey. This school was founded in 1981 and is one of Turkey's well-known, full-time 4 years nursing school. In total 14 senior lecturers and 16 research assistants work in the school and all the lecturers have an RGN qualification and also had a PhD degree in nursing. In the school Baccalaureate and Master degree education are given to nurses, since 1981.

All baccalaureate degree (N=369) and master's degree (N=25) students at the school were invited to participate in to the study, further sampling method was not assigned.

Instruments

Two forms were used as data collection tools: (1) “Personal Information Form” and (2) “California Critical Thinking Disposition Inventory (CCTDI)”.

The Personal Information Form, constructed in the light of the relevant literature by the researchers, consisted of 19 questions,
and aimed to determine students’ socio-demographic characteristics.

The CCTDI was developed by P.A. Facione, N.C. Facione and Giancarlo in 1998, for the purpose of measuring students' critical thinking disposition and the Turkish version of the tool was tested for validity and reliability by Kökdemir (2003). The tool’s internal consistency coefficient has been determined to be .88 (Kökdemir, 2003c). The CCTDI is a 51 item tool with a 5-point Likert type scale and the points given for each item are considered the score. However the negative items (5, 6, 9, 11, 15, 18, 19, 20, 21, 22, 23, 25, 27, 28, 33, 36, 41, 43, 45, 47, 49, 50) are scored in the reverse.

In the evaluation of CCTDI the students' level of agreement with the item is totaled for every item and the result evaluated out of the total possible of 306 points. In the scores a total score less than 240 is considered low, scores between 240-300 are considered average and scores over 300 are considered to represent a high level of critical thinking skills.

Data Collection

After having the necessary written approval from the university’s relevant authorities of the university, for the administration of the data collection tools in the study, the researchers went to every class, and explained the purpose of the study to the students in the classrooms and emphasized that participation was voluntary. Students were assured that their privacy and confidentiality would strictly be protected as no personal identifiers were included in the questionnaire and any information given will only be used for research purpose. In the study students’ informed consents were received. It was also explained that non-participation to the study would cause no disadvantage for the students. The students completed the forms without indicating their names on the forms. It took approximately 20–25 minutes to complete the forms. Although there was no student who refused to participate in the research, there were students who were absent on the day that the tools were administered. Therefore the study was carried out with 334 students (312 baccalaureates and 22 master's degree) and the response rate was 84.7%. Data were collected between 15 - 30 May 2005.

Data Analysis

The data obtained in the study were analyzed using the SPSS (Statistical Package Social Sciences) for Windows, Version 10 pocket program. Chi-square, Turkey test variance analysis and t-test were used in statistical analysis.

4. Findings and Discussion

Table 1: Distribution of students' mean scores according to their educational level

<table>
<thead>
<tr>
<th>Education level</th>
<th>Number</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate degree</td>
<td>312</td>
<td>171</td>
<td>275</td>
<td>229.05 ± 18.07</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>22</td>
<td>212</td>
<td>288</td>
<td>248.86 ± 20.62</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>230.36 ± 18.87</td>
</tr>
</tbody>
</table>

There was a statistically significant difference between the mean critical thinking scores for the baccalaureate and master's degree students (p<0.05) (Table 1). The total mean score from the CCTDI for the baccalaureate degree students who were participating in the research was 229.05 and for the master's degree students was 248.86 and the mean score for all of the students was 230.36. This mean is classified as a "low" level of critical thinking according to the CCTDI. In other research conducted in Turkey, similar findings were obtained. In studies comparing nursing students with other university students, the nursing students were found to have low levels of critical thinking (Kaya, 1997; Dil Coşkun, 2001).

Table 2: Distribution of students' mean scores according to year in school

<table>
<thead>
<tr>
<th>Critical Thinking Levels</th>
<th>Year</th>
<th>Number</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACCALAUREATE</td>
<td>1st</td>
<td>77</td>
<td>171</td>
<td>271</td>
<td>228.78 ± 18.17</td>
</tr>
<tr>
<td></td>
<td>2nd</td>
<td>65</td>
<td>187</td>
<td>267</td>
<td>227.26 ± 17.21</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>84</td>
<td>178</td>
<td>271</td>
<td>227.88 ± 17.75</td>
</tr>
<tr>
<td></td>
<td>4th</td>
<td>86</td>
<td>190</td>
<td>275</td>
<td>231.80 ± 18.90</td>
</tr>
<tr>
<td>MASTER’S</td>
<td>Classroom Period</td>
<td>12</td>
<td>212</td>
<td>288</td>
<td>245.42 ± 19.88</td>
</tr>
<tr>
<td></td>
<td>Thesis Period</td>
<td>10</td>
<td>217</td>
<td>288</td>
<td>253.00 ± 18.87</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>230.36 ± 18.87</td>
</tr>
</tbody>
</table>

p<0.05 p=0.000
As can be seen in the Table 2, the examination of the CCTDI scores according to students' class it was determined that, other than 1st year students' level of critical thinking skill, as the year of school increased in the 2nd, 3rd, 4th, Master's degree class period, and Master's degree thesis period, the level of critical thinking skills also increased. This result was found to be statistically significant (p<0.05) (Table 2). The reason for the difference seen in the 1st year is thought to be because a new, more student centered, and challenging curriculum had begun at the school and students' self-learning had been integrated into the educational system.

In the literature, in parallel with our research findings, an increase in critical thinking skills has also been seen as the year of school increased (Brooks and Shepherd, 1992; Çıkırkı, 1999; Adams, Stover and Whitley 1999; Dil Coşkun, 2001; Güneş and Kocaman, 2005). It is known that mental ability is significantly affected by the maturing of critical thinking and the richness of life (Çıkırkı, 1992; Kayabaşı, 1995a; Öztunç, 1999; Dil Coşkun, 2001; Evcen, 2002). Assuming that as the students' year at school increased their professional and social experiences were enriched as well, it can be said that this was an expected finding from our research.

<table>
<thead>
<tr>
<th>Place of Residence</th>
<th>Number</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean ± Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan City</td>
<td>57</td>
<td>186</td>
<td>288</td>
<td>254.77 ± 22.12</td>
</tr>
<tr>
<td>City</td>
<td>152</td>
<td>171</td>
<td>288</td>
<td>233.36 ± 18.93</td>
</tr>
<tr>
<td>Town</td>
<td>107</td>
<td>187</td>
<td>275</td>
<td>224.41 ± 15.88</td>
</tr>
<tr>
<td>Village</td>
<td>18</td>
<td>201</td>
<td>252</td>
<td>226.39 ± 14.82</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>250.36 ± 18.87</td>
</tr>
</tbody>
</table>

As the students' transcript point mean (GPA) increased their level of critical thinking also increased and this difference was found to be statistically significant (Table 3). However in contrast to our research findings, in a study conducted by Güneş and Kocaman (2005) with 191 nursing students there was no difference in critical thinking level according to academic achievement. The reason for this may be the difference in the measure of academic achievement used in the two studies.

Table 4: Distribution of students' critical thinking mean scores according to place of residence

As the students' transcript point mean (GPA) increased their level of critical thinking also increased and this difference was found to be statistically significant (Table 3). However in contrast to our research findings, in a study conducted by Güneş and Kocaman (2005) with 191 nursing students there was no difference in critical thinking level according to academic achievement. The reason for this may be the difference in the measure of academic achievement used in the two studies.

Table 3: Distribution of students' mean scores according to transcript grade point average

<table>
<thead>
<tr>
<th>Critical Thinking Levels</th>
<th>Transcript Grade Point Average</th>
<th>Number</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean ± Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60-69</td>
<td>140</td>
<td>178</td>
<td>268</td>
<td>223.79 ± 16.65</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
<td>162</td>
<td>171</td>
<td>288</td>
<td>233.35 ± 18.80</td>
</tr>
<tr>
<td></td>
<td>80 +</td>
<td>32</td>
<td>209</td>
<td>288</td>
<td>243.97 ± 17.69</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>230.36 ± 18.87</td>
<td></td>
</tr>
</tbody>
</table>

Another expected finding in the research was that students who had nursing experience had significantly higher levels of critical thinking (p<0.05) (Table 5). In a study by Martin (2002), similar to our findings, having clinical experience was found to have a positive effect on critical thinking. As was described above, experience and enriched lives are factors that have a positive effect on critical thinking ability. Taking into consideration the process of life experience and enrichment requires mental abilities, such as communication, problem solving, and decision making, which are part of the experience of working as a nurse, then this result can be expected. In contrast to our findings, however, in the study by Kaya nursing experience was not found to have an effect on critical thinking ability. The reason for this difference may be due to the difference in the length and quality of experiences of the research participants and differences in the research design.

Table 5: Distribution of students' mean scores according to nursing experience

<table>
<thead>
<tr>
<th>Critical Thinking Levels</th>
<th>Nursing Experience</th>
<th>Number</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean ± Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>33</td>
<td>184</td>
<td>288</td>
<td>243.91 ± 21.34</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>301</td>
<td>171</td>
<td>275</td>
<td>228.87 ± 18.00</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>230.36 ± 18.87</td>
<td></td>
</tr>
</tbody>
</table>

p<0.05 p=0.000
Table 6: Distribution of students' mean scores according to age groups

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-20</td>
<td>136</td>
<td>171</td>
<td>271</td>
<td>227.93 ± 18.19</td>
</tr>
<tr>
<td>21-23</td>
<td>156</td>
<td>178</td>
<td>275</td>
<td>229.50 ± 17.02</td>
</tr>
<tr>
<td>24+</td>
<td>42</td>
<td>197</td>
<td>288</td>
<td>241.43 ± 23.62</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>171</td>
<td>288</td>
<td>230.36 ± 18.87</td>
</tr>
</tbody>
</table>

A statistically significant difference was found in students' critical thinking ability according to their age; as their age increased their mean critical thinking level also increased (p<0.05) (Table 6). Different results have been obtained, however, in other research. Although the research results from the study by Martin (2002) are in parallel with our results, in the study by Adams, Stover and Whitlow (1999) a significant negative correlation was found between age and critical thinking level, and in the study by Scott and Markert (1994) a weak negative correlation was found between age and critical thinking level. Because there is a concomitant enrichment of experience as age increases the increase in critical thinking was an expected finding.

In the advanced statistical analysis no significant correlation was found between level of critical thinking and the students' gender, marital status, parents' educational level, parents' occupation, number of siblings, in which place of the children they were, family general structure, whether or not they willingly chose their profession, or participation in social and scientific activities (p>0.05).

5. Conclusion and Recommendations

The students' mean score for level of critical thinking was determined to be "low." For this reason it is recommended that educational strategies be developed that will develop students' critical thinking abilities and that, instead of simple lecture format, teaching methods, such as case study analysis and discussion, be used more frequently that will develop the students' critical thinking skills. In the research students who had clinical experience were found to have higher levels of critical thinking than the other students. For this reason it is recommended that the length of clinical and field practice be increased in nursing education. In the research because the conclusion was reached that students do not sufficiently participate in scientific and social activities, it is recommended that they be encouraged to do so. It is recommended that studies be planned to investigate the reasons why the students' level of critical thinking is low.

6. References


Çıkrıkçı, N. (1992) Wıtson-Glıser eleştirel ıkıl yürütme gücü ölçeğinin (Form YM) lise öğrencileri üzerindeki ön deneme uygulaması [Pilot test administration of Watson-Gleser critical thinking appraisal tool (Form YM) with high school students], Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 25 (2), 559-569, (In Turkish).


Internet: http://www.baskent.edu.tr/elyad


MISSION, OBJECTIVES AND ACTIVITIES OF THE SLOVENE UNIVERSITY CAREER CENTRES

ALEKSANDER ZADEL, IRIS SKRT, GREGOR CERINŠEK AND MANCA POGLAJEN

Career Center, University of Primorska

Abstract: Three main Slovene Universities (University of Ljubljana, University of Primorska and University of Maribor) have established and developed a joint consortium of University career centres. The unified system of university career centres enables the effective transfer of information, the exchange of knowledge, competences and best practices.

The article presents briefly the consortium which was established by the three universities in the field of lifelong career guidance. It describes the proposal of consortium for a joint concept of university career centres and, in more detail, one of the tools the centres plan to develop together, the so-called “Competence Portfolio”.

Key words: tertiary education, competences, lifelong (career) guidance, career centres.

1. Introduction

Since 2006, the incentives at Slovene universities for creating formal system of career services have increased. Today, all three largest universities (University of Ljubljana, University of Maribor and University of Primorska) have their own career centres on the level of the rectorship, whereas Ljubljana and Maribor also have some separate career centres at some of the faculties. The existing mixture of centralised and decentralised models which has led to gaps as well as some overlapping, calls for a systematization of structure, functions, activities and financing.

2. Lifelong (Career) Guidance for University Students in Slovenia

Background

According to OECD (2004), lifelong (career) guidance refers to: “services and activities intended to assist individuals, of any age and at any point throughout their lives, to make educational, training and occupational choices and to manage their careers.”

These services may be found in any educational level and institution, in public employment services, in the workplace, in the voluntary sector and in the private sector. They may consist of individual or group activities, be face-to-face or at a distance. They include career information provision (in print, ICT-based and other forms), various assessment tools, counselling interviews, career education programmes etc.

In Slovenia, the question of lifelong career guidance for university students has not been debated yet at the national level. However, the situation is improving. Recent conference on lifelong guidance (organised on 4 September 2009 by Ministry of Labour, Family and Social Affairs) included also a special workshop on guidance for students. The participants, ranged from representatives of Ministries of Labour; of Higher Education; and of Education, to representatives of the Employment Service of Slovenia, Employer’s Association, Slovenian Student Union, HRM experts and universities. The debate focused on the proposals prepared in the expert study for the creation of systemic approach to lifelong (career) guidance (Nikanović 2009). The study proposes 2-step approach: first a definition of concepts, and second their implementation through projects. Main issues are:

- the concept of inclusion of lifelong (career) guidance in curricula,
- the concept of career centres,
- the concept of including other stakeholders, and
- the concept of developing the career guidance aspect of tutoring.

Below, we present the current situation in Slovenia and our proposal for improvement.

Situation at the Universities

Currently, there are about six career centres established at Slovenia’s three public universities. All together, these universities account for the majority of tertiary education students in Slovenia, namely 92% of 98,128 students enrolled at university-level programmes in 2008/09.1 Most of them, some 60,000 in total, study at the University of Ljubljana, while the University of Primorska accounts for 6,500 students.

Whereas University of Primorska is small and organised unitarily, the University of Ljubljana and University of Maribor have up to 27 member faculties with certain independence. Thus, certain initiatives for a career guidance office have seen light at individual faculties. For example, UL set improvement of links between students and employers in its strategy (UL 2006) and provided for student career guidance as one of the building stones of its quality system.

Currently, at the UL, the most developed is the Career centre at Faculty of Economics, which provides its students with complete service (information, advising, counselling, promotion activities – career fairs, visit to companies, workshops for career management skills etc.), whereas 2 other faculties have established so-called career points, which primarily engage in information and advising. The situation in Maribor is similar, with a centre at Faculty of Economics, and initiatives of the rectorship as well of some faculties to develop a centre at the level of university and at faculties. UP has one career centre which is mainly oriented in advising, counselling and individual career development.

However, only two of these centres currently have employees who are designated only to perform guidance-related activities. Elsewhere the career offices are either run as a part of another office (e.g. student’s office), on voluntary basis, providing only information services, or, as it is the case of centralised career centres at Ljubljana and Maribor, as a development project.

This is due to the unstable financing. The universities themselves namely do not have sufficient funds to finance the activities completely. On the other hand, these centres find it hard to compete on the market with companies specialized in HRM. Solely a database of students is not enough. Therefore, development projects should provide with an answer on the function of career centres, type of models (centralised, decentralised, a mixture of both), the possible organisation (which activities are to be performed on the central -rectorship-level, which can be let to the faculties, can this be different from one faculty to another etc.), standards the centres and their services should meet, and most of all a sustainable system of financing.

One can conclude that the situation in Slovenia is not as good as the sheer number of institutions would indicate. It seems to be stuck in the situation the OECD described in 2004: the range of services that should be provided is not available to all students equally; there is a lack of trained personnel, with the focus of existing career offices on providing workshops and information (OECD 2004). Another issue is the lack of building a systemic approach to career development: it should be included in the curriculum.

Luckily, the universities have already acknowledged this problem and are looking for solutions. In the next section, we describe a potential way out of the deadlock through the consortium of university career centres.

3. **Consortium and the Joint Concept of University Career Centres**

Three main Slovene Universities (University of Ljubljana, University of Primorska and University of Maribor) have established and developed a joint consortium of University career centres. The unified system of university career centres will enable the effective transfer of information, the exchange of knowledge, competences and best practices.

Performing its main activities, university career centres offer their users the support, counselling, and competence development in order to plan their careers in the best possible way. Furthermore, the employers play a major role in the process of competence development since they are best acquainted with the labour market needs. University career centres therefore produce and reinforce the active link between education system and labour market.

The University career centres’ mission is as stated:

- They facilitate employers the search for career centre users (future employees) and enable employers to take an active part in the competence development process in the time of users’ formal education and according to real market needs.
- The career centre users are provided with directions and support in order to effectively enter the labour market, which finally results in lower unemployment rate within young people.
- Education institutions are provided with relevant information that presents the basis for future improvement of the quality of education programmes and teaching plans. The information is acquired through the process of career tracking of the centre’s users after they finish their formal education.

The added value of the University career centres consortium is formed as stated:

1. The preparation of unified competence portfolios for career centre users that will be formally acknowledged as diploma supplements and will present an important document for the career centre users as well as for the employers;
2. The development of unique computer application that will enable the transfer of relevant information to the career centre users, the electronic formation and review of competence portfolios, and enable the process of career tracking of the centre centre users.
3. The consortium can easily develop and offer the unified base of different formal and informal education programmes for the career centre users.
4. The common information base on labour market needs will enable employment directions to the career centre users and their effective transition onto the labour market.
5. Activities of University career centres are in accordance with the Bologna process as they enable the active part of employers in the process of competence development of career centre users in the time of their formal education.
The consortium will also strive for a definition of standards, related to the career centres, its potential organisational structure (which should be case-specific given the size and organization of Slovene universities), and determine the level of joint activities, including the education and training of centres’ staff.

4. Competence Portfolio – an Added Value of the University Career Centres

As stated above, one of the tools the consortium plans to develop jointly is the so-called “competence portfolio”. The aim is to create a tool which would be common for all three universities and their students and supported by a special computer application.

As the modern society is constantly changing, the old understanding of career development does not apply. Today, careers are not being once and for all; they are being built. In this society knowledge and the usage of knowledge is one of key issues. Constant upgrading of one's knowledge and skills is a must. In 2000, the EU adopted the Memorandum on lifelong learning, which outlines the need for permanent improvement and development of the acquired knowledge (Svetlik, Ilić, 2004 in Mihalić, 2006: 189). It promotes a new culture of learning, which comprises of permanent and systematic education, study and training throughout whole life (Mihalić, 2006: 189).

As the society changes, so does the way of entering the labour market. If in the past, a certificate of formal education would suffice, this is no longer the case. Now, the competences and the practical knowledge that one possesses, play the main role. Individuals need to develop career management skills and other competences. One of the main tasks of career centres is the rising of awareness on the importance of competence development. Only individuals, who are aware of their qualities and can market them successfully, will be able to get a proper employment. Lifelong learning is getting more acknowledged also in organizations, as permanent education stems from lifelong learning.

With the acquiring of new knowledge and new skills, a system to note all the achievements needs to be developed. Therefore the “Competence Portfolio” as a document, which would holistically present a job-seeker to future employer, would be helpful.

There are many definitions for competences; some focus on desired work outputs, others on the attributes that people need to bring to their work (e.g. knowledge, skills, motives etc.). Generally speaking, a competency can be understood as a disposition and can be attributed to individuals, teams and organizations. Furthermore a competency is a latent attribute and it is identified and defined in a community of practice. Ultimately, a competency is not a personal construct (a trait) but an observable aspect of performance (required behaviours and activities) in specific circumstances (Spencer and Spencer, 1993).

The competency approach focuses on what the individual can do rather than what the person knows. It is based on observable behaviour and not espoused behaviour as well. According to TENcompetence (www.tencompetence.org) we can define competencies as “abstractions of the effective and efficient actions that are needed to deal with the critical incidents, problems or tasks that can occur in a certain context”.

Competence portfolio will enable individuals to systematically note and control their own competences, and will be at their disposal anytime they would need it.

The portfolio would include individual’s:
(a) personal profile (his characteristics) and individual career plan,
(b) CV section,
(c) section on formal education and,
(d) section on competences and informal education.

The portfolio can be filled-in electronically by using the computer application and can be overviewed and consulted by the individual, the interested employer or the career counsellor. Individual can therefore choose which data can be available to the employer and which will remain hidden.

(a) Personal profile and individual career plan are based on the advising and counselling sessions. The purpose it that the individuals become aware of their values. Individual thus cannot create it only by themselves, as the method requires several consultations with the counsellor. Personality is a relatively permanent and unique unity of psychological, behavioural and physical characteristics of individuals and determines their adaptation to the environment (Musek 1993). Individuals’ characteristics, defined in the personal profile, determine their behaviour.
(b) The CV section is the graphical outline – it comprises of all the data a person wishes to include in the Europass-like CV form. The CV will be available to the person, the employer and the career centre advisor.
(c) Formal education section will contain information on achieved education. Education institutions will be enabled to confirm electronically the data included.
(d) Competence section will be formed after a broad research on competences among HRM-experts, employers and educational institutions. The survey will present the competences that are most required in the market (in the case of employers), and, in the case of education institutions, the competences that are most obtained by graduates. A joint model will consist of the most common ones and will serve as a template. A person will be able to include other competences as well, but they will not be a part of the model.
5. Conclusion

Performing its main activities, university career centres offer their users the support, counselling, and competence development in order to plan their careers in the best possible way. The competence portfolio therefore forms an important document that serves individuals in order to present their major qualities, work experiences, characteristic, or in short competences, to the employers. It provides a special formal confirmation of all work experiences that were gained during the work process and were yet not confirmed in any other document or certificate.

Furthermore, the employers play a major role in the process of competence development since they are best acquainted with the labour market needs. This is in accordance with the Bologna process as university career centres enable the active part of employers in the process of competence development of career centre users in the time of their formal education. They produce and reinforce the active link between education system and labour market. Through the competence portfolios the employers and human resource managers gain important information on competences that individuals have obtained during their formal education.

The development of unique computer application will enable the transfer of relevant information to the career centre users, the electronic formation and review of competence portfolios, and enable the process of career tracking of the career centre users. Therefore career centres facilitate employers the search for their future employees and enable employers to take an active part in the competence development process in the time of individuals' formal education and according to real market needs.

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DEVELOPING SYNERGETIC RELATIONSHIPS WITH THE MARKET: 
THE DESIGN, IMPLEMENTATION AND EVALUATION OF AN 
INTERNSHIP PROGRAM FOR STUDENTS IN A DEPARTMENT OF 
economics FROM A GREEK PUBLIC UNIVERSITY

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Abstract: Internship programs function as a bridge of the 
“classroom” to “action”. The participation of students and 
market stakeholders in such programs creates a “win-win” 
synergy, in order to create interactive relationships, which 
introduce new concepts as vehicles for thought and a more 
systematic way of approaching relational issues between students 
and market stakeholders. The aim of this paper is to present the 
design, implementation, and the evaluation of a Synergetic 
Internship Program (SIP) for students in a Department of 
economics (2005-2007). The evaluation process consisted of the 
opinion of more than 200 participants students, market 
stakeholders (110 employers), and 15 faculty professors and staff 
participated in this project. Data collected by using questionnaires 
with qualitative and quantitative criteria. This paper used mixed 
methodological analysis. SIP was also developed to function as a 
research tool of specialized knowledge in the labor market. 
Evidence from students, faculty and employers gave us a positive 
picture. Our program run well and students perceived that gain 
extra knowledge to close the gap between theory and praxis. The 
style of supervision (faculty-students-employers) that we followed 
during the entire SIP placement demonstrated that was beneficial 
in order to deal with individual problems.

Key words: Practical training/internship, Department of 
economics, Student perception, Employees' perception, Faculty 
involvement, Internship evaluation, Greece.

1. Introduction

The modern university needs to be able to respond to the new 
data and the new challenges of the 21st Century because recent 
and changing developments in the European and national 
environments are being shaped by new and continuously 
evolving conditions. Probably the most obvious change is in the 
development and use of informatics, a field where research 
benefits from broad based search engines and huge databases; 
hence, the breadth of the new issues, the need to avoid the 
partiality of knowledge, and the adoption of documented multi-
disciplinary approaches are just several of the components to 
which all universities must adapt. These changes and adaptations 
are characterized by many program studies. The science of 
economics, as it responds to the needs of the future and in order 
to remain relevant, must certainly adjust to the variety and 
flexibility of several variables: content, duration, access, 
differentiation of the “produced product”, It is clear that bridges 
of communication between programs of study and the specific 
knowledge of the labour market have to be established. 
Internship programs function as a bridge from the “classroom” to 
“action”. The participation of students and market stakeholders in such programs creates a “win-win” synergy, as 
well as creating interactive relationships that introduce new 
concepts as vehicles for thought; it also includes a more 
 systematic way of approaching relational issues between students 
and market stakeholders. The aim of this paper is to present the 
design, the implementation, and the evaluation of a Synergetic 
Internship Program (SIP) for students in the Department of 
economics, at Aristotle University of Thessaloniki Greece, which 
took place from 2005 until 2007, and functioned as a bridge 
between classroom theory and real world practice.

2. Rationale of an Internship Program

Higher education is not only expected to deliver excellent 
education and research, it also has to deliver those outputs in 
ways, volumes, and forms that are relevant to the productive 
process and relevant in shaping the knowledge of society 
(Jongbloed et al. 2008). Therefore, programs of study and 
expanded curriculum should be shaped by a new philosophy and 
emphasize the creation of two-way relationships between 
students and faculty that is parallel with traditional programs so 
that together, they contribute to curriculum planning that 
connects knowledge, application, and practical training for the 
students. The participation of students and market stakeholders 
in such a program will create “win-win” synergy, in both action 
and rhetoric, in order to create interactive relationships 
(Gummesson 1997). These relationships introduce new concepts 
as a vehicle of thought and utilize additional, systematic ways of 
approaching relational issues between students and market 
stakeholders. Arthur (2006) noted that the notion of graduate 
employability is part of the policy agenda across Europe and 
elsewhere; meanwhile, Teichler (2008) mentioned “internships” 
as one of the appropriate learning modes for employable skills. 
Since the majority of the professional associations in the labour 
market absorb the graduates from the department of economics,
these associations become pools of potential data that can be used for research in order to determine what specialized skills, including internships, made the graduates effective employees and how university preparation can best facilitate their job placement following graduation.

Research has found that the completion of an internship assignment during the undergraduate years is a useful strategy in helping secure a career-oriented position after graduation (Callanan, and Benzing 2004). Internships are an established mechanism to enhance self – and environmental - awareness (Brooks et al., 1995; Garavan and Murphy 2001). In addition, internships allow students to directly access job sources, to impress potential employers, to build confidence in their job search, to hone their work values, and build social skills that are beneficial in the employment (French, 2003; Smith 1996; Taylor, 1988). Internship programs function as a bridge “of the classroom” to “action” and as a comparative advancement for full-time employment in the future. Cocco (2000) points out that internships and similar programs provide a “risk-free” method for companies to evaluate their future employees. Greenhous et al. (2000) emphasized that there are many examples of students who participate in such internships [because they provide and] ensure an available pool of future talented newcomers for businesses. That becomes especially true when satisfied students advertise among their peers the positive benefits they received; such advertisement promotes demand for future internships in a tested company. Internship programs offer a variety of benefits to students both for improving performance while in college and for increasing opportunities for job placement upon graduation (Knouse et al. 1999).

3. The Design of the Case Organization and Its Community

The need to develop a Synergetic Internship Program (SIP), which emphasizes selected fields of knowledge, rises increasingly and is intensified in an era where the labour market changes continuously and the inability for graduates of economics to find a job is intensifying. In Greece, SME’s represent 98% of the total enterprises and 76% of the total workforce. In addition, information from research projects showed that:

(1) In 2000, the Hellenic Foreign Trade Board (OPE), and the Federation of Greek Industries (SEB) in cooperation with the Mc Kinsey consultants developed a pilot program regarding the export policy of the Small and Medium Sized Enterprises (SME’s) that were selected, their weaknesses in this area, etc. The research resulted in the following:
(a) a few companies offer organized departments of exports;
(b) the companies do not follow an export business plan;
(c) there is a lack of specialized personnel in export marketing;
(d) companies desire training in matters regarding exports.

(2) E-commerce and it is application are not sufficiently prevalent in our country, according to a recent research of the Ministry of Development.
(3) As far as strategic product management is concerned, nationally (in Greece) this field gained ground from 1990. Most economists would conclude that the companies ought to give necessary attention to the problem of decreasing costs, from the beginning of the chain of value and not only in the in-between stages. In this area, there is a good prospect of employment for students, due to lack of specialized personnel in our country. Similar prospects exist even for students, who will work on the logistics.

Thus, in order to design our university’s SIP, we also took into account that internships were considered as one of the primary objectives, especially when we considered the needs that new technology and globalization create. It should be emphasized that Higher Education Institutions sense the pressure that is set upon them in order to respond to the new era and market needs (Zemsky and Massy 1995). In addition, Jongbloed, Enders, and Salerno (2008) noted that universities are embedded in a national as well regional system – some in the neighbourhood of a large industry, others in more remote areas (p. 307). Thus, in order to develop our practical training program we took into consideration our location and our stakeholders needs (stakeholder theory see Jongbloed, et al. 2008). Additionally, in order to develop our SIP goals, we took into consideration the creation of new strategies to find employment and expanded curricular activities for students. These objectives are considered to be essential not only for universities, but also for the specialized personnel, in order to respond to such changes as: new technology, knowledge as a capital, changes in the learning environment, adaptability of the market, globalization, multinational students, and social responsibility.

Current SIP goals are:
(a) The systematic support of students in planning their occupational career, as a way to bridge the transition from the classroom to the work world.
(b) The interface of academia with productive units, companies, and their associations.
(c) The information about the availability of employment vacancies and the prospects of their intended three areas of training.
(d) The updating of companies and their associations in the region of Thessaloniki regarding their specialties and the graduates’ scientific skills.

Our internship program was designed on the following innovations:

First innovation: The program was designed to avoid direct contact with specific companies so that the whole interaction developed in a broad based cooperation with professional associations of the
city of Thessaloniki (Thessaloniki Chamber of Small and Medium Sized Industries, Export’s Association of Northern Greece, Hellenic Foreign Trade Board, Federation of Greek Industries, etc.). This approach continues to be most beneficial for all stakeholders, having as a key priority the development of a systematic relationship of the Department of Economics with these associations and their members.

Second innovation. The SIP aimed for a particular orientation and did not constitute training with general content. More specifically, the SIP sought to cover positions in certain specialization-knowledge fields, where there was a lack of staff in the market. This innovation exploited the fact that the main weaknesses of Greek companies were often the absence of extraversion, the lack of supply for strategic management, logistics, as well as the inefficient knowledge of modern sales techniques, e-commerce etc. Therefore, SIP aimed to:

- Train students with specific skills related to the strategy of exporting companies and later this became a pool for newcomers in those companies,
- Introduce students to product strategic management and logistics techniques
- Allow students to become familiar with new sales techniques, such as e-commerce.

Third Innovation In order for our senior students to be qualified participants of SIP, they were required to attend seminars. Those included a general framework of focused lectures, readings and discussions that emphasized export business plans, export marketing, logistics, and e-commerce; these seminars provided them the opportunity of direct application of industry-specific content knowledge and background in order to complete their internships in each of the companies that were members of different associations. Although students had been exposed to the academic knowledge in their previous studies, the seminar lectures provided by the Department faculty members, outside experts, and business consultants provided specialized knowledge about the best practices, which were directly applicable and customized to the needs of the market.

The main goal of SIP was the training of our students in the above-mentioned fields because there remains a serious deficit in both organization and personnel within many of the Greek Small and Medium Sized Enterprises. Our SIP training will continue into the future through the relationship that is now established with the professional associations of our city; from previous successes, SIP will continue to remain part of our program studies in our Department.

We expected the following direct and indirect benefits from SIP:

Directly benefited:

Our students gained knowledge and experience in specific fields. SIP was inclusive in participation by the diverse student body (i.e. males, females, student with special needs, and international students)

Indirectly benefited:

(a) The professional associations continued to develop a new action for their members, expanded the scope of activities, and served their members in a new area.
(b) The Department of Economics became involved in the beginning of a systematic cooperation that could be expanded in other disciplines as well.

The SIP development model included:

(1) A database of the companies/students will develop in order to observe the project in the most effective way.
(2) The students’ applications filed according to their grades and their curriculum vitae. They chosen by a three-member committee, that created for this purpose and which consisted of members from the three Sectors of the Departments of Economics.
(3) Deviations from the SIP goals will be evident from the student questionnaires, and all the positive and negative points will be recorded.
(4) The needs of the companies in knowledge and recruiting personnel will be revealed by the employee questionnaires, in addition to the analyzing whether the program has met its goals from the employees’ perspective.
(5) The supervising faculty member with periodical observation will be able to create a complete picture of the SIP.

Our SIP is available only for our senior students. Students who participated in our internship program had the opportunity to complete a paid (very small amount) four-month internship. From 2005 to 2007, 200 senior students from the Department of Economics participated in this internship program and worked with more than 80 enterprises that included private and public sectors. Faculty members (15) participated in supervising the entire project. After students completed their internship period, they were required to submit a summary, 10 page, written and electronic report on their experiences. In the beginning of the internship program, guidelines were provided by the staff in our department as a requirement for them to receive a small, stipend payment. Additionally, it is important to note that this training program does operate in some departments across all public universities in Greece. Because the Ministry of Education financially supports these internship programs, participating universities’ academic departments are required to submit project proposals in order to qualify for funding. Essentially, policy makers encouraged institutions to become actively engaged in
knowledge exchange with the wider environment (Jonbloed et al 2008).

4. SIP Evaluation Procedures and Outcomes

The SIP evaluation process consisted of opinions from more than 200 participating students, market stakeholders (110 employers), and 15 faculty members (professors and staff) from September 2005 through December 2007. Data was collected by using both qualitative and quantitative approaches. In examining SIP outcomes, we relied on students’ opinions twice when we asked them to provide us their opinions about their internship. This was done at the end of the first month and at the end of the internship. As with any experiment where a pre-test and post-test is administered, we perceived that this method would yield more accurate evaluation outcomes. Employers’ opinions were collected at the end of the practical training. Participants’ gender ratio was 64% female, 36% male, which corresponds to the composition of the student body, including international students. In total, 180 students worked in the private sector and 29 in public sector.

5. Student’s Perceptions

After their first working month, students provided positive and negative opinions about their internship experience (Table 1). Findings derived form a qualitative analysis and they were quantified for clarity. From a total collection of 209 questionnaires, they contained 560 individual comments; although 110 questionnaires were negative, 122 of the 209 (56.3%) were positive comments.

<table>
<thead>
<tr>
<th>Positive comments</th>
<th>Total Students</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female (134)</td>
<td>Male (75)</td>
</tr>
<tr>
<td>1. Positive attitude from employers and willingness to teach and provide specific knowledge to the students</td>
<td>145</td>
<td>99</td>
</tr>
<tr>
<td>2. Pleasant, friendly and good working environment</td>
<td>129</td>
<td>85</td>
</tr>
<tr>
<td>3. Opportunities to take active action in their work</td>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>4. Fair-keep the 6 hours per day (no extra working hours)</td>
<td>45</td>
<td>29</td>
</tr>
<tr>
<td>5. Extra motivation and awards (monetary or emotional)</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>6. Relationship of practical training with the courses that students have been studied (curriculum)</td>
<td>76</td>
<td>46</td>
</tr>
<tr>
<td>7. Smooth transition from the theory to labor market</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>8. Potential to remain in this job</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative comments</th>
<th>Total Students</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female (134)</td>
<td>Male (75)</td>
</tr>
<tr>
<td>9. Negative working environment, no friendly co-workers, competitive environment</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>10. Lack of trust and give opportunities for real work</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>11. No relationship between practical training and curriculum</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>12. Lack of the sector to keep the student as a potential employ after the completion of the internship</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>13. Require extra working hours (more than 6 per day)</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>14. No benefits from this practical training</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>15. Poor infrastructure</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>560</td>
<td>366</td>
</tr>
</tbody>
</table>

Upon the completion of their four-month internship, students completed their second evaluation, which totaled 233 valid questionnaires. We used a structured questionnaire that contained 8 questions derived from the literature and from the
first qualitative questionnaire. Students were asked to recall their perceptions’ on a 5-point Likert type scale range from strongly disagree (1) to strongly agree (5). The data was analyzed using SPSS by examining frequencies (Table 2).

Table 2: Overview of our students’ final perception

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Did you were steady worker?</td>
<td>4.67</td>
<td>.641</td>
</tr>
<tr>
<td>Q2. Relationships with your co-workers</td>
<td>4.65</td>
<td>.673</td>
</tr>
<tr>
<td>Q3. Relationships you're your boss</td>
<td>4.50</td>
<td>.767</td>
</tr>
<tr>
<td>Q4. Work environment</td>
<td>4.29</td>
<td>.817</td>
</tr>
<tr>
<td>Q5. How effective do you believe that your work was in demand?</td>
<td>4.26</td>
<td>.746</td>
</tr>
<tr>
<td>Q6. Evaluate the degree of the attention that you received from the practical sector of the training</td>
<td>4.14</td>
<td>1.003</td>
</tr>
<tr>
<td>Q7. Evaluate the work experience that you gained</td>
<td>3.73</td>
<td>.870</td>
</tr>
<tr>
<td>Q8. Do you believe that the theoretical knowledge that you gained from your academic department were useful for this particular work?</td>
<td>2.79</td>
<td>1.028</td>
</tr>
</tbody>
</table>

6. Faculty Members’ Perception

All faculty members (15) who participated in this program had telephone communication with the employers of our students and the vast majority of them noted that the entire program ran well in all 4 cycles (2005-2007). In general, employers did not have problems with our students. In addition, similar perceptions were echoed by our students’ voices. Only in rare cases did comments define some inconsistencies between our students’ working experience and the work environment (i.e. working extra hours, a different type of work than they were promised, or that employers offered our students work which was neither relevant nor meaningful to the domain of knowledge of business and economics).

7. Employers’ Perception

Finally, we had feedback from our students’ employers (110). Employers were asked kindly to provide their perceptions on a 5-point Likert type scale range from strongly disagree (1) to strongly agree (5). The data was analyzed using SPSS by examining frequencies. The evaluated questions are summarized in Table 3.

Table 3: Employers’ perceptions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q5. Evaluate student consistent (steady worker)</td>
<td>4.85</td>
<td>.556</td>
</tr>
<tr>
<td>Q1. Evaluate your relationships with the training student</td>
<td>4.85</td>
<td>.562</td>
</tr>
<tr>
<td>Q2. Evaluate student relationships with co-workers</td>
<td>4.76</td>
<td>.765</td>
</tr>
<tr>
<td>Q4. Evaluate how effective was the student in order to meet the work requirement</td>
<td>4.65</td>
<td>.711</td>
</tr>
<tr>
<td>Q3. Evaluate the attention that you gave to the student</td>
<td>4.44</td>
<td>.796</td>
</tr>
</tbody>
</table>

All responses were above the mean (4.85-4.44), there were no differences between female and male students and there were no difference in private and public sector.

8. Conclusion

In general, data strongly supports our practical training program as a success. Evidence from students, faculty, and employers gave us a positive picture. Our program ran well and students perceived that they gained extra knowledge to close the gap between theory and praxis. The style of supervision (faculty-students-employers) that we followed during the entire SIP placement demonstrated that a close, working oversight by faculty was beneficial in order to deal with individual problems. We learned what changes are required for us to make in the future and which areas that need more attention in order to have satisfied students and employers. Taking into account our students’ perceptions, we need to pay more attention to specific details of their work assignments in order for our students to gain the best benefits from their work experience. Thus, in our future practice we plan to have more communication with the employers in order to give more attention to our students.

This practice aspires to approach the problem of the demand of specialized skills and knowledge in the Department of Economics. The abovementioned SIP will continue in the next
four years as a part of a new research project, ESPA. Until now, the results showed that more than 25% of our student participants were hired by the companies that were training them. Therefore, it is possible that SIP will work as a measure of the capacity of the market to absorb the graduates. In addition, it will be used as a compass for possible revision of the curriculum. We will make decisions in judging the quality of our program of studies and the results of our project; specifically, students’ and employers’ perceptions will be part of our self-assessment report which was recently adopted by our department as part of our quality assurance process.

Last, but not least, in our future SIP, we plan to administrate another survey in order to have our students’ expectations from their internship and their final satisfaction towards internship. Thus, this technique will help us to define any gaps, deficiencies, or problems (if any) and the data provided will suggest room for improvement in order to develop and implement our SIP successfully.

9. References


HIGHER EDUCATION AND THE DEVELOPMENT OF COMPLEX COMPETENCIES: NEW PATHS

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Universidad del Zulia, Venezuela

Abstract: This paper aims to disclose two emerging modes of academic formation within some Venezuelan public universities which seek to subvert a discipline-centered (divorced from reality) higher education model which hinders the development of complex professional competencies and the performance assessment necessary to overcome developing problems through integral formation processes. First, the inclusion in curricula of a project innovatively designed to join together contextual problems, formation, and research; and second, National Formation Programs that address priority fields of development while bearing an interdisciplinary, contextualized, and cooperative approach.

Key words: complex competencies, higher education, Venezuela

1. Introduction

From 2003 a series of changes are being produced in Venezuelan Higher Education system. New paths to develop complex competencies have been designed such as the “project” and the PDF (National Formation Programs). Both innovations embody the development of complex professional competencies and demand permanent performance assessment throughout formation processes.

The project is conceived essentially as a liaison among contextual problems, formation, and research. It represents firstly a triggering axis of integration between formative research, community problems and efforts towards their resolution. Secondly, it is also a proposal-oriented strategy which translates into an organized manifestation of tasks and practices that include learning, reflecting, and performing (in formal and non-formal contexts) while it leads to social transformation. The project covers from beginning to end of the formation process, fulfilling work phases that comprise academic and popular knowledge. Besides academic actors, community members interact as well in a dialogue that fosters experience and learning. Such interaction allows the continued monitoring of complex competence development which is made visible when formation is in close contact with reality.

On the other hand, National Formation Programs lead to Higher Education (HE) degrees, certificates, or graduation that are responsive to key factors for national development; they are designed and executed in collaboration with official HE institutions throughout the country; they have a common and flexible curricular structure –given that it adapts itself to the changing demands of specific environments and the potentialities of each institution. National Formation Programs facilitate the mobility of students and professors as well as the production, distribution, and mutual use of educational resources.

This paper submits some results of a research project that applied a methodology focused on case studies which feature four national universities that are representative of the national HE model. The research developed qualitative techniques (content analysis, and interviews) that lead to the theorization of an efficient model that enabled the recognition of several innovative modes in education.

2. Professional Formation and Complex Competence Development in Venezuela

The professionalizing mission of Higher Education institutions in Venezuela is manifested in the formation model that they perform given that it is discipline-based, focused in content, and, thus, prone to strategies that favor repetition and academic activity that is foreign to reality. There is little connection with social development or with the surrounding reality’s “doings” in all their complexity.

This model was assumed by Latin American universities according to propositions by the Economic Commission for Latin America (CEPAL) in the face of the post-war world scenario. In its speech, the Commission bestowed upon universities the responsibility to enable the population to immerse into a productive process that would lead the way towards developed and modern societies through technical and practical formation of upper-level education (Parra, 1996).

However, professional training as such –solely oriented towards fulfilling industrial development needs –paradoxically produced anachronistic Higher Education Institutions along with the narrowing of their academic and critical functions. Proof of this condition is the fact that the quality and relevance of Higher Education was measured through correlations between student admission and graduation rates rather than through critical and change generating input—which could only result from produced
knowledge and from the implementation of innovative actions in problem solving.

This scenario worsens if one considers that the curricular contents that function as engines of professionalization are almost always imported from large research centers in developed countries and packed into books and handbooks from renowned university editorialists; seldom does a curriculum include contents derived from local research. The ready-made contents are dogmatically transmitted without prior specification or analysis of the investigative process that generated them. In this manner, the professionalizing function not only imposes itself, but it weakens the research function as well as the development of solutions that would allow us to overcome our reality; the formation process is fulfilled exclusively within the classroom and poses serious difficulties assessing the performance of complex and contextualized professional competencies.

The latter entails serious implications: Higher Education institutions turn into self-perpetuating instruments of underdevelopment that transmit foreign knowledge and alien technologies; the graduates’ profile does not respond to national but foreign contexts; the performance of skills that would resolve national problems is not encouraged; the little research that is conducted does not lead to the absorption of contents that would allow for their flexible incorporation into the curriculum; there are no possibilities for recuperating another type of popular or non-certified knowledge, produced in extra-academic communities —a knowledge that is increasingly recognized as valid to explain and improve reality (Gillies 2005).

Overcoming these difficulties demands a radical change in the Higher Education formation model, in order to substitute its professionalizing function with a creative and innovative one. A transformation is essential so that these institutions point substantially to the production of knowledge and technologies that national development requires, promote a factual integration with each own surroundings and, thus, with the favorable scenarios for the development of professional competencies. Only then would teaching and research functions be inexorably intertwined and curricular design open to investigative results and processes.

Higher Education is now faced with a new challenge: generating formation models according to competencies. During the last ten years, this trend has earned notice in professional curricula in Venezuela and Latin America chiefly because of the influence of the European Tuning Project in Europe (Tuning Educational Structures in Europe, 2003) and its subsequent extension to Latin America (Tuning America Latina, 2007). This performance-oriented model of formation raises difficult issues to be resolved; out of which perhaps the biggest would be to adequate and update curricular contents and degrees offered to the new labor profiles that developed from transformations in the productive world, the new employment reality, scientific and technologic advance, and the conceptualization of new cultural values. Another challenge of particular importance is achieving a performance assessment that would evidence the suitable and distinctive doing of professionals during the formation process – which is only possible in real scenarios. Those are the reasons behind the progressive rapprochement that is required of productive and educational systems, and of the emergence of certain initiatives in Latin America which, based upon actual profile competencies, tend to normalize formation and education offers.

The first World Conference on Higher Education (UNESCO 1998), ratified in 2009 (UNESCO 2009), had already declared as one of Higher Education's objectives to provide formation to responsible citizens that were capable of successfully responding to a vast array of human activities.

“In order to achieve these objectives, it may be necessary to reformulate curricula and deploy new and adequate methods that permit us to surpass mere cognitive management of the disciplines; access to new pedagogic and didactic propositions should be facilitated and promoted in order to incite the acquisition of practical knowledge, communication skills and aptitudes, creative and critical analysis, independent reflection as well as cooperation in multicultural contexts. In these contexts, creativity demands the combination of theoretical and practical wisdom (traditional or local), with science and technology of pivotal vanguard in the conceptualization of study plans.” (UNESCO 1998)

Competencies in the formation context are understood as complex learning that integrates different kinds of knowledge with emphasis on cognition, procedure, and attitude. Furthermore, there are socially desirable competencies such as coexistence and participation in future building opportunities, among others. Both imply a profound qualitative change in the formation model. As stipulated in the Tuning project (Tuning Educational Structures in Europe 2003), possessing one or numerous competencies signifies that a person is manifesting capability or skillfulness while performing an action; thus, competencies must be verified and assessed on their performance; an individual does not possess or lack of a competence in absolute terms, but he dominates it to certain extent, which is why competencies can only be perceived in real actions.

Previously, learning specific technical concepts and certain skills was sufficient for individuals to be employed; nowadays, it is necessary to develop a wide range of complex competencies that are to be regarded as cross-sectional, interdisciplinary, and reality-based, in order to evidence performance and develop such competencies in dynamic, changing, and problematic surroundings (Inciarte y Canquiz 2008).
3. **Two Models that Favor the Development of Complex Professional Competencies**

In Venezuela, we have distinguished two emerging modes of academic formation that favor the development of complex competencies: 1) the inclusion in curricula of a project innovatively designed to join together contextual problems, formation, and research and 2) National Formation Programs that address priority fields of development while bearing interdisciplinary, contextualized, and cooperative prerogatives. Each is described below according to information provided by document analysis and interviews.

4. **Projects Innovatively Designed to Join Together Contextual Problems, Formation and Research**

In curriculum proposals by the Bolivarian University of Venezuela (UBV), created in 2003, the project was included as a curricular axis of integration between formative research, communal problems, and efforts to overcome them (República Bolivariana de Venezuela 2003). The project was conceived as a proposal-oriented strategy to be translated into an organized manifestation of tasks and practices that included learning, reflecting, and performing (in formal and non-formal contexts) and lead to social transformation. These projects constituted direct links between Higher Education institutions and surrounding communities and problems. In this manner, knowledge producing activities, with direct bearings on reality, are approached since their formulation—which, at the same time, is guided by local development needs; from this viewpoint, the project has political character as an instance of curricular integration and socio-politic association. (Universidad Bolivariana de Venezuela, 2008).

As applied in the UBV, this project covers from beginning to end of the formation process, fulfilling work phases that extend from the encounter, diagnosis, exchange, and fusion of academic and popular knowledge. Every education unit is organized across disciplines to provide support for the central axis that is the project; students divide their education time between the classroom, the laboratory, and community service.

Parting from this project’s innovative conception, one of the most complex features of professional formation is solved: the conjugation of academic knowledge and knowledge obtained from reality. Under this mode of education, community members—distinct to academic actors—are not only responsible for the design and implementation of the project but must also participate in its assessment. Therefore, a valuating attitude will develop and demand of the students an ideal performance in the specific “doing” of their future professions—from the research practice, integration, and citizen behavior. The intervention of community players in a dialogue that fosters experience and learning will allow the continued assessment of complex competence development which is made visible when formation is in close contact with reality.

To the UBV, this project is a representative feature of Venezuela’s emergency for a new higher education model that would allow the combination of the academic activity of a large number of young students and their participation in contextual and community activities. This integration has permitted students to live in the complexity of the process where they will later perform their professional activity and to act in the best scenario available to practice the required competencies.

5. **National Formation Programs**

National Formation Programs are academic activities and education leading to degrees, certificates, or graduation from higher education that is responsive to the primordial strategies for national development; they are designed and executed in collaboration with official Higher Education institutions throughout the country; they have a common and flexible curricular structure—given that it adapts itself to the changing demands of specific environments and the potentialities of each institution. National Formation Programs link communities, formation, and professional exercise throughout the education process; thus, they allow us to account for the complexity of problems in real-life contexts where diverse actors participate, interdisciplinary cooperation is required, and the subjects and objects of study are multidimensional (Gobierno Bolivariano de Venezuela 2008a).

They are inspired by politics such as:

- Universalization and ‘municipalization’ of Higher Education. National Formation Programs hold as a purpose to carve open spaces for permanent instruction, link work and social life, and offer opportunities for access, participation, and graduation from Higher Education; as well as adapting the education process to the diverse necessities of individuals and communities.
- Promotion of knowledge-advancing networks for the generation, transformation, and social appropriation of knowledge.
- Articulation and supportive cooperation among institutions.
- Mobility of students and professors; as well as the production, distribution, and mutual use of educational resources.
- Active and engaged participation of students in the processes of intellectual invention, change building work, and social integration.
- Establishment of educational settings as open communicational venues, characterized by freedom of expression, discussion of ideas; a multiplicity of informational resources; the respect for and valuation of diversity, the recognition of all the participants as speakers, and the
reinstatement of reflection as an indispensable element of formation.

In their execution, National Formation Programs develop flexible curricular strategies given that they adapt to different educational needs, available study time and resources, features of diverse contexts, and employment of teaching methods that activate the means of professional performance (Gobierno Bolivariano de Venezuela 2008b). This flexibility has demanded the definition of assessment systems that promote learning, reflection, and continuous improvement while taking into account the different actors and aspects of the education task; caring, at the same time, for its social impact and the promotion, acknowledgement, and accreditation of formative experiences in diverse fields.

6. Conclusions

There are countless implications of complex competence development in professional formation. Such has been exposed by multiple debates and diverse stances, propositions, designs, and technical showings. These implications demand strategies that permit the application to practice, of a new model of formation.

The following conclusions are submitted from a critical and constructive standpoint:

One of the current challenges to educational systems is superseding the model of professionalizing formation, prevailing in Latin American Higher Education; so that education in Latin American can substantially partake in the production of knowledge and technologies that national development requires, and, eventually, achieve a truthful integration with the environment as a propitious scenario for the development of professional competencies:

- The development of complex professional competencies will be made possible to the extent that an integration of ‘action-formation-reality’ occurs. Such an interaction must transcend the theoretical and be directed towards the development of learning about performance and problem solutions.
- The development of complex professional competencies needs of reflexive, responsible, and effective performance in social, personal, and work-related scenarios.
- Research-Formation Projects and National Formation Programs develop actions that outreach to reality; they promote reasoning, problem solving, decision-making, conflict management, among other aspects that benefit the development of complex competencies. At the same time, they craft favorable scenarios for the performance assessment of complex professional competencies.
- Innovative features of the two previously analyzed strategies include: they link theory-practice-formation-research; favor the integration of diverse types of knowledge; incorporate actors from practical contexts, interdisciplinary and collective curricular work; contextualize local, regional, global, and labor-related wisdoms; base formative actions upon investigation, selection, comprehension, systematization, critical creation, application and transmission of knowledge and effectual professional implementation.
- In Research-Formation Projects and National Formation Programs, teaching feeds from research outputs and study programs that are open to contents derived from research.

Given the previous assertions, we concluded that the modes of Research-Formation Projects and National Formation Programs are ground-breaking innovations that favor the development of complex professional competencies.

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Abstract: The higher education qualification framework based on the Bologna three cycle studies has some limitations in the s.c. regulated professions. In more than 800 professions covered by EU legislation additional postsecondary professional qualification is needed. In general, EU Directives distinguish between seven sectoral professions (medicine, dentistry, nursing, midwifery, veterinary surgery, pharmacy, architecture), transitional professions (where length of experience rather than formal qualification is the factor of importance) and a general system of other regulated professions (free decision on recognition).

The postsecondary professional education in sectoral professions is provided by universities or university-related higher education institutions in form of specialisation studies with theoretical and practical part and given length of duration. The studies are terminated by a state examination. The graduates are provided with diploma, certification, and other evidences of formal qualification. Although these documents providing graduates with the right to exercise their profession Europawide are mutually recognized by State authorities in all EU Member States, three basic questions are still open what the definition of specialisation studies in sectoral professions is concerned, namely:

- do specialisation studies in sectoral professions belong to the framework of formal higher education?
- how can sectoral Directives and the qualification framework in sectoral professions be aligned under the construction in the Bologna process?
- how far is the labour market and workforce mobility influenced by existing confusions especially in the case of health care professionals.

The need of an exact definition of postsecondary specialisation studies in sectoral professions in regard to European and national legislation and their integration into the framework of the Bologna process in relation of health care staff mobility is discussed.

Key words: professional education, Sectoral directives, Bologna process, diploma recognition, workforce movement.

1. Introduction

In the modern knowledge-based economy with open internal market, free movement of workforce, goods and services, the issue of safety has become increasingly important (1). Moreover, increased travel and mobility of European population resulted in an increased demand for equal quality of all kinds of services across the European Union including health care. The European Commission considering the safety of public services implemented legislation in form of Directives defining minimum standards of professional qualification of service staff. Professions, where in addition to undergraduate higher education further postsecondary professional qualification is required, are defined as „regulated professions“. According to EU rules, a profession is said to be regulated when access to it and exercise of it are subject to the possession of a specific professional qualification. Conditions to exercise regulated professions in different sectors are set up by s.c. Sectoral EU Directives. Sectoral Directives impose the obligation to recognise diplomas, certificates and other evidences of formal postsecondary specialisation by the host country State Authorities.

The different applicable systems of recognition of professional qualifications in the host country include:

- sectoral professions with automatic recognition of required professional qualification;
- professions where experience and skills are required – here the automatic recognition is proposed;
- general professions with free decision about qualification recognition.

On September 7, 2005, the European Council adopted Sectoral Directive 2005/36/EC (2) consolidating the rules regulating postsecondary professional education in sectoral professions and the recognition of professional qualification in EU Member States. The seven sectoral professions falling within the scope of the Directive are medicine, nursery, midwifery, dentistry, veterinary surgery, pharmacy and architecture. Concerning the safety and quality of health care services in domestic and host country conditions, the impact of the Directive is particularly important in professional education and qualification of the health care staff.

2. Professional Specialisation in Health Care Professions

In regulated professions, graduates from secondary higher education are not allowed to exercise their profession freely, without a supervision of an advanced specialist. According to EU
rules drafted in the Sectoral Directives, additional professional qualification via postsecondary specialisation studies is the predisposition for an independent work.

By „specialisation“— as stipulated by the Directive 2005/36/EC shall be met the acquisition of a basic or profile specialty within the list of specialties, corresponding to a specified curriculum and syllabus of theoretical and practical training for a definite period of time which is terminated by successful passing of an examination in the front of the Board of specialists with an academic degree (University Professor). Persons who have successfully passed the examination shall receive a university diploma for recognition of the specialty, enabling them to exercise their profession independently in any EU Member State.

3. Professional Education of Medical Specialists

The Directive 2005/36/EC have implemented basic requirements for postgraduate specialisation studies in medicine. Minimum criteria have been set up in Article 25 concerning the right of an institution to take up postgraduate specialisation study courses, the minimum training period in different specialisation fields, methods by which theoretical education and practical training should be performed and the place to be carried out, including the supervising State authority to which it should be responsible. To achieve high quality outcome, the EU Member States shall ensure that the education leading to diploma in specialised medicine shall comprise theoretical and practical instructions, shall be a full-time course supervised by the competent authority, shall be offered by a university with a university hospital (or an appropriate health establishment accredited for this purpose by the competent authority), the length of the course may be clearly established within the range of 3 to 5 years depending on the specialty (minimum duration is specified in Annex V, point 5.1.3). Although the European Commission does not imply equivalence in the postsecondary professional education in medicine (the content of courses is not explicitly given), taking into account the wording of the Article 25, specialisation courses may be attributed to tertiary higher education studies in specialised medicine related to – but not identical with - the third cycle doctoral studies. However, there is apparently no consensus in sight what concerns alignment of professional specialisation studies into the framework of the three-cycle higher education of the Bologna process.

4. Postsecondary Professional Education, the Bologna Process and Workforce Mobility

There is a scope for discussion of the alignment of the 2005/36/EC Directive with postsecondary professional specialisation studies and the European Qualification Framework (3) under construction of the Bologna process. However, it is not just a scope, but urgency in the interest of mobility of professionals and of legal certainty. International mobility of professionals has been an important force in reshaping health professionals’ education in Europe. However, the Bologna process which seeks to facilitate collaboration in higher education through legal harmonisation is creating mixed effects as it is focusing on neither quality improvements nor health care education requirements. In addition, Bologna framework does not allow considering postsecondary professional specialisation studies as an alternative third cycle, parallel to doctoral studies. Since the harmonised minimum training requirements in a form of university curricula of postsecondary specialisation studies are time-limited, postgraduate education in the entire health care sector has to be considered as part of but not as – by definition - „further education“, „lifelong learning“ or „continuous medical education“. Along with this statement the World Federation for Medical Education is urging medical training institutions (medical faculties) to set out guidelines for basic, postgraduate and continuing education (4), where specialisation studies should be situated within the three-tier Bologna framework as a formal third cycle education along with doctoral studies. As a result, the corresponding Directive for cross-border health care aim to apply common principles for education of health care workforce including the implementation of legal instruments related to the postsecondary professional education of medical specialists.

In 2008, the European Commission adopted Green Paper on the European Workforce for Health (5). The health care strategy adopted in the Paper put forward a new approach in improving health care quality and accessibility through Europe. Training organisation and capacity is a central issue as part of workforce planning. Member States have to assess what types of specialists and their skills will be needed taking into account changes in diagnosis and treatment and introduction of new technologies. Furthermore, free movement of students and workers as guaranteed by the Treaty of Rome and the Directive helps to ensure that health professionals go where they are most needed. In addition, in the recent issue of the Official Journal of the European Union from May 2009 (6), the Commission set up five benchmarks adopted under the „Education and Training 2010 Work Programme“ as concrete targets for EU Member States to reach by 2020. Priority areas for European cooperation in education and training under the scope „new skills for new jobs“ include professional education in sectoral and other regulated professions, development of European qualification framework within the Bologna process, and lifelong learning. Despite the fact that specialisation studies leading to professional qualification were still not regarded as part of the Bologna framework, it is to hope that such initiatives have endeavoured to create Europe-wide consensus in a range of health care professional education and its formal position established within the Bologna and European Qualification Framework.
5. Conclusion

The aim of the presented paper was to put a flash onto unsolved problems in European higher education which seem to hamper the ongoing process of harmonisation of higher education internal structure within the European Union and the European Higher Education Area. Bologna process as a backbone of this organism of knowledge might consider tertiary professional higher education in specialised medicine as part of its internal structure. I hope that despite the critical distance and uniqueness of some policymakers in higher education, attention will be focused on this issue in thinking about a further progress in the preparation of a common European Qualification Framework and the internationalisation of health care services.

6. References


Section 3

Development of Competencies at Work
COMPETENCE DEVELOPMENT AND PARTICIPATION IN TRANSIENT KNOWLEDGE COMMUNITIES

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Abstract: Organisations and communities that have a high turnover of people flowing inwards and outwards, it is proposed, can be seen as transient knowledge communities or sub-groups. In these social contexts, the collective stock of embodied knowledge is continually changing, which raises issues for politicians, employers, employees and consumers in relation to how individuals’ competencies should be developed and how collective knowledge can best be maintained.

In this paper we consider the careers of a group of junior knowledge workers working in a large law firm. We conceptualise their professional competence and competence development through an existential ontological conceptualisation using a qualitative interpretive research methodology. We report the findings from interviews with lawyers in the Planning and Environment area of specialisation concentrating on employees' perspectives.

Our interpretation of these research studies is that competence development requires successful identification of viable and relatively enduring expertise. Moreover, competent performance in current work practices and high performance is likely to include frequent maintenance and search for comparatively unique occupational or task-based niches. Such niches for competence and development are resource rich environments possessing, for varying periods of time, internal and external labour market value.

We conclude that policy makers, practitioners, and academic researchers all have roles to play in assisting people to reflect on their existing expertise, assess current work practices, and develop and pursue strategies for career and competence development.

Key words: competence, competence development, professional competence, competence standards, knowledge communities, careers, lawyers, ontology, existential, high turnover employment, knowledge appropriation, employee perspectives.

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1. The Research Problem and Review of the Literature

Ways of Being

This paper considers competences and competence development from an ontological perspective seeing them as ‘ways of being’. An interpretive approach is adopted drawing on the qualitative and phenomenological fields of research where an individual's competence may be seen as related to a particular self-understanding (Sandberg and Targama 2007). It is proposed that competence is based within an ontological orientation and involved way of being that is integrated with a specific sense of self (Sandberg and Pinnington 2009). While individuals will experience different existential opportunities and constraints during the course of their lives, existential choices have to be made. Thus, although people will often encounter and indeed enact multiple and conflicting identities, there are always physical, technical and social demands on the identities adopted encouraging them to make choices either to continue on in the same way or to change (Kamoche and Cunha 2001; Pinnington, Morris and Pinnington 2003). The core concept of competence in the research reported in this paper is that the existential meaning of ways of being distinguishes and integrates the individual's understanding of self, work, other people and tools/things into distinct forms of competence in work performance.
Transient Knowledge Communities

Professional service firms in the traditional liberal professions of law, accounting and architecture have established institutional processes for governance of the employee resource flows of newly recruited trainees and practicing professionals (Morris and Pinnington 1998; Tolbert and Stern 1991). In the case of law, the achievement of professional competence and maintenance of standards has been monitored and evaluated by different external organisations including higher education institutions, independent law schools and professional associations and institutes (Drolshammer and Pfeifer 2001).

The existence of transient knowledge is common place to all social groups and societies since it arises as part of the human condition of life and death. The concept of transient knowledge communities is based on the comparative stability of the collective stock of knowledge. When knowledge is rapidly changing, for instance, due to high rates of flow of embodied knowledge moving in and out of the community, then a transient knowledge community is likely to emerge. Such communities will often exist in contexts where there is an available supply of people for work and a regular turnover of employees engaged in its execution. These work environments are characterised by unstable employee tenure and changes over time in individual and collective competences. The conditions apply to all high employee turnover industries and in the legal professions have become more characteristic since the growth of the large law firm (Galanter and Palay 1991) and as a result of structural change towards greater polarisation of the workforce and a stronger emphasis on internal labour markets and governance systems (Ackroyd and Muzio 2008; Heinz, Nelson, Sandefur and Laumann 2005).

Transient work communities have become more common in postmodern knowledge economies with the rise of the consultancy and business professions (Reed, 1986) and may also arise in response to increasing client demand for greater profitability, flexibility and innovation in organisational processes and professional services (Anand, Gardner and Morris 2007). An individual’s competence depends upon gaining and maintaining access to the social and technical activities of work and significantly to their organisations of employment (Ackroyd 1996). This access can be harder to sustain for people whose long-term work tenure or subcontract status is uncertain or is compromised for whatever reasons by negative perceptions and attributions made by others engaged in the work’s activities. Consequently, if people want to remain employed in these transient and often competitive work environments, then they have to make a continual effort to sustain adequate levels of cooperative participation (Lazega 2001) in their work activities and their related knowledge communities.

Capitals and Competences in Law Firms

The research reported in the following sections is an interview study of young lawyers in a large law firm with questions covering their backgrounds, their job, lawyers, effectiveness and competences. The study was designed to elucidate the extent that their competence and competence development followed distinct and organised ways of being a lawyer. Our assumption was that Australian legal practice was changing in a direction.
similar to the US and British law firms, and that this included the two recent major transformations of Australian legal practice away from diverse and independent state-based institutions (Weishbrot 1990) towards the national organisation of top law firms followed by their internationalisation and establishment of offices in East Asia and elsewhere (Pinnington and Gray 2007).

We were interested at the time in how far this change in the nature of professional and organisation competence could be understood through various concepts of economic, cultural (Bourdieu and Wacquant, 1992) and social capital (Nahapiet and Ghoshal, 1998). Social networks theorists have used the concepts of economic, cultural and social capital as a number of resources and relations that social actors draw on and encounter as a matter of social existence as well as being prevalent to relationships at work, including the professions (Suseno, Pinnington, Gardner and Shulman 2006). Interpretive sociologists (e.g. Bourdieu et al. 1999) and organisational theorists have also drawn on a variety of concepts of capital to understand how social actors conform to and change social institutions and activities (Oakes, Townley and Cooper 1998).

We decided to concentrate on people in the early stages of their careers in a law firm and were interested in learning more about how different backgrounds and positions in the workplace influence their understanding of competence and career.

Whether one defines competence from a strategic management level (e.g. Prahalad and Hamel 1990) or using an industry standards approach (e.g. Hager, Gonczi and Athanasou 1994) or in terms of high performance (e.g. Boyatzis 1982), the way that people at work articulate competence is often different. The standard academic conceptions of knowledge influenced by the disciplines of strategic management, learning theory and psychology are meaningful and have utility for managers and employees, but even where they have become the norm for articulating concepts in the field, they often do not reflect accurately what people actually say and do at work. So, on the one hand frameworks, lists and specifications of competences aggregated to the levels of the organisation or the person or the work can be useful tools and technologies for understanding and appropriating knowledge. On the other hand, competence frameworks possibly have less to offer employers and employees in terms of knowledge creation and innovation, although they still can play a significant role in the knowledge management of strategic assets from both an employer’s (e.g. Gardner, Morris and Anand 2007; McGaughey 2002) and employee’s perspectives (e.g. Pinnington, Kamoche and Suseno 2009).

The research was based within a context where competency standards had been established in 21 professions in Australia with the support of the Commonwealth Department of Employment Education and Training (Gonczi 1994; Hager and Gonczi 1991). Legal practitioners were familiar with some of these constructs through their firms’ appraisal systems and having to give responses to lists of Likert-style 1-5 rating items on their knowledge, abilities, skills and attitudes. Professional standards were also available to legal practitioners through HR and CPD such as the APLEC and LACC Competencies listing lawyer’s skills and competences in law, for example:

- An entry level lawyer should be able to demonstrate oral communication skills, legal interviewing skills, advocacy skills, negotiation and dispute resolution skills, and letter writing and legal drafting skills.’ (Source: Lawyer’s Skills, APLEC and LACC Competencies, Draft 3 November 2000, p.20)

- An entry level lawyer who practises in planning and environmental law should be able to advise clients on the relevant law, generally assist them in the planning process; initiate or oppose applications in, and obtain and present relevant evidence before appropriate courts or tribunals; and represent clients in various forums.’ (Source: Planning and Environment Law, APLEC and LACC Competencies, Draft 3 November 2000, p.23)

We therefore anticipated that the research participants would have some ability to enter into a discourse on their expertise, competences, and competence development as lawyers. They all had come across analogous legal and management concepts related to competences as a consequence of their academic training in law and their current experience of legal procedures. In addition, they would have some familiarity through their education and career backgrounds with the idea of competencies as areas of knowledge, abilities, skills and attitudes. Some would also have practical work experience through previous jobs outside of the legal profession and through their supervisory and mentoring roles within the profession of subdividing issues into competence categories, for example, technical, organisational, communication and attitudes (Hager and Gonczi 1994, 9). Further, they all had varying degrees of familiarity with some of the firm’s policies and practices (e.g. partners and senior associates have signing authority for legal documents and important letters), some experience of annual performance appraisal, involvement in daily, weekly and monthly chargeable time recording and fee billing systems, and at least a cursory knowledge of some of the professional standards, training and CPD documents.

2. Method

Purpose

The purpose of the research reported in this paper is to investigate competence in work viewed from individual and developmental perspectives. It was an exploratory study based on a small sample of lawyers selected from one work group based in the Brisbane office of the Planning and Environment
practice for Corrs Chambers Westgarth. The researchers were interested in different individuals' perspectives on competence their sense making of their individual development and evolution of a career in legal practice. The work group was new and in an early stage of development and except for the two partners, all of the lawyers were within the first few years of their career and employment as practicing lawyers.

**Background**

At the time of the interviews, the practice was one of the most recently formed and rated first place in Queensland. The environment area of specialisation was growing rapidly globally and in an entrepreneurial way locally in Queensland, hence the work group was less bound to custom and practice from the past than could have been the case in some of the other more established areas of practice. There were sixteen Planning and Environment lawyers based in the Brisbane office: two partners, two senior associates both promoted within the last six months, nine solicitors and three articled clerks. Corrs Chambers Westgarth is a top ten Australian law firm with offices in Sydney, Melbourne, Brisbane, Perth, Canberra and the Gold Coast. It provides a comprehensive range of legal services to major Australian and international public and private companies, public agencies and government. At the time of the research, Corrs had over 100 partners and employed around 1,000 people. The Planning and Environment practice had expertise in general advice, project planning, compliance and dispute resolution. It advised public and private sector clients on the planning and regulatory aspects of development projects. It was later renamed and in 2009 is called Planning, Environment and Local Government.

**Sample**

The research addresses individuals' perceptions and understandings of their work and careers. It focuses on legal practitioners' understanding of competent practice. Half of the Brisbane office work group were selected and interviewed (8/16) individually during the working day for approximately one hour in a location near to the firm's office block. The sample in this research was chosen through theoretical sampling combined with the accessibility and willingness of people to participate. Taylor and Bogdan (1998) state that in theoretical sampling, the actual number of cases studied is relatively unimportant. What is significant is the potential of each case to assist the researcher in developing theoretical insights into the area of social life being studied (Taylor and Bogdan 1998). Self-selection bias may have influenced the sampling method with some people choosing not to participate or being unavailable for interview during the time period of the data collection.

Our aim was to study the lawyers' biographical descriptions and accounts of their competence and career as understood within the specific context of a new and growing area of legal practice. We were not interested in the strategy of the firm and how employees at different ages, levels and skills relate to it in terms of organisational commitment. This is an important area for future research as much of the current literature focuses on employer's views and organisations' strategies while somewhat ignoring the variety of experiences and opinions held by lower level employees. In 2009, one of the senior associates is now partner in Corrs Chambers Westgarth, which currently has over 900 partners and legal staff. Two of the lawyers who were interviewed are no longer on the Queensland Solicitors Roll, interviewee2 runs his own practice in Townsville and the other four still practice in Brisbane working for other law firms.

**Interview Structure and Content**

There is a well known and researched dual dynamic pattern of career tenure combined with high turnover employment in professional partnership firms. Tenured partners remain with the firm for a number of years as owner-managers, while concurrently large numbers of younger practitioners join the firm with the majority of each cohort leaving a few years later. This research study focuses on the latter group and participants were informed that we were particularly interested in their understanding of their daily work and their views more generally on law as an occupation.

Probable limitations of the research are that the participants may imperfectly recall events, may distort circumstances to cast themselves more favourably, or may refuse to comment on areas of particular interest to the researcher (Minichiello et al. 1995). Such limitations were hopefully reduced by the various interviewing techniques of asking follow-up and probing questions and building rapport with participants in a manner that encouraged trust, openness and honesty. The interviews were tape recorded and the tapes all transcribed. The first author was present at all of the interviews in the study. It was an exploratory research interview study that followed an open-ended schedule of questions subdivided into sections on the job, the lawyer, effectiveness and competences.

**Job**

1. Describe the main duties and responsibilities involved in your job at your firm?
2. Explain what expertise is required to do the job successfully?
3. What areas of your job do you consider to be similar to other occupations?

**Lawyer**

4. How does your job compare to other areas of law practiced in your firm?
5. What do you understand are the main qualities that make a lawyer?
6. In what ways will your duties and responsibilities change as you progress through the firm?

Effectiveness
1. What distinguishes an excellent lawyer from a satisfactory lawyer?

Competences
7. What competences do you feel should be identified in your firm for (i) performance appraisal, and (ii) development?

Data Analysis
A content analysis of the data was conducted regarding the job, the individual and the concepts of competence. The transcripts were reviewed for each individual question and recurrent themes identified. An advantage of this qualitative and grounded research method is that it is not limited to one specific theoretical background and is flexible and open-ended regarding different subjective viewpoints (Flick, 1998). The interviewees’ accounts of the job, a lawyer, effectiveness and competences were also interpreted as various types of capital and categorised as economic and cultural capital (educational, social). Finally, we re-considered what each individual was saying about his or her career (Jellatchitch, Mayrhofer and Meyer, 2003) interpreting the accounts as articulating a specific way of being and considering its potential implications for higher education, training and development at three stages –articled clerk, lawyer, senior associate– of career.

Validity
Based on principles of reflexive social science the researchers sought not to impose preconceived theories or models on the process. Further, we endeavoured to reflect accurately the variation occurring within and between participants’ accounts trying not to stereotype them through application of scholastic concepts and theoretical frameworks. To evaluate and improve the validity of the data collected, each of the individual transcripts were shared with the participant and feedback was obtained on our performance as interviewers and record makers of the data. This feedback was obtained by telephone and email.

We also received frequent feedback from the sixth interviewed lawyer an employee of the firm who had worked in the planning and environment group for three years. She asked for comments and views from the lawyers after each interview and then reported back to us on their responses. They knew her motivation for conducting the research study was linked to her own part-time study for a doctorate at The University of Queensland where several of the participants had attended degree courses or were giving occasional guest lectures and workshops. This additional channel for discussion and participant feedback has the advantage that the lawyers have two different sources available for speaking openly about their job and competences, the researcher from the external university institution and a workplace colleague and peer.

3. Results

The participants in the sample were four males and four females. The two senior associates were both male. The majority had less than three years (post-admission) work experience, except for one of the senior associates (4.5 years) and the business development lawyer (3 years).

The longer serving lawyers spoke in much greater detail than the shorter tenure lawyers on all aspects of the interview schedule and were able to generalise and more readily give different examples. All of them gave accounts of the importance of being acquainted with the technical area of law, remaining current in new law and being able to master its detail and present clear lines of argument or advice. They all spoke about the need to serve clients’ objectives and most mentioned that this had to be conducted in a way that was commercially relevant for clients and concurrently achieved the business goals of the firm. Notably, Corrs Chambers Westgarth’s chargeable hours targets had to be met (7 hours per day for lawyers; 6 hours per day for senior associates) and preferably the budgets exceeded. When discussing the job they identified a wide range of aspects of their work, focusing on the proficiency of legal service work and covering issues such as: technical expertise in law, years of experience in law, problem solving in law, presenting practical and commercial interpretation of the law, clear line of argument, currency of knowledge of the law, attention to detail, high chargeable hours, service delivery, consistent hard worker, high non-chargeable hours, flexibility, providing legal and business solutions, communicates well with peers, good relationships with peers, communicates well with clients, external reputation, industry-specific reputation, relevant industry work experience, meeting client expectations, bringing-in work, delegating work, high fee generation, winning new clients, retaining profitable clients, managing others and training others.

During interview, however, each one adopted particular positions on the topic drawing attention to a relatively small number of characteristics of the job. Table 1 below presents a summary of the issues that they emphasised most about the job.
Table 1: The Job

<table>
<thead>
<tr>
<th>THE JOB</th>
<th>Technical</th>
<th>Experience</th>
<th>Communication</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>in Law</td>
<td>in Year</td>
<td>Hours</td>
<td>Hours</td>
<td>Peers</td>
</tr>
<tr>
<td>Lawyer</td>
<td>Articled Clerk</td>
<td>Interviewee 1</td>
<td>Interviewee 2</td>
<td>Interviewee 3</td>
</tr>
<tr>
<td>Hours</td>
<td>Hours</td>
<td>Peers</td>
<td>Hours</td>
<td>Peers</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Only two characteristics were focal points for more than two lawyers, technical expertise in law and high chargeable hours, a bias which may reflect the early stage of their legal careers. It is noticeable though that the technical or service or management aspects of the job are not exclusive to any one level (clerk, lawyer, senior associate) rather the precise emphasis on technical and management spheres depended on each individual’s impression management and accounts of identity expressed during interview.

The Lawyer

Interviewee1 described being a lawyer in terms of a career trajectory as someone who is, ‘drafting court documents and writing letters to clients and that sort of thing, but I’ll be, I’ll progress towards running files’ (I1, p.6) and then progressing in career terms on to winning client business, delegating work and training other lawyers. Interviewee2 characterised a lawyer based on skills and expertise who has specialist skills in a specialist area of law expertise. ‘... you need particular specialized skills in, specialised areas of law to be able to, you know develop or guarantee your place in the future in that market.’ (I2, p.3)

Interviewee3 also characterised a lawyer in career terms as someone who develops more experience and responsibility over time. A lawyer has to put in hours of learning on the job which takes five or more years which also involves remaining current with changing developments. She described the career development trajectory as one of increasing degrees of technical judgement, independence and accountability. Thus expertise in drafting law is something that is accumulative based on years of experience and familiarity with the field. ‘We’re all fairly new in our section, and quite young for what we do, and so yeah we’re all on a steep learning curve so we’ve gotta have that ability to learn, to be able to throw the hours at it and the time at it, to pick up the skills that we need,...’ (I3, p.2)

The other three lawyers all emphasised task execution and process issues more so than learning on the job and career development, ‘Well organised, have to be organised, I think that’s almost number one. You’ve gotta be committed to the job and dedicated, and you’ve got to be approachable’ (I4, p.9). Interviewee5’s accounts of being a lawyer concentrated on the commonalities that exist across different areas of technical specialisation. A lawyer has to develop competences in a variety of activities such as advice writing, drafting and litigation. The content of the law varies across the different specialisations, but the competences can be similar. ‘I don’t really know what they do. They’d be doing, a lot of them would be doing fairly similar things to what I do I guess. But obviously different law though.’ (I5, p.7)

Interviewee6 had less to say about law as content or process preferring to concentrate on the management of professionals. ‘Okay, the ability to understand and interpret the law, that’s a given and that’s probably the only skill you get taught at law school.’ (I6, p.10) Thus in effect being a lawyer is simply what you can learn in a law school plus everything else that goes with practicing law.

Interestingly, the two senior associates reverted more to technical legal content and decision making. ‘I think first and foremost is, trustworthiness, ...’ (I7, p.7) ‘But really you just need a good solid background knowledge in it all and it all comes with experience, ...’ (I7, p.1). Possibly as a result of having more responsibility for managing other lawyers, these two senior associates are more informed on the variation existing between lawyers on relatively standardised tasks and are accountable to partners when taking decisions during their management of other lawyers’ work. It has been noted elsewhere in case studies of leadership that managers emphasise decision making and employees focus more on transformational characteristics (Kempster, 2009). ‘Lawyers deal with problems and have to construct a consistent line of argument and interpretation, and make a judgement call.’ (I8, p.4)

Effectiveness and Competence

A list of the interviewees’ individual definitions of effectiveness is given in Appendix A. Their concepts of effectiveness were diverse and there was less commonality than might be expected for a concept such as ‘effectiveness’. Four common themes can readily be identified: relating to clients, avoiding error, communication skills and generating fees.
Interviewee1 viewed competences as communication skills with clients and within the firm, being technically right and completing work on time. Interviewee2 focused on competence in the field and in the law and sought external reputation for integrity. Interviewee3 perceived competence in extrinsic terms of completing chargeable and non-chargeable hours. Interviewee4 saw competence as know-how based on experience and attention to detail. Interviewee5 had a technical and managerial perspective saying that competence was about project management (including bringing in new projects) and partners should be assigned to the technically most difficult work. Interviewee6 believed competence is based on quality work and quality dealings with client. Interviewee7 viewed competence as about having a practical mind (including knowledge of the law) and a business head, such as building ones skill to develop intellectual capital. Interviewee8 defined competence analogous to competitive sports players as a training and achievement of a high level of performance.

Diverse Education Backgrounds and Career Histories

Their backgrounds, current position in the firm and intended career trajectory provide substantial help with interpreting the diversity of interview accounts and variety of opinions expressed, issues and ideas raised on professional competence. Table 2 presents a summary.

More coherent and consistent differences arose then between the interview participants in terms of their comparatively diverse backgrounds and narrative explanations of how they came to work at Corrs Chambers Westgarth and what it meant specifically for them as a way of being (Sandberg and Pinnington 2009).

Articled Clerks/Trainees

Both of the articulated clerks had several years of substantive work experience in another occupation. Interviewee1 had been an articulated clerk for almost 3 months. She worked for three and half years as a qualified hospital trained nurse and then studied a law degree at university. Currently, she was on rotation through four areas of the firm over two years. Having worked for 6.5 years as a nurse trainee and then a qualified nurse primarily based in intensive care, she was at the time of interview considering a career in medical negligence practice. While working in the Planning and Environment group she had undertaken a wide variety of research tasks and was still coming to terms with what the job entails. The overall tenor of her accounts surrounded an intention to focus on people, be approachable, open, honest, communicate and develop trust. She placed great stock on relying on her previous career skills in dealing with people and working in teams as viable means of becoming a successful achiever as a

<table>
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<th>Table 2: The Participants</th>
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<tbody>
<tr>
<td><strong>Articled Clerks</strong></td>
</tr>
<tr>
<td>Interviewee1, Female, 3 mths traineeship, CPA, BA Law, 6.5 years work experience as a nurse</td>
</tr>
<tr>
<td>– An articulated clerk focused on people, communicating with them and developing trust</td>
</tr>
<tr>
<td>Interviewee2, Male, 2 yrs traineeship, BSc Marine Biology, BA Law, 3 years work experience in the Environmental Protection Agency</td>
</tr>
<tr>
<td>– An articulated clerk winning new business with some career aspirations to become an in-house lawyer</td>
</tr>
<tr>
<td><strong>Trainees</strong></td>
</tr>
<tr>
<td>Interviewee3, Female, 2.5 yrs post-admission, BAL Environment Law, MSc Resource Law</td>
</tr>
<tr>
<td>– A lawyer who routinely exceeds her chargeable hours targets</td>
</tr>
<tr>
<td>Interviewee4, Male, 2 yrs post-admission, BA Arts and Law</td>
</tr>
<tr>
<td>– A lawyer who is efficient and well-organised</td>
</tr>
<tr>
<td>Interviewee5, Male, 2 yrs post-admission, BSc Commerce and Law</td>
</tr>
<tr>
<td>– A lawyer who wants autonomy, responsibility and career progression</td>
</tr>
<tr>
<td>Interviewee6, Female, 3 yrs post-admission, BA Law, BA (Honours) Sociology, LPC</td>
</tr>
<tr>
<td>– A lawyer trained in law working as a professional manager for Planning and Environment.</td>
</tr>
<tr>
<td>Wants to develop more high quality legal work and relationships</td>
</tr>
<tr>
<td><strong>Senior Associates</strong></td>
</tr>
<tr>
<td>Interviewee7, Male, 2.5 yrs post-admission, BA Law</td>
</tr>
<tr>
<td>– Recently promoted to senior associate and now looking for a new challenge and growth business opportunity</td>
</tr>
<tr>
<td>Also, considering studying for a Masters degree</td>
</tr>
<tr>
<td>Interviewee8, Male, 4.5 yrs post-admission, BSc Australian Environmental Studies, MA Town Planning, 3 years work experience in Town Planning</td>
</tr>
<tr>
<td>– Recently promoted to senior associate has 3 years work experience and a Masters in Town Planning</td>
</tr>
<tr>
<td>– Seeking partnership based on integrity, successful client service and relationships</td>
</tr>
</tbody>
</table>

Interviewee1 (articled clerk and previously a nurse) mentioned three of these themes and interviewee 6 (professional manager) raised two of them. The client theme (I1, I4, I6) covered such issues as keeping clients informed, furthering client’s interests, and being client-centered. The avoiding error theme (I1, I3, I6) covered not making a mistake, avoiding problems with clients and remaining with the ethics of the profession. Communication skills (I1, I2) related to their possession and effective use. Generating fees (I5, I7) concerned generation and billing.

Interviewees’ descriptions of what constitutes competence were more markedly similar to their general description of their background, their career position and career trajectory, than to their varied accounts of the job, being a lawyer and effectiveness. Competence as an identity concept seemed to capture well how they understand themselves and their work. The following paragraph should be compared to the summaries provided in Table 2.
professional lawyer. ‘So, in terms of people skills, communicating with them and treating them with respect and listening to what it is that they actually want, it’s very similar to dealing with patients and relatives when I was nursing, I think that’s probably the biggest similarity.’ (I1, p. 2)

Interviewee2 was coming up to the completion of serving his two years of articles. He was something of a lucky find for the group having recently won some projects because he was seen by clients as having the right technical background and work experience. This comparatively rare achievement for an articled clerk was based on his previous work experience with the Environmental Protection Agency, but also may well have been influenced by his interest and commitment to environmental issues and coastal management. He had two bachelor degrees in Marine Biology and in Law. He was also working as a part-time occasional lecturer in environment law at the University of Queensland. Furthermore, his career to-date was relatively unusual in that he had deliberately not been rotated through 3-4 areas of practice, but retained for the 2 year period in Planning and Environment. He projected an image of being somewhat disenchanted with the whole idea of a long-term career in a large law firm and expressed an interest in moving on to working as an in-house lawyer where he hoped that he would be able to stay closer to his core interests in the environment. ‘I am still too junior to have a view, but I do feel that what’s been represented to me as a career at my level is something that’s not, it’s virtually a lie I think the kinds of representations that have been made, there’s just no data to support it, like, as part of the changes of the industry sector there’s no longer that ‘I work in a firm until they make me partner’, I think that philosophy has changed it seems to be a bit of a perception that young lawyers are extremely mobile and that, there’s more the likelihood they will quit that industry and they will go work in a related job.’ (I2, p. 7)

Lawyers (post-admission)

The four lawyers all had more conventional careers and at the time of interview comparatively straightforward progression from law degree through to articles and on to practicing as a lawyer. The most senior of the lawyers in this group was a dual first degree lawyer with a BA in Law and a BA in Sociology. She also had a practice certificate but had recently moved out of law practice into professional management based within Planning and Environment. She appeared to be somewhat ambivalent about her future career progression and the ambiguity of her situation was increased by the fact that her new role of Business Development Lawyer was being contested by the professional managers in the firm in marketing and HRM. However, at present it appeared to be working because there was evidently much management activity which the partners did not have the time to attend to doing effectively. It encompassed a broad range of management and professional activities: strategic (e.g. state and national business plans), financial (e.g. work group accounts, billings and targets) marketing (e.g. tender proposals, client lunches), professional (e.g. practice area knowledge management, lawyers’ publications and seminars) and HR responsibilities (e.g. lawyer motivation, satisfaction). Her steadfast interest was on the quality of the experience and of the work. ‘I think, there’s probably too much focus on how much people bill and not enough on the quality of their work, and, I suppose in one way, that’s because, quality of work is harder to keep a track on, even though you can, sort of read through letters and see how things are progressing that way, but I think the main criteria for quality of work in my opinion is, how people deal with clients and that’s something hard for the partners to see how lawyers actually deal with clients.’ (I6, p. 10)

The other three (I3, I4, I5) out of the four lawyers all described themselves as very busy and gave the impression that they were now fully engaged on something of a treadmill. They expressed three distinct orientations to their situation. Interviewee5 had a BSc in Commerce and Law, and completed his articles in a two partner practice specialising in planning, environment and commercial work. He then moved to Corrs Chambers Westgarth where he has worked for two years mainly doing planning and local government work. Perhaps in preparation for the role of senior associate, he also supervised two lawyers and an articled clerk. He seemed to accept that the job involved working very long hours and distanced himself somewhat through the narrative refrain that law was becoming more commercial and just like any other industry or occupation. He also seemed to see the future as positive achieved through a career of taking on progressively more management responsibility. ‘As you stay in law longer and longer and you start supervising other lawyers, a lot of your work, you pick up a lot of management work, essentially managing other people. And there’s also management involved in, it’s not an area that I have to do too much in at the moment, but also building the business, the further you progress the more you’re responsible for fee generation essentially, Law’s a business these days.’ (I5, p. 5)

Interviewee3 appeared to be more committed and engaged with the rigour of meeting chargeable hours and exceeding budget. She told a story that was at one and the same time both a very determined and ambitious person but also someone who felt she had to compensate for not being an exceptional achiever when a student. She held a BA in Environment Law and said that she loved studying the subject but did not get especially good grades. When she applied to some of the big firms she was unsuccessful and so took a job in a small practice on the Gold Coast doing commercial, conveyancing and personal injury work. The practice went broke and so she moved on to another firm doing family law, wills and estates. She described herself somewhat self-effacingly as being persuaded to do a Masters degree enrolling at the same time as her husband who is an environmental scientist. Then, after completing her Masters degree she applied again to the big firms and this time was successful gaining a position at Corrs Chambers Westgarth in the Planning and Environment group. She described herself as recently working 12-13 hour days to achieve eight chargeable hours per day (daily required target is seven hours), and while projecting a very committed and ambitious image, seemed to the interviewers to also be a potential
candidate for career burnout. ‘I would like to do nine, but I am about eight on average.’ (I3, p.9)

While Interviewee3 seemed to be obsessed by the high expectations of the firm, Interviewee4 told a very different story. She portrayed herself as someone who is efficient, well-organised and approachable. In effect, she gave the impression of being the epitome of the time manager. She had a BA in Arts and Law and after graduation immediately took articles working for 15 months in a small firm doing local government and criminal law, primarily working in litigation. She then moved to work for Corrs Chambers Westgarth and over the previous two years in the Planning and Environment group had worked on prosecutions and appeal work for local government. This entails doing research on prosecutions and appeals, managing large numbers of documents, briefing barristers and expert witnesses, and organising conferences to see whether or not a settlement can be reached. Her story was one of how she achieves her chargeable hours within the normal working day and refuses to become a workaholic and hostage to office cultures of long hours and presentism. ‘I get to work and I do my hours, I’ve got seven billable hours I’ve got to make each day, why bother staying until 8:00 at night just to show that you’re at work...’ (I4, p.10)

Senior Associates

The two senior associates had both been appointed recently and were very different in personality and background. Interviewee7 had worked with the firm for 2.5 years and was very committed to his work and career. His answers to all of the questions in the interview schedule were very systematic, detailed and clear. He had a way of communicating that made you feel confident he knew the key points of the matter and he was always willing to elaborate when asked for more information. It was also very apparent that he felt the need to do something different and make his mark in Planning and Environment by taking on a new challenge in law that would be a definite growth business opportunity for Corrs Chambers Westgarth. He had previously been an articled clerk in a smaller firm and studied a law degree for four years part-time. At the time of interview, he had been working in law firms for a total of eight years, but for only 2.5 years as an admitted lawyer. Recently promoted to senior associate responsible for four lawyers and two junior clerks he had all the hallmarks of a man who had made his career position through the “school of experience”. He was dedicated and exuded care and attention in his answers to questions and descriptions of the job, lawyers and competence. He also felt that if he was going to compete effectively with other lawyers in the race for promotion, then he had to do something new as well as make a success of the routine jobs he was given. ‘... everyone’s getting concerned about green house gases and the environment, I think that’s a big area, so definitely something in the environmental side of things I’d like to start specialising in. Also I’ve done a bit of native title, I find that quite interesting, because it’s new, it’s a new area so you’re really sort of setting the

trend, like a couple of agreements we’ve just drafted, the premier of Queensland was standing up waving, you know it’s my name and my firm’s logo sitting on the front of that agreement, ...’ (I7, p.9)

In contrast, Interviewee8 was the dual degree lawyer with 3 years of relevant work experience in a client industry. He had a Masters in Town Planning and therefore had all his qualification credentials to hand unlike Interviewee7 who spoke of his plans of studying for a Masters part-time while at work. He had a BSc in Australian Environmental Studies and a Master in Town Planning. He had worked for 3 years as a Town Planner when concurrently studying law. He reflected on the merits of dual qualification and the potential attractiveness to clients of work experience in a relevant technical area. ‘I suppose the, how do you differentiate yourself to your competitors, if you are multi-skilled you have multiple qualifications, you can do the technical stuff as well as the legal, you provide a better all round service I think.’ (I8, p.4). He actually had far less to say about lawyers and the nature of the law than Interviewee7 and spoke in generalities and ideal abstractions almost as would a management guru. He talked in seemingly effortless terms about how one can gain partnership based on professional reputation, integrity, rounded character, a winning mentality, attention to detail and successful client service and relationships. He described how law is changing in its culture moving away from old community values of the traditional professional to the New Age lawyers. This is not therefore a positive development because it involves less ethical concern to serve the community, but his story (See Appendix A) was one where is still personal space and opportunity to behave differently; almost as if on a quest within a world divided into good guys and bad guys.

4. Summary and conclusion

In this research study we have examined how ideas of competence and high performance were recognised as linked to the: ability to bill more hours, establish and maintain relationships with clients, command a degree of respect from colleagues and the business community, possess a business orientated approach to work and display a keen interest in increasing ones knowledge and expertise, whether this be through more credentials or diversifying interests in other niches areas of law pertinent to the work group.

We have considered these findings on lawyers examining different orientations and moves in their careers and competence development. The results from these interviews with junior level lawyers endeavouring to establish a foothold in their chosen occupation and associate lawyers show the majority to be anticipating the available opportunities for progression to either higher status salaried professional roles or partnership, while at the same time mindful of the limited prospects of formal career progression for most of the lawyers within the group. Our interpretation of these research studies is that competence
development requires successful identification of viable expertise. Moreover, competent performance in current work practices and high performance is likely to include frequent maintenance and search for comparatively unique occupational or task-based niches. Such niches for competence and development are resource rich environments possessing, for varying periods of time, internal and external labour market value.

We conclude that policy makers, practitioners, and academic researchers all have roles to play in assisting people to reflect on their existing expertise, assess current work practices, and develop and pursue strategies for career and competence development.

5. References


Appendix A: Participants’ views on effectiveness

Interviewee1: Having communication skills and keeping clients informed, thus avoiding problems such as bills being perceived as too great.

Interviewee2: Having a high standard of excellence, remaining current in the developments in the field and adopting best practice standards. HRM, communication skills, and ability to work in teams.

Interviewee3: Having life experience outside of the law and therefore being more savvy, meeting budget and getting good at checking one’s own work as well as getting advice from colleagues.

Interviewee4: The appraisal system is well worked out with a large number of questions asking you to rate yourself on a 1-5 scale. Questions such as: ‘How do you rate yourself as furthering client’s interests?’, ‘How do you rate yourself as furthering the knowledge within the group?’ (I4, p. 15)

Interviewee5: ‘Probably the ability to handle new concepts and tasks competently’ (I5, p. 5) Research the law, time management, managing other people, building the business and fee generation.

Interviewee6: Being client-centered and remaining within the ethics and boundaries of the law.

Interviewee7: ‘Your level of fees that you bill’ (I7, p.8) innovate, individual reputation in an area of the specialisation, becoming more like consultants working on large projects with other professions and business people.

Interviewee8: Giving commercial advice and being a personality. ‘... I always see it as a culture in a firm, if you have a strong firm with a strong culture, that prides itself in being number one, promotes people with the same values and integrity as the traditional lawyers, I think you’ll keep that going ... ’ (I8, p.8)

The traditional lawyer you can see that they’re more older school partners, who have commanded a lot of respect from the community, they believe in the law as a profession, they believe that it’s not just about money, there are broader issues there, you’ve got to be, you’ve got to have integrity, character, you can’t just leave that aside even if it hurts you, if you’ve got a document that’s______, and it’s going to hurt your client, you’ve got to disclose it. Then .... you’ve got this new age lawyer, which is more the business person, who will win at all costs to keep a client, which may not, which may mean hiding documents which should be disclosed, and I suppose hiding is like anything, if you justify a way by saying it’s not relevant, which in fact it is, .... I suppose do not have that integrity about that, which a traditional lawyer has, so I, I respect the traditional lawyer, the older school and I’d like to see myself being like that in the future, and I’d like to see the law going that way, and I think that’s where the law is different, ....’ (I8, p.7-8)
Abstract: Recent studies on labour market performance in Poland document growing differences in jobs’ characteristics between young people (labour market entrants) and elder workers. The aim of this working paper is to assess the impact of graduates’ qualifications (in terms of education level, field of education, additional skills and qualifications, school’s characteristics, in-school work experience etc.) on a quality of undertaken jobs. The quality of posts is characterised by the relative wage level, employment status, time of work, work conditions, career prospects etc. After a LFS-based brief discussion of differences in employment characteristics between younger and older cohorts, the 2007 Graduates’ Survey data is used to construct a synthetic job quality index. Then a regression analysis is carried out in order to find determinants of job quality and assess for a role of education-related characteristics: education level, participation in education activity after graduation and benefiting from school-based activities aimed at building future professional career have resulted to be of major importance.

Key words: job quality, work conditions, wage differentials, graduates’ labour market, youth’s labour market, labour market segmentation.

1. Introduction

The labour market success may be understood in many different ways. Although we may define it in the broadest way as a labour market participation1, the measure mostly often used for labour market success is a fact of carrying out a paid work. It is regarded as a proof not only of the level of qualifications high enough to offer one’s labour on the labour market, but also as an indicator of workers’ attractiveness from the labour demand point of view and of the match of their education profile to market requirements. However such definition of a labour market success poses further difficulties: is an university graduate that failed to find work in her occupation and work for a three hours a week as a babysitter successful on the labour market? According to the ILO definitions, she will be recognised as a employed person2. The problem becomes even more acute for economics with high share of population earning its living on agriculture production, often of very small scale, not destined for market. Poland is an example of such country. Although the employment in agriculture fell by more than a half during the transition period, it still constitutes more that 15% of total employment (GUS 2009). In such case large group of persons actually non-participating in the labour market are included in employment. Therefore for assessing labour market success not only the fact of work, but also its time and quality should be taken into account (the problem has been discussed by Kalleberg et al. 2000 and recently by Howell and Diallo 2008). Only if we take into consideration characteristics of job, we'll be capable of shedding some light on the determinants of labour market success.

The aim of this working paper is to discuss the specifics of employment of the young Polish labour force members and to search for determinants of difference in quality of jobs carried out at the beginning of their professional careers (with particular attention to education characteristics). The first part of the paper refers to a research question concerning a difference in employment characteristics of younger cohorts and more experienced workers. Basing on the Polish Labour Force Study (LFS) data employment status, work conditions, time of work and wages will be discussed. Then the analysis of the determinants of job quality will be presented. This part of research will be based on the dedicated Graduates’ Survey carried out in 2007 that allows to include various characteristics of employees’ qualifications (not feasible with standard LFS) and education career and to check if they impact the quality of employment undertaken after graduation. The paper ends with short conclusions.

2. Characteristics of the Youths’ Employment

The participation rate of the young people in Poland is – as it is typical for most of OECD countries – relatively low (see: graph 1). Within the group of 15-19 years old it does not exceed 5%, for the persons aged 20-24 it is equal to almost 50%, what is

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1 That is a will and a readiness of a graduate to offer their work on the labour market (in labour supply terms).
2 Among the employed are included all persons aged 15 and more who during a reference week performed for at least one hour a work generating pay or income or did not perform it due to a sickness, maternity leave, vacation or had a short break in employment.

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3 All statistical data refers to the year 2007. That was the year when a dedicated survey on graduates’ educational and professional careers was conducted. The survey was realised within the research project: Economic activity of graduates and on influence of the “First Work Programme” on professional careers of young people, financed from the European Structural Fund. Since the survey data has been a basis for further analysis, in order to keep result comparable, LFS data was also taken for 2007 (II quarter, which is recognised by Eurostat as representative for yearly data).
clearly related to further education (in the age group 15-19, 97.6% of respondents declared participation in education as student or pupil. In age group 20-24, the share falls to 61.2% and to 15% for persons aged 25-29). The economic activity grows after 25. year of life when it exceeds 80% to reach its maximum at about 35. year of life. Similarly characteristic feature of the young cohorts is a relatively high unemployment rate, what mean that even those few that decide to enter the labour market have problems with finding a job. It is higher than average for all age groups up to 30 years of age.

These figures do not mean the young cohorts being of marginal importance for a labour market. Quite a contrary: persons aged 15-29 constitute almost ¼ of total employment. Moreover the qualification potential they posses (better education than older cohorts (in the group of employees aged 24-29 the share of persons with tertiary education is by 60% higher than on average), knowledge of foreign languages, computer skills) makes them the key asset of the labour market. However, gaining on-the-job experience, further acquirement of skills and qualifications and general personal development are crucial conditions for an effective use of this valuable asset. Let's then have a look at the quality of jobs occupied by the youngest labour force members. Do jobs they undertake entail possibility of human capital accumulation? Do they bring satisfaction and income security.

Figure 1: Labour market performance in Poland: key indicators by the age groups

The problem of assessing quality of the job is not trivial. There is quite considerable literature dealing with this issue (for survey see: Rosenthal 1989, Vieira et al. 2005). Usually the quality of job is assessed with the income it brings, the tiresomeness it entails (which may be related to different aspects of work, as physical effort, stress, exposure to conditions harmful for health, inconvenient time of work, time spent on a journey to work etc.), personal satisfaction and promotion prospects and the amount of job and income security it brings. Let's start with brief description of the employment structure of the younger cohorts in terms of some of the above mentioned characteristics. In order to be able to conclude on job quality of graduates (not persons continuing education and working in the same time) only persons that declared not being pupil or student were taken into account in the following analysis.

As far as employment status is concerned the youngest labour force members are characterised with relatively low share of own-account workers (see: Graph 2). Low propensity for setting up own firms may be related to lack of capital and experience needed for this kind activity. However many of them work as contributing family members – persons working for a family business (very often in agriculture) with a small remuneration. This kind of employment cannot be regarded as a successful entry to the labour market and constitute rather a residual category for those who didn't succeed in selling their time and qualifications on the external labour market. Hired employees are overrepresented among the younger workers. It suggests relative success on the labour market, but if we look at the structure of their labour contracts, we will discover that majority of hired employment of the young people is set on defined-time basis, therefore is less secure and potentially may involve less human capital investments (both for employer and employees) than in the case of permanent contracts1. On the other hand, institutional structure of the Polish labour market and labour code in particular makes it natural for employers to start employment

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1 Similar developments were found in different countries. See: McGinnity et al. 2005, Layte et al. 2008, Grotkowska, 2005.
relation with defined-time contracts, with many of them transformed into permanent contracts in longer perspective. As far as hired employment is concerned, civil contracts are more disadvantageous for young people. They may be less costly for an employer, bring higher current income for an employee, but provide virtually no social protection and no incentive for employers to invest in their employees. Although it is supposed to be more and more popular in Poland, the LFS does not provide data on this type of employment. However the 2007 Graduates’ Survey data suggests that in a group of young people (the population surveyed was aged 18-37), the share of civil contract workers was equal to 5% with further 3% working without any formal contract.

Third, the NACE section structure of employment is clearly different in case of the young people than it is in the case of older generations. If we compare employment structure of given age-groups of the labour force with an average structure, we will discover that:

- in the group aged 15-19, almost 90% of workers is employed in trade and repairs, hotels and restaurants, construction, manufacturing and community social and personal services, with hotels and restaurants having 10 times higher share in employment than on average, trade and repairs - 74% higher and construction - 61% higher,
- in employment of the group of secondary school graduates entering the labour market (20-24 years), all above mentioned sections are overrepresented as well, although the scale of the difference is not such dramatic as in the previous case; however yet employment in hotels and restaurant is almost 3 times more often in this age group than on average,
- as for 25-29-year old persons, the employment structure is more close to the average, with overrepresentation (in order of its scale): trade and repairs, hotels and restaurants, financial intermediation, real estate renting and business activities, manufacturing.

![Figure 2: Employment structure by age groups](image)

Source: own calculations, LFS 2007, second quarter

It should be noticed that majority of the above mentioned sections are characterised with high staff rotation (simultaneous high level of job creation and destruction), relatively low wages and low level of human capital investments, which all may be regards as an indicator of low quality of the youth’s employment.

As for working time, young people relatively more often than on average work on part-time basis (even those who do not continue education). With an average share of part-time employment equal to 7.5%, in the youth's age groups it is equal to 10.6% in the group aged 15-19, 8.8% in the age group 20-24 and 6.9% in the age group aged 25-29. Young people more rarely than on average have an additional job and they more rarely work in overtime (paid and unpaid). However they relatively often work with shift-based time arrangements. Persons deciding to drop school and enter the labour market relatively often work on evenings, nights and weekends. These unfavorable characteristics apply to 15-19 year old workers, only with Saturday work typical for 20-24 year old persons as well. However total time of work of the young people doesn’t differ significantly from the overall average.

Finally, assessing indicators of job quality, a pay received by different age groups of the labour force should be taken into account. Wage curve is merciless: the wages got by the younger workers are significantly lower than on average (see: Graph 3). It may be partly contributed to a smaller human capital possessed by younger persons (in terms of experience), but is may – be partly – a result of labour market discrimination related to outsider position of new entrants to the labour market.

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1 Dealing with the wage data from LFS we have to remember that it is based only on the declaration on net income from work and that it was disclosed only by 71% of persons recognised as working.
3. Measuring Job Quality: A synthetic Index

In order to provide more rigorous analysis of the determinants of
the job quality, a task of construction of a syntax measure of the
job quality was undertaken. Such measure is not obvious since
job quality is closely related to job satisfaction (being resultant
of benefits and costs related to job) that is – by definition –
subjective category. However, basing on the literature, with
certain amount of arbitrariness, such attempt was undertaken.

First, basing on the literature review (see: Costrell 1990,
Champlin 1995, de Grip et al. 2006 and Green 2006 in particular)
and the availability of the data in the 2007 Graduates’ Survey, the
list of variables describing job quality were specified. For each
variable, categorical values were determined, each time starting
from zero (meaning the less favourable working conditions) with
higher values attributed to more favourable situation. The list of
variables is presented in Table 1.

Although the choice of variables was determined to large extent
by a literature review, it is an arbitrary author’s choice. In general
the variables chosen represent two aspects of job characteristics:
the wage it pays and its non-wage features (work conditions,
security of employment etc). Such approach is in line with
theoretic literature referred to in the discussion on job quality:
the segmented labour market theory and compensating wage
differentials theories. The segmented labour market view claims
the existence of two distinct labour markets with strong mobility
barriers between them. We can therefore classify jobs into good
jobs and bad jobs, with bad jobs being those not only having
worse working conditions, but also lower wages.

However it does not include data on other age groups of the labour force. The
survey was undertaken between late November 2006 and late February 2007 and
the sample accounted for over 20 thousand respondents selected to be
representative for the Polish society. The sample consisted of persons that
between January 1998 and December 2005 finished their education, were less
than 27 years old at the moment of graduation and between the last and last-by-
one stage of their education career hadn’t had a break of more than 12 months.
The questionnaire consisted of several parts (177 questions) concerning level of
education and education path, process of searching for a first job during the
period of 12 months after graduation, economic activity after graduation, detailed
characteristics of jobs undertaken, question of the entrepreneurship among the
youth, impact of employment offices on the graduates professional careers and
spatial mobility of graduates. Total number of respondents recognised as
employed was equal to 13 666 (69% of total number of respondents), although
due to lack of answers to some question, not whole subsample was used in the
following analysis.

---

The European Commission (2001) suggests that a single composite indicator of
job quality should be based on both objective and subjective evaluations of the
worker-job match.

In this part of the paper, we turn into data gathered in 2007 Graduates’ Survey.
It contains more characteristics of jobs and a variety of variables describing
education process that will be used in a analysis of job quality determinants.

---

Figure 3: Average and median net wage per hour by age groups

Source: own calculations, LFS 2007, second quarter

All in, basing on the comparison between employment
characteristics of the young employees and older cohorts, we may
conclude that the former:

- usually work as hired employees or contributing family
  workers,
- if they work as a hired employee, their labour contract is
  usually of defined-time type, with significant share of civil-
  contract-based employment and informal employment,
- they work in sections of the economy characterised with high
  rotation of employment, low wages and low level of human
capital investments,
- their work often requires less favourable time arrangements
  (working on the evenings, nights, weekends, shifts), although
  their total working time is not longer than on average,
- they earn less than on average, with wage gap based on
  average wage equal from 14% in the case of persons aged 25-
  29 up to 52% in the case of early school dropers (15-19
  years old).

---

1 The European Commission (2001) suggests that a single composite indicator of
job quality should be based on both objective and subjective evaluations of the
worker-job match.

2 In this part of the paper, we turn into data gathered in 2007 Graduates’ Survey.
It contains more characteristics of jobs and a variety of variables describing
education process that will be used in a analysis of job quality determinants.
According to the compensating wage differentials theory jobs with poor working conditions are expected to be compensated for this with higher wage.

The values attributed to individual variables shows that relative wage (a position in a wage ladder) and type of contact (that includes security of employment, respect for workers right, social security coverage etc) were chosen to be the most important components of work quality. Then time spend on travelling to work and a NACE section of employment were taken into account. Other job characteristics were chosen to be of smaller importance.

Table 1: Variables describing job quality in the 2007 Graduates’ Survey

<table>
<thead>
<tr>
<th>Name of variable</th>
<th>Description</th>
<th>Values taken</th>
<th>Variable’s distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>Net per hour wage (wph) calculated as quotient of monthly net wage and time of work declared by an employee</td>
<td>0 – wph under 10th percentile</td>
<td>0: 9.83%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – wph between 10th and 25th percentile</td>
<td>1: 14.67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – wph between 25th and 50th percentile</td>
<td>3: 25.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – wph between 50th and 75th percentile</td>
<td>5: 25.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 – wph between 75th and 90th percentile</td>
<td>7: 18.53%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 – wph higher than the 90th percentile</td>
<td>9: 9.44%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=7363</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Employment status</td>
<td>0 – contributing family worker</td>
<td>0: 2.68%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – employment without formal contract</td>
<td>1: 3.45%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – employment based on civil contract</td>
<td>2: 5.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – own-account worker</td>
<td>3: 6.80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 – employment during traineeship period shorter than 1 year</td>
<td>4: 2.79%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 – hired employment with a defined time contract longer than 1 year</td>
<td>5: 13.77%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 – hired employment with a defined time contract</td>
<td>6: 21.90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 – hired employment with an undefined time contract</td>
<td>8: 43.42%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=12704</td>
<td></td>
</tr>
<tr>
<td>Promotion</td>
<td>Promotion prospects based on the declaration of an employee</td>
<td>0 – no promotion prospects</td>
<td>0: 49.40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – there are promotion prospects (employee’s opinion)</td>
<td>2: 50.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N= 12399</td>
<td></td>
</tr>
<tr>
<td>Shift</td>
<td>Fact of carrying out a shift work</td>
<td>0 – shift work</td>
<td>0: 47.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – no shift work</td>
<td>1: 53.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=12741</td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td>Fact of carrying out a work at night</td>
<td>0 – work at night (often or sometimes)</td>
<td>0: 23.70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – no work at night</td>
<td>1: 76.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=12740</td>
<td></td>
</tr>
<tr>
<td>Weekend</td>
<td>Fact of carrying out a work on weekends</td>
<td>0 – work on weekends (often or sometimes)</td>
<td>0: 67.22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – no work on weekends</td>
<td>1: 32.78%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=12740</td>
<td></td>
</tr>
<tr>
<td>Commuting</td>
<td>Time spent daily on commuting to work</td>
<td>0 – workers commutes 120 minutes a day or more</td>
<td>0: 4.42%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – workers commutes 60 - 120 minutes a day</td>
<td>1: 21.51%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 – workers commutes 30 - 60 minutes a day</td>
<td>2: 40.03%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – workers commutes less than 30 minutes a day</td>
<td>3: 34.04%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=9515</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>NACE section of employment</td>
<td>0 – employment in trade and repairs, hotels and restaurants, construction or other social and personal services</td>
<td>0: 37.22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – other sections</td>
<td>3: 62.78%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=11713</td>
<td></td>
</tr>
<tr>
<td>Relation</td>
<td>Conformity of work with education profile</td>
<td>0 – work is not related to education profile</td>
<td>0: 41.88%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 – work is related to education profile</td>
<td>1: 58.12%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N=13062</td>
<td></td>
</tr>
</tbody>
</table>

Source: author's elaboration.

In the next step an index of job quality was constructed. It was calculated as a sum of nine variables included in Table 1. As may be easily seen the value of index may vary between 0 to 29, although in the sample it varied from 6 to 29 (see: Graph 4) with the average value of 19.1
4. Impact of Education Characteristics on Job Quality

Value of job quality index varies in different groups of the labour force: it is slightly higher for men, its average grows with the level of education (from 17.3 in the case of basic vocational education to 22.0 in the case of post graded), varies between different fields of education (from 17.1 in case of general education up to 22.4 in case of military education). We observe the spatial differentials of jobs’ quality as well: it is the highest in cities with over 100 thousand of inhabitants and the smallest in the rural areas. It varies between regions from 17.9 in Kujawsko-Pomorskie to 20.4 in Mazowieckie (where the capital city of Warsaw is situated). Table A1 in annex provide average values of the job quality index for selected cross sections.

In order to get a better understanding of factor influencing graduates’ job quality and to determine the impact of separate variables that may influence the job quality, a multivariate analysis was run. Potential explanatory variables were chosen on the basis on human capital theory and labour supply theory (Becker 1975, Sloane and William 2000). They included factors that may increase employees’ productivity (actual or only perceived by an employer) and/or increase the ability of an employee to accumulate human capital and therefore to encourage employers to pay higher wage and/or create permanent relationship with employee. The set of variables included:

- demographic variables: age and gender (women’s labour market discrimination is a well established fact in literature);
- spatial variables representing spatial distribution of economic activity and labour demand: region and class of settlement unit;
- time variable that could control time passed from entering the labour market (what is related to graduate’s growing experience and attractiveness for employers): year of graduation;
- characteristics of highest achieved education: level and field of education, as well as additional skills, as ability to speak foreign language, use computer, having a driving license,
- soft skills as management skills or ability to work in international environment;
- characteristics of the process of education at the last achieved level:
  - type of school and mode of education,
  - average grade,
  - participation in school-based traineeship programme,
  - participation in extra courses,
  - participation in training after graduation from school;
- work experience (relative to young age) increasing human capital;
- elements of social network (having a lot of contacts in work environment);
- family background (the average level of parents’ education).

The parameters of the regression were estimated with OLS method. Regression diagnostics included test for correctness of model’s specification (reset test), Jarque-Berry’s test for normal

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1 The detailed list of dependant variables is presented in Table A2 in the annex.
2 The age variable appeared not to be statistically significant in any of specifications, so finally in was omitted and not used in final specifications presented in the following.
3 A development of private education institutions (particularly at the tertiary level) has been characteristic for Polish education system in last 15 years. However many of them is regarded as offering education of poor quality, only in fields requiring relatively low input (management and marketing, international relations etc), often as evening or weekend courses with curricula offering 1/3 of full-time studies’ content.
distribution of random factor and Breusch-Pagan test for constant variance. The first test suggested lack of basis for rejecting hypothesis on correct model specification. Jarque-Bery’s test suggested non-normal distribution of random factor, but with large number of observation (N=9217), it is possible to conclude upon obtained estimation results. Heteroscedasticity test indicated a necessity to use White’s robust OLS estimators.

The obtained results were much in line with expectations, although some results were quite surprising. Quality of men’s jobs is on average higher than women’s (with control of other variables) by 0.79 point, which is on line with other studies concerning gender inequality on the Polish labour market (see: Grotkowska and Sztanderska 2008a, 2008b). Labour demand matters: job quality of persons living in rural areas or small cities significantly lower that job quality of graduates from big cities (over 100 thousand inhabitants); the difference is equal to 0.30 point in case of smaller cities and 0.53 point in case of rural areas. There is observed a certain geographical differentiation of job quality. A relatively bad position of Mazowieckie Voivodeship is much surprising, which is a result contrary to different analyses of the Polish labour market. The longer is time passed from entering the labour market, the higher is the quality of jobs undertaken: on average the index of job quality of persons that entered the labour market in 2005 (two year before the survey was made) is by 0.80 lower than an index for an identical graduate that entered the labour market 4-5 years earlier.

Quality of jobs grows with education level, although there is no statistically significant difference between average quality of jobs of persons with basic vocational education and general secondary education (which is not surprising in the light of other studies concerning Polish labour market, see: Grotkowska, Sztanderska 2008c) and with secondary vocational education (which is more surprising). A significant difference in job quality of undergraduates and postgraduates was also found (with the former having job quality higher by 2.1 points than basic vocational graduates, and the latter – by 3.7). As for fields of education, majority of them exhibits similar job quality as a general programmes, not preparing for any particular profession (what is a very surprising result in comparison to other studies, see: Grotkowska, Siergiejuk, Sztanderska 2008). Only in case of four fields, young employees’ job quality is higher (with other variables being controlled) than in the case of general programmes’ graduates. These are: pedagogy and education, foreign languages, mathematics and statistics and military studies. In the case of heath care, job quality is presumable even lower than in the case of general programmes. Some of the additional skills matter as well: computer skills increase job quality by 0.37 point, having a driving licence – by 0.32 point, but speaking a foreign language was found out to be insignificant.

Contrary to expectations, participation in school-based traineeship programmes wasn’t found to have a significant impact on job quality. Similarly, the hypothesis that public schools (as opposite to private ones) and daytime education (as opposite to evening classes and weekend studies) offer education marking out to better labour market position was no confirmed. In terms of quality of job, no significant effect was detected. The potential explanation of this paradox may be found within the theoretic framework of screening theory of education and labour market, with better schools acting as a screening mechanism indicating persons of higher productivity (driven by different characteristics) to the labour market, and not particularly increasing their productivity. However such hypothesis would require further studies and verification. The level of achieved marks matter: growth of average mark by one point, increases job quality by 0.26 point. Participation in non-compulsory additional courses during school education increases later job quality as well (which may be related to acquiring additional skills and growing productivity, accumulating of social capital or simply be an indicator of more active persons). Finally the positive impact on job quality was also found in the case of a variable indicating participation in school activities concerning professional career management: employees that took part in such activities (job fairs, courses, contacts with employers) now enjoy job quality index of 0.46 higher than identical employees that didn’t participate in this sort of programmes. Similarly positive effect for job quality has a participation in training after having graduated from school – it increases job quality by about 0.46.

International experience and ability for work in international environment seem to have no impact on labour market position. Persons declaring having work experience (relative to their age) were found to exhibit statistically higher job quality that persons without this advantage (the difference of 0.43). Three employees’ features which could be expected to have positive impact on job quality were found to lower its level (all at statistically significant level). These are: possessing a second profession, adaptability and managerial skills. Social network is also important for achieving a job of high quality: persons declaring large network of contacts within their work environment have on average an index of job quality higher by 0.76 point. This fact is widely recognised in literature as social networking. It is supposed to help overcome information barriers on the labour market and to increase workers’ productivity (Grotkowska, Socha 2009). Finally, not for a first time, the important of family background has been confirmed: the higher is the average education level of parents, the higher is job quality of their child.

4 The detailed regression results are presented in table A3 in annex.
5 The interpretation of the results is not obvious due to arbitrariness of choice of base value in the regression.

6 In Poland school marks varies from 1 (not passed), through 2 (poorly), 3 (satisfactory), 4 (good), 5 (very good) and 6 (excellent).
5. Conclusion

Job quality debate has been on the agenda for some time. First it was mainly related to the problem of low-paid employment and/or poor working conditions. Recently employment statistics have shown that “atypical” employment (fixed term, casual or part-time employment), has increased substantially over the last decade and a half in most OECD countries. In fact, in many European countries, much of the employment growth that has been achieved in recent years has been in the form of atypical employment. This growth has been again accompanied by increasing concern about the quality of new jobs particularly with respect to pay and conditions.

The youth is a labour force group that is mainly affected by these new developments on the labour market. It is partly for purely economic reasons (bargaining power of the youth is relatively weak due to their lack of working experience and outsider labour market position) and partly is motivated by institutional setting of the labour market that encourage employers to use flexible forms of employment. Being lower than on average, job quality is differentiated among the youth as well. According to the results of the presented study (with all reservations earlier mentioned) job quality is usually higher for men, persons living in large cities, postgraduates, persons having computer skills and driving license that have professional experience (relative to their age) and are equipped with network contacts within working environment. Home environment has some importance as well (with positive correlation between average parents’ education level and job quality), with good school results giving additional boost.

Lower job quality poses a short-term problem for the young people at the beginning of their professional career. However for the long time perspective, both for them personally as for economy, it is crucial if it is a permanent status leading to a dual labour market structure or only a transitory phase on a way to stable and high quality job of high productivity. That is however a question for another study.

6. References


## Annex

Table A1: Job quality index: basic descriptive statistics in selected cross-sections

<table>
<thead>
<tr>
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<th>Mean</th>
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<td></td>
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</tr>
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Source: author’s elaboration.
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<td>0.299</td>
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<td>1 – up to 3.0 2 – between 3.1 and 3.5 3 – between 3.6 and 4.0 4 - between 4.1 and 4.5 5 – between 4.6 and 5.0 6 – higher than 5.0</td>
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Source: author's elaboration.
Table A3: Determinants of job quality index level: OLS regression results

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<td>Men</td>
<td>0.8146</td>
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<td>Cities under 100 th. of inhabitants</td>
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<td>[1.92]**</td>
<td>[1.82]**</td>
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<td><strong>Education level (base category: basic vocational)</strong></td>
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<td>[5.25]**</td>
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<td>Undergraduate</td>
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<td>2.066</td>
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<td>[9.66]**</td>
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<td>[5.77]**</td>
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<td>Pedagogy and teachers’ education</td>
<td>1.2377</td>
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<tr>
<td>[2.79]**</td>
<td>[2.93]**</td>
<td>[2.35]**</td>
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<td>Foreign languages</td>
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<td>[2.67]**</td>
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<td>Field</td>
<td>Value 1</td>
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<td>Value 3</td>
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<td>-------------------------------------------</td>
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<td>Management and marketing</td>
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<td>0.0395</td>
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<td>0.0124</td>
<td>-0.0343</td>
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<td>Physics, chemistry, geography</td>
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<td>0.4192</td>
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<td>-0.3573</td>
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<td>-0.4389</td>
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<tr>
<td>Personal and transport services</td>
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<td>0.3256</td>
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<td>Driving license</td>
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<td>Additional professions</td>
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<td>-0.536</td>
<td>2.859***</td>
</tr>
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<td>Managerial skills</td>
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<td>-0.3092</td>
<td>1.767*</td>
</tr>
<tr>
<td>High adaptability to new conditions</td>
<td>-0.3397</td>
<td>-0.4334</td>
<td>2.444***</td>
</tr>
<tr>
<td>Work experience</td>
<td>0.4035</td>
<td>0.428</td>
<td>2.507***</td>
</tr>
<tr>
<td>Ability to work in international environment</td>
<td>-0.5067</td>
<td>-0.4646</td>
<td>2.250***</td>
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<tr>
<td>Contacts in the professional environment</td>
<td>0.7889</td>
<td>0.7583</td>
<td>4.37***</td>
</tr>
<tr>
<td>Average parents’ education level</td>
<td>0.185</td>
<td>0.1569</td>
<td>3.26***</td>
</tr>
<tr>
<td>Participation in training activity after graduation</td>
<td>0.439</td>
<td>0.4557</td>
<td>2.65***</td>
</tr>
<tr>
<td>Average mark</td>
<td>0.2636</td>
<td>3.58***</td>
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</tr>
<tr>
<td>School based traineeship</td>
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<td>0.16</td>
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<tr>
<td>Ownership of school</td>
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<td>0.97</td>
</tr>
<tr>
<td>Studying mode</td>
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<td>3.00***</td>
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<td>Foreign education</td>
<td>-0.5436</td>
<td>0.97</td>
<td>3.00***</td>
</tr>
<tr>
<td>School-based labour market counseling and support</td>
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<td>0.2966</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>----------------</td>
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</tr>
<tr>
<td><strong>Constant</strong></td>
<td>18.544</td>
<td>17.9972</td>
<td>17.2269</td>
</tr>
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<td><strong>Observations</strong></td>
<td>9217</td>
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<td>9217</td>
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<tr>
<td><strong>R-squared</strong></td>
<td>0.27</td>
<td>0.28</td>
<td>0.31</td>
</tr>
</tbody>
</table>

Robust t statistics in brackets.

* significant at 10%; ** significant at 5%; *** significant at 1%

Source: author’s elaboration.
MEASURING OCCUPATIONS IN WORLDWIDE WEB-SURVEYS

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University of Amsterdam/ALAS, Netherlands

Abstract: This paper summarizes the design principles underlying the WISCO Database of Occupations for the measurement of occupations in multi-country web-surveys by means of self-identification. It is discussed why the Database has been designed, and its source list, search tree and translations. The Database holds almost 1,600 occupational titles. Using a wide variety of sources, the list of occupational titles has been compiled as part of the FP6 funded EurOccupations project. It is explained how the Database deals with issues such as skill levels, corporate hierarchies, job ladders, managerial and supervisory occupations, craft versus manufacturing occupations, composite occupations and the methods used for translations. Finally, the paper sketches briefly how the database is used in the worldwide WageIndicator web-survey. For more information see www.eurooccupations.org or www.wageindicator.org

Key words: occupations, measurement, search tree, web surveys, database.

1. Introduction

Occupation is a key variable in socio-economic research. In paper-based, telephone or face-to-face surveys, it is mostly asked in an open response format. In contrast, web-surveys offer a unique possibility for a closed response format, using a search tree. As part of the EU-FP6 funded EurOccupations project (2006-2009, n° 028987, www.EurOccupations.org), a free downloadable database of occupations, designed for eight EU-member states. The project aimed to provide a tool for self-identification in surveys, measuring occupations with a greater precision than the 4-digit units of the International Standard Classification of Occupations ISCO by adding further digits. It did not aim for revising ISCO or any other occupational classification. In co-operation with the continuous, worldwide WageIndicator web-survey, www.wageindicator.org, usability tests have been performed and occupational titles for countries have been added. Thanks to these two projects, the World database of ISCO occupations WISCO could be drafted, including:

A source list of 1,594 distinct occupational titles in English
Country-specific translations of these occupational titles
A 3-tier search tree that allows respondents to navigate through the database

In many ways, the social sciences may profit from the WISCO Database of Occupations. First, when used in multi-country web-surveys, it will increase comparability of the occupation variable across countries. Second, when used in web-surveys with large sample sizes, the detailed occupational titles allow for analyses of sub-samples previously not possible. Third, the database can be used in computer-assisted face-to-face surveys, when the interviewer turns the screen to the respondent.

2. The procedure of drafting and testing the WISCO Database of Occupations

Defining occupations

The primary aim of WISCO Database of Occupations is its use for valid self-identification of occupation in web-surveys. Given that respondents prefer to indicate their job titles rather than aggregated categories, the source list of occupational titles had to be close to the wording used in job titles, thus requiring a long list of occupational titles. However, these occupations have to be distinct from each other, because synonyms or overlapping occupational titles may confuse respondents. Yet, the longer the list, the higher the average respondents’ reading-time and the higher the likelihood of dropout during survey completion. The source list has to optimise between the demand to include as many distinct occupational titles as possible to facilitate valid self-identification and the demand to be as brief as possible to reduce reading time.

The length of the source list is further determined by the search tree, consisting of a 2- or 3-tier tick list, detailing broad categories in the 1st tier to detailed items in the 2nd and 3rd tier. To prevent visitors from scrolling, a standard search tree on a computer screen can cope with some 20 items in the 1st tier and up to 20*20=400 items in the 2nd tier and 20*20*20=8,000 items in the 3rd tier. As 400 occupational titles definitely are too few, the search tree had to consist of 3-tiers with a limit of 8,000 occupational titles. A third argument for an efficient source list is the number of jobholders. Occupations with few jobholders are preferably not included, whereas occupations with large numbers of jobholders are preferably broken down in two or more occupational titles. As a rule of thumb, we used a 0.01% limit of the labour force. Large occupations have been been broken down into several distinct occupational titles.

The WISCO Database of Occupations employs the following definition: “An occupation is a bundle of job titles, clustered in such a way that survey respondents, that respondents in a valid way will recognize as at their job title; an occupation identifies a set of tasks distinct from another occupation; an occupation should have at least a not-negligible
number of jobholders and it should not have an extremely large share in the labour force”.

A stepwise procedure to draft the source list

Since 2001, when the WageIndicator web-survey started in the Netherlands, an occupation search tree has been developed gradually, using the NOC of Statistics Netherlands. In 2004, when the web-survey expanded to surrounding countries, new search trees and source lists were applied. Some countries preferred different search trees, other countries had occupation lists from their statistical offices, but these were not translated in English. So, a search tree and a source list to generate cross-country comparable data was lacking.

EurOccupations started in May 2006 and aimed at drafting an occupations database for the eight – at that time - largest EU member states, Belgium, France, Germany, Great Britain, Italy, the Netherlands, Poland, and Spain. Its source list should fully correspond with ISCO-08. In September 2006 draft 3 of ISCO-08 was published (ILO 2006). Its 447 occupational units at 4-digit level were taken as the point of departure for the source list of occupations. The occupations additionally specified in this draft were added to the list, if considered to be distinct from occupations already in the list. Occupations, listed in the detailed Alphabetical index of occupational titles for ISCO-88(COM), that could be expected to have large numbers of jobholders were added to the source list. Frequently reported occupations in the 2004-06 German and Netherlands in the additional open response question in the WageIndicator web-survey were added to the source list, particularly of importance for new and emerging occupations and for occupations that had to be detailed. Finally, national occupational classifications from UK, Belgium, USA and Canada were reviewed. Occupations that were assumed to have large numbers of jobholders were added to the source list. Early 2007, the source list held 1,433 occupational titles. This list was translated by professional translators and carefully checked by the national labour market experts of the EurOccupations and WageIndicator partners. The comments of translators and experts mostly related to occupational demarcation lines, e.g. two occupational titles in the source list were not considered distinct in the country at stake. In these cases, either one occupation was removed from the source list or one occupation was not included in the national list.

In Spring 2008, ILO published the final version of its ISCO-2008 classification with 433 occupational titles at 4-digit level (ILO 2007). Compared to the 2006 draft, the number of occupations was reduced and some occupations were assigned a different skill level. The WISCO source list was accordingly adapted and again critically reviewed with regard to internal consistency and suitability within the search tree. Finally, the source list was updated taken into account the results of the EurOccupations similarity test of the 150 occupations, selected from the initial EurOccupations source list. The final WISCO Database of Occupations source list counted 1,594 occupations (Tijdens and Jacobs 2009a). It is posted at the website www.eurooccupations.org.

In Summer and Autumn 2009, the revised WISCO Database of Occupations was implemented for all countries in the WageIndicator survey. In addition to the eight EurOccupations countries, the WISCO Database of Occupations currently holds translations for Brazil, Bulgaria, China, Czech Republic, Denmark, Greece, Finland, Hungary, Indonesia, Russia, Slovakia, Sweden, South Korea, and Turkey. National labour market experts checked translations for countries for which the language was available, e.g. Angola, Argentina, Azerbaijan, Botswana, Chile, Colombia, India, Malawi, Mexico, Mozambique, Paraguay, South Africa, United States, Zambia, and Zimbabwe. For 2010 translations for Hindi, Norwegian, Romanian and the three Baltic states are foreseen. Countries are allowed to add or remove occupations in their national lists, because the 0.01% limit of the labour force will vary across countries. If new occupations are added, the experts are asked to identify the related ISCO-4 digit occupation.

ISCO distinguishes four skill levels. It has no way to handle country-specific deviations of the skill levels. This challenged WISCO Database of Occupations to phrase occupational titles such that respondents will assess their appropriate skill level. EurOccupations has undertaken a systematic empirical investigation regarding the skill levels of 150 occupations in eight EU member states. The vast majority of these occupations did not vary largely with regard to job content, but to skill levels (see Deliverables D07-D22, 2009). In the years to come, an empirical measurement of required skill levels of occupations worldwide will be possible with the WageIndicator survey data, using the jobholder’s attained educational level, the years of experience and the self-assessed match between attained education level and job level.

Usability test

By mid 2007 the search tree and the translations of the initial source list were implemented in the WageIndicator web-survey for three usability tests (Tijdens and Jacobs 2009b). Until 2008/Q4, in total 171,443 respondents from 33 countries responded. Test 1 was an inspection of the distributions over the ten 1-digit ISCO groups for seven EurOccupations countries. The results seem reasonable, and no weird outliers could be detected. Test 2 related to respondents’ feed-back. In this period, the WageIndicator web-sites received over five thousand emails from visitors but less than 20 complained about the search tree. Their comments referred to not listed occupations and to the paths in the search tree and have been taken into account. For test 3, the distributions over the 3-digit ISCO-88 occupational groups have been compared between the web-survey data and
the 2001 ELFS for Poland, Spain and UK. This comparison is hampered because the years of survey are not similar, both variables are based on cross-over tables, notably from the NOC's into ISCO-88 (ELFS) and from ISCO-08_draft 3 into ISCO-88 (WageIndicator), and the sampling and survey modes are different, notably a random sampled face-to-face survey versus a volunteer web-survey. Taken into account these dissimilarities, the results are satisfactory, though better for the UK than for Poland, with Spain in between. The most striking differences reveal that the Computing professionals are largely overrepresented in WageIndicator and that the Shop, stall and market salespersons and demonstrators are underrepresented. The former might be explained from this groups' self-selection into the web-survey and from growing employment since 2001. The major lesson learned was that the shop assistant occupations the source list needed more detail.

3. The search tree and readability issues

When offering a choice-set with a large number of occupations, respondents must be able to navigate through the list. In web-surveys, three techniques facilitate choices from long item lists. First, an alphabetically sorted drop-down can be used, but this technique is limited to a few hundred items. Second, a search tree with two or three tiers can be used if the list exceeds a few hundred items, and this technique has been used for WISCO. Third, an open format question with text recognition can be used, but this assumes a database with occupational titles and their synonyms. The latter are currently not available in WISCO, but may be so in the near future.

In the WISCO Database of Occupations search tree, the 1st tier uses a mixture of broad occupational groups and industry groups, e.g. Agriculture, nature, animals, environment or Care, children, welfare, social work. Job-vacancy sites use similar job families. Since 2004, this 1st tier has been in use in the WageIndicator web-survey and it has proven to be a good entry. Note that this 1st tier is different from the 1-digit ISCO-08 major groups, as the ISCO hierarchy is designed for taxonomy purposes and not to facilitate self-identification. All 2nd tier items are nested in the 1st tier, whereby one 2nd tier item can be nested into two or more 1st tier items, if needed. The 3rd tier includes all source list occupations, again allowing multiple nesting. The search paths are designed such that they are most obvious for occupations with large numbers of jobholders or with predominantly low-skilled jobholders.

Search trees assume alphabetical sorting within each tier, because in most languages reading from a to z adapts to the way individuals tend to select an item from a long list. This is disadvantageous because respondents might be tempted to tick an item at the top. Yet, randomly sorted lists are more disadvantageous because they are counter-intuitive and therefore increase reading time. Translators are instructed to profit from alphabetical sorting by clustering related occupations to ease self-identification, e.g. Forestry advisor, Forestry helper, Forestry manager, Forestry planter, Forestry technician. This order is preferred over e.g. Manager forestry.

In case of an open response format unidentifiable occupations have to be classified in the appropriate residual occupational category, called “not elsewhere classified”. ISCO-08 has 27 residual units. In order to include all 4 digit ISCO-08 unit groups, these residual occupations had to be included in the source list though in case of self-identification the concept of residual occupations doesn’t make sense. Respondents will not read the entire choice-set and then conclude that their occupation is not present. Two strategies have been followed to solve this problem. First, for reasons of readability, all 27 residual occupations have been rephrased as “Occupational unit X, all other”. Second, these residual occupations are always sorted at the bottom of the appropriate 3rd tier, assuming that respondents have red all occupational titles in that particular 3rd tier list before deciding to tick the residual occupation.

Self-identification assumes reading skills and therefore poses high demands on readability. The wording of an occupational title should be brief, easy to understand, and unambiguous. Reading time should be brief to reduce the risk of survey completion break-off. So, the singular has been preferred over the plural. Bee-keeper has been preferred over Apiarist. Synonyms have been avoided. Feminine occupational titles have been restricted to a minimum. The readability issues do not hold for all countries. In some countries both male and female occupational titles have to be used. For Germany, the DTP operator is translated into DTP Operator/in. In this case, the disadvantage of increasing respondents’ average reading time is considered smaller than the advantage of adhering to the national understanding of gender equality. Additionally, the source list must be easy to understand and unambiguous for translators. So, Chef cook is preferred over Chef, and Helper is preferred overLabourer. Translations by national labour market experts are preferred over translations by professional translators, and nationally used occupational titles are preferred over literal translations.

The concepts of careering, job ladders and job-enlargement blur the demarcation lines across occupations, whereas clarity is critical for valid self-identification. This turned out most problematic for the assistant occupations. Is the assistant plumber part of a job ladder to become a plumber and thus one occupation, or not? This will vary worldwide and therefore the word assistant has been avoided as much as possible. Occupations including junior and senior job titles are not used. For respondents who prefer to report the hierarchy within their occupation, the WageIndicator web-survey has a follow-up survey question where these categories can be ticked.
4. The source list and occupational hierarchies

**Introduction**

Worldwide, an increasing share of the labour force is employed in large and medium-sized organisations. These organisations usually have a well-developed division of work, shaping hierarchical demarcation lines between occupations. For two reasons, this issue of corporate hierarchy had to be solved. First, ISCO has assigned different skill levels to different positions within the hierarchy. Valid self-identification assumes that occupational titles are clear with respect to the corporate hierarchy. Using our knowledge about corporate structures, all occupations had to fit into a stylized, six-layer corporate hierarchy (Table 1). It is discussed hereafter.

### Table 1: The stylized, six-layer corporate hierarchy applied in the WISCO Database of Occupations

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Description</th>
<th>ISCO major group</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCC+4</td>
<td>CEO, board members and area managers of large firms or organisations (50 or more employees)</td>
<td>Major group 1</td>
</tr>
<tr>
<td>OCC+3</td>
<td>Managers of institutions, centres, branches and alike Company director, chief executive 10-50 employees</td>
<td>Major group 1</td>
</tr>
<tr>
<td>OCC+2</td>
<td>Departmental managers, using a stylized setting of 14 departments</td>
<td>Major group 2-3</td>
</tr>
<tr>
<td>OCC+1</td>
<td>First line supervisors</td>
<td>In same group as occupation</td>
</tr>
<tr>
<td>OCC</td>
<td>Occupation</td>
<td>-</td>
</tr>
<tr>
<td>OCC-1</td>
<td>Helpers</td>
<td>Major group 9</td>
</tr>
</tbody>
</table>

**CEO’s, directors, managers (OCC+4 and OCC+3)**

The ambiguity in the occupational title of manager has sometimes been problematic for occupational classifications (Elias and Birch, 1994). In some languages, no clear differences exist between the hierarchical manager and the person who is responsible for a product or a service within the organisation, mostly also called manager, e.g. Account manager. The search tree plays a major role for valid self-identification of managers. One 1st tier item is used: Management, direction. This leads to four 2nd tier items, notably Department manager, Highest management level in organisation with more than 500 employees, Highest management level in organisation with 50-500 employees, Highest management level in organisation with less than 50 employees. In the 3rd tier a choice of the manager occupations is presented, covering all occupations in OCC+4 and OCC+3, for example the Livestock farm manager. Managers of these departments (see Tijdens 2009 for more information).

**Heads of departments or branches (OCC+2)**

ISCO does not identify department/group/team/division managers (OCC+2), but the WISCO Database of Occupations does. In the WageIndicator web-survey these are commonly reported occupations. For this purpose, a stylized horizontal corporate structure of 14 departments has been designed, such as Administration, Technical support, quality control, Logistics, purchasing, and Marketing and occupational titles have been added for the managers of these departments (see Tijdens 2009 for more information).

**First line supervisors (OCC+1)**

The US occupational classification employs occupational titles for first line supervisors. ISCO-08 does not, though this issue has been heavily debated. In the WageIndicator web-survey respondents prefer to report being a first-line supervisor, because the open format follow-up question is frequently used for this purpose. Therefore, the source list has distinct occupational titles for first-line supervisors (OCC+1), e.g. First line supervisor personal care workers, First line supervisor protective service workers, or First line supervisor retail sales workers. For the drafting of the source list, it is assumed that not all occupations have a related first-line supervisor, but that the incidence of first-line supervisors is likely in those unskilled and semi-skilled occupations, where the work is performed mostly in groups. The source list includes in total 47 first-line supervisor occupations. First line supervisors are assigned the same ISCO code as the occupation that they supervise.

**Helpers (OCC-1)**

According to ISCO, helper occupations are mostly classified as unskilled occupations, and they are classified distinct from the related occupation. The source list includes almost twenty distinct occupational titles for helpers, e.g. Assembling helper, Building construction helper, Cattle station helper, or Road construction helper. Helpers (OCC-1) are assigned an ISCO skill level different from the related occupations.
5. The source list: miscellaneous

No additional information needed on industry, firm size or employment status

For the recoding of open format occupation data, industry, firm size and employment status are used mostly as auxiliary variables. When using the WISCO Database of Occupations no additional survey questions are required for recoding. Consequently, some occupational titles include a reference to industry, e.g. Dairy-products process controller and Chemical products process controller. Other occupational titles refer to firm size, notably Company director, chief executive 10-50 employees, Company director, chief executive 50-500 employees, and Company director, chief executive >500 employees.

As for employment status, the source list does not differentiate occupations in this respect. Worldwide countries vary largely with respect to the proportion self-employed in occupations, implying that the source list would almost be double the size when including a reference to employment status in the occupational title. In case the source list is used for constructing a Socio-Economic Classification, the survey needs to include an additional question on employment status. Alternatively, percentages of self-employed per occupation can be provided for a large number of countries using data of the WageIndicator web-survey, which has a question on employment status.

Avoiding gender bias

In any occupation list, gender bias should be avoided. Analyses on Labour Force Survey data for 8 countries indicate that on a 3-digit level male-dominated occupations indeed appear to be specified on a more disaggregate level than female-dominated occupations in the 2007 initial source list (De Ruijter, De Ruijter and Jacobs 2009). The issue was solved by breaking down large female-dominated occupational units into detailed occupational titles. For example, the nurse occupation was broken down into 11 distinct occupational titles.

Coping with composite occupations

Small organisations tend to employ workers in composite jobs. Respondents may therefore want to classify themselves in more than one occupation. Web-surveys using search trees have two solutions to this problem. The first solution includes an instruction to the survey question “What kind of work do you do?” that in case of composite jobs the occupation should be ticked with the highest skill level or otherwise the one on which most time is spend. Respondent may also be offered a follow-up open response format question to specify their composite occupational title. The second solution is allowing respondents to tick more than one occupation. Unfortunately, due to technical constraints the WageIndicator web-survey does not facilitate a second choice, but may do so in the years to come.

Handicraft workers and machine-operators

In the cause of the 20th century, small-scale workshops have been replaced by factories and craft occupations by machine-operators due to industrialisation and technological innovations. Countries vary with respect to the degree that these processes have taken place. Nevertheless, even in highly industrialised countries traditional craft occupations exist, supplying handicraft goods for commercial markets. In the source list the machine operator and the handicraft workers are assigned distinct occupational titles, e.g. the Handicraft weaver, knitter, embroiderer and the Weaving machine operator, or the Handicraft leather worker and the Shoemaking machine operator. For food manufacturing, the word handicraft worker is not applicable. For bakers and butchers, in most countries the occupational titles will refer primarily to retail trade and a different phrasing is used for comparable occupations in manufacturing.

Obsolete occupations

Occupational structures are dynamic because in all countries the occupational composition of the labour force varies over time. The 0.01% threshold for including an occupation is static. This raises the issue how to detect occupations that become obsolete and how to detect whether this is a country-specific or a worldwide phenomenon? As the supply of machinery for factories, building sites, IT services and offices is increasingly a globalised business, it might not leave much room for country-variation with regard to obsolete occupations. Unfortunately, this observation is not underpinned with empirical results. Worldwide, very few research results are available with regard to occupational dynamics, most likely due to a lack of appropriate data. In the source list, occupations are not included that are judged obsolete given the technological state-of-the-art in manufacturing and services, such as Riveter or Lead burner.

New and emerging occupations

In growing businesses it is likely to observe a growing division of labour. The travel agency business used to have the occupation Travel agent, but as this business grew, the number of distinct occupations grew too and the source list includes five occupational titles now. A major challenge for any occupational classification is how to become aware of the new and emerging occupations (The National Center for O*NET Development 2006). In ISCO-08 a list of IT occupations was added (Hunter 2006). To trace new and emerging occupations, the WageIndicator web-survey will continue to use an open response format question for respondents, after having ticked an
occupational title from the search tree. This offers a possibility for a worldwide monitoring of new and emerging occupations, and if needed, allow for adding these to the WISCO Database of Occupations.

6. Conclusion

This paper summarizes the principles underlying the design of the WISCO Database of Occupations, whose primary aim is the measurement of occupations by means of self-identification in multi-country web-surveys. The database has three components, notably a source list of 1,594 distinct occupational titles in English, country-specific translations of these occupational titles, and a 3-tier search tree allowing respondents to navigate through the database. All occupational titles in the source list are coded according to ILO’s international classification of occupations, ISCO-08. The database has been designed as part of the FP6 funded EurOccupations project for eight countries. It has been tested and used in the worldwide WageIndicator web-survey, and extended to more countries. The 2007 draft of the database was successfully used in the web-survey of 33 countries, and the 2009 final version is implemented for 48 countries.

The EurOccupations part of the database is freely available from the project website. The WageIndicator Foundation will continue to use the database for its continuous, worldwide web-survey. This web-survey also allows for detecting new and emerging occupations because of its follow-up open format survey question asking if the respondents want to add additional information about their occupation. Data-collectors and academics from all over the world are invited to use and/or to contribute to the WISCO Database of Occupations. Suggestions for improvements of occupational titles in a particular language/country are welcomed and so are reflections on the search tree. Additions for new countries/languages are particularly welcomed. All messages can be sent to the author.

The ultimate objective of the WISCO Database of Occupations is to collect worldwide survey data on detailed, comparable occupations. If this data-collection develops satisfactory, it might be used for a research agenda focussing on three objectives. First, to investigate empirically the required skill levels of occupations, aiming to understand cross-country similarities and differences. Second, for investigating empirically the occupational dynamics over time, aiming to understand the mechanisms that explain the growth and decline of occupations. Third, to investigate empirically the processes of the division of work within labour organizations, and particularly in corporate hierarchies, aiming to understand horizontal and vertical occupational demarcation lines.

7. Literature


THE ROLE OF THE UNDERGRADUATE WORK PLACEMENT IN DEVELOPING EMPLOYMENT COMPETENCES: RESULTS FROM A FIVE YEAR STUDY OF EMPLOYERS

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Abstract: There is increasing research interest into the nature of competences required to secure a graduate job. This paper examines the role of the undergraduate work placement in developing such employment competences. In order to do this we draw upon a framework of generic competences developed in a previous project by one of the authors, together with data on how these competences are valued by graduates and employers. We also draw upon a survey of employers and students who have participated in an Aston Business School work placement. The work placement year is an integral feature of Aston’s undergraduate business programme and gives up to 600 students a year the experience of working with well known companies. For the past five years we have conducted a survey of these companies to assess their experience of employing our undergraduates on work placements and to examine the skills and competencies developed by students in the learning process. In this paper we compare data from both pieces of research to examine how competences developed during the undergraduate work placement contribute to the enhancement of graduate employment.

Key words: competences, competencies, work placement, employability, undergraduate business studies, work-based learning, graduate employment.

1. Introduction

In this age of the ‘massification’ of education (Gibbons et al., 1994) there is pressure from governments for universities to produce relevant and applicable knowledge which meets the labour-force requirements of the new economy. In the UK at least government policy has borne out this move from an elite education system to a system of mass education (Yorke 2000; Elias and Purcell 2004, Scott 2005). For the new generation of student consumers, for whom the progression to higher education is becoming an economic decision, there is demand for universities to deliver vocational and marketable skills and to provide a pathway into employment. For individuals there is a greater emphasis for one’s own ‘employability’, where the university and employers are stepping stones in the pursuit of lifelong learning (Moreau and Leathwood 2006). At the same time higher education has been moving more towards a focus on competence-based learning (Gillies and Howard 2003, James 2002) and graduate employability increasingly requires the demonstration of hard and soft competences developed through a partnership between universities and industry (Connor and Hirsch 2008). It is the role of the ‘soft’ or ‘generic’ competences sought by employers (rather than more job-specific ‘hard’ or ‘technical’ knowledge) which is the focus of this paper.

There is increasing research interest into the nature of competences sought by employers and the role of the university in providing them. This paper draws upon one such research project conducted by Aston Business School together with a consortium of European partners. The MISLEM project surveyed 900 employers and business graduates in four European countries, and developed a framework of soft or generic employability competences which are seen to enhance graduate employability (Andrews and Higson 2007). This framework forms a basis for our paper.

At the same time there is considerable discussion about the role of higher education institutions (HEIs) in developing these employability competences, and of the role of practical work experience. The role of the work placement has attracted particular attention (Archer and Davison 2005, Little and Harvey 2006). At Aston Business School an integral feature of the undergraduate programme is integrated work-based learning gained through an assessed work placement year. Up to 600 students a year gain the experience of working with well known companies. For the past five years we have conducted a survey of these employers to assess their experience of employing our undergraduates on work placements and to examine the skills and competences developed by students in the learning process. We therefore have 5 years of data on the development of students’ soft competences during the placement year.

An interesting question which arises is ‘what is the role of the work placement in developing graduate employment competences? In this paper we bring together these two pieces of research to examine how the development of soft competences developed during the undergraduate work placement contributes to the enhancement of graduate employment. First we establish an overview of the literature and present some findings about soft or generic employability competences from the MISLEM project (Andrews and Higson 2007, 2008). We then describe the methodology used to conduct and analyse the placement survey of employers and students. We then highlight the key findings from the placement survey and compare this data with the results.
of the MISLEM project. We then attempt to recommend how competences developed during the placement year can contribute to graduate employability, and to draw out implications for the delivery of the undergraduate business studies curriculum. It is important to stress that this paper represents work in progress and that our conclusions are still in the process of forming.

2. Literature Review

In recent years higher education has been moving away from the traditional knowledge-based approach towards a more competence-based learning focus (Gillies and Howard, 2003; James, 2002). This has coincided with changes in the funding of higher education and in initiatives, such as Bologna, to make higher education more relevant and more transferable. It has also involved a move away from the demand for just technical knowledge in industry to calls for a more diverse managerial expertise (Brent et al., 1996). In a more competitive global economy this approach has now become essential. Universities have started working with their industrial and corporate colleagues, and new forms of curriculum have developed. This focuses on ensuring that those entering the labour market have both the required technical skills and what are sometimes termed higher level ‘soft’ skills to apply the techniques appropriately in the workplace. Curricula have come a long way since the days when one graduate recruiter said to the authors: “your students have excellent skills and knowledge, but they do not think about them.”

Thus employability competences have become part of the education agenda. This has entailed identifying with industry the competences needed by graduates, both immediately, and later in their careers, and then mapping the acquisition of these competences into the curriculum. Beinhauer and Frech’s (2009) work forms part of an EU Tempus project which aims to provide tools to help HEIs develop employability competences. It is written on the premise that the essence of competence-based curriculum design is that graduates need to be able to demonstrate a set of agreed things which they have learnt. This will be a combination of knowledge, skills and abilities (Chyung et al. 2006).

There is some discussion in the literature of whether HEIs are the right group to take responsibility for developing employability (Murray and Robinson 2001, McHardy and Allan 2000, Zinzer 2003, Nicholson and Cushman 2000), given that they may be detached from the corporate world. Watts (2006) counters this, asserting that having employability competences within the curriculum supports academic values. Connor and Hirsch (2008) suggest the most appropriate way is via collaborative work between HEIs and industry. This form of communication should replace the customer/client relationship. It is this approach which is embodied in MISLEM (Andrews and Higson, 2008), an EU-funded research project which was set up to work with employers and graduates in order to develop a set of educational performance indicators to enhance graduate employability via the undergraduate business curriculum. These form the theoretical basis of this paper.

So, what are employability competences? The Tuning project (a university-led scheme aiming to help implement the Bologna process), defines them as a dynamic combination of knowledge, understanding, skills and abilities which are obtained by a process of learning (Gonzalez and Wagenaar 2005). The International Board of Standards for Training and Performance Instruction (IBSTPI) uses the definition ‘a knowledge, skills, or attitude that enables one to effectively perform the activities of a given occupation or function to the standards expected in employment.’ (IBSTPI 2005) These competences can either be generic (i.e. across all study areas) or subject specific (i.e. based in a particular discipline or sector). Woodruffe (1990) defines competence in terms of meeting performance goals at work, while Armstrong (2003) brings in the concept of knowledge transfer.

This paper concentrates on the softer, more generic transferable skills, referred earlier in this paper as the skills of thinking and applying. Boyatzis (1982) was one of the first to describe competency in terms of personal qualities and behaviours, i.e. the softer skills. The MISLEM project found that the most important generic group of competences required was the acquisition of higher level soft skills, particularly relating to communication (Andrews and Higson 2008). Fallows and Steven (2002) evidence employability skills which range from an ability to manage information, interact effectively with others, the ability to solve problems and prioritise. Students can learn these via carefully designed learning activities or experiences, like the one that is the subject of this paper. An essential part of the process is for students to be able to evidence that they have achieved these. This requires academics and their students to take part in different modes of learning which they may not be used to. This will probably mean learning in a less passive way, and it will certainly involve more links with industry in order to reduce the gap between the academic world and the professional arena (Beinhauer and Frech 2009, 14).

There is some evidence in the literature that employers are certainly more often requiring qualities over qualifications. McMillan and Weyers (2006) suggest that employers now expect as standard that all graduates have underlying technical/discipline competences. Employers, therefore, expect graduates to demonstrate the personal competences (soft skills) which they now often are looking for as the factor which distinguishes them from other candidates. Recruitment methods increasingly reflect this approach, with the use of selection methods which test ‘all-round skills such as team-working, leadership, problem solving as well as technical abilities’ (Raybould and Sheedy 2005, 261). This focus on soft skills is endorsed by many employers (Archer and Davison, 2008). Amongst these, soft skills communication and teamwork are rated highly by employers. The UK Commission for Employment and Skills (2009) identifies
teamworking, communication, active listing, an interest in learning, problem solving, numeracy, literacy and taking criticism as the employability competences which ‘make the difference between being good at a subject and being good at a job.’

All this is focussed on improving the employability of graduates, as a means of improving their competitiveness. The Dearing report for the National Committee of Inquiry into Higher Education (1997) – perhaps the seminal text on this topic for a generation in the UK – describes graduate employability as the ability to secure work suitable to the standard of education achieved. There is no one clear definition of employability, although the mention of skills and abilities seems to be a common theme, even where the perceptions of academics and employers differ. McQuaid and Lindsay (2005) reflect this by analysing a number of definitions of employability. Little (2003) defines it as ‘work-readiness’.

So far this review has concentrated on the benefit of graduates in building up employability competences. The literature suggests that there are also advantages for employers. By working with HEIs to develop curricula which build up employability, employers are investing in the employability of their workforce and maximise their company’s skill base, and enhances the appeal of their organisation (de Vries, Grundermann, Van Vuuren, 2001). King (2003) further suggests that employers should embrace graduates' wish to improve their employability.

The crucial role of work experience, and particularly the placement is mentioned by Archer and Davison (2005). They note the mismatch of employers’ expectations on commercial awareness with graduates’ abilities and the concerns at the apparent decline in numbers taking a work placement. One of the key findings of the MISLEM project (Andrews and Higson, 2008) was how crucial integrated work experience was for developing employability competences. There is much literature which confirms these findings (Ellis 2000, Crebert et al. 2004). Harmer (2009) suggests that learning would be enhanced for all stakeholders if students experienced more of the real-life complexities or organisations as part of their degree. Murakami et al. (2009) look at how effective placements are in developing career-related competences.

The MISLEM project identified a framework of eight generic ‘soft’ competences which are considered to be important to employers when assessing the employability of graduates. It then surveyed some 900 employers and business graduates in four European countries. Part of the survey asked them how they valued these key employability competences. The following table lists the eight employability competences and shows what % of graduates or employers in the MISLEM survey rated each competence as ‘valuable.’

<table>
<thead>
<tr>
<th>Competency</th>
<th>Graduates (%)</th>
<th>Employers (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>94</td>
<td>96</td>
</tr>
<tr>
<td>Team-working and Relationship Building Skills</td>
<td>92</td>
<td>85</td>
</tr>
<tr>
<td>Self and Time Management Skills</td>
<td>92</td>
<td>82</td>
</tr>
<tr>
<td>Ability to see the Bigger Picture</td>
<td>88</td>
<td>74</td>
</tr>
<tr>
<td>Influencing and Persuading Abilities</td>
<td>86</td>
<td>78</td>
</tr>
<tr>
<td>Problem-Solving Abilities</td>
<td>86</td>
<td>75</td>
</tr>
<tr>
<td>Leadership Abilities</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>Presentation Skills</td>
<td>74</td>
<td>88</td>
</tr>
</tbody>
</table>

Source: Andrews and Higson (2007)
3. Methodology

In this paper we are looking at the role of the undergraduate placement year in developing these competences identified in the MISLEM project.

In order to do this we draw mainly upon data drawn from our annual survey of the Aston Business School work placement taken over the past 5 years 2004-2005, 2005-2006, 2006-2007, 2007-2008 and 2008-2009. In this survey we ask both employers and students about knowledge gained during the placement year. A significant part of the learning from the placement is about the softer and generic competences required to work in organisational (often office) environments. In order to elicit this data we present a list of competences for respondents to rate in terms of its importance as learning gained on the placement. The list has been taken from the National Council for Work Experience in the UK (This was developed as a result of a European project. Details of the project and the partners can be found at the website http://efwe.efwe.org).

In addition employers and students are given the opportunity to write open comments on the questionnaire about what they have valued about the placement. This has the advantage of allowing respondents to describe the benefit of the placement year in their own words, in addition to the above list of competences which they are prompted with in the questionnaire. We have taken these qualitative comments from the current year’s student and employer survey and developed a list of further ‘soft’ competences which employer and students feel have been developed on the placement year.

We then take the results from the placement survey and compare them to the framework of graduate employability competences identified in the MISLEM project (Andrews and Higson 2007). The comparison of these two sets of competence variables – one formative diagnostic for competences developed during work-based learning, and the other a summative diagnostic for competences demonstrated by graduates already in employment – will enable us to examine the role of the undergraduate work placement in developing competences for graduate employment.

4. Findings from the Placement Survey

In this section we present the results from the survey of the Aston Business School work placement year. In the placement survey, employers are asked to rate the student in terms of their demonstration of specific competences. The following table shows the proportion of employers who rated their students as excellent or above average in these specific competences.
First we need to say a few words about the data. In the year on year data from employers presented in Fig. 3 it is not possible to draw any conclusions about how these numbers have changed over the years. Although there have been some notable increases, variations between the years may be because inevitably some year groups will perform better than others. The similarities shown between the years, albeit with minor fluctuations, serve to confirm a consistency in how these competences have been rated over the years.

From the data we can make the following broad observations:

• Teamworking and managing change particularly stand out as consistently highly rated;
• Self-development and customer awareness are highly rated;
• Verbal and written communication, critical thinking and problem solving and time management are not as highly rated;
• Leadership, influencing and negotiating, and to a lesser extent networking skills rank relatively low in the extent to which these have been achieved by placement students.

In addition to the above list, students and employers were also given the opportunity to write open comments on the questionnaire about what they have valued about the placement.

We have taken these additional comments from the 2008-9 survey of employers and the 2007/8 survey of students. From the survey of employers the relevant question asked employers to comment on the student’s progress. From these comments the following key competences were identified. It is important to stress that although these may appear low as percentages, they are significant results in view of how the data was elicited, where respondents were given a blank space to write whatever came to mind.

From the student survey the relevant question asked students what are their biggest personal gains. These comments were aggregated to form a list of additional soft competences which students particularly identify as arising from the placement experience. From a total of 289 respondents, the following competences were identified as being particularly valued.

### Table: Competencies Rated as Excellent or Above Average

<table>
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal/ written communication skills</td>
<td>67</td>
<td>65</td>
<td>71.4</td>
<td>71.5</td>
<td>71.5</td>
</tr>
<tr>
<td>Leadership</td>
<td>54</td>
<td>56</td>
<td>55.1</td>
<td>60.7</td>
<td>57.3</td>
</tr>
<tr>
<td>Teamwork skills</td>
<td>78</td>
<td>82</td>
<td>83.7</td>
<td>85.4</td>
<td>84.5</td>
</tr>
<tr>
<td>Influencing and negotiating</td>
<td>58</td>
<td>59</td>
<td>65.3</td>
<td>66</td>
<td>65.7</td>
</tr>
<tr>
<td>Customer awareness</td>
<td>77</td>
<td>80</td>
<td>80.2</td>
<td>80.9</td>
<td>76.8</td>
</tr>
<tr>
<td>Self development</td>
<td>69</td>
<td>73</td>
<td>75.5</td>
<td>77.4</td>
<td>76.8</td>
</tr>
<tr>
<td>Managing change</td>
<td>75</td>
<td>80</td>
<td>81.1</td>
<td>82.2</td>
<td>80.2</td>
</tr>
<tr>
<td>Critical thinking and problem solving</td>
<td>66</td>
<td>67</td>
<td>71</td>
<td>71.3</td>
<td>70.7</td>
</tr>
<tr>
<td>Time management skills</td>
<td>69</td>
<td>72</td>
<td>73.6</td>
<td>82.1</td>
<td>72.8</td>
</tr>
<tr>
<td>Networking skills</td>
<td>61</td>
<td>62</td>
<td>66</td>
<td>71.2</td>
<td>67.3</td>
</tr>
<tr>
<td>Number of respondents and response rate</td>
<td>315 (79%)</td>
<td>343 (86%)</td>
<td>316 (74%)</td>
<td>379 (72%)</td>
<td>379 (74%)</td>
</tr>
</tbody>
</table>

### Table: Additional Competences Identified by Employers

<table>
<thead>
<tr>
<th>Competency</th>
<th>Number (N=365)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belonging / establishing relationships</td>
<td>156</td>
</tr>
<tr>
<td>Confidence</td>
<td>108</td>
</tr>
<tr>
<td>Communication skills</td>
<td>91</td>
</tr>
<tr>
<td>Conscientious / strong work ethic</td>
<td>52</td>
</tr>
<tr>
<td>Organisational / time management</td>
<td>49</td>
</tr>
</tbody>
</table>

Figure 3: % of employers who rated the placement student as excellent or above average in specific competences
competences were specifically identified. Note the comment mentioned above about how the data were elicited.

Figure 5: Additional competences identified by students in the placement survey

<table>
<thead>
<tr>
<th>Competency</th>
<th>Number (N=289)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence</td>
<td>126</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>60</td>
</tr>
<tr>
<td>Experience of work environment and office politics</td>
<td>42</td>
</tr>
<tr>
<td>Organisational / time management</td>
<td>40</td>
</tr>
</tbody>
</table>

The most striking result from the open-ended questions both from the employers and the students is ‘confidence’ in many cases described as ‘self-confidence.’ The students also particularly mentioned ‘interpersonal skills’ which shows a similar notion of the growing of one’s self and one’s ability to interact with others in a work environment. Communication skills and the ability to manage oneself and one’s time in an organisational environment have also been developed significantly in the placement year. These findings are consistent with research by Little and Harvey (2006).

From the employers’ point of view ‘belonging and establishing relationships’ is a significant feature, which may also be akin to ‘teamworking’ which is consistently highly rated in fig. 3.

Overall these results are showing that key learning from the placement is mainly about the development and confidence of the individual and ability to organise oneself in a dynamic teamworking environment, with the necessary interpersonal and communications skills to deal with internal and external customers. It is interesting that these might be considered to be more social skills oriented towards the organisational and commercial environment.

In contrast, the individual faculties – and in some respects more technical competences – such as critical thinking and problem solving, verbal and written communication, and time management are not as highly rated. In particular critical thinking and problem-solving are thought of as ‘higher-level’ academic skills and other research agrees that for the students this is less a part of the placement than personal development (Little and Harvey, 2006).

Finally it appears that competences which require a student to make an impact and to extend their sphere of influence – such as leadership, influencing and negotiating, and networking – are not as highly developed during the placement year.

5. Analysis

In the analysis of this data we identify what are the key employment competences which are enhanced during the placement year, and examine how these compare to graduate employment competences identified in the MISLEM project. While both sets of data concentrate on the development of ‘soft’ skills, we need to be clear that we are comparing two different sets of data. The MISLEM data shows how valuable or important employability competences are considered to be by employers or students when finding a graduate job. The data from the placement survey show the extent to which the competences described have been achieved by actual placement students. Furthermore the frameworks used are not identical, which makes comparison more problematic. However there are clear overlaps between several categories in the frameworks, which allows us to observe the following findings.

Both sets of data show that leadership and influencing/persuading are considered to be relatively less important competences developed during the placement year or as a competence considered valuable when finding a graduate job. This is also the case with problem solving. This may be because they are considered higher level skills to be developed during the final year in order to equip graduates with longer term employability skills. Alternatively it may be because leadership and influencing/persuading are competences which are properly learned in practice once a student is installed in a graduate job. Communication skills and time management are rated highly by employers and students when looking for jobs, although this is relatively low compared to other competences achieved during the placement year. This is perhaps something which needs to be addressed in the first two years before the placement.

Teamworking and relationship building is highly rated in both sets of data, showing that the placement year is contributing significantly to enhancing this employment competence. Group work is something that Aston Business School spends considerable time investing in developing during the first and second years, so it is good to see that it clearly has an impact.

6. Conclusions and Implications

It is important first to stress that this paper represents work in progress, and that our conclusions are in the process of forming. We hope in a later version of the paper to make a fuller appraisal of our findings and their implications for practice, together with a proper synthesis of how our research adds to current literature in the field.

The placement year particularly equips students with self-confidence to work in a company environment, although this has not previously been included in competences which measure
graduate employability. This raises an interesting question: Is confidence a ‘competence’ or a faculty, and indeed can confidence be taught? Our data and the research of Little and Harvey (2006) clearly shows that confidence is developed during the placement year. Looking at the list of competences in both data it appears that the term ‘confidence’ could be said to apply to many of the competences, so there is perhaps an issue around terminologies used by the different stakeholders in this study.

Overall it appears that the placement year is equipping students well with opportunities for self-development and personal effectiveness in a dynamic teamwork environment, and that these qualities are key to employability. It is particularly interesting to note that leadership and influencing/negotiating/persuading are considered to be relatively less important as competences developed during the placement year or as competences considered valuable when finding a graduate job. This is also the case, although less for, with critical thinking and problem solving.

There are clearly limitations in this study which future work would need to address. Most of this stems from the use of two different sets of data which, although they intersect, come from different stand points and measure different things. In order to validate the findings of this study it is suggested that the questions on the placement survey are changed to ask employers and students to rate against the MISLEM employability competences. It would also be helpful to ask them to rate the importance of the competences and to add the word ‘confidence’ into the questionnaire in some way, perhaps to ask the respondents to define what they mean by this term. Furthermore for future research an additional survey of employers and graduates on entering a post-University job would help to validate the MISLEM findings in this context.

Finally, what are the implications for the curriculum? It is always a dilemma in research whether we are measuring the right thing, particularly where there is a tendency for what we measure to become the focus of management. Thus with a low rating of leadership and influencing/negotiating in the placement survey, we might be tempted to put more leadership earlier into the curriculum. However our data from the MISLEM project would suggest that leadership and influencing are not valued when finding a graduate position, and if these are competences which are developed more at work and in practice than in the classroom, should they be a feature of our education? The same could be said for higher level academic skills such as critical thinking and problem solving. These questions are at the heart of the very discourse about the role of a theoretical vs. a practical education and the role of the university in providing ‘employability’ for its graduates.

7. References


DEVELOPING CAPACITY FOR NEW COMPETENCIES: USE OF PROBLEM-BASED INNOVATION IN SINGAPORE

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National institute of Education, Nanyang TechnologicalUniversity

Abstract: The onset of a flu pandemic, unprecedented scale of environmental disasters, terrorism and complex political and social-economic problems all point to the need for education and the world of work to prepare citizens for a rapidly changing and sophisticated world. The ability to learn when plunged into an unfamiliar situation and to adapt positively to rapidly changing demands is a reality for every worker today. People not only need to learn to confront problems as a matter of necessity but also to develop a positive mindset of observation and taking on “problems” as a matter of inquisitiveness to improve and invent processes and products.

New competencies especially those pertaining to problem-solving acumen is developed through experience, immersion and intelligent observation. Problem solving in real world contexts involves multiple perspectives and multiple ways of knowing and multi-disciplinary learning. Knowledge in this new economy is also increasingly characterized by the creative integration of information and learning from diverse disciplines. The pace of change in the 21st century calls for the increasing ability to cope with change and to adapt. The problems confronting the world and individuals will come with increasing rapidity, complexity and diversity. Corollaries include (i) problems of increasing rapidity and difficulty, (ii) newer problems and shorter time frame for solutions, (iii) more global (larger-scale) problems requiring integrated solutions.

Education needs to address the challenge of preparing the young to function in changing and new environments. It is often too easy to get locked into paradigms and perspectives. I think one of the most important things today is the ability to gain different perspectives, develop multi-viewpoints, be aware of different worldviews and paradigms and different ways of reasoning and thinking so that we can highly flexible in our thinking in new environments. Education is about equipping people with the cognitive and socio-emotional skills to be highly adaptable in fast-changing environments. In science and technology, it is now well recognized that multi-disciplinary pursuits are essential for the advancement of knowledge and applications. Examples can be seen in areas such as biotechnology, telecommunications, material science, nanotechnology, and supercomputers. In industries and businesses, innovative advances are made often without the benefit of traditional paradigms of learning. The real world thrives on both evolutionary and revolutionary innovations. What is often lacking in education today is the effective use of inquiry and problem-based learning approaches.

In Singapore one of the most important things in education and training is to innovate learning so that people develop the ability to gain different perspectives, develop multi-viewpoints, be aware of different worldviews and paradigms and different ways of reasoning and thinking so that they can highly flexible in their thinking in new environments.

(PBL) is an active-learning and learner-centered approach where unstructured problems are used as the starting point and anchor for the inquiry and learning process. By attempting to solve the problem, learners are engaged in a structured process of conducting research, integrating theory and practice, followed by the application of their knowledge and skills into developing a viable solution to the problem. In recent years, PBL has gained new momentum as a result of several developments such as (i) increasing demand for bridging the gap between theory and practice, (ii) information accessibility and knowledge explosion, (iii) new possibilities in the use of multidisciplinary problems, (iv) emphasis on real-world competencies, and (v) developments in learning, psychology, and pedagogy.

In this presentation, the author who won the prestigious “The Enterprise Challenge (TEC) Innovator Award” from the Prime Minister’s Office will share on how his ideas, concepts and implementation models of a problem-based curriculum that has innovated curricula in polytechnic education, teacher education and development of future schools in Singapore.

1. The challenges of the 21st century

The news headlines today record an unprecedented scale of global pandemics, environmental disasters, terrorism and complex political and social-economic problems. From the SARS outbreak to the recent H1N1 flu pandemic, from the Acer tsunami to the Sichuan earthquake, from Osama bin Laden to North Korea, these many events which leave us momentarily challenged bear sufficient testimony to the need for education, particularly in terms of preparing citizens for a rapidly changing world, a trait characteristic of the 21st century. The 21st century worker is one who is able to think on his feet when confronted with an unfamiliar situation. He is also one who is able to adapt positively to rapidly changing demands. Together with these
competencies, the 21st century worker must be one who can take on problems with an inquisitive mind and armed with a constant quest to improve and innovate on processes and products.

The 21st century is an era of change, one that calls for the increasing ability to cope with change and to adapt (Ramsden, 1998). Essentially then, it is also an era that is characterized by the need to acquire new competencies, a pressing one being problem-solving. Problems will come in increasing quantity and difficulty, some of which may be global and extensive. Newer problems will arise, a number of which may be urgent and permit a short time frame for solutions. compartmentalized knowledge may become of limited use. Instead, successful problem-solving will necessitate the convergence of multiple perspectives, usually acquired through experience, immersion and intelligent observation, and a diversity of working styles. It will call for the creative integration of information from the various disciplines.

The 21st century will see a conglomeration of different perspectives, multi viewpoints, a diversity of worldviews and paradigms, as well as different ways of reasoning and thinking. Specifically, it is a century which will call for a transformation of thought. Rather than being locked up in old paradigms and outdated perspectives, it is about flexible thinking in new environments. Examples are already abundant in areas such as biotechnology, telecommunications, material science, nanotechnology and even supercomputers. In such industries as well as businesses, innovative advances are of imperative importance. The fact is, the real world thrives on both evolutionary and revolutionary innovations. Education thus plays an important role in terms of preparing the young to acquire such cognitive skills, which are a prerequisite to function in such new and changing environments. What is often lacking in education today, however, is the effective use of inquiry and problem-based learning approaches.

2. The call for new competencies

In the Unités States, a poll of the employers highlighted some of the key 21st century skills, which included professionalism/work ethic, oral and written communications, teamwork and collaboration, ethics/social responsibility, critical thinking and problem solving among some of the important skills that present-day graduates need (Casner-Lotto & Barrington, 2006). Empirically speaking, in addition to these skills, some of the key 21st century skills include (Wallis, 2006):

**The ability to think outside the box**

Thomas Friedman, author of the best-seller *The World is Flat* once commented, “It is interdisciplinary combinations that produce YouTube and Google”. In the new economy where knowledge no longer exists separately, people will need to develop the traits of creativity and innovativeness, as well as the ability to think across disciplines as these will be especially valuable to individuals and to evolving societies, in a world fraught with new social, physical and political dilemmas.

**New-media/ Information literacy**

The 21st century is an era overwhelmed with humungous information and proliferating media. It is therefore important that students acquire technological sophistication and be equipped with the knowledge on how to deal with the information, which includes knowing how to manage it, interpret it, validate it and use it. It also includes the ability to research, formulate ideas and defend their own views. This will enable them to function more effectively as citizens in a high-tech globalized society.

**Good-people skills (Beland, 2007)**

This includes social awareness skills, as well as self-awareness and self-management, all of which will entail social and emotional learning. People need to develop the skills to recognize and manage emotions, form positive relationships, solve problems, become motivated to accomplish a goal, make responsible decisions and avoid risky behavior. Also important will be communication skills—especially the ability to work in large teams and deal with people from different cultures—as the world becomes more and more interconnected.

**Critical thinking skills (Kay, 2009)**

In an environment overwhelmed with information, critical thinking skills become particularly important in terms of evaluating the validity and reliability of information amidst the proliferation of readily accessible information. Together with this is also the ability to reason intelligently and coherently, a positive attitude and practical skills, all of which form a framework for leadership and professional development and build up their confidence as learners.

**A telescopic and helicopter worldview**

Our world view must be telescopic and helicopter in nature. By telescopic, it means to be able to understand the past (where we came from and how we arrived at the present) and see into the future (intelligent extrapolation). By helicopter, it means to be able to rise above micro and fragmentary and acquire a big picture of things. We need the appropriate paradigms with the right worldviews and the right assumptions.

**Knowing how to learn**

There is also a call for young people to develop skills for learning how to learn, particularly the ability to self-instruct and self-monitor learning. This is an era where they would need to
interact with multiple modes of learning and engage with creative people to help them develop processes of creative thinking and design. They would also need to learn how to gather seemingly disparate information, organize it holistically and refine it mindfully to create elegantly integrated products.

3. The role of education in developing the 21st century learner

In Asia, the need to refine education systems to foster creative thinking, entrepreneurial spirit and lifelong learning has been repeatedly articulated. The daily news is flooded with talks about the knowledge-based economy (KBE), the rapid proliferation of IT, information accessibility, new industrial and business challenges, and changing political and social landscapes.

To thrive in the KBE, we need to learn to solve novel problems, to assume personal responsibility for learning collaboratively and from multiple resources, and to be able to transfer learning across disciplines and contexts. This is why there is a need to push education in the 21st century towards developing intelligences, specifically the intelligence that is manifested in the ability to deal with new real-world problem scenarios (Tan, 2003). Only then will students be prepared with a different set of intelligences—from learning how to do things, to the ability to deal with novelty as well as the capacity to adapt, select and shape our interactions with the environment (Sternberg, 1990). This set of intelligences will enable them to function effectively in a new world characterized by unprecedented breakthroughs in knowledge and technology, in which traditional notions of transmissions of knowledge, skills and attitudes are already inadequate to address the need.

Hence, education in the KBE should:

- encourage lifelong learning (learning throughout life)
- foster wide learning (transfer of learning across contexts and disciplines)
- allow the individual to assume greater personal responsibility for one’s learning
- teach the learner how to learn from multiple sources and resources
- engage the learner to learn collaboratively
- train the learner to adapt and to solve problems (i.e. to cope with change)

Back home, there is a vision to turn Singapore into a place for people to develop their potential through continuous learning. For this to happen, the mindsets of both the present and the future generations towards learning need to be changed. Firstly, learners need to assume personal responsibility for one’s own learning while embracing new approaches of learning that prepares individuals with relevant competencies. Secondly, teachers need to believe that innovation in education is necessary and can work. As such, the Ministry of Education Singapore (MOE) has identified core knowledge and skill-sets for 21st century living as key focuses for education in the new economy (Ministry of Education, 2008). By ‘core knowledge skills’, it refers to the knowledge of world issues and current affairs as well as the literacy encompassing the numerical, linguistic, cultural, scientific and technological domains. 21st century skill-sets, on the other hand, include life-long learning skills, the ability to manage ambiguity, complexity and novelty, as well as the ability to communicate new ideas.

4. The missing piece in the puzzle: Problem-Based Learning

The problem-based learning (PBL) curriculum is therefore an ideal paradigm for developing the 21st century learner. Having being presented with a problem, the task is to explore it deeper so that sufficient understanding can be achieved. Group members have to first identify the information needed for a particular application before sharing responsibilities in conducting information searches (Eggen & Kauchak, 2006). They then need to consider how information can be organized into a meaningful conceptual framework. Hence, through a collaborative knowledge-building and self-directed learning environment, PBL approaches involve harnessing intelligences within individuals, from groups of people and from the environment to solve problems that are meaningful, relevant and contextualized. Such a learning environment promotes empowerment and creativity for learners. Sources that the learner can rely on for self-directed study include actual lessons, the library, the internet, media and subject experts, all of which can assist in the solving of the problem.

In recent years, PBL has gained new momentum as an alternative, more progressive approach to instruction and one that is premised on offering opportunities for exercising creativity and for its development. Why is this so? The fact is, creativity is important. As of now, it is increasingly valued as an essential capability in this age of information which is characterized by the information explosion and accessibility, rapid proliferation of technology, globalization and demands for new real-world competencies. Creative ability is the process which gives rise to a change in perception. Hence, it will therefore be important in the new economy considering its prominence in terms of generating new ideas or new applications.

PBL uses an unstructured problem as the starring point (Boud & Feletti, 1997). The problem, which can take on various forms from a failure to perform to a need for new designs to addressing gaps in information and knowledge, is usually a real-world problem. Being open-ended in nature, it functions like an anchor for the inquiry and learning processes, such that a myriad of
opportunities are available for improvement and advancement. Particularly, it must challenge students’ current knowledge, attitudes and competencies, after which new areas of learning and novel learning needs can then be identified.

PBL is a learner-centred approach (Tan, 2002). It is a pedagogy based on constructivism which develops in learners the ability to deal with novelty and complexity. The learner is engaged in an active search for meaningful informative along with the adoption of goal and future orientations. Students are called to engage in self-directed learning, during which they assume major responsibility for the acquisition of information and knowledge. The PBL process requires students to harness a variety of information sources discriminatingly. As the problem will call for multiple perspectives, the learner is called to solve by taking into consideration knowledge from different subjects and disciplines. In their doing so, they engage in learning which is collaborative, communicative and cooperative. This develops their inquiry and problem-solving skills as well as the knowledge acquisition for the solution of the problem.

5. The PBL Process (Fogarty, 1997)

Students are first presented with a problem, which may be in the form of a case study analysis, research paper finding, videotape recording etc. They are then required to work within their groups to organize their ideas and all previous knowledge related to the problem. Through this process, it is hoped that they will be able to define the broad nature of the problem.

Throughout the discussions, students pose questions about the problem. These are known as “learning issues” which can delineate aspects of the problem they do not understand. These learning issues are recorded by the group and used to generate and focus discussions. In the process, students are continually asked to define what they know, what they don’t know, and from there, what they have to find out (in order to solve the problem).

The learning issues highlighted by the students are then ranked by the group collected. The group has to decide which questions will be addressed by the whole group and which issues will be handled by individuals, who are responsible for sharing their findings with the group. Usually, students and facilitators discuss about the strategies to tackle the learning issues as well as the resources available. At this point in time, the process is slowly developing into one with a broad overview encompassing analytical thinking, generative as well as divergent thinking to produce effective solutions. Facilitators need to engage in scaffolding efforts so as to enable conceptual clarification, knowledge building, argumentation and evaluation and thus the evolution of new perspectives. At the same time, problems can also lead to cognition and learning. Specifically, by triggering the context for engagement, curiosity, inquiry and a quest to address a real-world concern, certain cognitive and learning processes are initiated.

The session concludes with students coming together to synthesize the previous learning issues into their new knowledge in the context of the problem (Tan, 2004). Students are also encouraged to summarize their knowledge as they connect new ideas to old ones. New learning issues continue to be defined as they progress through the problem. Through the whole process, it is meant for students to see learning as an ongoing process.

6. Five models of PBL

A series of PBL models exist and they are differentiated by the role of learners in the process of knowledge construction (Savin-Baden, 2006).

Model 1: Problem-based learning for epistemological competence

This model makes use of PBL as a means of 1) helping students to learn required content in the curriculum; 2) train students to become competent in applying their knowledge to solve problems.

Since problem situations are the means by which students become competent in knowledge management, scenarios will be designed around key concepts which the student is required to master. The evaluation is usually aimed at testing students’ understanding of the curriculum being taught with students being expected to become competent in applying knowledge in the context of solving and managing problems.

Model 2: Problem-based learning for professional action

In this model, action is the defining principle of the curriculum. Learning is both around the capabilities students will be empowered with as well as the mechanisms that are perceived to enable students to apply this ability to other kinds of problem scenarios and situations within given frameworks. The downside with this model is that students develop narrow sets of skills as a result of its focus, which may lead them to feel that learning has been interrupted. It is therefore important for this model to be integrated with concepts of skills and know-how, as well as cognitive content and professional judgment.

Model 3: Problem-based learning for interdisciplinary understanding

This model unites disciplines with skills. Learning in this model, is knowing and understanding knowledge from the disciplines, and also recognizing the relationship between them. Specifically, PBL is used to bridge the gap between the know-how and the know-that and between the different forms of disciplinary
knowledge in the curriculum. The student works, learns, and develops her own understanding within subjects and disciplines. She goes on to make connections between the disciplines.

**Model 4: Problem-based learning for transdisciplinary learning**

In this model, students are encouraged to adopt a critical position towards knowledge, themselves and their peers, while using the PBL group as a place to examine personal and pedagogical frameworks. PBL operates in a way that enables students to recognize that disciplinary boundaries exist. Students will develop an overview of the frameworks. In addition, they will develop a highly autonomous position as individuals within a group and elect to use the group to resolve dilemmas.

**Model 5: Problem-based learning for critical contestability**

This model requires students to examine the underlying structures and belief systems implicit within a discipline, so as to understand the disciplinary area and its credence. Hence, knowledge is constructed by students, who will become able to build upon and integrate previously learned knowledge and skills with material that is currently being learned. PBL seeks to provide for students a kind of higher education that offers, within the curriculum, multiple models of action, knowledge, reasoning and reflection, along with opportunities for the students to challenge, evaluate and interrogate them.

7. **Useful approaches within the PBL paradigm**

Three levels can be categorized in terms of increasing authenticity, complexity, uncertainty and student self-direction.

**Level 1: Academic Challenge**

An academic challenge refers to student work structured as a problem arising directly from an area of study. For example, to teach nutrition in secondary schools, the following problem may be presented.

Alex is a school badminton player. He is 14 and his coach has mentioned to him about his potential to be selected for the national team. Apart from rigorous training, Alex is wondering if nutrition would help increase his chances. One day he walked into a store selling nutritional supplements in a shopping center. The salesperson told him that what he needed was more muscle without gaining a lot of weight. Alex ended up buying a jar of creatine tablets that cost $60 and various other supplements costing $80. Alex learned subsequently that creatine comprises amino acids and is taken by many athletes. A family member, however, told him that there are side effects and that got him worried. Many athletes are in situations like Alex’s. You and your group have been selected as “young scientists” for a project on sports nutrition. Your team has been tasked to come up with a report and presentation to advise school sportsmen/women on nutrition.

In this example, the existing curricular material of 'nutrition for sportsmen' has been transformed into a problem format, and used to promote greater understanding of selected subject matter. Such problems—being relatively similar to traditional educational environments—are useful access points for developing in students the capacity to engage in active learning.

**Level 2: Scenario Challenge**

In a scenario challenge, students are cast into real-life roles and asked to perform roles in the context of a reality-based or fictional scenario, as in the example below.

A venture capitalist wants to invest in research on ornamental plants. He is particularly interested in cross-breeding that would produce new flowering plants of multiple forms and colors with characteristics of high rates of flower production, stem resilience, etc. Together with a team of researchers, you are involved in investigating the composition of the ultimate made-to-order multi-vitamin, multi-mineral pill, which is customized according to DNA profiles. How would you go about doing that?

The above scenario challenge works with existing curricular material by simulating many of the elements of the real world. Students are cast into real-life roles and this allows them to develop the skills and knowledge needed for success in school and beyond.

**Level 3: Real-life problem**

The problem scenario presented is an actual problem in need of real solutions by real people or organizations. An example is shown below.

As the geriatric population in Singapore increases, there is a growing need for services to help make the lives of the elderly easier and more rewarding. Unfortunately, there is inadequate planning rendered for aid to the elderly. The challenge is to plan, prepare and implement a way for students of your age to assist the elderly in this community. How could we get from here to the delivery of the assistance?

The ‘real’ nature of the problem involves students directly and deeply in the exploration of an area of study. This allows students to move outside the classroom to take action on issues and have a tangible impact in their own communities. As the solutions
have the potential for actual implementation in the community, regional, national or even global level, they can be very powerful learning experiences.

8. The role of PBL in education reform

Robert Sternberg, IBM Professor at Yale University, has called for changes in the current educational practice. There is a need to reinvent education, he says, so that the many components and dimensions of intelligence can be better acknowledged and hence better developed. He subscribes to the definition of intelligence as not only encompassing the learning how-to and the actual doing of things, but also, the ability to deal with novelty as well as the capacity to adapt, select and shape our interactions with the environment.

How then, can education be reinvented, so that we can develop intelligence in learners?

The answer is straightforward—with a PBL paradigm. This has been supported by various studies, which showed that students developed a greater ability to retain knowledge better and apply it more appropriately if the curriculum required them to relate theory to practice. These students were also able to realize that real-life knowledge highlights connections between disciplines and the integration of concepts. Psychologically, they displayed increased motivation, and were able to engage in deep thinking.

This is the plus point of PBL.

Typically, traditional education programmes have an over-preoccupation with content. In my opinion, education would fail if institutions continue to teach content to students without paying careful attention as to how quickly such content knowledge becomes obsolete or irrelevant. Teachers would have failed if they continue to use learning processes that do not exert any impact on lifelong learning.

In essence, it is no longer how much content we disseminate in our classrooms but how we engage students’ motivation and independent learning that is important.

It is imperative for education to foster the development of a critical mass of individuals with greater creativity and higher levels of thinking skills. By creativity, I refer to the four cognitive traits namely, fluency, flexibility, originality and elaboration. This means we need to move from “doing things right” to “learning to do the right things right”, with the emphasis on the learning. This would mean discarding things that are efficient but are no longer effective in the new environment. Hence, for this to happen, educators cannot only merely be transmitters of knowledge. They need to assume new roles, such as being designers of the learning environment. They also need to ask themselves if the skills imparted in traditional curriculum are indeed transferable to the workplace.

The revamp in curriculum content, delivery and assessment is also hastened by the Internet revolution. With information access and retrieval now available at the click of a mouse, we need to seriously re-examine our assumptions of knowledge acquisition and participation in learning. Are teachers still assuming absolute authority as knowledge experts? I am afraid not. The readily available information provided by the World Wide Web has eroded this status. This is why the role of teachers needs to change dramatically if it is to remain relevant to a new generation of students.

This is also why a problem-based approach may be the ideal reinvention for education in the next century. By utilizing more “real-life” problems rather than contents to serve as anchors, students can be trained to learn how to learn. As learners function as active problem solvers and teachers as mediating coaches, the learning paradigm would shift towards attainment of outcomes desired in a knowledge-based era.

A problem-based approach will also enable us to inculeate in learners the spirit of engaging in lifelong learning. The truth is, not every single lesson in life is available in textbooks. If we want to develop in students the spirit of entrepreneurship, or foster ability to be discriminative towards information, we need to let students take greater ownership of their learning—particularly the acquisition of facts. The 21st century is a KBE. There will be an explosion of information. We need learners who know how to manage the information and make sense out of it.

A problem-based approach is the ideal paradigm for educational reform. Its efficacy in preparing individuals with new competencies—such as learning to learn, being engaged in continuous learning, assuming personal responsibility for one’s own learning and embracing new approaches of learning—is just the thing we need to kick-start the mindset change of both the present and future generations.

9. Impact of PBL on Learners

- Engages the learner holistically

PBL presents potential not only by developing cognitive awareness, but also in engaging students in learning for the whole person (Lee & Lee, 2006) by:

*Increasing the motivation of learners which lead to self-directed learning*

PBL requires learners to actively participate in the problem-solving process. Through the process, they gradually acquire knowledge as well as problem-solving skills. Students tend to feel that they are involved with real life situations and not just
Raising the learner’s sense of self-awareness

There is an enhanced sense of knowing oneself (Savin-Baden & Major, 2004). Through collaborative learning communities, there is an interplay of ideas between the individual and the community, between the individual and ideas, and between the individual and one’s own learning processes. PBL encourages learners to assemble their own body of knowledge, and formulate their decisions about the relevance of the material. In addition, along the way, as they work with one another to clarify their values, abilities, interests and goals, they become more self-aware in the process and are more proficient in self-evaluation.

Enhancing the social dimension of individuals

The group setting of PBL sets up a ready forum for the exchange of ideas and perspectives. In the process, members listen to one another share their point of view before making judgments and decisions. This builds trust and rapport among members. As trust develops, interpersonal relations strengthen and deepen, and the probability for mutual learning and strengthening of relationships is increased (MacKinnon, 1999). In essence, group cohesion is enhanced. In addition, through the process of interacting with others, individuals rediscover themselves and their perspectives. Gradually, they become more accommodating and reception to varying viewpoints and perspectives.

• Promotes higher-order thinking

Learners are no longer stuck in the paradigm of guessing which answer “the teacher wants me to find”. Instead, the ill-structured problem necessitates learners to gather information pertaining to the problem and be engaged independently in assessing its credibility and validity. In the process, they may acquire domain-relevant skills, which include factual knowledge, technical skills and special domain-specific talents. In addition, they may acquire creativity-relevant skills, such as critical (Weissinger, 2004) and creative thinking (Tan, 2000), when generating novel problem-solving ideas.

Through the Value of Questions

The PBL learning process entails inquiry and deliberation, critical-mindedness and intellectual curiosity as well as tackling uncertainty and ambiguity. Learners have a primary task of discovering the problem. For this to happen, they will have to acknowledge the vital role questions play in their learning. As learners work through the questions collectively in a group, intellectual curiosity is fostered. Individually, they will come to realize that others have the same doubts, questions and difficulties and that it is all right to live with unanswered questions.

The role of constructivism

PBL processes involve getting the learner to make connections—through reflection, articulation, learning—to see different perspectives. The teacher can assist in two ways. One, by scaffolding. Teachers can help learners clarify the nature of their questions as well as develop cognitive connections (Ho, 2004). Two, by the structure of lessons. The teacher can pose problems of emerging relevance to learners and build lessons around foundational concepts and ‘big’ ideas. This will assist learners in trying to make connections between the old and the new. Learners can then apply analytical thinking skills, such as comparing, classifying, logical thinking and inferential thinking, to the new data to construct new cognitive structures or enhance existing ones (Nelson et al., 2004). This leads to deep understanding of the material at hand.

Encourages the process of learning how to learn

PBL promotes metacognition and self-regulated learning by providing students with opportunities to identify existing gaps in their knowledge. As learners generate their own strategies for the learning processes—defining problems, gathering information, analyzing data, building and testing hypotheses, comparing strategies with those of other students and mentors, and sharing methods and conclusions—they also develop the ability to construct new and different knowledge (Hmelo & Lin, 2000). Also, in the process of working with others, they are given the opportunity to reflect on their own understanding while constructing internalized representations of the concepts.

Fosters new and different learning experiences

PBL enables students to explore and to develop their own tacit understandings towards the problem scenario (Major & Palmer, 2001). In this process, reflection plays a key role and hence, has been regarded to be the catalyst that prompts ways of working with and through their learning, often enabling them to link new experiences and knowledge to those of the past and thereby prompting new meanings.

• Maintains authenticity and the relevance of learning to the real world

Working with real-life problems, PBL avoids queries that commonly arise with the traditional curriculum, such as, “Why are we learning this information?”, “What is the connection of the school curriculum with the real world?” Along the way, students will develop a tolerance for the ambiguity and
complexity of real-life situations as well as the refined skills necessary to solve complex real-world problems. In addition, PBL assesses learning in ways that demonstrate understanding. This minimizes the chance that learners are merely replicating the knowledge from textbooks.

- Enhances connectivity

The PBL process helps to develop flexibility and helicopter views by enhancing connectivity through the following links:

a) connecting with prior knowledge
b) connecting with prior experiences
c) connecting with the real-world context
d) connecting with theories
e) connecting with other people's perceptions
f) connecting with new facts and ideas

Cognitive strategies—such as thinking out of the box, accessing alternative causes—will be engaged during the problem-solving processes. Through these strategies, learners can go about determining particular key linkages between ideas, which will then lead them to become more aware of the different ways of thinking and hence develop their problem-solving competencies. Also, through the process of collecting, connecting and communicating information, the learner is given an opportunity to sharpen his/her thinking.

- Fosters collaborative learning

The active exploration of new knowledge, peer learning and collective inquiry and deliberations directed toward the resolution of the given problem is designed to motivate the formation of a learning community. Through partnership, working in small groups and networking with people, the collaborative learning activity is driven by questions, problems, or the challenge of discovering something “new” (Sharp & Primrose, 2003).

The collaborative learning approach includes the following essential elements.

1. stimulates thinking through dialogue

Dialogue ensures that we are not locked into our own limited or prejudiced perspectives. In fact, it is important for developing critical thinking and reflection. Through mutual exploration, meaning-making, and feedback, we sharpen our tools in problem solving and learning occurs when complementary skills interact and create a shared meaning which none could have come up on their own (Goh, 2006).

2. necessitates an atmosphere of critical openness

Group members come in with a mindset for interchange of ideas and of varying perspectives. Collaborative learning is carried out through the process of interacting with others, which results in individuals rediscovering themselves and hence expanding their perspective (Lee & Tan, 2004).

10. Conclusion

In Singapore, the Educational System is one that has been continually adapting to suit the times.

You will remember that over the years, the curriculum we have instituted has evolved to one that is broad-based and holistic. Schools have become more diverse as they initiate their own flexibility within the curriculum structure. We are getting students to learn more even when teachers are teaching less content.

I am often asked, “Are these changes necessary?” Instead of answering that, let me raise what I feel is a more meaningful question, “What is our stand on education?”

Socrates once argued that education was about drawing out what was already within the student. Modern-day theorists will tell you education is cultural, it being the process by which society intentionally transmits its accumulated knowledge, values and skills from one generation to another through institutions.

I think they are both right. For us, a country with Asian roots, education is essentially about nurturing the whole child. We subscribe to education as the means of developing the child morally, intellectually, physically, socially and aesthetically. On top of that, education is also our key to survival. For a small country amidst the whole lot of developed nations, there is a need for Singapore to be on par in terms of development. We need our people to be able to think on their feet. We need them to be equipped with excellent problem-solving skills, who are able to think out of the box and work collaboratively with one another to come up with creative solutions.

Education that keeps up with the demands of the changing times, thus, is the key. For us at this point in time, PBL is the best paradigm.

There is meaningful application of knowledge and skills. Learners become competent with the different kinds of information resources. Learning experiences are built on the interdependent attributes of meaningful learning. Team members work together to build learning contexts that support knowledge construction among learning communities.

PBL not only addresses the complex challenges that the 21st century brings; it also challenges students and brings out the best in them.
11. References


TRANSITION FROM POSTSECONDARY SCHOOL TO WORK PLACE FOR STUDENTS WITH DISABILITIES IN JAPAN

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1. Introduction

While more than 95\% of Japanese university graduate students obtained employment in 2008, it is not the case for students with disabilities. One of the reasons is that only 3\% of them obtained postsecondary education and then 63\% went to welfare facilities. Once they transfer to welfare facilities, 98\% stay there without any employment.

Japanese government has been struggling to reduce the institutionalization rate and increase the employment rate, using supported employment strategy. So far, with the help of job coaches and a recent “exempted subsidiary small company” system, it seems to have succeeded in reaching the mandatory employment rate of 1.8\% for private companies hiring more than 56 employees without disabilities. However, their wage is not at par with others\textsuperscript{1}. They usually get the minimum wage of 703 Japanese yen per hour (about U.S. $6), and many do not work full time. Their monthly wage is not enough to live independently, therefore they tend to live with their parents. For those with disabilities, obtaining postsecondary education is one of the surest ways to get a good job and to earn well above minimum wage.

One of the ways to increase their chances to go to university is the use of supported education. It is a university-based program mainly for students with mental health problems and psychiatric disabilities who wish to go to university and get a job upon graduation. However, many of these students and prospective students do not have sufficient support once they are on campus. Human resources for supported education are very limited, and many career support centres on campus do not provide supported education as a formal service.

The purpose of this paper is to review the public policy regarding the transition services, supported employment, and supported education services for postsecondary students with disabilities in Japan. The paper will describe the background and the current practice. Discussion will include mutual support among co-workers and/or classmates and how we can modify the school and work environment.

2. Lifespan Approach to Transition

Transition involves moving from one context and set of interpersonal relationships to another. In today’s changing world, individuals make several transitions at home, in an educational context and at work (Jindal-Snape, forthcoming). Transitions take place throughout one’s life. A good transition will bring a better life. Since school to work transition occurs at an early stage of life, it is important to be successful earlier. Once you start working, it is a matter of how you retain the job, feel happy about the job, and keep yourself healthy on the job.

A lifespan developmental approach is based on a seamless transition support that connects home, school, work place and the community, regardless of the disability. It includes family counselling, school counselling, career counselling, community counselling, developmental counselling and rehabilitation counselling, to name a few.

In Japan, an application of the lifespan developmental approach has been acknowledged by various professionals such as counsellors, teachers, therapists and social workers. However, these professionals do not always work together. Also, there is a shortage of transition coordinators. Furthermore, the current Japanese service structure makes it difficult to provide a seamless transition support, especially for individuals with disabilities.

3. Issues in Service Structure in Japan

Table 1 is a matrix showing by areas (education, work, and welfare) and legislation, governmental ministries, key service coordinators, direct service providers, and individual plans regarding transition from school to work practice for individuals with disabilities in Japan.

In this service delivery system, areas of work and welfare are administered by the same ministry, as its name suggests, the Ministry of Health, Labour, and Welfare. However, the area of education is administered by a separate ministry; the Ministry of Education, Culture, Sports, Science and Technology. A good collaboration between the 2 ministries is a foundation for a smooth transition from school to work.

There are three coordinators shown in the Table 1. They are special education needs coordinator, vocational rehabilitation
counselor, and social welfare service manager. The three individual plans for education, work, and welfare are drawn and implemented separately by different coordinators. An individual plan itself should be completed within a certain time frame to achieve a goal. However, the goal or the outcome of each plan can be shared by those different coordinators. This is when the individual plan can be a communication tool for professional collaboration.

Although there must be a linkage among the 3 individual plans, there is no legal requirement to connect them. There is no specification of service integration and professional responsibility for administering any type of transition.

Table 1: Service system for transition from school to work for individuals with disabilities in Japan

<table>
<thead>
<tr>
<th>Law</th>
<th>Ministry</th>
<th>Coordinators</th>
<th>Providers</th>
<th>Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Act</td>
<td>Education, Culture, Sports, Science and Technology</td>
<td>Special Education Needs Coordinator</td>
<td>Teacher, School Counselor</td>
<td>Individual Education Plan</td>
</tr>
<tr>
<td>Employment Promotion Law</td>
<td>Health, Labour, and Welfare</td>
<td>Vocational Rehabilitation Counselor</td>
<td>Job Coach</td>
<td>Individual Rehabilitation Plan</td>
</tr>
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</table>

4. Toward a Service Integration

One of the ideas to fill a void in the current service structure in Japan, is to create a joint committee for Transition from School to Work, namely, TSW committee. The TSW may be represented by a special education needs coordinator, a vocational rehabilitation counselor, and a social welfare service manager. The TSW committee can share individual plans and come up with an integrated, sequential individual plan for a particular client throughout his/her lifespan development.

Up until now, a taskforce for the coordination of education, labour and welfare has been created by the government and has brought some attention to the public. However, what has been missing in the discussion is to bring the real individual plans to the discussion table, and to come up with a realistic solution. An integrated service cannot be provided without inter-professional coordination. A TSW meeting can be held at a local human service agency on a regular basis, in order to come up with an effective integrated service. The meeting should monitor and evaluate the quality of the transition service.

The professional training of the three key coordinators has yet to be developed at graduate schools across Japan. No study is available for identifying professional responsibilities for transition and collaboration. Alternatively, similar to Scotland a key worker system can be adopted as suggested by the Beattie report which made recommendations for improving the transition, provision, employability and employment of vulnerable young people at risk of social exclusion. One important recommendation related to the involvement of key workers to support the young people throughout the transition from school to post-school learning or employment. The key feature of the key worker is to ensure that there is one consistent person supporting the young person through the transition process (Scottish Executive, 1999).

5. Issues in Transition of Students with Disabilities

Currently, teachers at special education needs school are trying to raise the employment rate of their students after graduation. Through an early intervention and an individual transition plan, with a help of job coaches or work supporters, there are some schools yielding more than 80% of employment rate. Yet, most of the schools are short of such personnel, and many teachers work extra hours trying to find employers and to help their students getting and retaining the employment.

In 2007, the average of only 24% students with disabilities were employed after graduating from high school, compared to 98% students without disabilities (Ministry of Education, Culture, Sports, Science and Technology, 2008a). Since many of individuals with disabilities did not get employed, they had to move to welfare facilities. In 2007, 63% of individuals with disabilities went to welfare facilities (Ministry of Education, Culture, Sports, Science and Technology, 2008a). The problem is that once they transfer themselves to welfare facilities, 98% stay there without any employment (Ministry of Health, Labour and
Welfare, 2008b). This is why a smooth transition from school to work place and from welfare facility to work place becomes necessary.

Pursuing a higher education is another issue for students with disabilities. In 2007, only 3% students with disabilities went to universities, compared to 53% students without disabilities (Ministry of Education, Culture, Sports, Science and Technology, 2008a). In 2008, there were 168 students with disabilities who went universities. Figure 1 shows the number of university students according to the type of disability (Ministry of Education, Culture, Sports, Science and Technology, 2008a). Students with visual impairment and hearing impairment were the highest among others. Only 4 students with intellectual disability were accepted. There is no data available for university students with psychiatric disabilities. It would mean that there is no university student with psychiatric disability or they may be all unidentified. The following section deals with the issue of higher education for students with psychiatric disabilities.

Figure 1: Number of new students with disabilities who went to universities in the academic year of 2008

6. Supported Education for Students with Psychiatric Disability

Supported education is a university-based service for students with psychiatric disabilities. With supported education, individuals with psychiatric disabilities have a choice to play the role of “students” instead of “patients”. They are helped by the supported employment specialists, mental health counselors, psychiatric social workers, career counselors, and student volunteers to prepare for a university, to go to university, to study in the classroom, to communicate with professors and students, and to lead an independent life. Through supported education, individuals with psychiatric disabilities have a better chance for improving their “self-esteem, social functioning, independence, cognitive abilities, and confidence” (Isenwater, Lanham, & Thornhill, 2002, p.43). Supported education has helped them “to find a sense of purpose and transition into other life roles” (Knis-Matthews, Bokara, DeMeco, Lepore & Mavus 2007, p.110).

In Japan, relatively large universities have a Disability Student Service (DSS) center on campus. University of Tsukuba is one of them and has a substantial number of students with physical, hearing and visual impairment. There are some students with mental health problems who need additional academic support as well as daily living support. When that was the case, academic supervisors specializing in psychiatric rehabilitation would help them with a collaboration of career counselors at the Career Support Centre (CSC). They try to empower students with psychiatric disability by offering support at any time during the day. This gives a sense of relief and security to the student. The supported employment team can get other students involved. Although sometimes it takes more years to graduate from the university, students with psychiatric disabilities can complete academic requirements, pursue further career advancement, recovered and rehabilitated.

Supported education should work for students with psychiatric disability obtaining higher education and employment. Like supported employment, supported education is a normalization technique for individuals with severe disabilities whose rights to receive services have been deprived for a long time. Supported employment uses job coaches or work supporters who train employees with disabilities on the job. In supported education, “school coaches”, “additional education supporters” or “supported education specialists” should be able to help students with psychiatric disability on campus.
A seamless line of support from school to work is beneficial not only for students with disability, but also for every student on campus. Students majoring in social work, counseling, special needs education and rehabilitation can be a natural source of support for supported education, get hands-on experience and learn from each other. The mental health counselors, psychiatric social workers, and supported education specialists as a team, could supervise such "student supporters". For some students with psychiatric disability, student supporters may seem more natural source of support since classmates can be more friendly than professors and staff. Table 2 summarizes some ideas for providing better supported education.

Table 2: Ideas for providing better Supported Education (SEd)

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<table>
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<tbody>
<tr>
<td>(1)</td>
<td>make a full-time equivalent SEd specialist available on campus</td>
</tr>
<tr>
<td>(2)</td>
<td>train and utilize “student supporters” as a source of natural support</td>
</tr>
<tr>
<td>(3)</td>
<td>use job coaches to transfer students with disabilities from school to work place</td>
</tr>
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</table>

7. Keys to a Better Transition

There must be some steps or keys to a successful transition from school to work. A combination of supported education and supported employment is one way (Hutchinson, Anthony, Massaro, & Rogers, 2007; Nuechterlein, Subotnick, Turner, Ventura, Becker, & Drake, 2008). By systematizing such service integration, various professionals have no way but to work together as a team (Yaeda 2008; 2009).

It is important to identify what transition strategy might work. Yaeda (in press) introduces some strategies that may work for a better transition as shown in Tables 3 and 4. However, as these are just conceptual framework, scientific evidence needs to be gathered.

Table 3: Three strategies for better transition

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>(1)</td>
<td>the sooner you start the transition planning, the better the outcome is</td>
</tr>
<tr>
<td>(2)</td>
<td>the more focused on what they like, the better the job matches</td>
</tr>
<tr>
<td>(3)</td>
<td>the better the job matches, the longer they keep the jobs</td>
</tr>
</tbody>
</table>

Table 4: Three ways for better transition practice

<p>| | |</p>
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<tbody>
<tr>
<td>(1)</td>
<td>give them a chance to try</td>
</tr>
<tr>
<td>(2)</td>
<td>be creative as to how you can teach the essential vocational skills</td>
</tr>
<tr>
<td>(3)</td>
<td>let them find their own ways to do the job</td>
</tr>
</tbody>
</table>

8. Issues in Professional Education

Quality assurance of any profession is fundamental for better practice. Training highly qualified professionals such as special education needs coordinators, vocational rehabilitation counselors and social welfare service managers has been an urgent issue.

For example, Inter-Professional Education (IPE) has started in several Japanese universities. Although the educational outcome is yet to be evaluated, the IPE concept harmonizes well with the current movement of collaboration by various disciplines in Japan.

In terms of pre-service training, a master's program for training special education needs coordinators has started at the University of Tsukuba in 2008. Transition from school to work has become one of the core curricula.

In the same year, a new graduate program called “Lifespan Developmental Sciences” has also started at the same campus. The new curriculum combined the two master's programs, the
counseling sciences and the rehabilitation sciences. Together, they created a new doctoral program for the lifespan developmental sciences. Specifically, counseling sciences include family counseling, clinical counseling, school counseling, career counseling, community counseling and development counseling. Rehabilitation sciences include disability sciences, special needs education, rehabilitation medicine, rehabilitation counseling, vocational rehabilitation and social rehabilitation. The curriculum has been re-organized in order to meet the today’s educational needs of interdisciplinary professionals in human services.

Figure 2 presents how transition is disconnected among home, school and work place whereas Figure 3 shows how lifespan development expands without a disconnection. The Lifespan Developmental Sciences program at University of Tsukuba was developed based on this conceptual framework.

9. Conclusion

It can be difficult to learn good work behavior. Developing vocational skills at an early age is critical, and they are best learned in a real work setting. Sustaining a good personal relationship is not easy for people with psychiatric disabilities unless there is a supportive environment. Supported education, supported employment, and lifespan development counseling are all good ingredients for successful transition from school to work for postsecondary school students with disabilities. The Lifespan Developmental Sciences program at the University of Tsukuba is expected to become an important step for both research and education of transition from school to work.

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psychiatric disabilities. Psychiatric Rehabilitation Journal, 30(3); 189-197


THE DEVELOPMENT OF CAREER COMPETENCIES IN THE UNIVERSITY

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Abstract: The purpose of the presentation is to discuss social and economical transformations of society and their influence the formation of modern approach to the career managing and to present case study how the University could deal with those challenges by implementing Service Learning following the lead of the EU funded project KOOPERIA of Šiauliai University.

The presentation is divided in two parts. The first part contains the discussion on conceptions of career and career competences and their importance in the contemporary labor market, the significance of creating possibilities to develop career competencies in different stages of preparation for the labor market. The increasing market influence that gives universities impetus to render a range of more diverse intellectual services has been recently observed in higher education. So the creating possibilities to develop career management competencies are the way for University to correspond to new challenges

The second part reveals the case study on possibilities for career competence development in the Šiauliai University by the implementing of Service Learning. The results and outcomes of the EU funded project, leading by Career centre are presenting. By implementing this method University create wide scale of opportunities for students to develop their career management competencies.

Key words: career, career competencies, service learning.

1. The development of career competencies in the University

Recent processes of globalization have greatly influenced the social and economical change of the society. The world of work has strongly changed due to occurring transformations. In recent period, a successful career seldom corresponds to the traditional concept of career when a person’s activity is being related to the hierarchic organizational structure and stable economies. In the middle of the past century, the so called lifelong career, as an archetypal model, was still being realized successfully - a stable work situation in one organization was treated as an ideal type of career. However, in the modern society, we are watching a constant change of technologies, organizational structures and forms, thus career assumes a notably wider meaning. The conception of a traditionally assumed career is being changed by a notably more dramatic attitude. Presenting a traditional definition of the career, which defines career as the involving sequence of a person’s work experience over time, Arthur at all (1989) emphasizes that work and all that work can mean for the ways in which we see and experience other people, organization and society. Actualizing this definition, Baruch (2004, 2006) extends the perception of career emphasizing that careers can indeed be seen as a sequencing of an individual's life, work roles and experiences. The majority of authors (Arthur, Baruch, Y., M., Cypers M.A.C.T., Schyns B., Scheerens J. etc) emphasize that careers take place in specified social environments and in particular in organizations. Thus, career involves a process of progress and development of individuals, provides the “moving perspective” along the time and unfolding interaction between person and society. This perspective offers a link between an individual's initial identity and final integrity over the course of his or her life.

The purpose of the presentation is to discuss social and economical transformations of society and their influence the formation of modern approach to the career managing and to present case study how the University could deal with those challenges by implementing Service Learning following the lead of the EU funded project KOOPERIA of Šiauliai University.

Methodological relevance and approach:

The purpose of the presentation is realized by analysing of scientific literature with the aim to reveal modern approach to career and career competences. On the basis of theoretical background the case study of implementing Service Learning following the lead of the project KOOPERIA by Šiauliai University Career centre is presenting.

2. Conceptions of Career and Career Competences

Career was traditionally related to an organization where the following issues were being solved: what investments would be made to an individual's development, what career paths were given the priorities. However, transformations and reorganizations of organizations together with the economic turbulence are becoming the main factors changing the career paradigm shift (Baruch, Y 2004). The career paradigm shift is presented in table 1.
Yehunda Baruch (2004) compares the traditional and transformed career following several aspects: characteristics, how often career choice is made, with whom lies the main career responsibility, career horizon according to workplace and time, what employee expects and what employee gives, matching progress criteria, what means success and way of training. Here we can see that traditional and transformed approaches as if become opposite to one another. The traditional career determines the dependence of individual's career on organization, provides some kind of stability, however it requires person's loyalty to an organization. A career is chosen in an early age and for a long period, it is usually related to one organization or a field at least, and career success is measured by moving up the career ladder. This career conception is based on individual's learning by reflecting needs of an organization and usually in a formalized learning system. Such a career is possible when economic and social environments are stable.

Whereas in the recent epoch of changes, career has the characteristics of dynamism which means that an individual's choice may vary depending on age and situation of profession type. The duration of one or another kind of profession may not be stable; in addition, an individual may perform even at several organizations at the same time. This requires the individual not only to know the chosen professional field but also to be always able to learn, reflect and conceptualize his/her experience and to make appropriate career decisions.

The modern career conception distinguishes by “boundaryless” career approach, developed by Michael B Arthur at all (2000, 2001). It is common that organizations usually see an individual's career and develop it thinking about its movement inside the organization, i.e. a career is usually related to one specific organization or a chosen professional field. However, in constantly changing economic and social situation, the competitive abilities of organizations are determined by openness, cooperation, networking with different operators of the market and not by separation or withdrawal. Thus an individual's activity field or profession occupation field requires constant interaction with other individuals and organizations not only in your own professional field. Such an interaction may influence an individual's career and the quality of organization activities as well. While explaining the concept of boundaryless career, Arthur at all (2000, 2001) presents an example when an accidental meeting of scientists may stimulate the creation of new knowledge, and this, in one or another way, influences their personal career as well, and through this the change of organization as well. “Boundaryless” organizations compete in the market by opening for new forms and ideas of interaction, at the same time, individuals in this kind of organization have the possibility to develop the boundaryless career. Boundaryless career unfolds unconstrained by clear boundaries around job activities, by fixed sequences of such activities, or by attachment to one organization (Arthur at all, 2001). As Greenhaus (2000), states the essence of boundaryless career is independence from a particular organization and its existing career paths.

Thus the new attitudes towards the development of a career emphasize that a career may develop in different ways and it may not necessarily depend on a specific organization or requirements raised by it. “Multiple” career concept (Greenhous, 2000) distinguishes four different career patterns:

1) a traditional linear career that emphasizes upward mobility,
2) an expert career that focuses on stability in a specialty area (e.g., financial analysis) with little advancement,
3) a spiral career in which major career shifts occur periodically, perhaps every 7 or 10 years,
4) a transitory career, which is characterised by changes in career field as frequently as every 3 or 5 years.

As Greenhous (2000) emphasizes, individuals need to take responsibility to understanding the type of career they wish to

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Table 1: Traditional and transformed career aspects

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<thead>
<tr>
<th>Aspects</th>
<th>Traditional deal</th>
<th>Transformed deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental characteristic</td>
<td>Stability</td>
<td>Dynamism</td>
</tr>
<tr>
<td>Career choice made</td>
<td>Once, at early stage in career</td>
<td>Series at different age stages</td>
</tr>
<tr>
<td>Main career responsibility lies with:</td>
<td>Organization</td>
<td>Individual</td>
</tr>
<tr>
<td>Career horizon (workplace)</td>
<td>Single organization</td>
<td>several organizations</td>
</tr>
<tr>
<td>Career horizon (time)</td>
<td>Long</td>
<td>Shorts</td>
</tr>
<tr>
<td>Employer expects/Employee gives</td>
<td>Loyalty and commitment</td>
<td>Long-time working hours</td>
</tr>
<tr>
<td>Employer gives / Employee expects</td>
<td>Job security</td>
<td>Investment in employability</td>
</tr>
<tr>
<td>Progress criteria</td>
<td>Advancement according to tenure</td>
<td>Advancement according to results and knowledge</td>
</tr>
<tr>
<td>Success means</td>
<td>Winning the tournament, i.e. progress on the hierarchy ladder</td>
<td>Inner feeling of achievement</td>
</tr>
<tr>
<td>Training</td>
<td>Formal programmes, generalist</td>
<td>On-the-job, company specific, sometimes ad hoc</td>
</tr>
</tbody>
</table>

pursue and making career decisions that are consistent with these preferences. Therefore it is possible to claim that the career success depends not only on specific professional knowledge and abilities. Identified individual’s career competences help identifying frustrations arising in career situation and making appropriate decisions to solve that situation. As Arthur at all (1997) explains:

“...career competencies are typically framed in conventional schema of “technical competencies”, “interpersonal competencies” and “conceptual” or “strategic competencies”. In contrast, the “career” spans wider social roles, occupies a much longer time-frame than the “job” and provides a more complex framework for conceptualizing competencies and their accumulation.”

Greenhaus at all (2000) distinguishes 5 main individual’s abilities determining his/her career success:

- to gather relevant information about himself/herself and the world of work,
- to develop an accurate picture of his/her talents, interests, values and preferred life-style as well as alternative occupations, jobs, and organizations,
- to develop realistic career goals based on this information,
- to develop and implement a strategy designed to achieve the goals,
- to obtain feedback on the effectiveness of the strategy and the relevance of the goals.

Analyzing what ensures the career success, Cypers M.A.C.T., Schyns B., Scheerens J. (2006) add these capabilities, expand by the further ones which are more oriented to the ability to recognize environment and to make a decision on the basis of this information:

- **Career actualizing ability** is related with objective features of career. The authors claim that the realization of career goal is mirrored in increased salary and high status if we assume that the personal ambition level is high enough.
- **Career reflection** will result in career choices that coincide with existing capabilities. As authors claim, the ability to reflect own or other individual’s competencies with respect to his/her career leads to realistic image of capabilities.
- **Motivation reflection** on one’s desires and values according to career perspectives also will help with making realistic choices.
- **Work exploration** from the point of external appreciation of person’s job in terms of salary and status, especially if the person is willing to explore how to use his/her competencies in the best way for the successful career paths will help understanding the possibilities for career development.
- **Career control** in the terms of goal-oriented-learning emphasizes the ability to reflect self-directed learning process and results. The lifelong learning has become increasingly important in the modern labour market, so individuals who are willing to learn about and train for their desired career will enhance their subjective and objective career success.
- **Networking** with various individuals, professionals etc. could help to achieve internal and external career success and understand the variety of career paths.

Arthur at all (2001) mentions similar competencies; however, they are concentrated into 3 groups of competencies: knowing-why, knowing-how and knowing-what. In Table 2, we can see the profiles of these bounded and boundaryless careers.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Bounded</th>
<th>Boundaryless</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowing-why</strong></td>
<td>Employer-dependent</td>
<td>Employer-independent</td>
</tr>
<tr>
<td>Identity</td>
<td>Specialized</td>
<td>Flexible</td>
</tr>
<tr>
<td><strong>Knowing-how</strong></td>
<td>Intrafirm</td>
<td>Interfirm</td>
</tr>
<tr>
<td>Employment context</td>
<td>Hierarchic</td>
<td>Nonhierarchic</td>
</tr>
<tr>
<td><strong>Knowing-what</strong></td>
<td>Process</td>
<td>Prescribed</td>
</tr>
<tr>
<td>Locus</td>
<td>Hierarchic</td>
<td>Nonhierarchic</td>
</tr>
<tr>
<td>Structure</td>
<td>Emergent</td>
<td>Emergent</td>
</tr>
</tbody>
</table>

As Arthur at all (1997, 2001, 2005) explain that the knowing-why competencies help to answer the question Why? Should one behave himself/herself in one or another way in a respective situation. This relates to the issues of personal identity and meaning and stimulates a person to recognize his/her relevant behavior. In addition, the authors emphasize that these competencies are significant while understanding the culture of the chosen occupation field or organization and seeking to adapt in this cultural environment. These competencies relate to the abilities to reflect the
development of career, to foresee the goals of personal learning and to organize the self-defined learning. In Table 2, we can see that an employee’s identity depends on the career path chosen – he/she becomes dependent on the employer or is able to perform individually.

Knowing-how competencies are accumulated in the professional occupation and while learning. These competencies help creating your own technical and managerial know-how in various spheres of performance, including the employment context and career. They may be successfully developed by purposefully choosing training programs, accumulating professional practice, the learning embodied within additional qualifications, and the growing of career wisdom through various social roles. However, employee’s chosen bounded or boundaryless career path determines if the employee chooses a narrow, specialized path for development, or if he/she develops various competencies relating not only to the present employment situation.

Knowing-whom competencies reflect career-related networks. They could be revealed not just as abilities to relate to others and to develop contacts, but also the networks of people, and reputation with other peoples, which are built up as the career progresses (Arthur at all, 1997). Such communication and networking allows a person to learn, contact with various people, to know and understand the particularity of occupation in different professional fields constantly and in this way to open oneself to wider career opportunities. However, in bounded career profile, we can see that a person’s communication is determined by internal structure of organization, hierarchy and field of occupation. Whereas the boundaryless career situation stimulates a person for a spontaneous, emergent communication, exceeding the boundaries of a company or even of a defined specialized occupation.

As we can see, the modern concept of career raises quite high requirements for a person who seeks a successful career and for organizations as well by influencing the process of a person’s career by various phases of a human development. The development of career competences is inseparable from career management and it is a constituent of this process. Greenhaus (2000) claims that if individuals understand the developmental task associated with each career stage, they can develop goals and strategies that are most appropriate for their particular career phase. And looking from the organizational points of view, an organization, seeking for the results of effective human resource management and combining organization and employee’s goals, can design developmental programs most relevant to an employee’s stage.

Thus career development could be defined as “ongoing process by which individuals progress through a series of stages each of which is characterised by a relatively unique set of issues, themes and tasks” (2000). Career development implies more of a role for the individual and moves focus away from jobs, to progression within roles. As Yarnall, J. (2007) claims, it is more about means by which people achieve their career goals. The author equates the process of career development to the model of general shift management which is illustrated in Figure 1.

![Figure 1: Planned change](source: Yarnall, J. (2007). Strategic Career Management: Developing your talent. Butterworth-Heinemann, Elsevier Ltd, USA.)

Thus at the beginning of career development the current situation is defined by finding inadequacies between the current and desirable career state. Then, we need to suppose the future state by finding where we want to be and what success looks like. Seeing a vision and raising a goal will allow us to make an action plan, i.e. to suppose actions that would help to change the
current situation into the desirable one. This model emphasizes individual’s efforts to plan actions taking into consideration individual abilities environmental (organization, professional occupation field, education possibilities etc.) conditions. Thus a purposeful career management requires overcoming the career competencies mentioned above in the article – to know oneself and the market in which one wishes to perform, make and evaluate career decisions. Greenhaus (2000) career management model (Figure 2) reveals us consistent steps that help realizing the career development plan.

Figure 2: Model of Career management

We can see that career planning starts when a person wishes to change the career situation. The, the steps mentioned in Figure 2, boxes A-H, are consistently taken.

**Career exploration** – a person begins gathering information about her/himself, alternative jobs and about organization as a total system (Box A). Career exploration should enable a person to become more fully aware of her/himself and environment, job options, opportunities and obstacles in the environment (Box B). A greater awareness of her/himself and environment can help to choose career goal to pursue (Box C). The goal may be to attain or to move to specific position in a specific period of time or even remain in current position for the foreseeable future. The establishment of realistic goal or set of goals can facilitate the development (Box D) and implementation (Box E) of a career strategy (i.e. a plan of activities designed to attain the desired career goal). The implementation of reasonable career strategy can produce progress towards the stated career goals (Box F) and useful feedback to the person. This feedback, in conjunction with feedback from other work or nonwork sources (Box G), can enable a person to appraise his/her career (Box H). The career management cycle can be continuing if additional information derived from career appraisal becomes another vehicle for career exploration (see the arrow from Box H to Box A). Or, it is possible to retain the goal, but revise the strategy (see arrow from B to D). Thus, as authors claim that such career management cycle is a problem-solving, decision-making process. If is influenced by various people and organizations. Individuals have to take responsibility for their career and be proactive in its development process. The success of career development is determined by possibilities to exchange information among different participants of the process – employee and employer, former employees, colleagues, friends, acquaintances, family members and etc. It is also influenced by individual’s abilities to analyze information and make appropriate decisions of the basis of that information. In conclusion, it is possible to state that career competences are not static, they need to be renewed taking into consideration a person’s career goals and plans of actions needed to achieve them. This is determined by boundaryless career development process which is continuing and its success is determined by individual’s personal characteristics, values and
abilities and by organizations influencing this process or participating in this process in different care phased.

3. Case Study on Implementing Service Learning as Precondition for Students Career Development in Siauliai University

As it was mentioned above, the modern career approach emphasizes a person's abilities to make appropriate career decisions. Assessing career as a continuing and demanding for constant changes process, we may distinguish different career stages in which a person makes relevant decisions. One of the most important stages that carries a vital importance for the perspective of a person's career is initial professional training. Requirements to create assumptions for student career development are also raised for the university as a participant of this person's career stage.

Higher education’s tendencies towards massiveness, that showed up in post modern knowledge society, set new requirements to higher educational institutions. Tjeldvoll (2004) suggests that the changes in the role of the university are determined by the society’s expectations – the basic aims of the service university are oriented towards meeting demands of the society. Tjeldvoll (2004) further maintains that the modern conception of the service university emphasizes organizational ability to perceive its place in the context of the global market of educative services and to take action in competitive environment. Cheng (2003) indicates that in the centre of the quality evaluation there is the student - the main consumer. According to Tjeldvoll (2004) opinion the requirements of students and the ambitions of the establishment on the market of educational services make the university satisfy the expectation of the consumers.

The increasing market influence that gives universities and colleges impetus to render a range of more diverse intellectual services has been recently observed in higher education. Higher education is evidenced to be losing its elite position in the society, whereby its mission, formerly exclusively aimed at the education of societal elite, is also undergoing changes.

With recent slants showing up in the knowledge society and the conceptions of lifelong learning and successive training entrenching themselves in education, higher education is gaining the meaning of the individual’s permanent training for a particular constantly changing workplace in technological and social terms. Universities, occupied with the implementation of the demands set by the knowledge society to them, should primarily actualize the principle of dynamism that implies openness to the environment, constant alternation and response to environmental challenges.

The university becomes a participant in the learning market providing individuals with learning conditions and, consequently, supporting their competitiveness in the labor market. Thus the development of career competences is becoming the most important mission of the university on purpose to help the process of students’ successful integration into the labour market. In the process of realization of this new mission, the Siauliai University performs actively establishing condition for purposeful development of career competencies. The Siauliai University has a Career Center on which initiative the EU funding project KOPERIA was being implemented in 2006-2008. This Project aimed at adaptation of Service-learning, a method of modern studies, in the Siauliai University.

For the last two decades, the method of Service Learning (Citizenship and Service Learning, Cooperative Education) has been developed in universities in the USA and implemented in educational institutions in Europe. It involves a flexible and mobile subject or module of the study programme (different from students’ traditional practice) combining theoretical subject lectures, seminars in auditoriums and purposeful activities as well as provision of free services in the local community, social organizations and potential workplaces in enterprises and institutions. This method is aimed at balancing, concretizing and applying students’ knowledge, competencies and attitudes to local demands and at adapting university courses to regional demands.

Service-learning includes joint activities of lecturers, students as well as social and economical entities in particular local or regional educational institutions.

The given system of studies is based on cooperation of various institutions: higher educational institutions and their subdivisions, non-governmental organizations, enterprises, communities, municipalities, etc. Such kind of cooperation stimulates social-economic development of the region and assists to a more rapid integration of contemporary scientific achievements into practice. In addition, it influences the development of students’ career competencies directly as students solving real problems in real environment not only check and apply their theoretical knowledge in practice, but also familiarize with the culture of professional occupation field chosen and of different organizations. While doing subject’s tasks, they integrate into organization’s performance naturally, which helps them watching and assessing various career perspectives.

Precisely this Service-learning perspective allows presenting the model as a good innovative experience of a higher school how to establish assumptions for the development of students’ career competencies. Following this model, 32 modules and 8 bachelor study programs were adapted in 2006-2008, 663 students attend these modules. Having used the model of career competences provided by Arthur at all (2001) every group was hypothetically given some certain career competencies development of which was influenced by the method of Service-learning.

The Knowing-why group contains the abilities to know oneself, and to identify oneself as a representative of a certain profession or occupation field. Whereas following the Service-learning the
activating methods such as project, case studies and etc. were used, in order to do the module task, the student had to take different roles which studying in the usual environment of academic studies are typically understood in a narrow way. In the module “Preparation and Management of EU Projects, for example, the third year students of Public Administration educational program were given the task to prepare a social project for a specific organization. To this end, student groups were formed and various business, public sector and non-governmental organizations that had requested such voluntary help were offered. However, in order to do the task, theoretical knowledge about the processes of project preparation was not enough. The students had to find out by themselves the problems the organizations wanted to solve, how it could be done, to find out organization’s preparation for innovations or changes or one or another kind which are inseparable from project realization and etc. To this end, the groups not only had to organize activities inside the group, as for example, to spread roles, to find out everyone’s abilities and tendencies for certain activities. The greatest challenge for them was to find out the needs of organization. And in order to do this, they needed to meet with representatives – managers of different levels, various specialists and etc. – of various organizations periodically. Thus, following the attitude that one can best know oneself in occupation, the students had the possibility to check their tendencies, talents, to try themselves not only in the professional occupation, which would be a requirement of a traditional educational program practice, but also such spheres as negotiation on goals and scope of occupation, representation of subject idea, communication with different employees of organizations, cooperation with coursemates, time management and alike.

In addition, it was an excellent possibility to familiarize with the fields of occupation of individual specialist of a specific organization (e.g., Municipality’s Vocational Schools), to understand hierarchic relations and spread of responsibilities. Or it was a possibility to go deep into the occupation particularity and possibilities of a non-governmental organization or public establishment. Such occupation way allows a student not only to know, reveal his/her own possibilities in a specific occupation, but also to understand the impact of organization’s culture on human relations, occupational peculiarities of different offices, responsibility and place in organization’s hierarchic system, requirements raised and etc. Thus, according to Greenhaus (2000), Service-learning helped a student to gather relevant information about himself/herself and the world of work and to develop an accurate picture of his/her talents, interests, values and preferred life-style as well as alternative occupations, jobs and organizations. The more especially as in the educational program mentioned above, there is an integrated module per semester taught following the method of Service-learning. This allows familiarizing with different occupation models and to know the variety of organizations.

The Knowing-how group contains the ability to perform professionally in the field chosen, knowledge of one’s own occupation and the ability to recognize qualification’s deficiencies and to find out ways how to satisfy them. On the basis of problem-based learning concept, the method of Service-learning stimulates to switch from teaching to learning paradigm. Students, for instance, having heard the Marketing theory of Management educational program, select to perform surveys in a specific organization on new product’s bringing into market. It goes without saying that when trying to perform a research, they face with knowledge deficiencies. They have to identify what knowledge is lacked, to understand they are necessary if they want to find solution for the problem and to independently look for theoretical and practical ways how to solve this problem. If the deficit of theoretical knowledge is solved by selecting appropriate literature with the help of the teacher, then they have to look for practical or know-how knowledge in specific organizations or to find out how other organizations solve this problem. Future managers, communicating in this way with professional marketers, have a possibility to expand their knowledge about professional occupation of a specific field by solving a concrete case. Thus, according to competencies necessary for career development discussed by Greenhaus (2000), they help students to develop realistic career goals based on this information and to prepare to make a strategy to achieve the goals.

As we can see, the Service learning method is not only a possibility for students as future members of market to lean solving specific problems in the professional occupational field chosen, but it is also a way to understand the peculiarities of bounded and boundaryless career and to improve the competencies of career management.
However, this method requires being proactive while planning your own career. The benefit of such proactive behaviour on career was revealed by Chiaiburu at all (2006). They emphasized the direct link between proactive personality and career outcomes. Thus career development will be successful if individuals take responsibility at work by increasing their role breadth, self-efficacy and production ownership. In addition, the authors reveal such outcomes of proactive behaviour on career as: proactive individuals are more adept in understanding organizational and environmental nuances, increased levels of performance are more proficient in anticipating changes than less proactive individuals, proactive individuals were likely to select or create situations that supported high levels of job performance. Such individuals are also more likely to seek out professional and organizational information, and career support, which lead to higher salary, promotions and career satisfaction, proactive personality along with other individual factors positively influence one’s motivation to learn, the extent to which employees engage in developmental activities, and their career management strategies.

In conclusion, it is possible to state that the universities, as one of the participants of preparation for successful career process, influence the career success by establishing conditions under which career competencies are developed. And a person preparing to be a participant of labour market or to select a career path will be successful if he/she will be able or willing to behave in proactive way.

4. Conclusions

Specific requirements, changing the traditionally ordered mission of a higher educational institution, are set to universities in the making of knowledge society. The university becomes a participant in the learning market providing individuals with learning conditions and, consequently, supporting their competitiveness in the labour market.

Career competences are not static, they need to be renewed taking into consideration a person’s career goals and plans of actions needed to achieve them. This is determined by boundaryless career development process which is continuing and its success is determined by individual’s personal characteristics, values and abilities and by organizations influencing this process or participating in this process in different care phased.

Implementing of Service Learning make possible to coordinate career education with broad general university education in serving the society’s interests and dealing with regional issues.

Service learning method is not only a possibility for students as future members of market to learn solving specific problems in the professional occupational field chosen, but it is also a way to understand the peculiarities of bounded and boundaryless career and to improve the competencies of career management.

5. References


FUNCTIONS OF IN-COMPANY LANGUAGE COURSES

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Abstract: In-company language courses are an instrument used by firms for more purposes than simply improving the skills of employees. They can be a component of the social package, administered at the discretion of employees themselves, in preference over season tickets to the gym or a series of spa treatments. They can be a means of retaining good employees, who agree to remain in the company for a specified period of time in return for such investment. They could be an internal marketing tool included in company mission – the company that cares for its employee’s lifelong learning will easily be seen a Socially Responsible Corporation. Language courses benefit both parties as they tend to be relatively cheaper than professional training.

Key words: in-company language courses, language instruction, perks.

1. Introduction

Obligatory language education in Poland begins in secondary school where all children learn a language for 3 years. In high school a second language is introduced and children continue learning 2 languages (usually English and German, Spanish, French or Russian) till their final exams, that is for another 3 years. Theoretically, all school leavers should have a good working knowledge of their first language (A2 – B1) and a basic knowledge of their second language (A1-A2) by the time they enter university education.

In reality only a minority of graduates can demonstrate language skill at the regulatory levels. Among reasons it is necessary to mention unequal access to language learning at early stages, as some children start learning very early in life or at least attend non-compulsory classes in primary school. As a result, the start of obligatory language education meets pupils at language levels ranging from zero to at least A2, and that difference, while adding to the poorer students’ demotivation, continues to further stages.

According to Polish Ministry of Science and Higher Education regulations, foreign language competence of all Bachelor's degree holders is supposed to be at level B1, whereas that of Master's degree holders – at B2 level. This is to be achieved with only 120 hours of language tuition. Another problem is that university courses make an understandable effort to adapt to students’ specialization. In business courses, Business English is taught, in technical courses it’s Technical English, in Medicine, Nursing and Physiotherapy it’s the so-called Medical English. However, even these ‘specialized’ courses are inevitably general. Although it is still acceptable for a student of Accounting to use a standard Business English book with chapters on marketing, management, business ethics and insurance, students of Surveying find it hard to accept that they are asked to buy a standard Technical English book with chapters that treat lightly of IT, gas dynamics, theory of relativity and oceanography. Because they find the material taught irrelevant to their needs, they consider language courses a necessary evil, especially that they are awarded very few ECTS points for them.

Instead, an increasing number of students attend private language schools while still at college and they tend to complete the courses with one of popular international language certificates, like Cambridge FCE or CAE, LCCI’s Spoken English for Finance and Commerce (SEFIC), the German PWD (Prüfung Wirtschaftsdeutsch International), one of Goethe-Zertifikat levels or TestDaF, the French Diplôme de français des affaires of the Parisian Chamber of Commerce and Industry (CCIP), the Spanish Diplomas de Español como Lengua Extranjera (DELE) or the Italian Certificato Di Lingua Italiana (CELI). Universities do not offer these certificates as standard because the cost of obtaining them is beyond the reach of many students.

1 B1 Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans. Source: http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages, 20.06.2009.
2 A2 Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need. Source: http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages, 20.06.2009.

3 B2 Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. Source: http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages, 20.06.2009.
If it wasn’t for these extracurricular courses, there would be much fewer competent language speakers than there are today. However, they are still a minority. Graduates with good language skills and appropriate education find employment with relative ease, both in Poland and abroad. For those with lower language competence getting a good job is a challenge. First of all, they can’t work outside Poland in their profession, which automatically blocks their chances of getting a decent European level income. In Poland the situation in the job market enables employers to state very demanding requirements for job seekers; even for simple office jobs “fluent English” is required beside 5 year's experience.

Research carried out by the author in years 2007-2009 (analysis of job advertisements in daily local press and 2 internet portals for the Lower Silesian region over a period of one month) shows that in approx. 75% of job advertisements for different kinds of jobs, from low level jobs like checkout attendants up to higher level managerial posts, a ‘good command’ of English or another foreign language is at least recommended. The group of jobs where this skill is generally not required include low paid cleaning jobs or manual work in small production plants. There even is a Google AdWords advertisement with the tagline: “Speak a language? Get a job” leading to a popular job portal (not, as one might think, to a job portal for language specialists).

In another part of the same research the author asked 319 respondents at different ages, in different jobs, how often they had the chance of actually using their language skills at work. The results (see Table 1) show that if statistically 75 % of job advertisements contain the requirement of language skills, then in at least 5% of them this requirement is excessive or perfunctory as 35% of respondents claim never to use a foreign language at work, and a further 11% use it only rarely.

Table 1: Survey results for question: „How often do you get the chance of using a foreign language at work”

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practically all the time</td>
<td>165</td>
<td>5,0%</td>
</tr>
<tr>
<td>Quite often</td>
<td>32</td>
<td>10,0%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>121</td>
<td>37,9%</td>
</tr>
<tr>
<td>Not very often</td>
<td>36</td>
<td>11,3%</td>
</tr>
<tr>
<td>Never</td>
<td>114</td>
<td>35,7%</td>
</tr>
</tbody>
</table>

Source: own research

This result brings to mind an important question: if language skill is not directly related with job description, why is it used as a requirement in the recruitment process? A possible answer is that it helps select candidates with better potential, with a set of characteristics which is desirable for their prospective employer. In the same way as fresh graduates who already have some work experience are preferred over candidates who have never worked not because the former have acquired some skills pertinent to the job but because they have demonstrated a willingness to work, which is an important asset. Language skill, which – as has been proven - is a scarce good, is used in the recruitment process as a benchmark for the candidate’s conscientiousness and diligence. As described above, only students who sacrifice their own time and money have a chance of acquiring superior language skills by attending courses outside standard education.

Having stated that it would be easy to jump to a conclusion that all people who are employed can effectively communicate in a foreign language. It is by no means so. Firstly, setting high requirements does not necessarily lead to finding high profile candidates. Secondly, even if the candidates have actually completed a certificate, there is no guarantee that they will communicate effectively in the given working environment. Every specialization has its own specific jargon which has to be learnt from experience and is not likely to be taught in a language school. Another difficulty is jargon connected with certain popular applications – even a CAE diploma holder will surely feel baffled when confronted with the ORACLE database (even if job requirements stated ‘good computer literacy’ and ‘confirmed language competence’ and the candidate answered ‘yes’ to both of them).

Respondents in the author’s research recounted a number of bad experiences with employers who expected a newly acquired employee with advanced language skills to: handle different sorts of software and Internet applications, understand technical specifications, understand instructions for technological processes, understand and translate legal contracts or CISCO manuals. On finding that the new recruit is overwhelmed by the task, the employer typically accused them of lying in the interview and complained about the inadequacy of language certificates.

This broadly outlines the main axis of conflict between expectations of employers and linguistic competences of employees. Language skills are more than knowledge confirmed by a diploma, they are dynamic, they change in time and vary from situation to situation, and from person to person. A fluent language speaker can effectively communicate in everyday working contexts, in speech, in writing and on the telephone, but might magnificently fail to follow technical instruction. On the other hand a linguistically prolific engineer can competently use on-line manuals and documentation, as well as quickly learn new technical terms, but be at loss in face-to-face conversation. A holder of an advanced level certificate might know a great deal about the language’s structure and lexis, might always form 100% correct sentences, but be beaten in direct sales or presentation skills by a speaker who makes mistakes but is a better communicator.

It can be now easily gleaned from the above discussion that finding an employee who would without additional training cope with language challenges of a modern company is almost impossible. That is why in-company courses offered massive
scale by private language schools are so immensely popular. The market is strongly dispersed; the biggest share seems to be taken by freelance teachers who find ways into companies through personal recommendations. The rest is evenly divided between language schools offering in-company courses. A small share is taken by large, established schools that also offer traditional courses.

From the clients’ perspective, the choice of cooperation mode depends on a number of factors. Now I will proceed to discuss the four most important ones.

2. **Size of company**

The problem of in-company language training for large firms is that international corporations use management systems with set procedures for the selection and validation of suppliers (of goods and services). They are also accustomed to cooperating with other businesses on clear principles:

- deadline for product delivery or service completion is stated in the contract,
- the contract directly identifies range of responsibilities of both parties, defines a need which the transaction is supposed to satisfy,
- on signing the contract, the client knows precisely what benefits they will receive at the agreed price.

In-company language training is a detour from the typical procedure, as conflict of interests occurs between the client organization and the language school about to provide a service:

<table>
<thead>
<tr>
<th>Client Organization</th>
<th>Language School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wants to set a deadline for completion of tasks</td>
<td>Works on the assumption that the moment when you „know” that language never really comes and learning never ends. Will press the client not to set a final date.</td>
</tr>
<tr>
<td>Wants to pay only for the necessary minimum, wishes the training to consist only of immediately useful elements, like the ability to give information on the product on the telephone</td>
<td>Assumes that in order to communicate effectively and fluently a solid foundation is necessary. One needs to understand how a language works and have some orientation in the language’s culture. Will try to persuade the client to go beyond the necessary minimum.</td>
</tr>
<tr>
<td>Wants guarantees that at the moment of service completion employees subjected to training will have the required skills</td>
<td>Only few language schools give these guaranties. Even then, they are hinged on a number of provisions concerning students’ attendance and active participation in classes, and as a result are little more than a marketing ploy. Schools know only too well that the rate and efficiency of acquiring language competence are very individual, so no realistic guaranties can be given.</td>
</tr>
<tr>
<td>Want the course to be tailored especially for the needs of a the organization, run by an instructor who, beside being a fully qualified language teacher, is also a specialist in the required filed, e.g. Lawyer, engineer, financial controller etc.</td>
<td>Prefers to work on familiar ground, to offer general courses, standard ‘Business English’ or ‘Technical English’. The problem is finding a teacher who would be both a linguist and a lawyer or engineer, such cases are rare and expensive.</td>
</tr>
</tbody>
</table>

Multinational organizations are growing and very attractive market for suppliers of globalization services, like the language of communication. The desired product is a syllabus that would guarantee effective international cooperation within standard organizational processes. Language instruction in corporations should be custom made along the lines of Integrated Information Systems, which use organization specific neologisms, acronyms and technical terms. Standard courses, although certainly improve the learner’s knowledge of grammar and vocabulary in a given language, do not ensure seamless communication in the organizational environment.

Small and medium enterprises can select a supplier and mode of cooperation at their own discretion. This is why it is quite normal to see a freelance teacher running a makeshift Business English course in one room, an arrival from a language school teaching a group of technicians in another, and the MD hosting a native speaker from British Council in his own study. As results from a series of interviews with company managers and employees carried out by the author, when selecting a supplier of language courses, the boss of a small or medium enterprise will rely on price and recommendations. He will also often let his staff make the choice.
3. Number of employees that need to be trained

It happens rarely but is not impossible, that all employees in a company have to be taught a language at once, be it because of a takeover, or a sudden change in markets, or because of new technology that requires increased communication with a new country. A feasible option then is employing a group of language instructors full time. It is expensive but cheaper than paying them on commission, and definitely cheaper than making all employees redundant and finding new ones who already speak the language.

Such extreme situations happen less frequently than when only a limited group needs to shape up linguistically. That includes the whole selling department, or purchasing department, or line managers. Then a tailored course can be ordered especially for the needs of that particular group, and it usually means just one or two hours weekly. Such customized course will contain a particular body of vocabulary and structures pertinent to their jobs.

Alternately, there is a number of people from different departments who want or have to improve their language skills. Because they can’t have a tailored course, they are usually taught a general type of syllabus, divided into levels, depending on their existing competence. Although this can involve the same total number of people as in the case of tailored courses for departments, division into levels means that the company will pay for more hours of instruction, as this will mean 2 or 3 hours weekly per group.

Last but not least there are individual lessons, mainly with members of top management. For that purpose companies tend to choose big, well established language schools with a brand name, like Berlitz, and their very effective Total Immersion Course. Because of its price Berlitz is rarely asked to teach a large number of groups. Instead it is preferred by managers who choose it on the basis of its reputation and the prestige it provides. Such VIP courses are reputed to be a means of networking as an additional perk.

4. Specific diagnosed language problem that the company needs help in solving

As mentioned before, certain companies decide to invest in language courses because of change: be it a major revolution like a takeover by an international organization resulting in changing all procedures, or simply a cheaper international supplier whose arrival has given the accounting department trouble with invoices in a foreign language. They will shop around for quotations for a custom-made course, and will expect language schools to come up with a wrapped-up offer that will give them guarantees that their language problem will be solved in a specified period of time, at a specified price.

However, the reality is often disappointing. From research carried out by the author using the ‘Mystery Client’ technique it seems that language schools are completely unprepared for this opportunity. The author visited 11 large language schools in Wroclaw asking them to provide language lessons for technical workers which would enable them to communicate with instructors from parent company in the USA, who would be introducing a new technology. The classes were to be preceded by a 5-day technology training for the language teacher, who needed to get an in-depth grasp of the technology before he could teach anyone. That is why the ‘Mystery Client’ asked for a language specialist who also had background in engineering.

Only 2 out of 11 visited schools were really interested in cooperation on described terms, although even they had doubts whether it will be possible to persuade a teacher to attend a 5-day training, which was provided free of charge but the teacher would not get paid for attending it. Other schools tried to persuade the client that training in technical language was useless and suggested one of the school’s standard courses.

It seems that language schools yet need to learn to be flexible. At present schools take an easier route and concentrate on companies without specified educational needs (see below). Companies which are trying to solve a concrete problem with staff language competences are left high and dry, at the financial mercy of one entrepreneurial school that is ready to take risks.

5. Absence of a diagnosed language problem

In most cases companies do not suffer from an immediate urgent educational need. Their staff are linguistically literate because they have already undergone strict selection at recruitment stage. In spite of this a vast majority of businesses invest in their employees’ further language education. In-depth interviews carried out by the author with company bosses and employees reveal a broad scope of motivations. Companies believe that development is important for staff morale, so they create opportunities not just in form of professional training but also self-development courses like time management, speed reading or language. As a perk, standard language classes are relatively cheap. They are cheaper than company car or mobile phone, cheaper than leadership development or coaching, but give a ‘sense of achievement’ and ‘doing something useful in free time’, which are valued by staff.

Language schools respond actively to such needs: they offer a detailed needs analysis, written and spoken placement tests, divide participants into levels according to The Common European Framework of Reference defined by the European Council, design a class schedule in accordance with the various requirements of different groups, appoint a specialist responsible for cooperation between the schools and the client company, monitor the progress of classes and effects of the educational process, run
tests verifying participants’ advancement, run surveys measuring participants’ satisfaction, provide reports to demonstrate attendance, progress and results. Schools invest considerable amounts of money in electronic Teacher Scheduling Systems and School Administration software in order to make a favorable impression on the client and give bosses real time access to their subordinates’ educational advancement.

Such eagerness to please is not always longed-for. Language school owners know that a majority of clients never even enter the system once. They don’t feel the need to monitor how their employees use the opportunities the company is offering as perks, in the same way as they would not check if the staff swim really fast in the swimming pool the company bought them tickets for or if they keep gossiping in the jacuzzi. They don’t need to know that. What they need is employees who know they are getting perks, who feel the company is doing something for them, who might feel remorseful about quitting a company which has invested in them.

Employees usually feel grateful if their employer decides to finance or co-finance their language lessons. Doing a language course is an activity which gives the participant reasons to be proud about or to motivate their own children to be more ambitious. Participants like to tell their friends ‘You know, I’m learning Italian’ and see their surprise and envy, which even increases when they add ‘… and my boss is paying for this’.

It is believed that 80% of what an individual knows and can do is learned outside of formal education. Companies therefore are the main arena of learning opportunities for individuals. Companies on the other hand rely on the knowledge and competences of their management and employees. Therefore providing learning opportunities is at the core of behaving socially responsible towards employees. A learning organization is a socially responsible organization. Since better qualified employees will be more productive and flexible, this is a win-win situation.

6. References


DEVELOPING GEOGRAPHIC COMPETENCIES FOR CAREERS IN HIGHER EDUCATION, BUSINESS, GOVERNMENT AND NON-PROFIT ORGANIZATIONS

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Abstract: This paper focuses on the projects and strategies developed by the Association of American Geographers since 2002 to build and sustain a disciplinary infrastructure for enhancing academic practice and supporting new professionals. We provide an outline of this broader, discipline-wide effort, but our focus is mainly on the development of practical resources for graduate curricula and professional development programs. Our point is to illustrate how similar resources might be created in other disciplines.

Key words: early career faculty, geography, professional development.

1. Introduction

For many geographers, the first years of a professional position are the most stressful of their entire career. Having focused for years on refining the research skills needed to complete the dissertation, new faculty often find themselves almost immediately overwhelmed by an array of responsibilities, opportunities, and choices rarely discussed explicitly in their graduate training. Similar concerns are expressed by geographers entering careers in business, government, and nonprofit organizations. Despite recent efforts by many universities, foundations, and disciplines to change this situation, the weight of learning the unwritten rules of professional life remains the burden of the individual. This self-help approach to professional development appeals to some, but all too easily discourages many highly talented individuals who are marginalized by lack of access to the insider knowledge they need to succeed.

This is a situation we have been trying strategically to change. Working through the Association of American Geographers (AAG), we have come to believe that, unless the culture of higher education changes to view professional development as a community-based responsibility, the well-documented problems experienced by many new professionals transitioning into career positions will continue, to the detriment of academic departments, institutions, and disciplines.

By “community-based” professional development, we mean moving away from the self-help approaches that have typified the preparation of future professionals in many disciplines toward more systematic dialogue and sharing of resources involving the full participation of students, junior and senior faculty, department chairs, and academic administrators. Community-based professional development, moreover, recognizes the totality of faculty aspirations, talents, and professional expectations across all types of workplace settings and demographic contexts. Newly hired geographers who are able to identify and quickly meet the expectations for their work are more likely to succeed than those who cannot, and the difference between success and failure is often defined by the amount and type of support received by geographers in their formative professional preparation.

This paper describes the process of developing an infrastructure for sustaining long-term, community-based approaches for enhancing the preparation of professionals in geography. Although we focus on a single discipline, we think the lessons learned are relevant for many disciplines and professional organizations, for two reasons. First, the development process involved a number innovative features which allowed for a more collaborative, grass-roots approach to creating and reviewing resources for higher education and professional development programs. Second, the process might be viewed as a model for how other disciplines can develop and improve materials for early career professionals.

Two AAG projects provide the context of our discussion: the Geography Faculty Development Alliance (GFDA) and Enhancing Departments and Graduate Education (EDGE) in geography, both funded by the US National Science Foundation. GFDA and EDGE are both intended as broad-based, long-term efforts to change the culture of support for early career professionals in geography, as well as for graduate students pursuing careers outside academia (Solem and Foote, 2009a). The GFDA project (2002-present) concentrates especially on support for doctoral students in the late stages of their programs and for early career faculty who are beginning or in the midst of their first academic appointments by providing summer residential workshops, seminars and workshops at professional meetings, and mentoring and networking opportunities. EDGE’s focus includes improving academic practice, but assumes a broader
interest in improving professional development opportunities for all graduate students, including those planning to pursue careers in government, business, and the non-profit sectors.

Both projects have involved considerable research into how disciplinary knowledge and skills are applied by graduates as they begin their careers in both academic and non-academic professions, and how graduate programs prepare students for these careers (Solem, Cheung & Schlemper, 2008; Solem & Foote, 2004, 2006; Solem, Lee & Schlemper, 2009). But, it was clear from the beginning of both projects that, to have a lasting impact on the discipline, several things were needed. First, the discipline needed curriculum resources to be developed for the purpose of helping promote change in academic geography programs. Second, more investment was needed to build a cadre of early career professionals equipped with the skills to use innovative materials to support change in those programs. Third, a parallel effort was needed to engage the talents of senior faculty and departmental administrators in the implementation of new professional development programs and curriculum resources. Finally, the backing of the AAG, geography’s largest professional association, was a necessary component to ensure continued support, visibility, and development of the projects into the future. In the following discussion, we touch on all of these issues.

2. The context and vision of the disciplinary effort

Our vision of enhancing professional development rests on an emerging body of research that has highlighted the influence of departmental culture and climate on the experiences and professional development of early career professionals, an influence that much of the available literature has tended to overlook while focusing on the attributes and abilities of individuals. Yet, as we and others have discovered in our research with students and faculty, there is little consistency in the ways various graduate programs prepare individuals for careers. Some departments and institutions offer structured mentoring programs and certificate programs. Others provide graduate students with opportunities to develop grant proposals and guidance on academic publishing. Still others offer internship programs linking the graduate curriculum with community service or work with private and public sector employers. But few graduate programs do all of these things, leaving many students underprepared for a variety of job responsibilities. Compounding this situation are the internal relations in some departments that result in “chilly” climates, difficulties for “underrepresented” colleagues such as women and ethnic minorities, divisive politics, and bitter infighting that can marginalize individuals from each other and departments from the broader academic community on campus and beyond. Even the most talented scholars find it difficult to do good work, let alone persevere in such conditions.

The good news is that there seems to be growing recognition across academia of the need to change approaches to higher education in ways that extend the timing and scope of professional development. As an illustration of change within a particular discipline, we would like to present the case of geography.

Preparing geographers for careers in higher education

In April 2008, Pearson Prentice Hall published two books stemming from GFDA and EDGE: Aspiring Academics (Solem, Foote, and Monk 2009) and Teaching College Geography (Solem and Foote, 2009b). Although excellent professional development materials exist for early career faculty, our experiences with GFDA and EDGE convinced us of the need to develop some new materials, for six reasons. First, we wanted to establish a different range of topics than was available in some of the existing career guides and, especially, to create a balance among material focusing on teaching, research, and other professional responsibilities. While many books on faculty development focus on teaching and learning issues, and while others concentrate on research and publishing, we sought to adopt an approach somewhat like crossing Boice’s Advice to New Faculty (2000) with McKeachie’s Teaching Tips (McKeachie and Svinicki, 2006) or like Reis’s book for engineers, Tomorrow’s Professor (1997). This meant combining the strong, research-based guidance offered by Boice about balancing the many competing demands of academic work, with the more extensive, expert advice offered by the team of writers whom now contribute to McKeachie. Other volumes, such as those by Caplan (1993), Darley, Zanna & Roediger (2003), Deneef and Goodwin (2007), Garcia (2000), Goldsmith, Komlos & Gold (2001), Hall (2002), Lucas & Murry (2002), Lyons, Kysilka & Pawlas (1999), Schoenfeld and Magnan (1994), Toth (1997), and Wankat (2002) touch on many of the same broad issues as Boice but do not, in our view, pay quite enough attention to issues of teaching and learning—one of the major sources of stress for early-career faculty. Certainly a range of excellent, popular books on teaching and learning issues are also available, such as those by Angelo and Cross (1993), Fink (2003), Royse (2001), Walvoord and Anderson (1998), Wiggins (1998) and Wiggins and McTighe (2005). But, again, we wanted the message of our books to be one of balance and moderation and wanted neither the materials on teaching and learning to overpower other important topics, nor the material on research and publishing to be viewed in isolation from other areas of academic practice.

Second, we saw value in developing discipline-specific professional development materials. There are special challenges in most disciplines that are most fruitfully addressed by disciplinary peers (Becher, 1989; Healey, 2003; Monk, 1998, 2004). In geography, some of these issues revolve around its position spanning the natural and social sciences and even the humanities. In teaching, signature practices in geography have
emerged around: 1) the importance of field study and fieldwork in both the undergraduate and graduate curricula; 2) the widespread use of laboratory sections for teaching both physical geography and geographical research techniques such as geostatistics, cartography, and geographic information science (GIScience); 3) the extensive use of technologies for mapping, GIScience, and web-based instructional materials; and 4) the critical value of developing among students a global perspective on social, economic, environmental, political, and cultural issues.

At the same time, we see discipline-specific materials as complements to other interdisciplinary resources, rather than substitutes. That is, we see the value of interweaving intra- and interdisciplinary approaches to professional development. We have chosen in GFDA and EDGE to focus on professional development among faculty and within graduate programs and professional associations, but we see our efforts as necessarily supportive of and supported by the efforts of other stakeholders. Many colleges and universities provide excellent programs, workshops, internships, seminars and certificate programs on career topics for graduate students and early career faculty. We concur with other researchers that these sorts of university-wide efforts benefit from cross-cutting discipline-specific professional development opportunities (Brown, Clark, & Bucklow, 2002; Clark et al., 2002; Healey & Jenkins, 2003; Jenkins, 1996). Some examples of these types of discipline-specific materials include those developed in sociology (American Sociological Association, 2008), the geosciences (National Association of Geoscience Teachers, 2008) and psychology (Darley, Zanna, & Rodgiger, 2003).

Third, we sought to use the project as a way to raise awareness of professional development issues within geography and build a community of support within the discipline. As noted earlier, in many disciplines the responsibility for professional development is still placed almost exclusively on the individual and new faculty are generally left to "go it alone" in their first few years. Yet, research seems to indicate the key roles played by departmental, institutional, and disciplinary communities in shaping the experiences of early career faculty. In our work with geography programs through GFDA and EDGE, we have observed this self-help view of professional development gradually giving way to a sense of shared responsibility. We wanted to develop materials that would help to sustain this sort of shared commitment to professional development by involving a wide range of participants from graduate students to senior faculty.

Fourth, as part of this community-building activity, we wanted to provide a wealth of materials which could be easily employed in workshops, seminars, brown-bag lunches, and other settings, as well as a way for these materials to be adapted, improved, and expanded through time. Only a handful of graduate geography programs go beyond the basics in addressing professional development in their curricula. Issues relating to research and publishing are usually covered very well, teaching and learning a bit less so, and many other issues such as time management, collegiality, and ethics are rarely addressed. Although we wanted Aspiring Academics and Teaching College Geography to serve as textbooks in departments where graduate seminars on professional development issues are already being offered, we also wanted to offer a range of materials which could be easily used within other courses to address particular topics like research ethics, publishing, grant writing, or approaches to teaching and building relationships that are inclusive of the diversity of students and colleagues, as well as suitable for other out-of-class settings and particularly informal ones including those organized by students. We were anticipating that many of these topics would be new to graduate students and faculty alike, so wanted to provide materials that could be used with a minimum of preparation, were relatively self-contained, and could be easily edited and modified. This suggested preparing some materials that could be distributed in the web.

Fifth, more than just distributing online materials, we hoped to create a more dynamic online community—a website which could promote exchange and interaction among users, as well as the sharing of new and improved materials. Research indicates that networking and mentoring are very important to early career development—particularly networking that goes beyond a person's immediate department colleagues and peers. We wanted to use these new books to help build this sort of online community, one in which participants could share their concerns and ideas.

Sixth, we wanted the materials to be rigorously peer reviewed to make sure both that the authors were drawing on the latest research and developing activities that would be of the widest possible value. We were aiming as well for a broader perspective sensitive to how much of the academic career track can vary by department and institution type for men, women, faculty of color, and international faculty born abroad who now account for almost a third of US geography faculty. At the same time, we wanted to avoid the problem of trying to address audiences across too many disciplines, as there are important differences in career paths across the arts and humanities, sciences, and engineering fields.

Preparation geographers for careers in business, government, and nonprofit organizations

In economically turbulent times, many students and college graduates will likely be wondering what options they have at their disposal. Is it time to jump into the job market, or is graduate school a better option? Indeed, many geography departments are hearing from students who are curious about advancing their career options and the value of an advanced degree in geographic information science for future employment. Fortunately, even in difficult times, geography students still enjoy growing
opportunities to pursue geospatial work in business, government, and non-profit organizations where spatial, environmental and interdisciplinary skills are needed. Having strong academic preparation in geography will only expand the career opportunities available to students, allowing graduates to enter the job market at a higher level, and to advance more rapidly through the ranks after being hired.

Within the past few years a number of studies by in the U.S. and the U.K. have addressed the issue of “employability”, a term describing the readiness of an individual to obtain and then maintain employment (Mistry, White, and Berardi 2006; Donert 2007; Solem, Cheung, and Schlemper 2008). All of these studies point to some important findings. First, hundreds of employer organizations across a broad swath of the business, government, and nonprofit (BGN) sectors seek individuals who are able to think spatially and use geographic technologies to collect, integrate and analyze data on social and natural systems. And the good news for job seekers is that these same employers forecast an increasing demand for these abilities in the coming years.

A second important finding is that employers view geography education as an essential component of professional development for many BGN careers. This is because geography offers the conceptual frameworks, spatial science foundations, interdisciplinary perspectives, and spatial thinking skills underpinning effective use of GIS and related mapping technologies. In the experience of the employers surveyed and interviewed in this research, geographic learning through field studies, internships, and academic coursework enhances the work of geospatial professionals and helps ensure that the analytical power of geographic technologies is tapped productively.

Employers are also reporting broad and growing professional opportunities for geography graduates in areas as diverse as environmental management, transportation, public health, and international trade. Here, too, there are opportunities for geography professionals to enhance their employability by taking advantage of new models of graduate education such as professional science master's degree programs, which integrate management training and internships with geography education. Among the many such programs are the new Professional Master's Program in geography at Temple University, and similar Masters Degree and certificate programs in Geographic Information Science offered by universities ranging from Arizona State University to Penn State University, and dozens of others. The Guide to Geography Programs in the Americas provides detailed overview of these educational opportunities (available at www.aag.org).

Many employers still report difficulties finding qualified graduates possessing strong preparation in geography and spatial analysis. One of the larger challenges identified by the AAG's EDGE project is the need to better align curricula with students’ career aspirations and the needs of employer organizations. This is especially true in doctoral programs where PhD students who once aspired primarily to careers in the academy are now often attracted to equally rewarding and socially engaged careers in government, nonprofit organizations, and businesses. Departments in which the M.A./M.S. is the highest degree offered demonstrate clearer understanding of student goals and curricula that address BGN opportunities, but these programs still face challenges of implementation and helping students make transitions from traditional academic preparation.

The greater attention now given to BGN career preparation in geography graduate programs also holds promise for recruiting and retaining more women and minority students. This is because many of the students surveyed, including women and minority students, are especially interested in BGN careers, yet often feel that many purely technical graduate programs do not adequately provide them with the career advising and broader educational foundation they see as important to success. But throughout the educational and career pipeline, students, parents, and teachers all need more information about the wide variety of geographic career options available, and the preparation required for success in these careers.

Given that context, the AAG has identified broad areas of critical data needs and actions for future work so that future graduates have a clearer sense of the opportunities available to them:

1. Better data on the geographic and general skills that graduates employed in BGN positions use in their daily work;
2. Local, regional, and national estimates of employers’ demand for geographic and geospatial skills in different types of BGN organizations;
3. Comparisons and assessments of the undergraduate and graduate curricula in geography for preparation in BGN careers;
4. Continued development of disciplinary infrastructure to enhance graduate advising, career preparation, and transition support for early career geography and GIS professionals in BGN organizations, modeled after the success of recent National Science Foundation funded programs such as the GFDA and EDGE projects.

These research issues will be pursued in the second phase of the AAG’s EDGE project, which was extended for three years with a $993,031 grant from NSF awarded in August 2009. In addition to pursuing these research issues, EDGE-Phase 2 will develop resource materials to enhance BGN career preparation, including a book publication similar in design to Aspiring Academics.
3. Engaging the full discipline

Equally important to the goal of building a disciplinary foundation for professional development are programs aimed at marshaling the leadership skills and capabilities of the heads and chairs of academic departments. Not only is strong departmental leadership important for acquisition of resources for new faculty, but research shows that early career professionals who perceive their department chairs to be supportive are also more satisfied and happy with the overall working environment. Furthermore, supporting new scholars is fundamental to the health of every academic department because an engaged, capable faculty is essential for achieving important departmental goals such as strategic planning, achieving growth in student enrollments, securing external funding and other financial resources, establishing effective working relationships with other departments, documenting student learning outcomes, among many other issues.

These are some of the reasons why the AAG has established a Healthy Departments Initiative to provide coherent and practical guidance for strengthening departmental leadership. Through regular and sustained communications with department chairs, the Healthy Departments Initiative promotes awareness of how investments in faculty development will ultimately result in higher levels of collegiality and commitment among all members of a department to participate in a shared vision of implementing change.

An additional approach to engaging our constituencies involves organizing professional development sessions and workshops at AAG regional and annual meetings. Many of these sessions and workshops have been planned by graduate students and early career faculty, and attendance has been impressive. Student-led organizations such as the AAG Graduate Student Affinity Group and the Supporting Women in Geography groups are advising our outreach efforts, and in doing so participate directly in our efforts to promote change in the discipline.

4. Conclusion

In sum, the AAG’s approach to supporting new professionals focuses especially on developing opportunities among undergraduate and graduate programs, students, and faculty, but views the efforts of department chairs and college and university administrators as vital for achieving long-term change that enhances the work of future stewards of the discipline. Although the dividends of our efforts may take years to manifest, we have observed considerable interest and widespread recognition that more and better professional development is vital to geography – and that the time has come to make this a priority shared by the full disciplinary community.

For further details about the AAG’s professional development initiatives, please visit www.aag.org.

5. References


E-LEARNING FOR CHANGE: COMPETENCE DEVELOPMENT IN WORK ORGANIZATION

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Abstract: The literature on workplace e-learning recommends in general a standardized implementation process, where the same type of implementation approach is used in all parts of the company.

My findings contradict the previous research. This presentation suggests that large, multilevel organizations with different types of work and learning traditions need to adopt a differentiated implementation process that takes the unique characteristics of organizational units into account. Based on a case study of a large-scale, enterprise-wide, and standardized implementation of e-learning in a large telecommunications company that was carried out as part of my doctoral research, I explore the bottlenecks associated with different work contexts.

By addressing how the standardized implementation model was adjusted in the different parts of the company and aligned with various work types, external challenges and internal learning traditions, the paper focuses on how e-learning should be introduced to support necessary competence development and organizational change. The presentation also underlines the importance of an implementation coordinator capable of pushing e-learning and adapting it to local needs.

Using the Theory of Development of Production’s five typologies of work as a conceptual framework for the analysis, the paper focuses on how the critical problems that were identified during the four year study of this implementation can be related to the large span in work and learning in the various units of the company. The findings provide new insight into the importance of contextual knowledge when implementing e-learning in a corporate setting. By exploring the problems not only from the current workplace e-learning tradition, but also inspired by the Theory of the development of production, the paper aims to make a contribution to the literature on e-learning implementations in large and multifaceted organizations.

Key words: workplace e-learning, technology-enhanced learning, competence development, enterprise-wide, implementation.

1. Introduction

When relocating more than 6000 employees to its new headquarters at Fornebu in Oslo, Telenor, the largest telecommunications company in Norway, decided to use e-learning to prepare its employees for a new working environment. This included open-office solutions, extensive use of Information and Communication Technology (ICT), complex office equipment and advanced meeting room technology, as well as expectations of utilizing new work practices. The organization was at the same time shifting from local competence development and a hierarchical organization, to new leader and employee roles and new work forms. This change process, that would affect the daily work and learning practice of thousands of employees, had two goals. A short-term goal was to do “business as usual” a few days after the relocation while a long-term goal was to become a learning organization and an innovative workplace (Netteland 2008).

Based on a four-year field study of Telenor’s enterprise-wide implementation of e-learning, this paper explores potential problems associated with the introduction of e-learning in different work contexts. To gain a deeper understanding of how e-learning developed in the various parts of this modern organization, we use the Theory of the Development of Production (TDP) (Victor and Boynton, 1998) and the notion of five typologies of work as an analytical framework. The e-learning activities are mainly examined from the perspective of a training administrator (TA), most of whom engaged in the Human Resource staff and whose role it was to execute a plan for e-learning in his/her unit. In the analysis of problems, however, an employee perspective is also included.

The paper begins with a description of the research design where the site and participants, the data collection methods and the analytical tools are detailed, and a category of problems, referred to as Relevance to work and previous knowledge (for short abbreviated to Relevance to work) is introduced. An analysis of this category is carried out based on the TDP, first by introducing how the category appears in various organizational contexts, next by presenting the main units in Telenor and their adjustments of the enterprise-wide implementation plan to local needs. This paper also addresses the importance of an e-learning coordinator capable of pushing e-learning and adapting it to work. It concludes with a summary of the findings and a discussion of ways to deal with relevance problems in future.

1 The term 'implementation' is used in accordance with the understanding in Information System research and practice, namely to denote the process of introducing the technology in an organizational setting (Munkvold et al., 2003). In this paper the term refers to the process of taking e-learning into use in the organization.
implementations of e-learning in a heterogeneous corporate setting.

2. Research design

3. Site and participants

Telenor is a leading provider of telecommunication services and one of the largest mobile operators worldwide. Partly privatized and listed on the stock exchange in December 2000, the company decided to co-locate 45 offices in the Oslo region and use e-learning as a strategic tool for internal competence development and organizational change (Telenor 2000). E-learning was also expected to make learning cheaper and more effective and make Telenor appear to be a modern and efficient organization (Netteland et al. 2007). To address the enormous educational challenge that the move represented and the organizational aspects of implementing e-learning across the large enterprise, the E-learning project was launched.

At the time of study, Telenor consisted of four large units (Unit 1 through Unit 4). The span in production was large, from mass production of automatic message counting, via products related to data, telecom, mobile technology and digital television, to advanced integrated solutions and services. Also within the units there was a large variety in production. Despite this difference and in line with most enterprise-wide Information System implementations (Rosenberg 2006), it was decided that e-learning was to be implemented as a standardized ‘one size fits all’ approach. All employees were expected to go through the same learning modules, irrespective of earlier experience, competencies, type of work, etc.

In line with the vision of creating a learning organization, the slogan of the E-learning project was “to give the right training to the right people at the right time and in the right way” (Telenor 2001). A default implementation plan was developed that addressed explicit and implicit rules for the learning activity as well as different roles and tasks in the e-learning team. The plan stressed that learning should be integrated with work and take place at the employee’s own desk without help from colleagues or tutors. Training administrators (TAs), most of whom engaged in competence development as part of the human resources staff, were appointed in each of the units (TA1 – TA4), and it was their responsibility to execute the plan in their unit. The main responsibility for this activity had, however, the unit’s top manager (Netteland et al. 2007).

To support training of specific skills, the E-learning project produced twelve multimedia based e-learning modules3, accessible through a new enterprise-wide Learning Management System (LMS). Eight modules were compulsory4, each with an expected completion time from 20 to 45 minutes. The users were free to take breaks, log off and log in later, without losing credits. The modules were all marketed by the project as an opportunity for flexible and mobile learning, with respect to navigation, time as well as space (Netteland 2003). Employee data, combined with data about the completion rate, were available for the training administrators through predefined LMS reports. To be counted as completed, some modules had to be at least 80% finished, while some required 100% completion. Four weeks after the relocation, the completion rates of the same compulsory module could vary by more than 50 percentage points across the four main units. Unit 1 had the lowest rates. The completion rates of the eight compulsory modules in this unit ranged from 5 to 37% (Netteland 2008).

4. Data Collection

The analysis is based on data collected during a four-year doctoral research (Netteland 2008) using, in accordance with the ethnographic research tradition and to provide validity and reliability, a variety of methods such as interviewing, participant observation, observation, field notes, and textual analysis of archived historical documents. The more than 48 audio-taped interviews with sources such as managers, project leaders, project members, training administrators, support staff, and employees comprise the main body of the data together with archival documents while quantitative data from sources such as the LMS and the Enterprise Resource System also have been accessed. The transcribed interviews formed the basis of the analysis. Excerpts from the interviews presented in this paper have been translated from Norwegian into English (Netteland et al. 2007).

5. Data Analysis

To handle the complex and large data material and gain a deeper understanding of the main obstacles in the implementation process, interview and observation data were reviewed, manually coded, then questioned, compared and categorized using the Grounded Theory (Glaser and Strauss 1967) procedure referred to as ‘open coding’ (Strauss and Corbin 1990). Six categories emerged. They are Management control, Hardware and software resources, Execution of implementation tasks, Information sharing, Allocation of time, and Relevance to work and previous knowledge (Netteland 2008). The latter category, which is examined in this paper, is described as follows:

[The category] embraces problems and complaints related to e-learning modules and their lack of relevance to ongoing and future work activity. It also includes missing or poor relevance to earlier experience and competence and discrepancies in

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3 Three modules were expected to be completed before the move and five afterwards.

2 The modules were classified as “ICT solutions,” “Physical workplace,” and “New ways of working.”
During the implementation, a plethora of complaints arose around the e-learning modules and their lack of relevance to ongoing and future work activity. Their extent and intensity varied noticeably, however, both across and within the four units. Altogether, the interviews illustrate a large span in opinions about why some e-learning modules were not started, others started but not finished, and others finished. Since the issue was mentioned most frequently in Unit 1, the presentation starts with this unit.

In Unit 1 the e-learning modules were primarily assessed as not relevant for three reasons:

- The content was not necessary for carrying out existing or future job tasks,
- The content was directed to technology that would not be part of the employee's future working environment,
- The employee possessed in advance (parts of) the knowledge that was incorporated into the e-learning module.

Relevance problems also existed in Unit 2, but the number of complaints was far lower and mainly restricted to the first and third problem. As the content of the compulsory modules in general was assessed as too familiar and plain, the modules were often referred to as ‘survival skills’. Some consultants skipped them, while others used them as a reference book. Despite complaints, the majority of the staff carried out the modules as prescribed, and some referred to them as both practical and time saving.

In Unit 3 relevance problems showed up in two different contexts: 1) in the Customer Service, where most of the staff skipped the compulsory modules as they were not relevant to their work, and, 2) in the technical staff, mostly in the form of negative comments (e.g. redundant information and basic). It should be noted that TA3 often confirmed these personal perceptions of irrelevance.

In Unit 4, too, some employees experienced the lack of relevance to work as problematic. The complaints came mainly from the operational staff, not least from the monitoring staff, who found it difficult to combine the e-learning activity with daily work. The attitude to e-learning among operative senior consultants was far more reflective, as illustrated in excerpt 3.

**Excerpt 3:**

There were some topics in each of them which were somehow very relevant – not one [module] then, but parts of the different modules – I don’t remember which of them [compulsory modules which were the most relevant], but I mean I remember that there were essential parts, good to have acquired, in each of the product-packs....

Altogether, the empirical data show that the individuals and units in Telenor reacted very differently to the relevance discrepancy. In some groups or units this led to a standstill in the e-learning activity. In other groups the result was a temporary halt, and in yet others only a few complaints came after the module was completed. In order to understand why the four units perceived the e-learning modules so differently, it is necessary to grasp the complexity of the Telenor organization, with four rather different working environments and a tight integration of learning and work. To analyze this large organization with different types of work, learning traditions, experiences, and competencies, this paper takes a departure from the TDP, which links specific types of production with specific types of learning, manager roles, worker roles, etc. (Victor and Boynton 1998). Based on this theory, the discussion in the remainder of the paper aims to tackle the organizational complexity by examining how and why the four TAs made local adaptations, despite the top management’s approval of a default implementation plan. The paper concludes with a discussion of how the relevance problems could have been managed during the implementation process.

6. **Analysis based on the Theory of Development of Production**

As referred to above, the number and intensity of relevance problems varied remarkably across the company. Inspired by the TDP (Victor and Boynton 1998), which suggests that a specific type of knowledge is required to manage a specific type of work, this section aims to understand the large span by looking at potential discrepancies between the type of e-learning that was implemented in the four units and the units’ type of work. This can be done, as in this study, by applying Victor and Boynton’s (1998) taxonomy of work, which describes five historical types of work that develop along “a right path” (craft, mass production, process enhancement, mass customization, and co-configuration),...
each of them with qualitative differences in knowledge (tacit, articulated, practical, architectural and configuration knowledge) as well as other structural elements such as organization, manager roles, worker roles and work processes, see Figure 1. By using this taxonomy to classify the underlying logic of the four units with respect to production as well as e-learning approach, this paper intends to uncover to what extent the implemented type of e-learning is identical to the type of learning that is required according to the TDP (Victor and Boynton 1998) Victor and Boynton (1998) argue that a specific type of learning is necessary in order to support the current work, or, for transforming the current work into a next type of work along the right path. A broad description of this theory is given in Netteland (2008).

Figure 1: The transformations of work types along the right path (adapted from (Victor and Boynton, 1998))

The section begins with a presentation of the production in Unit 1 - Unit 4. A classification of the default implementation plan is then given before the four local implementations are further detailed. The identified logics of the four working environments and their respective e-learning plans are finally summarized and related to the appearance of relevance problems in the different units. A more detailed presentation of this issue is given in Netteland (2008).

7. Classification of the four units

Telenor did not only have a large span in production across the units. Some of the units also had a large internal span, for instance Unit 1, which due to a recent merger between two smaller units, spanned from customer intelligent products and services typical for customization to work focusing on practical knowledge typical of process enhancement (Netteland 2008). An even larger span existed in Unit 3, as it consisted of eleven independent companies, each with its own specific work. In contrast to Unit 1, however, all eleven companies had the common aim of transforming the unit into a learning organization characteristic for process enhancement (Netteland 2008). The two remaining units were far more stable and homogeneous. Their production differed, however, from Unit 2, with a tailored, efficient and precise production of advanced mobile technology in accordance with mass customization, to Unit 4, with a production of automatic message counting in line with mass production, but in transformation to process enhancement and a following focus on quality (Netteland 2008).

8. Classification of the default implementation plan

Classification of the default implementation plan requires an analysis of the LMS, the implementation rules, and the e-learning modules.

First to the LMS, which was installed as an enterprise-wide e-learning platform, prepared for vertical information flow, reuse of courses and with the ambition of reducing the expenditures associated with training. The aim was that learning could be measured by throughput in a predictable and consistent way and that the same learning could be delivered to the whole organization without any local variations in learning quality. Together these issues align with the logic of mass production (Victor and Boynton 1998).

The same logic also characterizes most of the implementation rules: e.g., all employees and leaders were expected to carry out eight compulsory modules; exact training time was estimated; the implementation team was defined as the top manager and the TA in each unit; implementation tasks and division of labour were predefined; a hierarchical and centralized control was defined; and the training and logging was individual (Netteland 2008).
The e-learning modules were all designed as multimedia tutorial-like applications, with a menu-driven interface, step-by-step navigation, and a progress bar, which accentuated the quantitative dimension of what had been completed. Learning was prepared for replication and had to be repeated until the tests were approved. The precise performance measures, visualization of progress and testing techniques all call attention to mass production. It should not be forgotten that deviations from mass production were visible both in the LMS and in the e-learning modules. Altogether, however, the implementation plan was characterized by standardized, mass production-like elements.

9. Classification of the four local implementation plans

TA1 and TA2 both wanted to change the default implementation plan. But while TA1 obeyed the e-learning project team when her proposals were rejected and, as prescribed, implemented the default mass production-like plan, TA2 adapted the plan on her own. Only the most practical modules were made compulsory; the individual employee was responsible for his learning; support would be given by colleagues; and the information meetings were targeted to specific user groups. Although some of the features point to mass production and process enhancement, when looking at the adapted plan as a whole, the issues of mass customization (Victor and Boynton 1998) tended to dominate. Changes were also made by TA3. Only four modules were made compulsory, and coordination of activities, division of labour, information, control tasks and support tasks were decentralized. TA3 was a coordinator and a coach, aiming to transform the unit into a learning organization in accordance with process enhancement [25]. Unit 4 in contrast chose a centralized and standardized approach. TA4 was in charge; she planned, made directives and was responsible for the entire implementation, just in line with mass production. However, she also distributed tasks such as support, follow-up, control and report production and developed a centralized but differentiated information strategy. In sum, this local plan was characterized by issues of mass production with some very strong elements of process enhancement.

Section summary

In detail, four “different” plans were implemented in the organization. Looking at the implementation of e-learning as a sort of production, this section illustrates that in those units where the TA was proactive (in Unit 2 to Unit 4), the changes were mainly in alignment with the unit’s production. It should also be noted, that in units with a match between the logic of the implemented plan and the logic of work, the number of relevance problems was far lower than in units with a mismatch between these two types of logic. Unit 1 had both the largest discrepancies and the highest incidence of relevance problems.

10. Discussion of findings

This section gives a summary of the study and presents the key findings before discussing the findings in the context of research on Relevance to work and previous knowledge in the workplace e-learning literature.

11. Summary

This paper has focused on relevance problems that appeared when an enterprise-wide, e-learning based competence development initiative was implemented in a large complex organization. The category was identified through a grounded theory open coding of the empirical data collected during field work that followed this implementation.

In order to explain the large span in scope and intensity of relevance problems in the four units, we analyzed the units’ type of work and e-learning based on Victor and Boynton’s taxonomy work before we examined to what extent a match/discrepancy between the two types of logic influenced the number and intensity of relevance problems.

The analysis points to the following weaknesses in the implementation activity:

- An underlying assumption that learning should be standardized, compulsory and measurable by completion rates
- A lack of ability / prioritizing at management level to transform present work in accordance with the opportunities embedded in the new tools
- Implementation of learning rules and technology that undermined the embedded opportunities for flexibility and relevance in the modules and in the project mandate
- The lack of knowledge about local conditions at general project level
- Missing authority of the TA

12. Discussion

The weaknesses of the e-learning implementation uncovered in this paper can partly be a relic from the late 1980s, when Telenor, like other large Norwegian companies, focused on individual learning and general organizational knowledge. The weaknesses can also be explained by Telenor’s history as a state monopolist with a hierarchic and centralized organization, or, an internal focus on New Public Management in the late 1990s, which emphasized the development of individual attitudes (Røvik 1998). No matter the reason, Telenor did not take into account the large span in production, challenges, competencies, ICT literacy, and experiences within and across the four units. As presented in this paper, Victor and Boynton (1998) are some of the few who explicitly argue for a differentiation of knowledge in
specific work contexts and that learning should be tailored to the specific production of the unit. However, similar views are also introduced in some of the recent research on workplace learning (Ahonen 2005; Virkkunen and Pihlaja 2004), as well as by Lahn (2005), who claims that internal learning systems differ, especially in large companies and at least in work-integrated learning contexts.

When e-learning was introduced in Units 2 through 4, adaptations were made both in the local e-learning teams and the project-groups at management level. In Unit 2, the implementation plan moved in the direction of mass customization, in Unit 3 in the direction of process enhancement, and in Unit 4 toward a plan characterized by a mix of mass production and process enhancement. In the latter unit, where LMS-delivered e-learning still was in use three years after the relocation, e-learning evolved in line with the knowledge typical for process enhancement (Netteland 2008). However, the changes and adaptations cannot fully explain why some of the problems in Unit 1 were not experienced as problems in some of the other units. In order to understand this discrepancy, it seems that additional factors have to be taken into account (e.g., technological competence in the staff) (Netteland 2008).

Relevance to work problems, however, are only the “tip of the iceberg” when dealing with the implementation of e-learning in Telenor as there are at least five other categories of disturbances that have an impact on this process (Netteland et al. 2007). Three of these, namely, Information sharing, Hardware and software resources, and Execution of implementation tasks, are addressed in Netteland (2008).

13. Conclusion

When statements about Relevance to work emerge in the workplace e-learning literature, they are mainly related to the design phase (Clark and Mayer 2003; Dahl and Rolfsen 2005; Schank 2002; Tabbers et al. 2004). Parts of the literature, however, also regard work relevance as critical in the first part of the implementation process, e.g., Collis and Moonen (2001) and Cross and Dublin (2002), which underline that e-learning must match the employees’ needs, not least in the “selling phase”. The literature therefore recommends embedding e-learning in work and making e-learning an integrated part of the employees’ daily routines, closely connected to daily work tasks. By doing so, the performance improvement for both the individual and the business will be significant (Cross and Dublin, 2002; Rosenberg, 2001). Similar arguments are also given by Green (2001) and Simmons (2002). Green (2001) even claims that work relevance is one of five success factors in the implementation of corporate e-learning. Rosenberg (2001) supports this view, and includes appropriate content and authentic learning in his eleven-point list of why most Computer Based Training does not work. A similar focus on relevant content is found in Simmons (2002), which identified the ‘quality of learning content’ as the fourth of seven barriers to adoption of e-learning at work. Common in most of the statements is, however, that the work context is poorly specified and seldom based on empirical research. The workplace e-learning literature also seldom, if ever, points to the significance of a coordinator capable of adjusting the e-learning activity to work and future challenges and in this way making e-learning based competence development relevant and a tool for transformation of work. Indeed, the literature does underline the importance of locally anchored people (e.g., Nardi and O’Day 1999; von Krogh et al. 2005), but none of these roles incorporate key characteristics such as linking new business challenges and transformations of work to e-learning. This paper has pointed to Relevance to work as an underestimated and critical factor in the large-scale implementation of e-learning based competence development in the workplace, at least in those situations where learning is expected to be integrated with work. To succeed in this kind of enterprise-wide process, the analysis has pointed to the following aspects of Relevance to work that should be taken into account:

- The content, as well as the ways of delivering this content, should be targeted toward specific user groups, local learning traditions, and other contextual factors.
- The company should put an increased focus on relevance to work as a critical factor in the local introduction and not underestimate a need for implementation plans that allow flexible approaches.
- The e-learning system as a whole must match the existing production system and satisfy the local learning needs for growth.
- A new division of labour allocating enough time for learning should be prepared, as well as new work tasks that integrate learning and working.
- The large span in work practices and work rules in the different parts of the company must be given attention when learning and work are integrated.
- The role of a local e-learning coordinator is critical and requires a person with a historical background, technological competence, and organizational position that gives the person the required authority to adjust the learning activity to local needs.

This paper suggests that the use of these points as a checklist for enterprise-wide implementations of e-learning in large organizations will contribute to a smoother and more transparent introduction and management of the problems related to Relevance to work and open up the workplace to development and transformation of current work. It should be emphasized, however, that more research is required in this field. Attwell (2005) claims that the restricted empirical research in the e-learning field has mainly focused on the development of technology or product evaluation, and not on “what works and what does not [work in a workplace environment]” (Attwell 2005,
This paper has made an effort to contribute to the restricted empirical research, by focusing on exactly what works and what does not work when implementing e-learning in the workplace, and putting technology development (the focus of the majority of previous work) in the background.

14. References


INFORMAL LEARNING AND DEVELOPMENT OF KEY COMPETENCIES IN WORKPLACES

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Abstract: The objective of the study is to test the hypothesis that a number of educational, training and workplace factors affect the growth of a worker’s key competence level. The focus is on expressed competencies. Our findings confirm Green et al.’s (2001) model, precisely they demonstrate the strong statistical significance of five variables concerning the organizational nature of the workplace where employees: (i) have participated in improvement groups; (ii) have submitted improvement suggestions; (iii) were interviewed for performance evaluation purposes; (iv) receive constant information flows; and (v) are involved and consulted by the organization.

The cross-sectional nature of the estimates raises typical questions of causality nexuses and endogeneity, which are discussed and addressed in an analogous paper (Leonı and Gaj 2009) by the most modern econometric techniques, and the set of tests applied do not alter the main results.

The policy recommendations that can be derived include the implementation of: (a) employee-management agreements to redesign workplaces in accordance with the findings of the study; (b) public policies designed to encourage the re-engineering of workplaces in line with the processes under way in the main countries of Central and Northern Europe.

Key words: training, learning, job design, organizational behaviours.

1. Introduction

J. J. Heckman has repeatedly tackled the economics of learning and training over the past few years (Heckman, 2000; Heckman, Lochner and Taber, 1998; Heckman, Lochner and Todd, 2003). In reviewing the international literature, both theoretical and empirical, he came to the conclusion that: i) training is a dynamic process; ii) skill begets skill, which is tantamount to recognizing a form of path dependence in the construction of competencies, and most of all, iii) that much learning takes place outside of schools: post-school learning is an important source of skill formation that accounts for as much as one third to one half of all skill formation in a modern economy (this estimate is made in Heckman, Lochner and Taber, 1998) (Heckman, 2000, p. 5).

It is well known in the economic literature that work activities (in general) constitute a significant, albeit indirect, source of learning, such as learning-by-doing (Arrow, 1962), learning-by-using (Rosenberg, 1982), learning-by-interacting (Lundvall, 1988) and learning-by-searching (Cohen and Levinthal, 1990). But it is not a straightforward process to understand which kind of competencies can be learned more easily outside schools (technical or transversal competencies?), nor which specific workplace characteristics might play a role in shaping an individual’s capabilities, abilities and skills.

In this regard, two research lines have been pursued as far as we know. One is that of workplace attitudes, or habits developed within the organization that are independent of personal dispositions: workplace attitudes may be the result of a management style and/or the approach of the single manager or of the sharing of common experiences by workers, which set the standards to which new recruits adhere progressively (due to the effect of informal learning) (Schneider et al., 1995). Bartel et al. (2004) show the existence and persistence of a genuine workplace effect on the individual worker’s perception of his/her role and organization, adding to the findings of previous research the notion that workers’ attitudes are strongly correlated also to the firm’s performance.

The second line of research about the origin of informal (or outside school) learning is related to organizational design, as a source of the stable and socially recognized work practices that employees are required to perform daily. Green et al. (2001) give evidence of a strong relationship between the level of a subset of competencies and some specific work practices. As far as the dependent variables are concerned, the competencies identified are the ones that the debate on life-long learning considers as «key» or meta-competencies1, as: i) they are of higher superior class, ascribable to the epistemological concept of meta-competencies, which involve cognitive processes of a higher order; ii) they are responsible, to a large extent, for the subsequent and continuing learning of other specific competencies, of various nature (technical and non-technical knowledge), as they are assimilable to Bateson’s deutero-learning (1972); iii) they are applicable to all workplaces, regardless of industry and company size. Their relevance for a firm is due to the fact that its most valuable assets are not just, or largely, technical knowledge (as this can be more easily duplicated or...

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1 See the DeSeCo project (Definition and Selection of Competencies: theoretical and conceptual foundations), undertook in 1997 under the auspices of the OECD. For a comprehensive reference see Rychen and Salganik (2003).
transferred by schooling and by mobility of workers), but rather soft competencies like problem solving, ability to interact and cooperate (teamwork) and capabilities to build and keep good relations (with clients and/or with collaborators). With regard to the explanatory variables, the authors reveal the forging role of key competencies via a set of work practices which are typical of High Performance Work Organizations (HPWO) (Appelbaum et al., 1994, 2000; Ichniowski et al., 2000), such as improvement groups (or quality circles), information sharing and wide consultations of employees, suggestion systems and appraisal. This stresses the point that learning of key competencies too is connected to reflexive work practices, temporally and locally situated. There is a broad consensus that reflexivity is a mental prerequisite for developing key competencies (Ryten 2003, p. 120).

Since there is a dataset for Italy that is very similar to that used by Green et al. (2001) for U.K., the aim of this paper is to investigate the role played by the organizational design of workplaces in the competencies formation process, by testing the validity of Green et al.’s model in a different context and in a different time period (1997 for the UK, 2003 for Italy). The analysis will review both the concept of the firm as an HPWO and the theories of job design (§ 2). It then will move on to build an econometric model (§ 3), which will be tested using a recent database constructed by ISFOL2 (§ 4), based on a national survey – using a significant sample of workers – on the organizational conditions of their workplaces and the learning sources of the competencies expressed. The relevant findings will be discussed in § 5, while the econometric problems of endogeneity, selection bias and heterogeneity implied in the estimates will be avoided, for the sake of space; however we can assure that these problems do not undermine the results acquired.3 Our closing remarks will be presented in § 6.

2. Background

The debate on organizational theories has widely recognized the better performance of the lean production (Womack, 1990) and HPWO models (Appelbaum et al., 1994, 2000; Ichniowski et al., 2000) compared to the Taylor-Fordist ones. The basic reason lies in the fact that the former models spur organizational learning for both worker and firm. The key features of the new organizational designs are the implementation of interfunctional activity systems focusing on processes (rather than on functions) and the customer (Womack et al., 1990; Coriat, 1991; Davenport, 1993; Hammer and Champy, 1993; Kenney and Florida, 1994). In order to be more successful, the new system has to be internally complemented by bundles of new work practices, which include team working, job rotation, delaying, information sharing and wide consultations of employees, suggestion systems, appraisal and incentives to learn. The new organizational design and the mentioned complementarities constitute a prerequisite also for a performing implementation of ICT, especially of Enterprise Resources Planning (ERP) systems (Ichniowski et al., 1997; Black and Lynch, 2001, 2004; Brynjolfsson and Hitt, 2000; Caroli and Van Reenen, 2001; Brynjolfsson et al., 2002; Brynjolfsson and Hitt, 2003; Bauer, 2003; Cristini et al., 2003, 2008; Zwick, 2004; Colombo et al., 2008). These organizational traits of workplaces enable individuals to develop the creation of organizational knowledge and the firm to control resources that cannot be easily reproduced (Prahalad and Hamel, 1990; Teece, Pisano and Shuen, 1997), building in this manner a competitive advantage.

A microfounded integration of these organizational features, specifically connected to the development of problem solving competence, is the job design theory put forward by Koike (1994). According to this author, there are two possible strategies for the division and organization of labour, each defined as the separate system and the integrated system. The former breaks down operations into two groups: usual operations, for line workers, and unusual operations, involving problem solving, for more experienced workers. Under this organizational design, jobs in the first group require execution capabilities, while those in the second one call for control (for problem solving activities), command and coordination.4

In an integrated system, line operators are required (from the start of their employment, with the temporary help of an expert) to deal with flawed products and the causes of the flaws, as well as managing changes arising from variations in the quantities demanded, modifications of production methods and, finally, the innovation of products. The consequence of repeated problem solving on a daily basis is the development of intellectual (or cognitive) abilities, which are further bolstered by the strategic use of job rotation for a worker, precisely because usual and unusual operations tend to differ from one position to another, determining actual learning and mobility clusters (Dyboswki, 1998). Participation in interfunctional improvement groups (quality circles), suggestion systems and consultation on problems that arise are additional organizational/management techniques that contribute in raising the worker’s cognitive and relational abilities, as well as the quality of products and processes, thanks to

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2 ISFOL is an Italian public Institute for the development of vocational training of workers. The database is labeled under the acronym OAC (Organizzazione, Apprendimento e Competenze, that it Organization, Learning and Competences).

3 All these aspects are discussed and faced in details in Leoni and Gaj (2009).

4 Under this approach, organizational analysis is called upon to set out the procedures (to eliminate useless steps) and to assign to each job the execution of a specific (and limited) number of procedures. In this way the task is highly specialized and has no relation with its purpose. The transition from tools to machine tools (numerical control machines) and, lastly, to automated machine tools (computerized numerical control machines) brought with it the need to enlarge the tasks of the individual operators, giving rise to the concept and practice of multiple skills (multiskills).

5 The term strategic has to be placed on the backdrop of an organizational design that favors team work, i.e. production islands where workers rotate between upstream and downstream (thus contributing to correct any mistakes made by upstream co-workers thanks to the experience previously gained) and of the fact that, ideally, permanence in a given job is related to the time necessary to learn the relevant competencies.
to constant problem solving. A direct consequence of this informal learning process is that classroom training should concern mainly short courses, with the goal to systematize knowledge acquired in the field, that is to provide the know-why of knowledge (Landvall and Johnson, 1994).

In the debate on the mechanisms and determinants of competencies formation, the hypothesis of learning springing from organizational design lies at the root of the sequences depicted in figure 1. This figure reflects learning as theorized by Argyris and Schön (1996) and Le Boterf (2000), which concerns the first two types of learning (right-hand side). The first type is called single loop learning, as individuals learn by modifying their action on the basis of their own and their organization’s objectives. However, there is no substantial change in the objectives or in the values or ‘action theories’ that guide this action: the concept and practice of training are part of this cycle. In double loop learning – the second type – individuals question their objectives and assumptions. They are encouraged to take their operational schemes and concepts to higher levels, that is, to revise their ‘action theory’. Training for ‘open’ roles takes place against this background. The third type of learning is related to Wenger’s community-of-practice (1998) and to practice as a learning process. Learning is not a separate activity, but a result that affects practice; it drives practice. Finally, the fourth type relates to the organizational theory whereby organization and job designs as well as the methods adopted to motivate workers translate into practices that shape and develop, in an autopoietic manner, ways to learn competencies that result in better performance.

![Figure 1: The learning chain](image)

### 3. Empirical Model

The empirical model to be tested is that by Green *et al.* (2001). It is inspired by the framework of a production function where an individual’s competence level is a function of a series of inputs:

\[
ICE_{it} = \alpha_i SCH_i^t + \alpha_i WBL_i^t + \varepsilon_i + u_i \quad \text{for } t = 1, \ldots, n \quad [1]
\]

where ICE is an index of the competencies expressed (or acted out) by the individual in job i, at time t; SCH is an input vector of an educational nature (schooling); WBL is a vector of work-based learning indices; \( \varepsilon_i \) is a fixed level of skills acquired independently of education or work, while \( u_i \) is a stochastic term with \( E(\varepsilon_i) = 0 \) and \( E(u_i) = 0 \).

For education the usual indicator is adopted, that is educational attainment as reflected by the number of school years necessary to obtain the diploma held (SCH: schooling), together with the square of such indicator to check for the existence of any decreasing returns, in accordance with the human capital theory.
For work-based learning, the candidate variables are those related to the years of experience in the labour market (WEXP: work experience) (these, too, supplemented with the square term); to an interactive term combining educational attainment and work experience (SCH*WEXP); to an index reflecting the learning time required to perform current job duties, as split between two dummies, one active for periods longer than 24 months (HLT: high learning time), and the other for periods shorter than 6 months (LLT: low learning time); to two dummy indicators to capture whether the individual has been trained by the current employer (TR_CE: training with current employer) or by the previous employer (TR_PE: training with previous employer); finally, the employee’s seniority with the company (TE: tenure). In addition to these standard variables, control indicators are used as: gender (G: gender), in order to test the idea (common in the literature) that women develop competencies more easily, especially in the cognitive dimension; the size of the business (ES: establishment size), the growth of which might result in skill improvement thanks to the greater incentives and competition that come with a larger size and/or a more complex organizational design, even though the informality of the roles played in smaller organizations might offset this condition; and, lastly, to two types of non-standard employment contract, i.e. a dummy for fixed-term employment (TC: temporary employment), and a dummy for part-time employment (PT: part-time contracts), to check whether these types of contract undermine the learning effort of workers and the incentive of companies to train workers.

The variable $\varepsilon_i$ might reflect such organizational aspects characterizing the individual’s job ($Z$) as are deemed to have – according to the literature references in the preceding section – a learning effect, as they prompt the worker to engage in specific work practices. The candidate variables include: participation in an improvement group (QC: quality circle); the submission of suggestions (in the twelve months preceding the interview) to improve efficiency in the individual’s work (SS: suggestion system); a formal performance evaluation by the immediate supervisor on a systematic basis (APP: appraisal); participation in meetings (at least every four months) where supervisors/management provided information on company operations to check and fine-tune technical and work-definition problems (INF: information); and finally participation in meetings (at least once every four months) where, upon request, the individual expressed his or her point of view (CON: consultation).

Specifically:

$$ICE_x = \alpha_0 + \alpha_1 G_x + \alpha_2 ES_x + \alpha_3 TC_x + \alpha_4 PT_x + \alpha_5 SCH_x + \alpha_6 SCH^2_x + \alpha_7 WC_x + \alpha_8 WC^2_x + \alpha_9 SCH \times WC_x + \alpha_{10} HLT_x + \alpha_{11} LLT_x + \alpha_{12} TR_CE_x + \alpha_{13} TR_PE_x + \alpha_{14} TE_x + \alpha_{15} QC_x + \alpha_{16} SS_x + \alpha_{17} APP_x + \alpha_{18} INF_x + \alpha_{19} CONS_x$$

The above hypotheses are expected to result in the following signs:

$$\begin{align*}
\alpha_{1,F} &> 0, \ \alpha_2 \geq 0, \ \alpha_3 < 0, \ \alpha_4 < 0, \\
\alpha_5 > 0, \ \alpha_6 < 0, \ \alpha_7 > 0, \ \alpha_8 < 0, \ \alpha_9 > 0, \\
\alpha_{10} > 0, \ \alpha_{11} < 0, \ \alpha_{12} > 0, \ \alpha_{13} = 0, \ \alpha_{14} > 0 \end{align*}$$

4. The Database and Estimate Problems

The database utilized to test the above model was constructed by ISFOL, following a survey carried out through a questionnaire administered via CAPI to a stratified sample of approximately 3605 salaried workers, representing 9.2 million private sector workers (excluding workers in the construction and agricultural sectors). The questionnaire contains a section aimed at determining the frequency of organizational attitudes successfully practiced by the respondents, with detailed references to the ‘organized context’ where the individual operates, and distinctions between (i) skills required by the role and (ii) organizational behaviours really activated.

Dependent Variable

There are 44 listed activities. They are surveyed through a Likert scale from 1 to 7, with frequencies rising from ‘rarely’ to ‘practically nearly always’, to determine whether the attitudes required by the position filled are activated effectively. The items represent organizational attitudes that combine to constitute various skill dimensions. Following the line of thinking of “Skills in Britain” (Ashton et al., 1999), these dimensions consist of components expressed in such realms as: (i) cognitive/intellectual (writing, reading, calculation, problem solving, control, planning); (ii) interpersonal (communication, teamwork, supervision); (iii) physical (effort, endurance, manual ability); (iv) knowledge (technical, specialized, IT); (v) motivation/self-startedness (reliability, motivation, ability to take independent action); (vi) attitudes/work conditions (organizational effort, autonomy, discretionality, responsibility, variety).

This approach is founded on the idea (as argued by Green et al. 2001) that workers know much more than what appears from what they actually do and are required to do on the job. As a result, they are capable of providing a truthful assessment of the activities performed and how they perform them. In a similar vein, workers are capable of self-assessing their own skills. If

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1. The database and the relevant questionnaire can be obtained from www.isfol.it/Banche_Dati/Organizzazione-apprendimento-competenze/(Oac)/index.scm.
2. For the methodological approach of the survey and for an initial assessment of the results, see Tomassini, 2006.
there is a self-appraisal error (either overestimation or underestimation), this is simply assumed to be unrelated to the other variables.

The value of a worker's self-appraisal of the activities required and performed, as opposed to the traditional job descriptions by organizational analysis experts, was supported by the international literature (Kulik et al., 1987; Fried and Ferris, 1987; Spennier, 1990), documenting instances where it was found that workers' assessments were substantially similar to those made by external observers/specialists. This literature suggests also that the (not easily identifiable and measurable) distortion risk arising from 'social desirability' – which may lead individuals to external observers/specialists. This literature suggests also that the (not easily identifiable and measurable) distortion risk arising from 'social desirability' – which may lead individuals to overestimate their self-assessed skills – can be curbed to a significant extent by paying attention to the language used in questionnaires, by asking respondents not for an assessment of the skills possessed but the degree of role coverage. This can be measured by the frequency with which the required duties are fulfilled effectively by respondents. The result is a survey of the skills actually employed (because they are required by the position), which reflect in the respondent's attitudes and performance.

Factor analysis, as applied to respondent data, made it possible to highlight as common factors a number of skills, as well as an index of total skills (Leoni, 2006b, and methodological appendix obtained from the web site indicated in footnote 7). Subsequently, based on contributions coming from economics, sociology and psychology, a series of «key competencies>>, called also transversal competencies or skills (reference to which is made in this paper), was identified as the expression of such activities as: (i) problem solving (carried out through the in-depth analysis of complex problems, the solution of problems, the identification of errors, and thinking about solving problems); (ii) communication/social interaction with two different groups of counterparts: (ii.a) customers (for instance, providing advice and customer care, or by selling a product or service), (ii.b) subordinates (for instance managing effectively subordinates, or giving instructions or training subordinates); and finally (iii) teamwork (joining in a team effort, helping other team members, listening carefully to colleagues). Moreover, an overall skill index was compiled, by weighing the individual indices, through the variances explained by the individual factors extracted with the factor analysis.

These competencies can be defined as «transversal skills>>, as theorized the OECD in the DeSeCo (Definition and Selection of Competencies) project of 1997 (OECD, 2002; cfr. also Ryken and Salganik, 2003, 66-67). These skills transcend and cross the borders of the various disciplines (which are the subject of specialized activities). They can be activated in different positions and supplement specialist skills. Transversal skills, which can be defined also by using the adjective strategic, are associated with the epistemological concept of metacompetencies (Montedoro, 2004, p. 49), constituting a ‘class’ of a higher logic order vis-à-vis specialist competencies. According to Alberici (2004, p. 106), metacompetencies are related to that dimension of human action related to the reflectiveness of thought and the autopoietic nature of competency. These metacompetencies unfold in such dimensions as personal psychological and social resources, social skills and, finally, organizational skills, which include the constructs underlying the factors extracted with the factor analysis.

In this paper we limit ourselves to applying equation [2] only to the overall index to the dimension of the competencies expressed. The overall index is no more than the total variance explained by weighting the variance of each factor.

Independent Variables

Every respondent was asked several questions, many of which cover quite accurately the specifications of the explanatory variables described in § 3. The only specification to be added concerns the length of time necessary to learn the skills expressed by the worker. In this paper, we select arbitrarily (though in accordance with Green et al., 2001) three intervals, that is less than 6 months (low learning time), between 6 months and 24 months (default variable) and over 24 months (high learning time).

However, respondents were asked also retrospective questions, concerning the organizational condition of their job 5 years earlier, i.e. participation in quality circles and formal and periodic evaluation of their performance. Moreover, respondents were asked to indicate whether their discretionary power on the job had increased or decreased, compared with the previous condition.

The statistical characteristics of the variables utilized in the estimation processes are avoided for the sake of space.4

Skills are expressed by the absolute scores obtained from the factor analysis, while education, work experience and tenure are measured in terms of years. The dichotomic variables reflect the condition measured in percentage terms: for instance, the percentage of workers reporting a period longer than 24 months to learn their skills was 17 percent, compared with 59 percent for those reporting a period of less than 6 months (with the percentage necessary to reach 100 percent being captured by default by the equation constant).

The sample utilized (for the target universe) consisted of 3578 individuals. This number fell to 3224 due to a lack of replies to the question on participation in quality circles five years prior to the interview. It is natural that the average values of some of the variables in both samples differ, as the second sample does not include workers (especially younger workers and women who just

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3 For an application to each of the four competencies identified, see Leoni and Gaj (2009).
4 See Leoni and Gaj (2009) for details.
re-entered the workforce) that at time t-5 were not employed. Compared to the second sample, the first is relatively 'younger' and, accordingly, variables that reflect seniority (such as: work experience, tenure, but also cumulative skills or temporary employment contracts, which are more typical at the beginning of a career and, as such, concern younger people) have a higher or lower average value, depending on the case.

The t-test performed on the single variables confirmed substantially that the second sample was 'randomly extracted' from the first, except for those variables discussed above.

5. Findings

Table 1 shows the estimates of model [2], which is related to the overall key competencies expressed by the worker. In column 1 (mod-1), the model is restricted to some control variables and schooling, in keeping with the suggestions of the theory of human capital. The estimates provide an indication in line with this theory, that is the marginal return on education for the skill level appears to be positively decreasing. Among control variables, the negative condition for women as well as for fixed-term and part-time employees is strongly emphasized. But the result is not robust, and the return on education appears to rise steadily following the inclusion of the years of experience in the labour market (mod-2), a variable which is not statistically significant.

Table 1: Dependent variable: index of Total key competencies

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Mod-1</th>
<th>Mod-2</th>
<th>Mod-3</th>
<th>Mod-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: 1-M (2-F)</td>
<td>-2.220 (582)</td>
<td>***</td>
<td>-1.905 (581)</td>
<td>***</td>
</tr>
<tr>
<td>Establishment size</td>
<td>0.00003 (.0002)</td>
<td>-0.0004 (.0002)</td>
<td>-0.00006 (.0003)</td>
<td>-0.00002 (.0003)</td>
</tr>
<tr>
<td>Temporary contract</td>
<td>-1.968 (920)</td>
<td>**</td>
<td>-1.059 (890)</td>
<td>-0.461 (882)</td>
</tr>
<tr>
<td>Part time contract</td>
<td>-1.642 (777)</td>
<td>**</td>
<td>-1.608 (772)</td>
<td>**</td>
</tr>
<tr>
<td>Schooling</td>
<td>1.673 (409)</td>
<td>***</td>
<td>1.327 (476)</td>
<td>***</td>
</tr>
<tr>
<td>Schooling²</td>
<td>-0.029 (016)</td>
<td>*</td>
<td>-0.018 (017)</td>
<td>-0.013 (017)</td>
</tr>
<tr>
<td>Work experience (WEXP)</td>
<td>0.084 (114)</td>
<td>-0.057 (108)</td>
<td>-0.129 (109)</td>
<td></td>
</tr>
<tr>
<td>WEXP²</td>
<td>-0.002 (002)</td>
<td>0.001 (002)</td>
<td>0.001 (002)</td>
<td></td>
</tr>
<tr>
<td>Schooling*WEXP</td>
<td>0.014 (010)</td>
<td>0.007 (010)</td>
<td>0.011 (009)</td>
<td></td>
</tr>
<tr>
<td>High learning time (&gt; 24 months)</td>
<td>2.121 (978)</td>
<td>**</td>
<td>1.558 (953)</td>
<td>*</td>
</tr>
<tr>
<td>Low learning time (&lt; 6 months)</td>
<td>-2.693 (602)</td>
<td>***</td>
<td>-1.629 (601)</td>
<td>***</td>
</tr>
<tr>
<td>Training with current employer</td>
<td>4.222 (678)</td>
<td>***</td>
<td>1.965 (703)</td>
<td>***</td>
</tr>
<tr>
<td>Training with previous employer</td>
<td>2.547 (865)</td>
<td>***</td>
<td>1.253 (852)</td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.073 (.038)</td>
<td>*</td>
<td>0.090 (037)</td>
<td>***</td>
</tr>
<tr>
<td>Quality circle</td>
<td>2.690 (933)</td>
<td>***</td>
<td>4.275 (548)</td>
<td>***</td>
</tr>
<tr>
<td>Suggestion system</td>
<td>4.219 (680)</td>
<td>***</td>
<td>2.171 (820)</td>
<td>**</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The introduction of the variables related to work-based learning (mod-3) brings into sharp relief their explanatory power. The longer (the shorter) the time required to learn them, the higher (the lower) the level of skills acquired and expressed by individuals throughout their career. Training and company seniority are two significant factors for the individual’s skill development.

However, the key variables in the model (mod-4) are those that reflect the organizational characteristics of the jobs, which are strictly in line with the theory set out in § 2 on HPWOs, as well as with the results of Green et al. (2001). The peculiarity of these variables is that they are complementary with those related to work-based learning, simultaneously reducing the role of schooling (whose p-value rises to the limit of acceptability: 9%) and training received from the previous employer. The non-significance of the coefficient of this last variable upholds the idea that companies tend to provide firm-specific training, which the worker cannot utilize in a different context.

Basically, results expressed by mod-4 constitute a sort of replication of Green et al.’s (2001) model, confirmed in a different space (Italy) and time (period 2003).

Table 2: Dependent variable: index of Total key competencies

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model-5</th>
<th></th>
<th>Coefficients (s.e.)</th>
<th>L.o.c.</th>
<th>Coefficients (s.e.)</th>
<th>L.o.c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: 1-M (2-F)</td>
<td></td>
<td></td>
<td>-0.558 (.563)</td>
<td></td>
<td>-0.525 (.563)</td>
<td></td>
</tr>
<tr>
<td>Establishment size</td>
<td></td>
<td></td>
<td>-0.0002 (.0003)</td>
<td></td>
<td>-0.0003 (.0003)</td>
<td></td>
</tr>
<tr>
<td>Temporary contract</td>
<td></td>
<td></td>
<td>0.753 (.964)</td>
<td></td>
<td>0.857 (.994)</td>
<td></td>
</tr>
<tr>
<td>Change contract: from</td>
<td></td>
<td></td>
<td>0.446 (.924)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>temporary (t-5) to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>permanent (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part time contract</td>
<td></td>
<td></td>
<td>-1.806 (.755) **</td>
<td></td>
<td>-1.785 (.766) **</td>
<td></td>
</tr>
<tr>
<td>Change contract: from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>part-time (t-5) to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>full-time (t)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schooling</td>
<td></td>
<td></td>
<td>0.638 (.527)</td>
<td></td>
<td>0.669 (.543)</td>
<td></td>
</tr>
<tr>
<td>Schooling²</td>
<td></td>
<td></td>
<td>-0.003 (.018)</td>
<td></td>
<td>-0.005 (.019)</td>
<td></td>
</tr>
<tr>
<td>Work experience (WEXP)</td>
<td></td>
<td></td>
<td>-0.124 (.134)</td>
<td></td>
<td>-0.106 (.135)</td>
<td></td>
</tr>
<tr>
<td>WEXP²</td>
<td></td>
<td></td>
<td>0.001 (.003)</td>
<td></td>
<td>0.001 (.003)</td>
<td></td>
</tr>
<tr>
<td>Schooling*WEXP</td>
<td></td>
<td></td>
<td>0.001 (.010)</td>
<td></td>
<td>0.010 (.011)</td>
<td></td>
</tr>
</tbody>
</table>
As already noted, our the database provides two retrospective bits of information concerning the respondent’s organizational condition five years earlier – i.e. participation, or absence thereof, in quality circles or improvement groups, and periodic evaluation, or absence thereof, of work performance. Moreover, compared to the work conditions prevailing five years earlier, it could be determined whether the worker’s discretionary power had increased or diminished and whether employment had become permanent, on a full-time basis. In this case the sample shrank to 3224. Before proceeding with the evaluation of the role of the new variables, mod-4 (in table 1) was re-estimated to check whether the difference in the sample number had entailed changes in the results obtained. Basically, mod-5 (table 2) confirmed the previous results, except for the significance of the schooling and information coefficients, which fell to values that were no longer statistically acceptable.

When the 5-year lag variables are introduced in the model (mod-5, tables 2), the results are substantially similar to the previous ones, with two significant qualifications.

The first concerns the condition of participation in quality circles, where importance is attributed not to continued permanence but to variety. The mission of these circles is short-lived. These groups, which are also called improvement groups, are generally intended to address and solve one or more common problems, to develop new ideas/products, or simply to brainstorm. Long and engaging personal interactions create new knowledge and skills.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>High learning time (≥ 24 months)</td>
<td>1.654</td>
<td>(.983)</td>
<td>1.520</td>
<td>(.960)</td>
</tr>
<tr>
<td>Low learning time (&lt; 6 months)</td>
<td>-1.587</td>
<td>(.637)</td>
<td>-1.592</td>
<td>(.635)</td>
</tr>
<tr>
<td>Training with current employer</td>
<td>1.946</td>
<td>(.746)</td>
<td>1.919</td>
<td>(.775)</td>
</tr>
<tr>
<td>Training with previous employer</td>
<td>0.864</td>
<td>(.921)</td>
<td>0.816</td>
<td>(.914)</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.090</td>
<td>(.037)</td>
<td>0.092</td>
<td>(.038)</td>
</tr>
<tr>
<td>Quality circle (time t)</td>
<td>2.495</td>
<td>(.993)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality circle (yes, time t &amp; t-5)</td>
<td></td>
<td></td>
<td>0.946</td>
<td>(1.482)</td>
</tr>
<tr>
<td>Quality circle (yes time t; no t-5)</td>
<td></td>
<td></td>
<td>3.916</td>
<td>(1.082)</td>
</tr>
<tr>
<td>Suggestion system</td>
<td>4.612</td>
<td>(.588)</td>
<td>4.480</td>
<td>(.587)</td>
</tr>
<tr>
<td>Appraisal (time t)</td>
<td>1.991</td>
<td>(.730)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appraisal (yes, time t &amp; t-5)</td>
<td></td>
<td></td>
<td>2.125</td>
<td>(.890)</td>
</tr>
<tr>
<td>Appraisal (yes time t; no t-5)</td>
<td></td>
<td></td>
<td>1.508</td>
<td>(1.131)</td>
</tr>
<tr>
<td>Information</td>
<td>1.441</td>
<td>(1.177)</td>
<td>1.243</td>
<td>(1.186)</td>
</tr>
<tr>
<td>Consultation</td>
<td>2.372</td>
<td>(.697)</td>
<td>2.326</td>
<td>(.710)</td>
</tr>
<tr>
<td>Increase in discretionary power (between t-5 and t)</td>
<td></td>
<td></td>
<td></td>
<td>1.263</td>
</tr>
<tr>
<td>constant</td>
<td>8.346</td>
<td>(3.686)</td>
<td>7.824</td>
<td>(.3773)</td>
</tr>
<tr>
<td>Number of obs</td>
<td>3224</td>
<td></td>
<td>3224</td>
<td></td>
</tr>
<tr>
<td>F (19, 3204)</td>
<td>38.33</td>
<td></td>
<td>32.35</td>
<td></td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.0000</td>
<td></td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.3211</td>
<td></td>
<td>0.3262</td>
<td></td>
</tr>
<tr>
<td>Root MSE</td>
<td>8.1632</td>
<td></td>
<td>8.1389</td>
<td></td>
</tr>
</tbody>
</table>

Weighted OLS estimates, with heteroskedasticity-robust standard error. Levels of confidence: *** = 1%, ** = 5%, * = 10%
according to what Nonaka and Takeuchi (1995, p. 170) call “socialization” (transmission of knowledge from tacit to tacit among members) mechanisms and “exteriorization” (transmission of knowledge from tacit to explicit or codified) mechanisms.

The second qualification concerns the condition of performance evaluation, confirming the role as a skill development mechanism of a systematic, non-occasional process in this area. These assessments (which may have been structured differently, though no investigation was conducted in this respect by the survey) generally address both competencies, with a review of the weaknesses that the individual should try to correct,1 and incentives. The assessment mechanism, and its continuity over time, helps individuals to direct their efforts toward the attainment of the skills required by the organization.

The positive effect of performance assessment for skill development purposes was found also by Diaye et al. (2007) in French manufacturing companies with over 50 employees.

The cross-section nature of the estimates raises typical questions concerning the endogeneity of some variables, the selection bias associated with the individuals chosen – among various colleagues - to be exposed to new work organizational practices and heterogeneity (heteroskedasticity). All these questions have been faced in Leoni and Gay (2009), without obtaining any undermining of the acquired results here documented.

6. Policy Implications

The findings of this research, together with the results shown in Leoni and Gaj (2009) and Green et al. (2001), highlight the role of organizational design in shaping and developing the individual worker's skills. Considering also the results of other analyses – especially those whereby lean organizations: (a) deliver better performance,2 (b) spur greater radical and incremental product innovation,3 and (c) are conducive to greater worker satisfaction and commitment4 - it is our opinion that a much closer look should be taken at the notion of the inevitability of the alienating fragmentation of work. A theory whereby individuals are strongly defined by what they do (i.e. work) for their living should pay attention to workplaces characteristics, discriminating between the traditional one and those identified by the brand of research on HPWOs, to which our, Green et al. (2001) and Bartel et al. (2004) findings refer. Incidentally the two contexts trace back very well to the distinction between labour and work formulated by Arendt (1958).

These findings are important also in connection with two significant policy questions:

(1) the positive identification of the key characteristics of workplaces that foster skill development should prompt the employees and employers to introduce – through company agreements – policies designed to develop and redesign workplaces, to achieve objectives in keeping with the findings of this, Green et al. (2001) and Bartel et al. (2004) research;

(2) the adoption by firms of the workplace reorganization processes necessary to achieve objectives in line with the above findings should be encouraged by national policies intended to create the conditions for an effective development and redesign of the workplaces, in accordance with the models of the companies investigated for this paper. Besides, these policies have already been implemented in many countries in Northern Europe, following publication of the Green Book by the EU in 1997 on “Partnership for a New Organisation of Work.”

An economic and industrial policy designed to encourage the organizational development of workplaces, in keeping with the above characteristics, would make it possible also to generate dynamic capabilities (Teece, Pisano and Shuen, 1997; Cristini et al., 2005) thanks to the virtuous circle that sets in, despite the contrasting effects of the constant changes in the demand for products and services. In other words, such a policy would encourage recurrence in the creation of capabilities along a circular flow from organizational design/human resources management, to informal learning processes, to skill development and back again to organizational design/human resources management, and so on. Since it is self-sustaining, this process makes learning genuinely “organizational” more than “individual”. If this circularity were to be further confirmed, it would follow that companies are limited in and by their capabilities to change their growth path. From a theoretical point of view, these path-dependency effects can, on the one hand, help to understand the persistent heterogeneity of firms and, on the other, act as predictors of future capability accumulation processes. However, in the meantime, these effects make available to policymakers information on possible starting points for action against lock-in factors and/or the slowdown of growth in organizational learning and the performance of firms.

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1 This effort is aided by the evaluator (who generally is the employee’s supervisor) as well as by the company’s “training” department.


5 For a review of these policies, see: Business Decisions Limited (2000) and Alasoini et al. (2005).
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SOCIETAL AND ORGANIZATIONAL CONTEXTS OF WOMEN’S CAREERS

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Abstract: Globalisation, demographic and labour market changes and the development of new technologies have completely changed the structure and functioning of organisations as well as the workforce expectations. New career conceptualisation is based on continuous organizational changes and changes in private life that means also multiple commitments related to various roles and as a consequence creation of multiple careers. Careers unfold in multilayered context and over the life course (Moen and Sweet, 2004). In spite of growing intensification of work, for young generations the endeavours for balancing work and private life are as important as meaningful work and development of employability. The role of individual and the organisation in managing professional careers are of equal importance. In the paper we shall explore the impact of child birth upon work careers of women and the role of organisations in developing women’s career regarding the options for balancing work and family life. The analysis is based on recent comparative qualitative and quantitative studies about young parents in Slovenia (Černigoj Sadar and Kersnik 2004, Kanjiro Mrčela and Černigoj Sadar 2007). Special attention is paid to family friendly measures introduced in 32 organisations in Slovenia to ease work and out of work life balancing. These measures are evaluated in terms of their long-term impacts upon the women’s positions in organizations and the work conditions for developing parents’/women’s careers.

1. Theoretical Framework

There has been a major change across Europe in the organisation of work especially in the last three decades of the 20th century regarding the division of labour between men and women and the organisational structure. On the basis of an extended cross-national study Crompton (1999) presents a range of possible earning and caring alternatives. At the traditional end of continuum is the male breadwinner/female carer model while the dual earner/dual carer model is on the other end. In between three other models can be found: the dual earner/female part-time carer model, the dual earner/state carer model and the dual earner/gehtmarketised carer model. The dual earner/female part-time carer model has emerged particularly in England and the Netherlands; it primarily involves a modified breadwinner model and does not contribute to the transformation of gender relations. Former state socialist countries constituted the conditions that could lead to more gender equality but little attention was paid to the prevailing gender culture which remains relatively traditional or even more in some countries, like Poland and the Czech Republic, the process of the retraditionalisation of gender relations has appeared. Scandinavian countries have developed versions of the dual earner/state carer model and encouraged the dual earner/dual carer model. The latter is by definition associated with less traditional gender relations. However, Crompton argues that such a model would likely be associated with the restructuring of paid employment itself. And in some cases the modernisation of work can contribute to the process of equalisation between men and women but on one condition that it is not gender-biased. Let us explore which processes on the organisational level may lead in the direction of positive changes.

Globalisation, labour market changes and the development of new technologies have completely changed the psychological contract between the individual and the organisation. This situation contributes to the development of a career conceptualisation based on continuous changes and multiple commitments related to multiple careers. Careers unfold in a multilayered context and over the life course (Moen and Sweet, 2004). At the end of the 20th century, lifestyle which also underlined self-actualisation outside of paid work was only one of the possible career anchors (Schein, 1985). While at the beginning of the 21st century the work-family balance or, more precisely, a balanced life is one of the basic characteristics of the contemporary conceptualisation of a career, together with a spiritual purpose and the development of employability (Baruch, 2006). This means that the concept of traditional linear careers related mainly to career promotion in paid work can no longer be applied in case organisations want to be socially responsible and responsive to their stakeholders’ needs.

Balancing paid work and other spheres of life means flexibility in achieving and establishing a meaningful balance between time and various kinds of investments to do our work effectively, while at the same time having enough time for the other important things in our life such as one’s family, community, learning and various free-time activities (Černigoj Sadar and Lewis 2002). The roles of the individual and the organisation in managing careers are equally important. People choose and stay in organisations that match their actual needs and if organisations are expected to be responsive to their future needs. Organisations look for human capital that will provide them with a competitive advantage. In the era of great uncertainty and the passing away of
lifelong employment, the organisation has a new significant role to play – being supportive as well as an enabler and developer of its human assets (Baruch, 2006; 130). This means that organisations should encourage socially sustainable work and the quality of life of their employees that also includes family-friendly management. Family-friendly management involves employers’ use of family-friendly practices in a concerted and co-ordinated way and then having an underlying commitment to help employees find a balance between work and family obligations (Wood and Lasaosa, 1999). This means that the employer does not treat family problems as the exclusively private responsibility of the employee but tries to recognise the characteristics of life stages and take into consideration the needs of parents related to the birth, upbringing and education of their children or care for the other dependent family members. However, it does not mean that the employer is merely responsive to the family related demands of employees. The employer should in partnership with the employee create career paths in the organisation by taking into account that work-family relations are not only conflicting but may also be enriching. The results of a comparative international study of employed men and women living in urban areas in Hungary, Poland, Slovenia, Finland and Norway indicate that paid work and family life are as rewarding for women as for men. Some of the most frequently mentioned influences of paid work on the family and vice versa are personal satisfaction and learning better social relationships. This is reported by both men and women in all the countries under comparison. Women more often reported the transfer of skills learned in the family to work than men. We could say that the family is a place where some important basic work habits and caring skills useful at work are learned. The experienced positive influence of paid work on the family and/or vice versa does not mean that there are no conflicts between these two spheres. Positive relations also imply more engagement in the family and paid work and in turn more confrontations with existing social, economic and individual limitations. Cultural, historical and economic factors determine which life sphere will be the source of conflicts’ (Černigoj Sadar 1989, 153). Also recent studies have confirmed the enriching relations between paid work and the family (Greenhaus et al., 2000) that decisively contribute to subjective well-being (Diener et al., 1999). Organisations together with their employees could have impacts on the transitions between work and family life and the experiences of the time and events of their everyday lives.

The purpose of the paper is to present the interplay of societal and organisational contexts in the creation of women’s careers. In post-modern society non-material values like, for example, ‘loving’ and ‘being’ (Allardt 1995) came forward in the creation of our everyday life and therefore at the beginning of the empirical part of the paper we identify the sources of the individual well-being of parents with young children. The role of public policies in enhancing/hindering parents’ career development in organisations is then explored, some problems faced by parents after the birth of a child are also presented while, at the end, some possible organisational strategies are explored to improve the balancing of paid work and family demands. The analysis is based on recent comparative qualitative and quantitative studies about young parents in Slovenia and certain European countries (Černigoj Sadar and Kersnik 2004, Lewis and Smithson 2006, Kanjuo Mrčela and Černigoj Sadar 2007). Special attention will be paid to family-friendly measures introduced in 32 organisations in Slovenia to ease the balancing of paid work and out-of-work life. These measures are evaluated in terms of their long-term impacts for developing parents’/women’s careers.

2. Some Arguments for Paying Attention to Paid Work-Family Relationships

Well-being experienced at the individual level is created through the interplay of processes occurring at different levels: national, organisational, work, community and the family. Cross-national case studies of public and private sector workplaces in the ‘Transitions’ project (www.workliferesearch.org/transitions) carried out in Bulgaria, Norway, Portugal, Slovenia, Sweden, the Netherlands and the UK indicate that during a period of growing uncertainty the family is the most important source of well-being (Černigoj Sadar and Kersnik 2004).

Table 1: Average percent of positive scores of different aspects of well-being for each country in the public sector – the social service sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Well-being at work</th>
<th>Family well-being</th>
<th>General well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>%</td>
<td>Rank</td>
</tr>
<tr>
<td>Sweden</td>
<td>1</td>
<td>85.1</td>
<td>4</td>
</tr>
<tr>
<td>Norway</td>
<td>2</td>
<td>73.8</td>
<td>3</td>
</tr>
<tr>
<td>UK</td>
<td>4</td>
<td>65.1</td>
<td>6</td>
</tr>
<tr>
<td>Portugal</td>
<td>5</td>
<td>60.3</td>
<td>2</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3</td>
<td>67.5</td>
<td>1</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>6</td>
<td>58.2</td>
<td>5</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>68.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: Černigoj Sadar and Kersnik 2004
Table 2: Average percent of positive scores of different aspects of well-being for each country in the private sector – the financial sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Well-being at work</th>
<th>Family well-being</th>
<th>General well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>%</td>
<td>Rank</td>
</tr>
<tr>
<td>Norway</td>
<td>1</td>
<td>82.9</td>
<td>2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>6</td>
<td>49.8</td>
<td>1</td>
</tr>
<tr>
<td>UK</td>
<td>3</td>
<td>60.3</td>
<td>3</td>
</tr>
<tr>
<td>Portugal</td>
<td>2</td>
<td>69.6</td>
<td>4</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4</td>
<td>50.7</td>
<td>5</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5</td>
<td>50.7</td>
<td>6</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>60.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: Černigoj Sadar and Kernšnik 2004

It is clearly indicated that there is no linear relationship between the GDP of a country and well-being at work and family well-being. However, employees in Norway and Sweden expressed the highest level of well-being at work which could also indicate the transfer of the positive impact of public social policies on paid work. Employees from Bulgaria expressed the lowest level of well-being compared to employees in other countries, reflecting the drastic economic, social and organisational changes of the last few years.

5. Do Public Social Policies Matter?

Further analysis in the ‘Transitions’ study indicated that the interplay of processes occurring at the national, organisational and family level determine women’s careers. On the national level public work-family policies are very important and, although it is well-known that management in organisations plays a decisive role in how and to what extent these policies will be implemented, it is clear that public policies matter. The longer the tradition of public paid work-family policies the greater are the chances of them being implemented in organisations and the more they are taken for granted in organisations. Let us look at what happened to parents aged between 25 and 40 years after the birth of any of their children in two financial organisations in Slovenia and the United Kingdom, countries with different work-life policies.

The main difference between Slovenia and the UK lay in the duration and amount of parental leave and sick child leave (Fagnani et al. 2003):

<table>
<thead>
<tr>
<th></th>
<th>Slovenia</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental leave</td>
<td>260 days on full pay</td>
<td>13 weeks unpaid per parent</td>
</tr>
<tr>
<td>Paternity leave</td>
<td>15 days on full pay</td>
<td>2 weeks, flat rate</td>
</tr>
<tr>
<td></td>
<td>75 days social security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>contribution based on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>minimum wage</td>
<td></td>
</tr>
<tr>
<td>Sick child leave</td>
<td>14 days (per illness)</td>
<td>Not specified</td>
</tr>
<tr>
<td></td>
<td>80% pay</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Changes in the working life of parents after the birth of a child – the financial sector

<table>
<thead>
<tr>
<th>Changes in the working life</th>
<th>Slovenia N=29 %</th>
<th>United Kingdom N=21 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moved or been moved to lower-level job</td>
<td>0.0</td>
<td>9.5</td>
</tr>
<tr>
<td>Reduced working hours</td>
<td>6.9</td>
<td>33.3</td>
</tr>
<tr>
<td>Decided not to do extra hours</td>
<td>17.2</td>
<td>28.6</td>
</tr>
<tr>
<td>Decided not to go on a training course</td>
<td>6.9</td>
<td>14.3</td>
</tr>
<tr>
<td>Decided not to go on work-related travel or cut down on</td>
<td>10.3</td>
<td>33.3</td>
</tr>
<tr>
<td>work-related travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taken unpaid time off for the child’s sickness</td>
<td>0.0</td>
<td>33.3</td>
</tr>
<tr>
<td>Anything else: changed employer</td>
<td>3.4</td>
<td>9.5</td>
</tr>
</tbody>
</table>

Source: own calculations

A change in working hours and downward career moves are the most significant differences between parents in Slovenia and the UK. However, the picture in Slovenia is not so ideal when we analyse the experiences of parents, especially women working in industry, as well as the private and public service sectors. An empirical study conducted in November 2005 in Slovenia (Kanjuo Mrčela and Černigoj Sadar 2007) indicated the following most frequent negative experiences of parents after the birth of a
child; they have to work longer than 8 hours a day, they have additional work burdens although they do not want them and they do not receive the working position they would like. The rank order of the most common negative experiences was the same for mothers and fathers. However, the mothers’ negative experiences were statistically more frequent compared to the fathers, with the exception being long working hours in the group of fathers. Even those young people who had no children but were treated as potential parents have negative experiences which were more common amongst young women.

Table 4: The most frequent negative experiences of mothers after the birth of a child

<table>
<thead>
<tr>
<th>Experience</th>
<th>N = 270</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>They have to work more than 8 hours a day</td>
<td>99</td>
<td>34</td>
</tr>
<tr>
<td>They experienced an increased work load although they did not want it</td>
<td>81</td>
<td>30</td>
</tr>
<tr>
<td>They were blocked in trying to get a work position they wanted</td>
<td>70</td>
<td>26</td>
</tr>
<tr>
<td>They were hindered in a career promotion</td>
<td>44</td>
<td>16</td>
</tr>
<tr>
<td>Their relationships with supervisors became worse</td>
<td>36</td>
<td>13</td>
</tr>
<tr>
<td>The employer terminated their employment contract</td>
<td>24</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Černigoj Sadar and Kanjuo Mrčela 2007: 38

Especially in the computer industry the work-family boundaries are blurred and long working hours are taken for granted. Long hours seem to be embedded in women’s professional careers and are also a condition of a career promotion:

“When you are at home, you actually work more and longer. I wake up at 7:00 a.m. and sit down in front of my computer in my pyjamas; at 10:00 a.m. I put on a pullover ... I only have to change when I go to the kindergarten (mother employed in the computer industry, aged 31 years; Kanjuo Mrčela and Černigoj Sadar 2007, 56).

‘…then you put the kids to sleep around 8:00 p.m. and check your inbox and work to ensure you have a clear inbox in the morning (mother employed in the computer industry, aged 33 years; Kanjuo Mrčela and Černigoj Sadar, 2007; 56).

Parental leave and sick leave in the case of a child’s illness can block a woman’s promotion:

‘When they (the people responsible for employee promotions in the organisation) found out that I was pregnant for the second time, they pulled back the proposal for my promotion. Since then three years have already passed.... Whenever I take sick leave for my children they give me such looks ... and yet I have done all my work ... but not being there, not throwing your children who have a high temperature out to be cared for by someone else is a big minus at work’ (mother employed in retail, aged 33 years; Kanjuo Mrčela and Černigoj Sadar, 2007; 51).

6. Developing Strategies for Balancing Paid Work and Family Careers

Within the EQUAL project funded by the European Social Fund – the EU and the Ministry of Labour, Family and Social Affairs of the Republic of Slovenia, a development partnership composed of representatives of academic institutions (Institute for Economic Research, Ljubljana; Faculty of Social Sciences, University of Ljubljana), trade unions (Association of Free Trade Unions – Slovenia; Confederation of Trade Unions Pergam), Association of Employers Slovenia and NGOs (Ekvilib – Ljubljana; Centre for Information and help to unemployed people - Maribor) developed the applied research project named Young Mothers/Family-Friendly Employment – YMFFE. The media partner of the project was the Finance daily newspaper.

The main goals of the project were:

- to sensitize the general public and organisations to the negative impacts of discriminating against parents;
- to provide organisations with tools enabling work conditions for balancing work and family life;
- to publicly recognise those organisations that implement family-friendly policies; and
- to empower parents in their navigation between work and family life.

The development partnership created certification methodology based on the system developed by the German organisation ‘Beruf und familie’ and adapted to the specifics of the Slovenian economic and legislative framework. The certification process is led by the non-governmental organisation Ekvilib – Ljubljana and since November 2007 the cost of the certification has been covered by organisations themselves.

All organisations wishing to participate in the process of obtaining a ‘Family-friendly certificate’ had to fill in a questionnaire about the structural characteristics of the organisation and provide the written confirmation of the top management. Of the 32 organisations which obtained the basic certificate those from the private sector prevailed (74%); most of them being in IT, finance/insurance and industry, 48% of them have up to 50 employees and the others are mid-sized or big companies. Most of these organisations had been quite sensitive to their employees’ needs before starting the certification process:
94% offer time flexibility;  
41% give parents priority in holiday planning;  
38% offer work from home/at home occasionally;  
31% help parents when returning to work from parental leave; and  
31% give the opportunity for part-time work.

Information and communication policies were among the most frequently planned new family-friendly measures (FFMs), with the most important of them being that FFMs should become part of the organisational culture, along with the dissemination of information to publics inside and outside the organisation and a trustee/officer responsible for work-family balancing. In second place were measures related to working time, like: additional paid days off on the first day of school and during the first week at kindergarten; various forms of flexible working time; priority in planning holidays and flexibility in the transfer of over hours from one moth to another or exchange for days off. Less than one-third of the organisations planned to introduce employee development like strategies for work-family problem-solving, plans related to parental leave, communications during a long-term absence from work and courses/workshops for developing new knowledge and skills. Some organisations plan to develop new organisational forms to help reconcile the organisation’s and employees’ interests and programmes for health protection. As already mentioned, managers are crucial when it comes to implementing work-family policies and creating the conditions for developing the professional careers of employees. In terms of organisational strategy and management development we see some serious shortcomings of these, let us say, ‘model’ organisations. Only 29% of the organisations plan to introduce courses about family-friendly employment (FFE) for management and 29% of the organisations plan to make family-friendly employment and an equal-opportunity programme part of the organisational strategy.

7. Conclusion

Career development and management in Slovenian organisations is largely focused on middle management and future top management. The topics of educational courses and training mainly relate to the actual work process and are less development-oriented (Kopač and Trbanc, 2006). This means that HRM is mostly oriented to the present and follow traditional concepts of a career in their development plans. Diversity management taking account of the needs of different social groups is quite rare. As we see from the three-year plans from 2007 to 2010 of the first-generation organisations which obtained the basic family-friendly certificate, each organisation planned to introduce as many new measures as the boundaries created by outside pressures and internal organisational potential permit. About one-third of the organisations accepted measures that support the development of women’s careers although this does not mean that the concept of career development in the organisation will also change. However, it may be expected that the implementation of family-friendly measures in organisations will enhance the career development of workers in different job positions and that career moves in different directions will increase. Besides, in the context of ‘dual agenda’ - that is the combination of organisational efficiency and responsiveness to employees’ needs - the probability of professional career choice that is more suited to employees’ needs in terms of pace, location/schedule, workload and position will also increase. At the end of 2010 we will evaluate whether the family-friendly measures have in fact contributed to taking a step forward in the development of a partnership between the different stakeholders and in the development of women's/parents’ careers.

During the last few years positive trends were indicated in media discourses and in organisations. Between 2007 and 2009 the number of organisations which made a lot of effort to become more responsive to employee needs has increased; by May 2009, 17 new organisations had obtained the basic ‘Family-friendly enterprise certificate’ (Certifikat Družini prijazno podjetje - Novice 2009) and some organisations joined another certification processes which underlined the promotion of best practices, namely ‘The Golden Thread’ organised by the Dnevnik daily newspaper (Mrak 2007).

The creation of a dynamic balance between various life spheres is the only way to achieve the long-term creative changes demanded by an actual crisis. It is crucial for all, not just certain social groups like parents, for both people and institutions. The individual and organisational development and management of careers are growing in importance in a period of drastic demographic changes and due to limited human and capital resources. The maximisation of income/profit as the main organisational vehicle has reached a dead-end and the same is indicated for the traditional concept of a career based on a single-earner family or dual earner/ female part time carer model. As Lotte Bailyn already put it last century: ‘Instead of helping employees with family responsibilities to tailor their lives to meet traditional work structures, we need to change those structures to accommodate the realities of people’s needs. Productivity in the end as well as social stability will depend on it’ (Bailyn, cited in Work-life forum, 2000; 13).

8. References


COMPETENCE, EMPIRICAL INSIGHTS FROM A SMALL-BUSINESS PERSPECTIVE

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Abstract: During the last decade the issue of competence has been received with enthusiasm as well critical stance among researchers and practitioners. The ongoing debate has resulted in new notions of competence which can be seen as the continuous search for more comprehensive conceptualizations of competence in order to contrast them clearly with the disintegrative and reductionist models of competence popular in the nineteen eighties. One strategy in this regard is to adopt a multi-method orientation to competence. Multi-method approaches are differentiated from classical competence approaches in the sense that they not only incorporate generic worker attributes but also deploy a more fine-grained analysis of actual work activities, work context and related organizational goals and strategies. This paper summarizes the findings of three empirical studies in which a multi-method approach to competence was used to study entrepreneurial competence in small firms. The results show that even though competencies are partly idiosyncratic, situated, constructs, it is possible to formulate steppingstones for competence (i.e. competence domains). Furthermore, a more fine-grained analysis of a specific task and associated situations can assist researchers as well as practitioners with disentangling the complex relationships between competence and (small-business) performance.

Key words: competence, small-business, competence development, performance.

1. Introduction

During the last decade the issue of competence has received a great deal of attention. This attention has mainly focussed on larger organisations, using competencies to manage and implement change (Mulder 2001). However, increasing use is being made of competencies in other contexts; the competence concept has become a central theme in the debate on the development of vocational education and training, scientific education and in organisations (Mulder 2004, Brockmann et al. 2008). Although the concept of competence appears to be quite old – Mulder et al. (in press) traced it back even to ancient Persian, Greek and Roman times – discussions about its definition, identification, use and development are still ongoing (c.f. Hager 2004, Stroof et al. 2002, Westera 2001). These discussions are sometimes labelled as counterproductive or fuzzy but they sharpen current thinking about competence in relation to learning and professional development (Hager 2004). Accordingly, before starting a detailed discussion about the available number of definitions of competence (more than 40 definitions have been documented according to Mulder 2001), it is important to take a step back and first try to define the underlying learning theories that have shaped thinking about competence in a particular research tradition. Clarifying its theoretical underpinnings is not only important for defining competence in itself (for instance as in competence-based education), but also helps to further specify the relation between competence and its development; learning theories and ideas about professional competence can be found in fundamentally different schools on human thought and action, for instance more behaviourist, cognitive or social constructivist. A dearth of elucidation of underlying epistemologies on knowledge and learning that shape the understanding of competence is, according to Hager (2004), one of the reasons why competence-based research has been received so critically.

In the following sections, the different theories that underpin competence are described. This description is not meant as a complete history of the concept. The description is based on its relevance for a specific context that will be the focus of the empirical work that is described subsequently in this paper: the context of professional development of entrepreneurship.

2. Competence as Fragmatized Behaviour

An influential stream of research that has shaped current thinking about competence can be traced back to what is called the functional-behaviourist approach to competence (Neumann, 1979). This tradition of competence has its origin in the beginning of the twentieth century, a period heavily influenced by World War I and the industrial revolution. The need for many trained military men, as well as workers for industry (both military and civil) demanded highly effective, transparent training programmes. Frederick Taylor’s theory of scientific management based on time and motion studies played an important role in this period. Scientific management can be seen as a set of principles that focus on efficacy and standardization of processes – for instance by finding the fastest way to assemble cars. Subsequently, these work tasks are simplified as much as possible, described and, when necessary, taught to others.

This idea of job analysis plays a central role in the functional-behaviourist approach to competence. A job analysis means in this tradition a meticulous investigation of an occupation, in which the analysis breaks down each trade into a number of jobs. The jobs
are further broken down into a series of activities in the job, which in turn are broken down into duties, tasks and sub-tasks where appropriate. An illustrative example of an application of the functional-behaviourist approach to competence can be found in the professional development programmes of teachers in the USA in the nineteen seventies and eighties. The American teacher-training programme was based on a thorough job analysis (consisting in the first instance of more than two million activities!), which later became known as the 1001 activities of American teachers (Neumann 1979).

Although Taylor's concept proved to be very useful for selection purposes (e.g. task descriptions), the impact it had on the training of employees was perhaps even bigger (Neumann, 1979). According to Neumann (1979), Taylor himself never explicitly worked on the relationship between the dissection of jobs and functions and an instruction theory; it was others who suggested that the 'scientific manner' was not only the most efficient way to carry out a task, but also the most efficient way to train someone in it.

Because of the fragmented descriptions of professional competence and its clear relation with scientific management, competence as a concept became very much associated with behaviourism, mastery learning and modular teaching in the Commonwealth countries (Mulder 2004). A fundamental critique of this approach was that a list of atomized work descriptions does not indicate whether the worker is indeed able to accomplish the job efficiently in practice. Furthermore, these models have been criticized for their mechanistic view on work, ignoring workers' autonomy and identity, undervaluing the role of tacit knowledge and generating relatively conservative models of competence (Eraut 1994; Cheetham and Chivers 1996).

3. Competence as the (Development of) Worker-oriented Capabilities

Unlike the fragmented functional-behaviourist approach, the worker-oriented view on competence considers competence in terms of attributes of the individual necessary to accomplish a certain role or task. So whereas the focus in the functional-behaviourist approach was on a detailed analysis of what work looks like, the worker-oriented approach looks at the individual who should accomplish a specific role, function or task. This stream has different traditions, depending on the role of knowledge as an essential element in developing these capabilities (Sandberg and Pinnington, 2009). Two influential streams in this fashion are stage-model theories on professional competence and the KSA (knowledge, skill, ability) approaches to competence.

In stage-models of professional development, competence is seen as the movement from novice to expert (Dreyfus and Dreyfus 1986). One of the most straightforward theories in this approach comes from cognitive psychology, in which professional development is described as an increase in (situation-) specific knowledge. From famous studies on expertise in chess, it is known that chess masters showed considerable breadth and depth of possible moves and countermoves; however, so did lesser-ranked chess players (De Groot 1965; Bransford et al. 2000). Unlike novices, experts had highly developed organized structures for a particular domain (‘chunks’), therefore developing sensitivity to patterns of meaningful information which permitted successful non-routine problem solving. Besides in chess, similar results have been found in other domains such as mathematics, computer programming, radiology, etc. (Billett 2001). Two basic assumptions underlie the development from novice to eventually expert level: firstly, the idea of moving from the use of abstract principles towards using concrete experiences as a frame of reference in situations; secondly, change of skilled performance in what Benner (1982) describes as change in perception and understanding of demanding situations. Rather than viewing challenging situations in bits and pieces that are all equally important, situations are viewed as a whole in which only certain aspects are prioritized and regarded as important. In the transition from novice to expert, experts have learned to focus attention only on the key dimensions: those dimensions most relevant to the action they are performing.

In contrast to cognition-oriented theories on professional competence, KSA or generic approaches to competence broaden the conceptualization of competence by adding other elements to professional competence, such as skills, abilities and sometimes other personal characteristics related to effective work performance (e.g. motives, values, social roles, dependent on the exact view). Competencies are elicited by behavioural event interviews to identify those behaviours distinguishing average from best performers. One of the most quoted applications of this theory can be found in the work of Boyatzis, which is grounded in the work of personality psychologists such as McClelland, McLagan, and Spencer and Spencer (Rothwell and Lindholm 1999). Competency is in this tradition ‘an underlying characteristic of an employee (i.e. motive, trait, skill, aspect of one’s self-image, social role or a body of knowledge) which results in effective and/or superior performance in a job’ (Boyatzis 1982: 21).

One of the strengths of this model of competence is that much effort has been put into testing it on a large scale with a wide variety of practitioners, using a wide range of psychometric techniques to measure the reliability and validity of the constructs (e.g. Bartram 2005). This quest to measure and define competence as objectively and universally as possible is also seen by some as a clear disadvantage, since it results in the creation of abstract, unrecognizable descriptions of competence which ignore the complexity of work and work contexts (Delamare-LeDeist & Winterton 2005). What seems to be tricky here is that the model assumes a single type of good practitioner, independent of the context, which is not very likely (Eraut 1994).
4. Competence as Situated Professionalism

The cognitive and generic perspectives on competence have clearly gained ground in researching professional development. Nevertheless, many authors warn that a conceptualization of competence in these two fashions still falls short of addressing the situated nature of professional practice (Billett 1996; Lave and Wenger 1991; Brown et al. 1989); this is problematic since people and their world(s) are inextricably related: workers and their work blend together in the execution of activities, with workers experiencing them and making sense of them (Sandberg 2000). In the jargon, the cognitive and generic perspectives on competence embrace a so-called container view of practice (Dall’Alba and Sandberg 2006). Theories that do not support this view take a socio-cultural conception of professional learning and development as their point of departure, addressing learning and expertise as activities of more centred participation, stressing the importance of the evolving bonds between the individual and others and the importance of viewing learning as an ongoing activity in a particular practice (Sfard, 1998).

For instance, Tyre and Von Hippel (1997) focused specifically on the physical setting of the workplace in disentangling the nature of adaptive learning around new technologies in organizations. On the basis of in-depth interviews with users and engineers of new machines, they showed the importance of the physical location for developing problem-solving activities. The physical location not only influenced the direct skills they could apply, but also revealed many clues about the machine and its problems which were embedded in the specific setting (i.e. their workplace) – clues that could only be recognized by expert engineers on the spot (only in 2 of the 27 described cases were the experts able to grasp the nature of the problem without direct confrontation of the problem in its specific work environment). One of the conclusions drawn from this research was that part of the engineer's competence is the ability to use specific tools in specific settings: 'the act of getting into coordination with the artefact constitutes expert performance' (Tyre and Von Hippel 1997, 78). To emphasize the difference in thinking about learning, this stream of theories on learning is accompanied with, again, different vocabularies to describe professional development, such as practice, discourse and knowing (Sfard 1998).

At present, modern interpretations of competence, which have their basis in educational and HRD literature, have tried to deal with the critiques on the various approaches discussed above. Strategies to do so include the adoption of multi-method orientations to competence (Lievens et al. 2004; Shippmann et al. 2000) and, more fundamentally, investigating competence from an interpretive perspective (Sandberg 2000) or studying it as professional identity, as a way of being (Sandberg and Pinnington 2009). This diversity of new notions of competence can be seen as the continuous search for more comprehensive conceptualizations of competence in order to contrast them clearly with the disintegrative and reductionist models of competence described earlier. Comprehensive in this sense refers to integrated clusters of knowledge, skills and attitudes, conditional for accomplishing task performance, problem solving and functioning within a specific position and context (Mulder et al. in press). Competence in its most elementary form can be operationalized as a fit between existing ability and the demands of a certain task in a certain context (Brinckmann 2007). Furthermore, on the basis of an inventory compiled by Van Merrienboer et al. (2002), Biemans et al. (2004) suggest that a comprehensive view on competence implies that competencies, the constituents of competence, are subject to change, subject to learning and development processes and that they are interrelated.

5. Experiences from a Multi-method Approach to Competence in Small Business

Consistent with a comprehensive view on competence this paper describes an example of adopting a multi-method approach. Multi-method approaches are differentiated from classical competence approaches in the sense that they not only incorporate generic worker attributes (what is necessary) but also deploy a more fine-grained analysis of actual work activities, work context and related organizational goals and strategies (what work looks like) (Lievens et al. 2004; Shippmann et al. 2000).

The setting for adopting a multi-method approach to competence comes from the field of entrepreneurship education and training. This paper, however, does not focus on the stimulation of new start-ups but on making existing small business owner-managers more entrepreneurial competent. Small and medium-sized enterprises are often referred to as the engines for economic development because of their diversity and flexibility, and the fact that, together, they account for a large portion of the gross national product and employment: 92% of all European enterprises have less than 10 employees (Observatory of European SMEs, 2003). In order to survive and grow in dynamic environments that are characterized by changing consumer patterns, globalization, sustainability, and so on (Macpherson and Holt 2007) small business owner-managers increasingly need to identify and pursue (new) business opportunities. Contemporary studies argue that entrepreneurial processes in small firms are enabled by specific entrepreneurial competencies (Uchbasaran et al., 2008). Entrepreneurial competence is not only a matter of predisposition, but also assumed to be influenced by learning and experience (Baron and Ensley 2006; Detienne and Chandler 2004). It is therefore relevant to appreciate the complex ways in which small business owner-managers learn and develop entrepreneurial competence in order to identify and pursue new business opportunities.

This paper summarizes the findings of three empirical studies in which quantitative and qualitative methods were used to study entrepreneurial competence in small firms and which included a
total of 475 participants. For the details on the individual studies we refer to Lans et al. (accepted), Lans et al. (2008) and Mulder et al. (2007). The three studies differed in their approach to investigate entrepreneurial competence among the target group of small business owner-managers. These differences are described shortly below.

The first study used a more generic, worker-oriented, competence approach to investigate whether entrepreneurial competencies are recognizable and worth researching in small firms. In this study two concepts, self-awareness and beliefs about improbability of competence, were explored among 36 owner-managers of small firms. This was done by means of a multisource assessment, i.e. an assessment in which the subject is rated by multiple individuals with whom the subject has varying relationships. Owner-managers had to assess themselves on twenty competencies which represented the spectrum of entrepreneurial competence. For each of the twenty competencies the respondents had to indicate to what extent they have mastered it and to what extent they think they can develop it further over the coming five years. Two other assessors (internal and external) were asked to assess the owner-manager on the same set of competencies.

In the second study more comprehensive sets of entrepreneurial competence were formulated. The starting point for these comprehensive sets was sought in theory (Man et al., 2002). Based on theory, six comprehensive sets for entrepreneurial competence were discerned. These sets were empirically tested. To do so, quantitative data was collected from 348 small business owner-managers who participated in a training programme established to pursue new business opportunities. A survey containing 57 statements related to the six sets served as the starting point for this training programme. The answers of the owner-managers gave to the 57 statements were analysed through explanatory and confirmatory factor analysis to create empirically meaningful domains of competence which were compared with the sets originally found in theory.

The third study focussed on the entrepreneurial task itself: the identification and pursuit of opportunities. Based on organizational learning literature and the results of the second study concrete work activities associated with the entrepreneurial task were formulated. These work activities were used as descriptors for the use and development of entrepreneurial competence. A case-study was conducted among 19 small firms in which questions about the use and development of these work activities by the owner-managers were combined with quantitative firm performance data from 2004-2007. Furthermore, based on the differences between high- and low-performing firms, propositions were formulated that further specify the relationship between the owner-managers’ competence, the perceived development of competence and entrepreneurial firm performance over this period of time.

6. Results

The results of the first study, the multisource assessment, shows that a more generic approach to competence has advantages as well as disadvantages. The data illustrates the tacit nature of much of what has been learned during work and suggests lack of feedback on entrepreneurial accomplishments of small-business owner-managers. However, the data also suggest that what is viewed as developed and improvable are not only ‘objective’ personal judgements, but most likely influenced by what is valued and promoted in a particular practice. Conceptions of entrepreneurial competence were not uniform within workplaces: elements of what is developed and can be developed further are partly idiosyncratic. From a practical point of view multisource assessments as adopted in this study can help owner-managers raise their self-awareness, provide them with a language to discuss about entrepreneurial strengths and weaknesses and consequently help them bypass some of their often costly trial-and-error learning.

The results of the second study show that theoretical models of competence do not necessarily match empirically derived ones. The empirically derived models of competence make a distinction between getting ahead and getting along. Moreover, what is often separately conceptualized as meta-competencies (e.g. Delamare Le Deist and Winterton 2005) did not seem to constitute a separate domain, but elements of this cluster returned in all discerned domains.

Finally, the cases studied in the third study support the conclusion of earlier studies in other sectors that business performance at the small firm level is related to entrepreneurial competence and competence development at the individual level. Results obtained through comparing high and low performing firms, focusing on the task itself and using concrete work activities as descriptors for competence, suggest that the relation between entrepreneurial performance and competence is not only influenced by business goals but also by the owner-managers’ competence awareness. The results of the case studies illustrate interdependence between existing competence and competence development within competence domains (horizontal development), and between competence domains (vertical development).

7. Discussion and Conclusions

Firstly, the added value of using more generic approaches to competence is not found in generating ‘true’ competence scores, but in using the assessment scores as starting points for discussion (explanatory discourses, Capaldo et al. 2006) and further action (Messick 1995). A multi-source assessment like this can assist owner-managers (who are generally not involved in formalized HR practices) by providing them with an initial language for discussing their entrepreneurial strengths and weaknesses. Such activities can help owner-managers to raise their self-awareness, and
consequently help them bypass some of their often costly trial-and-error learning. In this process it is fundamental that competence is treated as an item for discussion and interpretation, rather than as a fixed template of boxes to be ticked (Lans et al. 2008).

When applying item-level descriptions of competence to the study of competence, it is possible to address the problem of atomization and fragmentation. Through factor-analysing item-level competence-related statements into broader competence domains, empirically meaningful domains of competence can be created. Such domains come close to what Hodkinson (1995) refers to as structures of competence which addresses the problematic issue of atomization and fragmentation. Practically, such domains can provide professionals active in sector development and (vocational) education with clear steppingstones for developing competence-based curricula and learning-oriented assessments.

Finally, to become aware about the relationships between competence, development and business performance it is necessary to focus more on the activities that involve the tasks itself and to include more qualitative, situative, methods to investigating the use and development of competence. This is an area of research which is still, in small business and entrepreneurship literature, in its infancy and which deserves more attention (Capaldo et al. 2006).

8. References


DEBUNKING THE ISOLATION OF SCHOOL-WORK CONNECT: UB LEARNING AND TEACHING POLICY AS FRAME FOR DEBATE

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Abstract: Higher institutions of learning no longer measure successes of their teaching and learning in statistics or percentages only. They are now compelled to use measures such as the absorptive rate of graduates into the labour market and multi-skilling as a window to a number of life opportunities including self-employment. To achieve this connection of school-work, some basic principles apply. The University of Botswana (UB) learning and teaching policy and its six strategic priority areas are presented as ideal principles. These principles are not a panacea for connecting school to work but are presented as a framework for discussing the possibilities of making this connection effective. The institution is committed to the merits arising from an alignment between the learning and teaching policy and the strategic direction pursued in the institution’s 2009-2016 Strategy for Excellence. Guiding activities to realize the much needed convergence between policy frameworks and action relate to the challenge of what operational strategies and where possible, set of standards, can ensure institutional effectiveness and quality. Questions such as ‘In which ways can the institution put in place curricula that integrate learning in classrooms with learning through experiences in workplaces and communities?’ are to be asked.

Key words: school-work connects, higher education, workplaces; civic responsibility; industrial work, learning and teaching policy, intentional learning, learner-centeredness, lifelong learning, research-infused teaching, community, service learning, cooperative education, innovativeness, creativity, unemployment.

1. Introduction

Institutions of higher learning are tasked with equipping graduates with credentials aligned to the world of work and communities they live in. Kliebard (1998), for example, warns that while this alignment is possible, we should understand that the academic knowledge alone is no substitute for actual skills needed in the workplace or for survival in the community. As such, the school is expected to produce people with appropriate competencies and attitudes to enable them face current and future life challenges. These include among others critical thinking, problem solving, communication and presentation skills. To facilitate this type of curriculum requires a robust learning and teaching policy. To a greater extent, some institutions do very little, if not nothing to prepare their learners for community’s way of life and workplaces. This is blamed on the exclusive reliance on the modern knowledge system that has “dictated the marginalization and disqualification of non-Western knowledge systems” (Escobar, 1995:13) like the indigenous knowledge which puts communities as critical knowledge resources. Kincheloe (1999) observes that in this type of system, learners are only taught to think, interpret and produce abstract knowledge which they are unable to apply in a real world situation like the workplace or communities. The argument in this paper is that any education that does not connect school to work should be revisited because school, particularly in the African contexts where education is seen as a primary means for social change, work and communities should co-exist. For example, learners who go to school are the same people who make up part of the community and the very same who are expected to serve the workplaces and their communities with the knowledge they gain from higher education institutions. The greatest goal for the 21st century and beyond is the application of strategies that ensure that education is a pathway to employment and civic responsibility.

The University of Botswana learning and teaching policy (February 2008) is used in this paper as a reference for discussing this thesis of school-work connects. However, having a policy is just the first but not sufficient step to connect learning to the world of work. There is need for practical strategies such as the UB National Development Plan 10 – “Strategy for Excellence” (June 2008) to ensure effective alignment. Experiences shall be drawn locally and internationally to demonstrate that indeed it is possible for institutions to offer thoroughly practical and theoretical training and education to enable learners to better use knowledge to better their lives in and outside communities and workplaces. This process can be challenging but the benefits are great.

2. Theoretical Framework

The theory guiding discussion in this paper is the University of Botswana learning and teaching policy. This policy’s milestone rests on the belief that indeed “employers require high quality graduates who process the knowledge to succeed in their career, the skills for effective integration in a workplace environment, attributes to manage change, leadership and success, and the ability to manage multiple career change through being lifelong learners” (p. 21). It further explains that quality and relevance of learning means that students must be equipped with knowledge, skills and attributes for work, life and citizenship within a national, regional and global context. This indicates an intentional...
move to provide curricula that connect school, work and the community. Learners’ task is not only to study, but in addition to their studies, they learn industrial work and community ways of life, like farming. This is possible through the inclusion of teaching-learning strategies like service learning, field attachment, cooperative education and school based enterprises. Like the Council of USA Chief State School Officer (1991) said, when industry is directly involved in the education of young people, it has ready access to a pool of qualified youth from which to draw for its employment needs. This type of education has the potential to produce graduates with high levels of academic achievement and broad competences which will enable them to do other things, like, self-employment, farming and community services. Other theories which complement this policy include Van Rensburg’s (1991) education with production, Kincheloe’s (1999) economic empowerment curriculum and Semali’s (1999) educating for community ways of life.

3. Priority Areas of UB Strategy as Frame for Discussing School-work Connect

As an institution of higher education, UB aspires to build and sustain school-work-community connection to benefit its potential, current students and graduates. It does this through an overarching philosophy of learning and teaching that is based on the principles of “intentional learning”. This requires UB to create a positive learning environment and deliver educational experiences that help students to learn to integrate and apply their learning to become lifelong learners and to acquire appropriate graduate attributes for living, working and managing change. It aims to ensure that its graduates are employable and possess entrepreneurial skills which increase chances of self-employment. This policy embodies a number of sections including the six priority areas for excellence which are presented in this paper.

The six priority areas are (i) Strategies for increasing access and participation e.g. flexible deliveries of programs and government funding (ii) Provision of relevant and high quality programs, e.g. innovative and creative teaching in meeting the needs of learners through enabling employment conditions and the availability of technologies, resources, support services and also to develop programs that are relevant to national development goals (iii) Intensification of research performance, e.g. encouraging and rewarding research performance. Also, integration of teaching and research is supported (iv) Strengthening engagement, e.g. strengthening relationships and increasing collaboration and integration with local communities and international communities. The engagement of communities in academic, cultural and sporting activities is encouraged. (v) Improvement of student experiences, e.g. the academic, social and personal development of all students is supported including special needs, integrity, honesty and excellence are encouraged and rewarded and (vi) Enhancing human resources, e.g. managing staff performance and rewarding good performance. UB also aims to attract and recruit appropriate qualified and experienced staff and ensure that they are integrated into the life of the University and retained. UB strategy for excellence is not presented here as the best but rather as a framework for discussion the possibilities of making school-work connection possible.

4. International Learning

Intentional learning indicates a clear and defined purpose to choose what students should learn and how to learn it. Like Bereiter and Scardamalia (1989) purport, the use of this phrase implies making greater efforts to go beyond getting good grades. Clearly, in the case of the University of Botswana, this means learning that impacts the total life of students, for example, their home lives, community lives, social lives and work lives. It refers to more than the obvious credentials that many people emerge with from institutions of higher learning, some having no positive impact on their lives. The implication is that learners need to be purposeful about their engagements in various learning contexts. This in itself calls for an education that is framed and guided by enlightening activities. Thus, education that appears to fail this test calls for reforms.

In its functional purpose, the philosophy of intentional learning is used to ensure that learners are prepared for “life, work and citizenship” (UB Learning and Teaching Policy, p. 4). This principle puts an emphasis on “pedagogical strategies that encourage active learning outcomes and the development of self-directed, independent learners who have learned how to learn” (p. 3). This, in a nutshell, means that UB is highly intentional about the kind of learning its learners need and it creates innovative and active learning that help them to learn and apply their learning. Graduates emerge with attributes for learning, living, working and managing change. What is stressed in this paper is that there is need for interlocking the academic, workplace and community. Institutions of higher learning should ensure that while learners pursue certificates and degrees, entrepreneurship, industrial education and community education become part of these academics. UB, for example, has courses that equip learners with entrepreneurship skills and places some with organizations to gain work life experiences. There can be a smooth and seamless connection if intentional efforts are made to do it (Council of Chief State Officers, USA, 1991).

5. Learners-centeredness and Relevance

In this 21st century, there are still institutions which are not only too expensive, but also bookish and therefore quite unsuited to the needs of learners in particular contexts. Undoubtedly, such education is foreign and irrelevant to the needs of many learners. Some African countries like Botswana are still criticized for this type of education and are moving away from these as has been addressed by the Revised National Policy on Education (1994).
In its best, this kind of educational experiences produce misfit for workplaces and community responsibilities. The concepts of relevance, for example, means that universities should ensure that their graduates are employable, that they possess entrepreneurial skills and are prepared for community’s way of life.

In applying this principle of relevance, the University of Botswana has a mix of programs that meets the demand of learners in a changing society. Among the important attributes of graduates include lifelong learning skills, critical and creative thinking, social responsibility, and entrepreneurship as well as employability skills, just to mention a few. These skills are developed by actively involving learners through innovative teaching strategies like providing opportunities for students to apply “what they learn to the solution of real life problems and participate in living and learning communities that encourage and support reflective learning and the development of life skills” (UB Learning and Teaching Policy, p.6). Clearly, this approach treats learning as a valuable activity in all aspects of life. Education thus becomes relevant when it addresses the needs of the learners in a more innovative and adaptive manner. Only with intentional use of teaching strategies such as service learning, cooperative education and others will institutions of higher learning make a smooth connection of school and work. We need to apply strategies that ensure that education is a pathway to empowerment (formal and informal) and civic responsibility.

6. Lifelong Learning as an Apt Principle

It seems many institutions are gradually accepting lifelong learning as an important guiding principle of their curricular. This will help a lot to address issues of individual and social development. It is believed that anyone can learn anywhere and everywhere and its quality is now measured by the amount of learning that can be applied in real life situations. It transcends all settings and comes in all forms, including structured formal learning leading to approved certificates in primary, secondary, vocational and technical schools and universities; structured non-formal learning (learning which is not accredited) in the workplace and other settings, in on-the-job and apprentice training programmes; and unstructured informal learning, which takes place anywhere and involves skills learned from members of the family and the community (World Bank, Lifelong Learning in the Global Economy: Challenges for Developing Countries, Washington, D.C.: World Bank, 2003, p. xvii). This basic understanding of lifelong learning is aligned to the objectives of Botswana’s Vision 2016 (Presidential Task Group, September 1997) of being an educated, productive, innovative and informed nation. Vision 2016 emphasises that “Botswana must improve the access of all its people to information and the new technologies that are sweeping the world” and “Education must be made more flexible so that people can enter and leave the education system at different times in their lives.” This has further been interpreted in the UB learning and teaching policy as a principle that is indispensable. Applying this principle, UB learning and teaching policy states that the intention of UB is to empower learners to become active and independent and to acquire skills and attributes of lifelong learners. In sum, most of the lifelong learners possess knowledge and attributes that position them to be committed to continue to learn in order to keep abreast of changes taking place and succeed in their careers and other life challenges.

Lifelong learners are equipped with adaptive and contextual competences that make them survive in variety of situations. It is critical, for example, to produce graduates who will not roam the street when they cannot find formal employment but rather we need those who will learn to find alternative survival strategies. This usually happens when institutions of learning offer a combination of courses including vocational, industrial, entrepreneurbships, scholastics and others.

7. Innovativeness and Creativity

Innovativeness and creativity are among the special skills that separate graduates who have been prepared for the changes taking place in their communities, work and other environment from those who are not. Creativity is a thought provoking activity that allows a person to be flexible and benefit from the application of appropriately thought ideas and technologies. In the teaching-learning situation, learners are encouraged to be challenging and inquiring in their learning through exposure to flexible, technology-enhanced and innovative strategies that create a highly engaging and relevant learning experiences” (UB Learning and Teaching Policy, p.5). This principle becomes indispensable bearing in mind that “the world is being dramatically reshaped by science and technological innovation” (p.3). Like Mbiti (1988) says, the man of Africa must stand up and dance to the drums of these technologies hence UB intention is to apply technology to its learning and teaching activities as a means to anchor learners with the versatile opportunities that innovative technologies have brought to enhance learning.

8. The importance of Research

Research is an indispensable part of all innovative and active teaching and learning. UB, for example, holds strong belief that research informs teaching and learning and can help make school-work connection informed and effective. Thus, research-infused teaching and learning strategies are encouraged and rewarded. The UB Learning and Teaching Policy states clearly that UB specifically encourages “research-led teaching that incorporates up-to-date research perspectives, processes and findings into the curriculum” (p.6). The teaching staff, for example, develops learners’ awareness of the importance of research as a knowledge creation and use activity by involving them in their research projects. There are specific courses that expose and require learners to do independent research projects.
A number of strategies are in place at UB to help intensify and reward research performance. For example, the Office of Research and Development strengthens research activities through awarding grants to staff members. There are plans to establish similar awards to student research engagements to bring about synergy in knowledge generation and the student sentrredness in this whole process.

9. Summary

The issues of school-work connect needs more attention now than before because many countries are faced with human resources who are educated and are idling without any employment. Partly, this phenomenon of educated unemployment results from schooling that did not equip learners for their future roles as productive workers and responsible citizens. They have, at most, been exposed to abstract teaching and learning that artificially separated the world of learning from the world of work. Ideally, institutions of higher learning should produce graduates with high levels of academic achievement and also broad competences to enable them to do other things, like, self-employment and community services should it happen that they do not get formal employment. This type of education calls for partnerships of all stakeholders especially schools, the industries and the communities. When these parties are overtly involved, it will become smooth to apply teaching and learning strategies such as service learning, placement in workplaces and field trips. In this way, learners will be helped to understand how the theories they learn can apply to real world situation of work and community life. The learner, for example, "must learn about the environment in which he or she lives, the organization of the political and social structures of which he is a part, the pattern of local production" (Development Dialogue, 1978:75). This is a purposeful and intentional education that cannot succeed with a robust learning and teaching policy. We have used the University of Botswana Learning and Teaching Policy to demonstrate an intentional move to develop graduates with competences for the world of work, for community ways of life and for responsibilities for oneself and others. Hopefully, the UB will be appreciated for its efforts in producing this policy because its policy gives us an optimistic tone that all education systems can be reoriented and reformed to make the connection between school and work effective, then relevant education can be provided and learners’ survival may no longer be threatened as is at present.

Institutions of higher learning are tasked with equipping graduates with credentials that connect them to the world of work and communities they live in. Curricula that do not integrate classroom learning with experiences in workplaces and communities often produce graduates who see the workplace as a different place to cope with. Also, the absorptive rate of graduates into the labour market becomes low. Using University of Botswana (UB) learning and teaching policy, it is argued that it is possible for institutions to take intentional step to help its learners understand that success in classroom can be linked to success in the workplace. The six priority areas of this policy shall be presented as a frame for possible debunking of the obscuring of school-work connect. However, having a policy is just the first but not sufficient step to connect learning to the world of work. Thus, UB strategy for excellence shall be presented through a Logic model that interweaves aspects of input, process, output, outcome and input. The argument is that when there is a strong connecting of school and work, the industry gets involved directly in the education of its future employers and is assured of access to a pool of qualified graduates from which to draw for its employment needs.

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ENBW TRAINEE PROGRAMME AND SKILL MANAGEMENT

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Abstract: The article describes the integration of skill management into the EnBW trainee programme in the context of Germany's third largest utility company.

Key words: trainee programme, skill management, personnel development.

1. The EnBW Trainee Programme and Skill Management

Personnel Development Changes

When considering the economic situation of companies in the energy industry, it is characterised by high competitive and regulatory pressure in combination with changes in the mixture of types of energy generated (from fossil, nuclear and regenerative energy sources). These changes are accompanied by a progressive aging of the companies' staff - especially in Germany and Central Europe - and a long-term shortage of young people on the labour market (cp. Pillinger 2008. S.vii). This shortage is especially occurring in the so-called "MINT" study subjects (mathematics, computing science, natural sciences and technical subjects) which are important to the energy business. These external influences are forcing companies to adapt their strategic orientation in personnel management, their value chain and the company processes associated with these. These adjustments thus indirectly imply an adaption of the staff.

Figure 1: External and internal influences on human resources

Source: Diagram by EnBW

The situation described here is not new for companies. It is a continuous adaption process which takes place again and again at certain time intervals. Only the causal factors are new. When one considers established personnel planning processes in companies, these are primarily organised on a quantitative basis, i.e. companies plan how many employees they need. At best, companies also plan on a qualification level, that is, 'who' they need: e.g. "2 engineers, 3 physicists, 2 chemists" etc. The last step towards qualitative planning, i.e. the integration of required skills, meaning what a potential employee 'must' know, often does not take place. Companies often just 'hope' that the suitable employee is available at the time of the job advertisement.

Generally speaking, it is therefore increasingly important to plan in good time how many employees with which qualifications and skills have to be available to the company at every time point.

With this, the Human Resources Departments are receiving a distinct increase in importance within companies as a business unit directly involved with implementing these considerations with respect to the company's long-term strategic planning. The company role in minimising risks related to the composition of the staff, including their qualifications and skills, is also gaining importance. One means of addressing this growth in importance is the application of appropriately adjusted personnel instruments.
Trainee Programmes for Covering Personnel Requirements in a Targeted Manner

One of these personnel development instruments is trainee programmes. The following article will therefore describe to what extent a skills management approach implementing the mentioned points of a future-oriented planning also appears useful for carrying out a trainee programme.

The EnBW Group trainees have the opportunity to get to know the core business at different companies and sites over a period of twelve months. The best thing about this is that they take responsibility for their own career: they choose projects which suit their study courses and personal interests. This means that Group trainees at EnBW can follow the path which best matches their talent.

In order to closely experience what it means to work with energy, the Group trainees are shown the value chain from another perspective: in a 'blue collar' phase, the trainees go out of the offices and work hands-on - for example in fitting electricity meters, laying gas pipelines or in our power station park. EnBW promotes intercultural training in a two-month stay abroad during which the Group trainees get to know our cooperation partners and their work.

The goal of the Group trainee programme is primarily to gain new academic staff via requirement-oriented selection. Due to the intensive accompaniment and guidance during the programme, a high level of company commitment and a high performance motivation is created among the participants. An interdisciplinary network ensures a rotation principle across several stops throughout the company. Entrepreneurial thinking and acting is achieved through independent project work. The clearly defined time period and the associated curriculum for the programme participants form an ideal basis for achieving targeted development towards a defined 'desired profile'. For this, EnBW uses a skill model specifically adapted to the trainee programme. We will go into the details and structure of the model in the following chapters.

2. Recruitment and Selection

Requirement Profile as an Instrument for Personnel Selection and Personnel Development

One is quick to demand the requirement-oriented recruitment of young people for a trainee programme. But the step involving the specific search first requires consideration of what the company's requirements really are, i.e. which qualifications and skills one wishes to gather in such a programme. The qualifications question is quickly answered. This is because there are a limited number of 'places' in the trainee programme and one desires a mixture of, for example, more technical study course participants and business/economics study course participants.

But it is more difficult to answer the question of what skills the programme participants should bring with them (requirements profile). This is because these skills have to be broad enough to apply them to all participants in the programme. EnBW has developed a system for a broad skills catalogue and applied it for the first time in selection and the development of the trainee programme.

The structure and content of the skills catalogue have been depicted with the help of the North/Reinhardt skills wheel:

![Figure 2: Skills wheel for Group trainees with target requirement at programme start](image)

Source: Diagram produced by EnBW

Each skill has been described in a further level of detail. We do not wish to display this level here in order to avoid scattering too much information. An example of this is given on the basis of two single skills as follows:
Specific formulations for, for example, interview forms, assessment centre evaluation forms etc. were derived from these skill descriptions. This is necessary to make it easier to deal with the formulations from the skill descriptions, e.g. for an observer in an assessment centre.

**Selection**

The selection of the EnBW Group trainee programme, which is divided into four steps, is supported by an external service provider. This serves to ease the demand on resources in EnBW’s personnel department. Efficient processing is given thanks to many years of collaboration, since the fulfilment of qualitative requirements and the necessary knowledge regarding the EnBW Group is guaranteed on the service provider’s side.

In the telephone interview, face-to-face discussion and assessment centre selection steps, the challenge is, on the one hand, to select the skill descriptions from those available in the skill model which can be observed and evaluated in personnel selection. These should be adapted such that they fit the content of the selection step, e.g. a specific exercise in the assessment centre. On the other hand, one must pay attention that the adaption is done carefully so that the basic idea of the skill criterion is maintained. In order to guarantee the validity of the results in the selection process, individual skill criteria are repeatedly observed and evaluated. The evaluation takes place on the basis of the skill model’s 6-step scale.

Applicants who fulfil the requirement profile undergo the next selection step in the form of a 20-minute telephone interview. The telephone interview is carried out on the basis of a catalogue of questions which has also been derived from the skill model for EnBW Group trainees. All applicants who have fulfilled the requirements of the telephone interview undergo the next step in the selection process in the form of a 45-minute face-to-face discussion. The basis of this interview is a partially structured form which contains question fields with example questions derived from the skill descriptions of the skill model. The interviewers additionally have the possibility to act with their own questions based on the situation.

The special challenge in the telephone interview and face-to-face discussion selection steps is to derive operatively applicable questions, whose verbal response possess as much relevance as possible, from the abstract skill descriptions of the skill criteria.

The assessment centre, the final selection step, lasts a whole day during which the applicants undergo various exercises which are observed and evaluated in writing. The special challenge of this step is the selection and adaption of the skill model to the specific situation in an assessment centre. The skill descriptions have therefore been partly reformulated and supplemented in order to achieve a maximum level of coverage between those and the intended observations made in the exercises.

3. **Personnel Development in the Trainee Programme**

The participants are developed starting from an initial profile at the beginning of the programme, throughout various development offerings, and on towards the target profile. In order to be able to track this development, two voluntary self-evaluations are done. What this means exactly is that the trainees initially assess themselves at the beginning of the programme on the basis of the skills catalogue. This marks the start point and can deliver initial indicators of where participants’ individual development needs lie. These are then discussed face-to-face.
In a second step, a second self-assessment is carried out at the end of the programme. This delivers indicators of how the programme participants have developed and delivers evidence concerning the effectiveness of the conducted personnel development activities.

4. Conclusion

The application of the skill model in personnel selection has shown that a selection of the skill criteria and partial modification of the skill descriptions are necessary and sensible. The use of a skill model in personnel selection provides a representative result if the applied skill criteria can be observed and evaluated and also the skill descriptions are formulated in the clearest and most situation-adapted manner possible.

With the introduction of the skill management approach in the EnBW Group trainee programme, the definition of target requirements and the comparison with the actual requirements ensures that development fields can be identified, discussed and directly promoted. This supports the systematic development of the trainees and also takes into account the company’s strategic requirements through the definition of the target state.
Section 4

Qualification Systems and Methodologies
SUPPORTING EUROPEAN POLICIES THROUGH INNOVATIVE SKILL MISMATCH RESEARCH
JASPER B. VAN LOO
CEDEFOP

Abstract: Skill mismatch has become a growing concern for policy-makers as it is increasingly recognised that up-to-date skills addressing labour market needs are crucial for European economies and that skill mismatch imposes real economic and social costs. In response to EU Member States’ needs, the European Commission launched the ‘new skills for new jobs’ initiative, which supports the capacities for proactive action and anticipation to be better prepared for future challenges. Research on aspects of skill mismatch and its implications has increased during the last decades, but there is not yet a common understanding and agreement on what future research is most promising from a policy viewpoint. This paper attempts to provide some guidance by outlining five policy-relevant research priorities for future research on skill mismatch.

Key words: skill mismatch, European policy, research priorities.

1. Introduction

As up-to-date skills addressing labour market needs are crucial for European economies, it is not surprising that skill mismatch has become a growing concern for policy-makers at national and European Union (EU) levels. In response to EU Member States' needs, the European Commission launched the ‘new skills for new jobs’ initiative, which supports the capacities for proactive action and anticipation to be better prepared for future challenges (European Commission 2008). A core element in the current European debate is that to adapt to rapid change, matching skills to jobs is crucial in sustaining productivity and competitiveness (Council of the EU 2007, 2009).

Skill mismatch is generally understood as various types of gaps or imbalances referring to skills, knowledge or competences that may be of a quantitative or qualitative nature. The field covered by skill mismatch is vast. It is a multidimensional issue, which can be approached from various angles. Skill mismatch does not only refer to imbalances between formal qualifications and required qualifications in work settings, but also to discrepancies between skill demand and supply in a more holistic sense, when it concerns, for example, differences between competences workers possess and competence requirements. In addition to possible adverse impacts on individuals and organisations, skill mismatch may hamper economic growth, competitiveness and innovative capacity at macroeconomic level. For societies, skill surpluses; overeducation or overqualification; and unemployment or involuntary part-time work represent a waste of valuable human resources.

Supporting policies aimed at reducing and preventing skill mismatch requires clear directions for future research. With this in mind, this contribution introduces five priorities for new priorities in mismatch research. The paper examines how these priorities can support our understanding of skills and skill mismatches and their measurement. Based on a comprehensive analysis of relevant literature, we outline a vision of how new skill mismatch research can help policy makers in making informed decisions on educational and labour market related issues.

2. The meaning of matching

Skill mismatch is a crucial policy issue, not only for policy makers but also for social partners including employers associations and trade unions (Cedefop, 2010). Reducing skill mismatch is likely to generate social benefits with higher job satisfaction for employees and possibly reduced stress from work, increasing health and well-being. At a macro level, skill shortages and skill gaps can potentially lead to a loss of competitiveness as wage rates are bid up and productivity lowered within industries where skill problems exist. Productivity may also suffer if firms are forced to place lower skilled workers in skilled positions and/or if where a skills shortage exists, workers use their position to alter their employment terms and conditions in a way that harms productivity.

Typically, research on over- and undereducation found that about half of the working population is matched and that the proportion of overeducated workers exceeds the share of undereducated workers. Recent analyses, which consider both over- and undereducation and under- and overskilling, show that skill mismatch, broadly defined, is a pervasive phenomenon in Europe. According to data from the European Community household panel, which are based on self-assessment, only 21% of employees in Europe hold jobs fitting their education, training and skills (Wasmer et al. 2007). Thus, for most workers in Europe, imbalances exist between the skills they possess and the skills demanded in the workplace. Skill mismatch has an important impact on wages: workers reporting that their education and training are not suited for their jobs face a wage penalty of around 11%. In countries with more stringent employment protection legislation and regulations or institutions
that increase hiring and firing costs, a larger share of the working population faces skill mismatch.

The emergence of the knowledge society has been an important rationale to focus more attention on skills. However, as Borghans et al (2001, p. 375) observed several years ago, despite the practical and theoretical importance, ‘economic science is hampered by the fact that procedures for the empirical measurement of skills are comparatively underdeveloped’. In the meantime, many new measurement initiatives have been taken at both national and international levels. The UK skills survey, for example, has made use of the job requirements approach popular. This approach has the advantage that a wide range of skills that are intimately connected to the job can be measured (Felstead et al. 2007).

Among many potential problems, a core issue in the measurement of skills is the problem of anchor points, which refers to the ambiguity of lack of clarity of the measurement scale used (Allen and Van der Velden 2005). One of the ways to deal with the anchor problem is anchoring by required level, which means that the focus is on discrepancies rather than required levels. Even if it is difficult to compare required and acquired skills separately, mismatch can be meaningfully assessed between groups and individuals. This puts the focus on whether skill levels are enough rather than measuring the stock of human capital.

3. A vision for innovative research on skill mismatch

There is a considerable tradition of skill mismatch research in the literature, but this has not been clearly linked to what insights would support policies aimed at preventing or counteracting mismatch. Based on a meeting held with experts at the European Centre for the Development of Vocational Training (CEDEFOP) and a thorough literature review, five priorities for future research on skill mismatch were identified.

Improve measurement of skills and skill mismatch

Skills have been analysed in various disciplines. From an economic perspective, the traditional distinction between general and specific skills has been particularly important (Becker, 1962). Current economic research has relaxed the strict distinction between firm-specific and general skills (Barrett 2001; Nordhaug 1993; Stevens, 1994). Next to completely firm-specific and general skills, ‘transferable’ skills specific to an industry or profession are distinguished. In earnings equations, years of education has often been regarded as an adequate proxy for the level of general human capital, while experience or job tenure has been used to account for specific human capital. Borghans et al. (2001, p. 375) noted that the relationship between skills as proxied by educational attainment is far from automatic because 1) equal investments in education can lead to different quantities of skills or to skills, that differ in market value; 2) mismatch may cause not all skills to be used; 3) education might be used as a signal for ability rather than a source of skill supply; and 4) the acquisition and depreciation of skills continues after school.

Measuring skill mismatch requires a good understanding of skills, knowledge and competences and the ways these concepts should be measured. Three conceptual problems inherent in competence measurement are equally important and relevant for measuring skills for establishing skill mismatch (Van Loo, 2008): a definition problem, a classification dilemma and a perspective puzzle. The definition problem stems from the confusion and discussion around the meaning of competence, which is at least partly due to the fact that competence is relevant in several distinct research fields with different disciplinary roots. The classification dilemma refers to whether competences should be measured as separate skills, knowledge and attitudes, or in a more holistic manner combining skills, knowledge and attitudes. The perspective puzzle refers to the specific perspective on the meaning and operationalisation of competence (Van Loo and Semeijn 2004). In the educational perspective, competence is strongly linked to educational goals, and the learning process. The labour market perspective on competence stresses productivity, outcomes and job requirements. The human resources perspective, finally, approaches competence as the fit between people and jobs and links it to organisational performance.

Next to conceptual problems in measuring skills, there are practical problems in obtaining reliable and valid skill assessments. By whom and how should skills be assessed and what should actually be measured? Should it be skill requirements, possessed skills or actual skill use? When skill use is measured, should it refer to frequency or importance (criticality) of use? (Murray, 2003). Further complicating the issue are the questions of who defines skill requirements and to what extent skill requirements can be defined in a dynamic manner consistent with change processes in current work settings.

The measurement of skill mismatch is not straightforward either. Allen and van der Velden (2001, p. 436) refer to ‘formal’ education-job mismatch and mismatch between acquired and required skills (skill mismatch). Allen and de Weert (2007) found a clear relation between education and skill mismatch, but show at the same time that these concepts are not interchangeable. They also show that the wage effects of educational mismatches, particularly the effect of working below one’s level are stronger than those of skill mismatches. García-Espejo and Ibáñez (2006) see horizontal skill mismatch as an important complement to vertical skill mismatch as overskilling or underskilling does not consider the heterogeneity of skills among individuals who have the same educational level (p. 146).

Most research on over- and undereducation (and over- and underqualification), in particular, has focused on the vertical dimension of skill mismatch (Halaby 1994; Hartog 2000). In
research literature, overeducation (as well as undereducation) has been measured using three different methods. In job analysis, job analysts specify the required level and type of education for different occupations and compare this to the actual level of education a worker has (Rumberger 1987, Oosterbeck and Webbink 1996). Worker self-assessment relies on the worker’s subjective evaluation of the education required in a job (Duncan and Hoffman 1981) or how much education is required to get a specific type of job (Sicherman 1991). The third method refers to realised matches, where required education is derived from the level of education workers in jobs usually have attained, by using the mean or mode of the distribution (Verdugo and Verdugo, 1989, Groot and Maassen van der Brink 1995). A main problem with these methods is that they ignore the diversity of qualitatively distinct types of skills generated by differences in schooling and thus treat the skill endowment of workers as a homogeneous stock of human capital (Halaby 1994, p. 49).

A general problem with skill mismatch measurement is that when mismatch is strictly measured on the basis of qualification (vertical mismatch), more mismatch may be measured than actually taking place, such as formally undereducated workers who have made up their skill deficits by further training and/or experience. Skill mismatch measurement based on skills would be a viable alternative. In a more general sense, different skill mismatch measurement methods lead to different answers, implying that the robustness of measurement needs to be improved.

Another issue is that workers who indicate they need more skills to perform their work might not be facing any skill mismatch problems, but rather be referring to a situation of being employed in challenging jobs (De Grip et al., 2008), a situation that might arise in the course of a career. De Grip et al. (2008) also found support for the use-it-or-lose-it hypothesis: overeducated workers face higher rates of decline in their cognitive abilities, while undereducated workers seem to be shielded to some extent from cognitive decline (the intellectual challenge hypothesis). Allen and De Weert (2007) concluded that identifying a skill shortage does not necessarily imply a below-par worker, but could also indicate a high-powered job.

Different understandings of what skills are and what skill mismatch constitutes, what dimensions it may encompass and how different conceptualisations of skill mismatch impact on how much mismatch is identified ask for more research to improve concepts and measurement. This research should focus on establishing clear definitions and on developing valid and reliable measurement methods.

Examine the persistence of skill mismatch and its impacts

From a policy perspective, the question whether skill mismatch is temporary or transitory phenomenon or more permanent is important. Persistence can be defined as a characteristic of a continuing, recurring, or prolonged phenomenon. If skill mismatch problems are of transitory nature, as suggested by human capital theory (Green et al. 1999), they should be regarded as temporary frictions affecting individuals or the labour market as a whole that will disappear without specific actions or policies. If, on the other hand, skill mismatch is persistent, this justifies responses from policymakers.

In Brunello’s (2008) view, the probability of having adequate education increases with age, but the effect is very small. Moreover, ageing reduces mismatch for people below 50 years of age, but above this age, the negative impact of skill obsolescence dominates positive reallocation effects induced by job mobility. Most evidence on persistence relates to the duration of overeducation among graduates in the first part of their career without paying much attention to the persistence of overeducation for people later in their careers or those re-entering after being out of the labour market for some time. Although overeducated workers have less job tenure and are more upwardly mobile than matched workers (Sicherman 1991), Sloane et al. (1995) found that changing jobs often does not necessarily improve the quality of the match. This contrasts with Plicht’s et al. (1994) assessment that graduate overeducation is a transitory and natural phenomenon occurring at the first stage of graduate careers. More recent studies on graduate overeducation (Dolton and Vignoles, 2000; Schatteman and Verhaest, 2007) found that skill mismatch may be a quite lengthy phenomenon.

The question of persistence is inextricably linked to adjustment mechanisms. Skill mismatch may be resolved or reduced by internal or external mobility, by investment in education and training and by adapting jobs, but research focusing on persistence rarely considers adjustment mechanisms. Currently we do not have a clear assessment of the extent to which skill mismatch really is persistent, what the nature of the persistence is and what the consequences are. Future research should not only examine the extent to which skill mismatch is a temporary or transitory phenomenon, but also address how persistence can be tackled by effective policy measures.

Improve understanding of skill mismatch processes, dynamics and consequences

From a policy viewpoint, the question of how and how fast skills become obsolete is crucial. It is interesting to note that attention for skill obsolescence as an explanation for mismatch has increased significantly as a result of increasing changes in work and organisations. However, this preoccupation has not been endorsed by research. Classic studies on engineers discuss organisational and personal factors contributing to skills obsolescence (Dubin, 1973; Kaufman, 1975) or those influencing the decay and retention of skills in the context of atrophy (loss of skills due to non-use) (Arthur et al., 1998).
Summarising the most important contributions in skill obsolescence research, De Grip and Van Loo (2002) distinguished between technical and economic obsolescence (see also Neumann and Weiss, 1995). Technical skill obsolescence affects the stock of human capital a worker possesses. Economic obsolescence, on the other hand, affects, due to external developments, the value of the human capital a worker possesses. Thijssen (2005) has identified a third type of skill obsolescence: perspective obsolescence, which refers to outdated views and beliefs on work and work environment. Empirical studies on skills obsolescence (van Loo et al. 2001; Pazy 1996) address it in a static way, providing little insight on the processes and the dynamics involved. Better insights on how, how fast and when skills become obsolete and how core factors and contextual (human resource) conditions impact this process are highly relevant for labour-market policy. This information could be valuable input not only for employment and training policies, but also policies aimed at stimulating lifelong learning in work and lasting employability.

In the literature on overeducation, the consequences of mismatch have mostly been addressed in terms of wages (Alba-Ramirez, 1993; Galasi, 2008). Some results have been validated in different studies. Overeducated workers earn less than matched workers with equal education, but more than matched workers in the same job (Brynin and Longhi, 2009). Undereducated workers earn more than matched workers with equal education, but less than matched workers in equivalent jobs (Galasi 2008, Di Pietro and Urw 2006).

Few studies focused on other possible consequences of overeducation. Pollmann-Schult and Büchel (2004) found that workers with vocational training of intermediate or high level have significantly better career prospects than unskilled workers but this does not hold for overeducated workers with low-level vocational training employed in jobs for which little or no education at all is required. Also, skill underutilisation (Allen and van der Velden 2001) or overeducation (Verhaest and Omey 2008) have a negative impact on job satisfaction. According to Van Loo et al. (2001) skill obsolescence leads to higher risks of unemployment or non-participation. Allen and van der Velden (2001) found that underutilisation of skills induces on-the-job search. However, most research does not allow insight into the underlying processes and issues involved.

In a general sense dynamic impacts of different types of skill mismatch have not been sufficiently addressed in the literature, mainly due to lack of panel data. Current studies on skill mismatch either tend to focus on formal education or approach skills as an aggregate of underlying factors, without specifying the actual competences that give rise to skill mismatch. Another issue that is not sufficiently addressed is the notion that the consequences of skill mismatch are not confined to the individual level. At meso level, employing organisations suffer from skill mismatch in various ways. Overeducation and the resulting low job satisfaction may lead to low morale and commitment and harm productivity. Skills shortages will compromise firms’ productivity and competitiveness. Skill obsolescence has a direct negative impact on productivity depending on to what extent skills that became obsolete are important in the production process. At macro level, skill mismatch reflects itself in imbalances on the labour market. An oversupply of individuals with specific sets of skills leads to unemployment or overeducation in the economy. Excess demand at macro level for some types of human capital can lead to undereducation or underskilling. This hampers the ability of economies to innovate, grow and compete. A complicating factor is that different types of skill mismatch can occur simultaneously. While unemployment may be a problem in some segments of the labour market, over- and undereducation (or over- and underqualification) occurs in others.

Increased understanding on how skill mismatch processes develop, how fast skills become obsolete, and what personal, organisational and contextual factors contribute to skill mismatch or counteract it, would be valuable input for policies meant to address proactively skill mismatch problems. Better insight into the dynamics of skill mismatch and its consequences requires new research that goes beyond established theoretical models and empirical methods.

**Focus on skill mismatch for vulnerable groups on the labour market**

Although processes of skill mismatch are dynamic and impact on the whole working population, from the perspective of policy, it is important to have a clear focus on groups most affected by skill mismatch. Several vulnerable groups might benefit from policies anticipating, addressing and counteracting skill mismatch. First, young people entering the labour market could benefit when actions are taken to improve the matching process by preventing overeducation or making the incidence of overeducation less prolonged. Research has shown that for graduates moving on to a job in which they are overeducated, spells of overeducation tend to be lengthy and persistent (Dolton and Vignoles 2000; Schatteman and Verhaest 2007).

Another important vulnerable group are ageing workers. The vulnerability of this group has several backgrounds. Compared to younger workers, many ageing workers are low-skilled and employed in physically demanding jobs, making them vulnerable to technical skill obsolescence. Age plays a role in both technical and economic skills obsolescence (Bohlinger and Van Loo 2008). While technical obsolescence (or depreciation) is linked to age as ‘the ability of individuals to apply acquired skills and knowledge to income producing opportunities systematically changes with age’ (Rosen 1975), economic skill obsolescence for ageing workers is often approached as a human capital vintage
phenomenon. In the course of time, knowledge, skills and working methods become less relevant or even useless, for example resulting from technological innovations or new ways of working. In terms of addressing aging workers’ skill mismatch by means of policies, another important issue is that ageing workers often undergo concentration of experience (Rybash et al. 1986; Thijsen 1992), which implies that over the career, individual skills become more attached to certain work domains and become increasingly less transferable. On the positive side, research indicates that, contrary to widespread stereotypes, the actual learning process of ageing workers is not directly dependent on age. While the speed of learning may decline with age, strong learning motivation, associative skills and experience-related problem solving skills may compensate for this (Ilmarinen 2001). Experience of concentration may, however, manifest itself in perspectivist obsolescence (Thijsen 2005).

Migrants and non-native populations constitute a vulnerable group in various respects. Skill mismatch may occur when high-skilled migrants find themselves trapped in low-skilled jobs or unemployment. For example, Lindley (2009) found that non-white natives in the UK are more likely to be overeducated than white natives. Lacking transparency and recognition of qualifications, language difficulties and lack of work experience in the new home country may be responsible for this. Low-skilled migrants may face skill mismatch due to obsolescence of their skills. In addition, discrimination may prevent migrants from gaining access to the labour market and further training and hamper career progression.

**Improve data availability and use**

Improving data availability and use in skill mismatch research will enable progress on the other four research priorities. It will be a necessary condition to capitalise on the improvement of skill and skill measurement approaches. Although some skill mismatch issues can be addressed using cross-section datasets, a dynamic analysis of skill mismatch requires panel or longitudinal data based on surveying individuals and organisations at multiple points in time. Time-series data would also enable progress on establishing evidence on the extent to which different skill mismatch problems are persistent or temporary in nature. To make progress in the short term, an option might be to have forward and backward looking elements in current surveys, which would capture some of the dynamics of skill mismatch, underlying factors and counteracting conditions.

Skill mismatch tends to be analysed at a single level, while there is little attention for interactions between the individual, the organisational and macroeconomic levels. Analysing how individual skill mismatch and skill mismatch problems at the level of organisations interact requires data that link employee variables with organisation level variables. The complexity of skill mismatch problems and the interaction of a multitude of factors at different levels impacting mismatch requires data that capture various dimensions of personal and organisational characteristics simultaneously. Although there is some understanding of how work related-factors impact on skill obsolescence, organisational policies and other factors that cause or counteract skill obsolescence have not sufficiently been researched. Collecting new data or combining existing data sources in innovative ways is an important prerequisite for increasing understanding on skill mismatch.

Finally, data availability for some vulnerable groups is currently limited, as these groups are small, underrepresented or hard to identify in mainstream data sources. This is a problem especially for migrants and ethnic minorities. For some vulnerable groups, rather than isolating them from a data source covering an entire population, specific data collection might be a better strategy to obtain samples sufficiently large for empirical analyses.

Obtaining new data and using available data sources, possibly by linking them, constitutes an important prerequisite to enabling new empirical work to make progress on the other four research priorities identified above. Ideally, new surveys should be tailored to analysis at multiple levels and collect data at multiple points in time to allow more dynamic approaches to skill mismatch. Specific data collection, focused on vulnerable groups, has the potential to yield new insights that can be applied in labour market and educational policy-making.

**4. Conclusion**

Although research on some aspects of skill mismatch and its implications has increased substantially during the last decades, there is not yet a common understanding and agreement on what should be priorities for future research, particularly in Europe. In this paper, we have outlined five policy-relevant research priorities for future research on skill mismatch. These priorities will provide the necessary direction to sound research that is primarily relevant from a policy perspective.

**5. References**


A METHODOLOGICAL CONTRIBUTION TO THE MEASUREMENT OF SKILL (MIS)MATCH

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Abstract: Researchers have long expressed their discontent with the existing measures of skill mismatch, such as levels of performance, years of education or educational qualifications. This paper argues that traditional measures cannot fully capture the essence of an inherently multi-dimensional concept such as skill mismatch. An empirical job-based methodology is proposed, which classifies the types of skill (mis)match based on performance provided in core skills and supplementary skills. The proposed methodology is tested on a sample of 600 Portuguese retail bankers. The results support the job-specific nature of skills and the significant impact of skill mismatch on earnings.

Keywords: human capital, job match, educational mismatch, skill mismatch, skill measurement, wage effects.

1. Introduction

Educational mismatch and skill mismatch raise concern among institutional actors and researchers in industrialised countries. Understanding and measuring these two dimensions of misalignment between required and supplied skills in the labour markets would provide useful insights for appreciating how education contributes (or does not contribute) the acquisition of valuable skills.

The crucial implications of this issue for social and economic growth have stimulated a growing body of literature on overeducation and undereducation in the last decades. Human capital, job matching, and occupational mobility theories argue that educational mismatch is basically a transient situation due to either insufficient information exchange between employers and employees (Jovanovic 1979) or to deficits in some areas of human capital. In the latter case, additional schooling may substitute or compensate for deficiencies in human capital (Sílles and Dolton 2008). Long-lasting educational mismatch is justified only by heterogeneity of the ability of employees with the same educational qualification, an issue increasingly explored by theoretical and empirical contributions (McGuinness 2006; Bauer, 2002). The growing awareness of the heterogeneous distribution of capabilities among employees has progressively re-focused the research questions on educational mismatch (Allen and van der Velden 2001): is educational qualification an acceptable proxy of skill mismatch? Does the mismatch between supplied and demanded education properly mirror the mismatch between acquired and provided skills?

Despite the fact that the answers to the questions on educational mismatch and skill mismatch critically depend on skill measurement, contributions on this issue are still limited (e.g., Heijke and Ramackers 1998; Allen and van der Velden 2001; Borghans et al. 2001; Heijke et al. 2002; Paul 2002 and 2006; Allen and van der Velden 2005: Verhaest and Omey 2006; Green and McIntosh 2007). In addition, the survey of the existing literature outlines the important methodological problems that still affect the measurement of skills and skill mismatch. This paper contributes to the outlined debate by proposing a new approach to the classification of skill mismatch. The suggested methodology is tested on a sample of 600 Portuguese retail bankers. Contrary to most existing studies, the data are based on supervisor assessments of performance and skill levels rather than on self-reporting. Assessment by supervisors reduces the risk of biases due to different reference scales and increases the reliability of the available data.

The goal of the paper is twofold. First, we discuss the advantages and disadvantages of how skill mismatch was measured in prior empirical literature. Second, we suggest an empirical measure of skill mismatch based on the opposition between core skills, which dramatically affect the performance of an individual in his/her job and supplementary skills, which concern useful but not crucial capabilities.

The rest of the paper is organised as follows. The next section surveys the literature on skill mismatch and skill mismatch measurement. Section 3 presents the data used in the empirical analysis and discusses the suitability of the banking sector as a test bed for the proposed methodology. Section 4 outlines the proposed methodology to identify different types of skill mismatch, which is tested on the case of Portuguese retail bankers in section 5. Section 6 provides some concluding remarks.

2. Background Literature

Theoretical and empirical analyses on the causes of mismatch between the quality of labour demand and supply have long focused on educational mismatch. Several factors contribute to
the popularity of educational attainments to gauge the quality of the effort provided by employees. Especially when measured as the length of time spent in the education system, educational qualifications provide a mono-dimensional, easy-to-treat quantitative measure of individual competences. Data on (years of) education are easily available and allow for international comparisons. Last but not least, education represents the most powerful leverage in the hands of policy makers for governing national processes of social and economic growth. Appropriate policy measures may reduce the economic and social costs of educational mismatch. However, the effects of those policies only reveal themselves in the long run and modifications to those policies are difficult to implement (Shaw 1987). Wise decisions, therefore, need updated information about overeducation, undereducation, and, above all, the origins of those phenomena.

Nevertheless, several signals suggest an increasing dissatisfaction with education as a proxy for individual skills and capabilities. On the one hand, a growing body of literature stresses the role of unobserved heterogeneity among employees as a significant determinant of wage differentials (Heckman et al., 2005; McGuinness, 2006). On the other, an important line of literature has outlined the role played by the contents of the educational path, besides its length (see e.g., García-Aracil and Van der Velden 2008; Robst 2008). Of course, the increasing differentiation of labour due to the diffusion of new technologies and new modes of production organisation (Handel and Levine, 2004), the switch from capital-intensive to knowledge-intensive economies (Child and McGrath 2001), and the new international division of labour (Gray and Connolly 2008) all push towards a differentiation in the demand for skills, hence to the growing dissatisfaction with mono-dimensional measures of mismatch, such as years of education.

In economic analysis, the concept of skill progressed from a one-dimensional to a multidimensional construct (Suleman and Paul 2008). Inspired by assignment theory and job matching, economists have argued that acquired knowledge and skills are not equally productive (Heijke and Ramaekers 1998). Skill match depends on the relationship between the types of acquired and required skills. Labour supply is the sum of individual bundles of capabilities, as each employee provides a stock of capability endowment (Hartog 1981, 17). At the same time, labour demand can be broken down into a sum of jobs described as bundles of required capabilities (Hartog 1981, 37), demanding different amounts and different combinations of skills. Accordingly, the productivity of knowledge and skills acquired through education is partially driven by job characteristics, i.e., by the matching between demanded and supplied skills.

The most frequent approach to measuring skill (mis)match analyzes the extent to which the gap between acquired and required education/qualification corresponds to the mismatch between provided and required skills. To this purpose, Allen and van der Velden (2001) and Green and McIntosh (2007) use self-reported measures of over and under-utilisation of skills as measures of over and under-skilling. Green and McIntosh (2007) measure over-skilling as the agreement on a four-level scale with the following statement: ‘In my current job I have enough opportunity to use the knowledge and skills that I have’, as well as with the question ‘How much of your past experience, skills and abilities can you make use of in your present job?’. The measure of under-skilling is assessed by the agreement with the following statement: ‘I would perform better in my current job if I possessed additional knowledge and skills’.

In a very similar way, Allen and van der Velden (2001) test whether educational mismatch corresponds to a mismatch between acquired and required knowledge and skills on a sample of young Dutch graduates. Based on the same empirical strategy of self-reports to statements, the authors identify four different types of skill (mis)match by crossing the two dimensions of skill underutilisation (measured by over-skilling) and skill deficit (measured by under-skilling). Employees affected by skill surplus declare both no need for additional skills to perform effectively in their current job and no use of a significant share of their skills. Skill shortage corresponds to the contemporary need for additional skills to perform the assigned tasks and lack of over-skilling. Employees endowed with wrong skills lack the capabilities to provide an effective performance in their current tasks while making no full use of all their capabilities. Eventually, skill match is characterised by weak underutilisation of available skills and no need for additional skills.

Despite its appeal, the approach to skill mismatch measurement proposed by Allen and van der Velden (2001) and Green and McIntosh (2007) presents two major limitations. First, the reference framework used to appreciate over-skilling (or, conversely, skill underutilisation) and under-skilling (i.e., skill deficit) suffers from an intrinsic contrast. The proposed definition of skill underutilisation is based on individual experience, i.e., on a highly diversified and continuously evolving bundle of education experience, work experience and, more generally, overall life experience. Especially when based on self-assessment, skill underutilisation is a qualitative perception rather than a systematic comparison between actually demanded and potentially supplied skills. On the contrary, the identification of skill deficit is based on the comparison between the range and the level of provided skills and those required by a specific job. In other words, the approach frames skill underutilisation as supply-driven, while skill deficit is demand-driven.

The outlined dichotomy brings a bias towards skill underutilisation: who doesn’t own a wider set of skills than those merely required by one’s position? Shall we define a plant

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1 Green and McIntosh (2007) underline their preference for the terms over- or under-qualification instead of over- and under-education.
manager who is also a superb sailboat driver as over-skilled? And what about a sailor endowed with a special gift for cooking? Of course, the higher the degree of vertical and in the horizontal specialisation, the higher the contrast between the “perceptive” measure of skill underutilisation and the “objective” measure of skill deficit, the stronger the claim for over-skilling. According to Allen and van der Velden (2001), 15.2% of young Dutch graduates report a strong degree of skill underutilisation, while the same figure ramps up to 35% for UK employees (Green and McIntosh 2007).

The second limitation of the described approach is that skill (mis)match is identified on the bases of extremely general information. On the contrary, a growing body of literature emphasizes the job-specific nature of skills and performance. Heikje and Ramaekers (1998) and Heikje et al. (2002) argue that skill clusters, job-specific information and education-specific information significantly affect individual performance. The empirical contributions in this area are based on the nature of required and acquired skills and on the peculiarities of job profiles to explain the relationship between education and outcome in the labour market. As skills are context-specific, different occupations call for different mixes of skills. In particular, the mentioned approaches in economies of education use the value of specific skill clusters as an indirect measure of skill requirement in the labour market.

3. Data

The empirical analysis presented in this paper is based on an original survey on the professional profile and the performance of 600 non-manager retail bankers employed at 86 branches of five Portuguese banking firms (Suleman 2007). The wider diffusion of the competence model in the banking sector compared to other industries (Gelade and Ivery 2003) and the processes of skill restructuring and diversification that followed the important technological and institutional changes over the last 30 years (Ingham and Thompson 1993; Buzzacchi et al., 1995; Sparrow 1996) make the banking sector an interesting case study to appreciate the fit between skill demand and supply.

In order to assess provided skills and performance levels against job-specific rather than general indicators, the survey focuses on a specific occupational profile, the retail banker. This choice allows the study to take into account the heterogeneous distribution and use of skills within a homogeneous job. A list of twenty-three skills that directly contribute to the performance of retail bankers and include technical, cognitive, strategic and relational skills was drawn up with the help of banking managers. As for performance measures, the survey includes both an assessment of the overall contribution of each employee to the success of the local branch and an evaluation of the performance level achieved in a set of occupation-specific tasks.

In late 2001, the direct supervisors of the examined employees were asked to rate the skills and performance provided by their subordinates on a five-point Likert scale. Consequently, and contrarily to most available data based on self-assessment, the resulting database reports subjective evaluations of the match between required and provided skills and performance based on the supervisor’s judgment. The survey also collects information on employees (age, gender, educational qualification and tenure with the current employer) and on their reward, including salary grade, basic wage, other fixed compensation schemes, bonuses, profit sharing and stock-option incentives.

Table 1 reports some statistics on the examined sample. Most of the examined retail bankers spent a significant share of their career with their current employer at the time of the evaluation.

| Table 1: The empirical sample – descriptive statistics |
|-----------------------------------------------|--------|--------|--------|
|                                | # obs. |       |        |
| Age [years]                     | 592    | 36.43  | 9.46   |
| Tenure [years]                  | 579    | 11.49  | 8.90   |
| Experience [years]              | 570    | 17.34  | 11.51  |
| Required education [years]      | 600    | 13.15  | 2.66   |
| Overeducation [years]           | 578    | 1.26   | 2.10   |
| Undereducation [years]          | 578    | 1.57   | 2.53   |
| Female [%]                      | 594    | 0.48   | 0.50   |
| Basic working time [hours/week] | 594    | 35.19  | 1.15   |
| Total working time [hours/week] | 562    | 37.75  | 3.78   |
| In charge of a client portfolio [%] | 600    | 0.33   | 0.47   |
The existence of diversified jobs within the observed professional profile is hinted by the fact that only one employee in three is actually in charge of a client portfolio.

The job of retail banker typically represents a port of entry to the banking industry, whose workforce is getting increasingly qualified. According to the collective agreement for the Portuguese banking sector, in 2001 the required education level for a retail banker corresponded to 11 years of schooling (lower secondary education). However, the average 13.15 years of required schooling demonstrate the adoption of diversified recruitment strategies, with three out of the five sampled banks asking new entrants for higher levels of education\(^1\). Due to the growing educational requirements, demanded and supplied education levels match for only 26% of the examined retail bankers, while 38.6% are overeducated and 35.4% hold lower than required educational qualifications.

The database on Portuguese retail bankers looks particularly suitable for exploring new measures of skill mismatch. The focus on a specific occupation allows this study to take into account the heterogeneous distribution and use of skills within a homogeneous professional profile. The availability of information on performed tasks allowed the identification of different jobs within the examined occupation, while information on skill assessment was used to identify job-specific skill profiles and, consequently, job-specific (mis)matches.

4. Methodology: in Search of a Measure of Skill Mismatch

In order to overcome the methodological problems outlined in section 2, we suggest separating the impact of job-specific skills and general skills, respectively named, as core skills and supplementary skills. The competence-based theory frames core competencies as a source of competitive advantage for the firm. At the firm level, core competencies are related to bundles of skills, technologies, and routines that enable the creation of an idiosyncratic strategy. This notion, consistent with performance determinants, also applies at the individual level. Herein, we define core skills as those skill clusters that dramatically affect the performance of an individual in his/her job, while supplementary skills as useful but not crucial capabilities. A poor performance in core skills signals a skill deficit, as inadequate core skills prevent the attainment of the required output. On the contrary, proficiency in supplementary skills identifies skill underutilisation, as a good performance in knowledge domains that span beyond job-specific core skills signals the existence of slack resources, hence at least a certain degree of over-skilling.

By comparing individual performance in a range of core skills with that provided in supplementary skills, all the types of skill (mis)match proposed by Allen and Van der Velden (2001) can be properly identified (Table 2). If we roughly qualify the match between required and provided skills as either “strong” or “poor”, skill shortage is identified by a poor performance in both core and supplementary skills. On the contrary, a strong match in both core and supplementary skills corresponds to a skill surplus, because the employee’s capabilities go beyond the requirements of his or her job title. Skill matching is characterised by the full accomplishment of the position requirements, i.e., adequate provision of core skills and poor specialisation in supplementary skills. Eventually, a poor performance in core skills accompanied by strong supplementary skills corresponds to a wrong skill profile.

Low sophistication of statistical tools and re-use of concepts already developed in literature drive our proposal. In particular, we assume that skill match is a multi-dimensional construct not properly captured by human capital variables and that both labor demand and labor supply can be described as context-specific bundles of capabilities.

The proposed approach presents several advantages. First, all match and mismatch measures can be modelled as performance measures, i.e., as comparisons between required and provided skills. This solution guarantees more neutral and homogeneous results also with subjective assessments, as those provided by supervisors. Second, the impact of non-significant areas of expertise can be either excluded, by detailing the range of relevant supplementary skills, or mitigated, as they only impact supplementary skills. Third, the suggested solution is flexible to the choice of different measurement techniques, as it fits with both subjective and objective approaches to skill assessment. Fourth, as both core skills and supplementary skills are job-specific, (mis)match is bounded to evolve according to the contents of the examined job.

Table 2: The proposed classification of skill (mis)match

<table>
<thead>
<tr>
<th>Performance in…</th>
<th>Poor (high skill deficit)</th>
<th>Strong (low skill deficit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>… supplementary skills</td>
<td>Skill shortage</td>
<td>Skill surplus</td>
</tr>
<tr>
<td>… core skills</td>
<td>Poor (low skill underutilisation)</td>
<td>Strong (high skill underutilisation)</td>
</tr>
</tbody>
</table>

The methodology suggested to assess the alignment between required and provided skills develops along three steps. The first step identifies specialised jobs within the occupational profile of retail bankers. Based on information about which tasks affect

\(^1\) This evidence suggests that the sampled banks may be either taking advantage of labour market conditions or using additional education as a slack resource to cope with the increasing sophistication of a fast-changing occupational profile.
the performance of each retail banker, a cluster analysis was used to differentiate jobs within the examined occupation².

The second step associates each cluster with a job-specific profile of core skills and supplementary skills. For each cluster, core skills were identified as those skills whose score displayed the highest correlation index with the overall performance. The underlying hypothesis is that the higher the correlation between global performance and effectiveness in a specific skill, the higher the importance of that skill for the examined job.

The final step of the proposed methodology compares the proficiency achieved by individual employees in core and supplementary skills to the average proficiency displayed by the members of the same cluster in order to qualify the alignment between required and provided skills according to the framework in Table 2. Skill mis-match exists in case of skill deficit, skill surplus or wrong skills.

5. Empirical Evidence

The suggested methodology proved fruitful for classifying the degree of skill (mis)match displayed by Portuguese retail bankers. A K-means cluster analysis on the variables affecting the employees’ global performance confirmed the existence of actually diversified jobs within the examined occupation¹. The available database lists seven tasks which are generally expected to affect the performance of retail bankers. They include the delivery of products and services to business and residential customers, the acquisition of new customers, the acquisition of new deposits, the development of lending proposals, the management of a client portfolio, the accountability for product and service delivery, and the filing of day-to-day operations. Based on dummy variables which signal the significant impact of those seven tasks on the global performance achieved by each employee, a K-means cluster analysis grouped the examined retail bankers in three sets. Following the prevailing characteristics of each cluster, they were named respectively Customer-focused employees, Front-office employees and Back-office employees (Table 3).

The first cluster, which includes 272 observations, is characterised by the extended polyvalence of its members, whose job includes most of the considered tasks, both in the front-office and in the back-office of bank branches. All Customer-focused employees are in charge of a portfolio of clients and virtually all of them (98%) are responsible for a sensible and risky activity such as lending proposal. With 218 observations, the cluster of Front-office employees represents the second largest group. Front-office employees share with Customer-focused employees a polyvalent job, yet they are excluded from client portfolio management and their involvement in lending proposal is significantly lower. Finally, with only 38% of employees involved in the delivery of products and services to the branch customers, Back-office employees (92 observations) are in charge of more narrow jobs and focused on administrative tasks such as accounting and filing.

The three clusters identify a continuum between entrepreneurial, client-oriented retail bankers who are aggressively focused on business targets, and more conservative professionals aimed at the proper functioning of a bureaucratic structure. The opposition between Customer-focused and Back-office employees, mediated by Front-office employees, is confirmed by the statistics on demographic and employment variables reported in Table 4. Despite being closer to Client-focused employees as far as it concerns polyvalence and direct contact with clients, retail bankers in the cluster of Front-office employees are more similar to Back-office employees when it comes to personal characteristics and history with the bank. While gender is evenly distributed across the three clusters, Client-focused employees are characterised by lower age and tenure, longer working hours and higher education levels⁴.

The detection of three distinct jobs within the occupation of retail bankers justifies the search for job-specific profiles of core and supplementary skills. The available database scores the performance of the examined retail bankers against twenty-three occupation-specific skills, which span across the areas of cognitive knowledge, business strategy, relationship management, and general competences (Table 5). An assessment of the global contribution of each employee to the branch outcome is also available. Both skills and general performance are scored on Likert scales between 1 (“Very bad”) and 5 (“Excellent”). For each cluster, core competences were identified as those displaying the highest correlation with the overall performance³ (Table 5). Two skills, Perseverance and Cooperation, both are concerned with the employees’ commitment to bank competitiveness, and highly correlate with employee performance for all identified jobs. On the contrary, nine skills play no core role for any cluster and they noticeably concentrate in the area of general skills.

The intermediate position of Front-office employees between Customer-focused and Back-office employees is further confirmed by the distribution of core skills. Customer-focused and Back-office employees are both characterised by three distinctive core competences and both share three additional core

² When available, detailed job grades of contractual job classification could substitute for this analysis.
³ Due to some missing values, the cluster analysis involved 582 observations out of the 600 observations in the original database. Due to the nature of the examined data (true binary variables) and the comparatively large dimension of the sample, K-means cluster analysis was preferred to hierarchical cluster analysis.
⁴ An ANOVA confirmed that all those differences are statistically significant at the 1% level.
⁵ A sensitive analysis suggested limiting the number of core competences to 8 for each cluster.
skills with the cluster of Front-office employees, while the latter do not reveal any unique core competence.

The core skills of Customer-focused employees concern change in a complex environment (Learning skills and Teamwork), business-specific knowledge (Banking business intelligence and Strategic focus) and client management (Negotiation and Focus on clients). At the opposite end of the spectrum of retail banker jobs, the six core skills that Back-office employees do not share with their Customer-focused colleagues are in the area of cognitive skills, and centre on the capability of gathering, processing and transferring information. In particular, all their distinctive skills (Autonomy, Tasks planning and Knowledge transfer) concern the organisation of work and information flows and the re-use and systematisation of existing knowledge. As for Front-office employees, they share the need for information selection and process with Back-office employees and the focus on clients and competitive environment with the cluster of Customer-focused employees.

Table 3: Job clusters within bank retailers [share of employees whose global performance is affected by each task]

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Task</th>
<th>Delivery of products and services</th>
<th>Acquisition of new customers</th>
<th>Acquisition of deposits</th>
<th>Lending proposals</th>
<th>Client portfolio management</th>
<th>Accountability for product and service delivery</th>
<th>Document filing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer-focused employees</td>
<td></td>
<td>272 obs.</td>
<td>0.996</td>
<td>0.993</td>
<td>0.971</td>
<td>0.982</td>
<td>1.000</td>
<td>0.974</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.061</td>
<td>0.086</td>
<td>0.169</td>
<td>0.135</td>
<td>0.000</td>
<td>0.159</td>
</tr>
<tr>
<td>Front-office employees</td>
<td></td>
<td>218 obs.</td>
<td>0.968</td>
<td>0.995</td>
<td>0.959</td>
<td>0.716</td>
<td>0.000</td>
<td>0.922</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.177</td>
<td>0.068</td>
<td>0.199</td>
<td>0.452</td>
<td>0.000</td>
<td>0.269</td>
</tr>
<tr>
<td>Back-office employees</td>
<td></td>
<td>92 obs.</td>
<td>0.380</td>
<td>0.098</td>
<td>0.065</td>
<td>0.033</td>
<td>0.087</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.488</td>
<td>0.299</td>
<td>0.248</td>
<td>0.179</td>
<td>0.283</td>
<td>0.339</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>582 obs.</td>
<td>0.888</td>
<td>0.852</td>
<td>0.823</td>
<td>0.732</td>
<td>0.481</td>
<td>0.938</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.315</td>
<td>0.355</td>
<td>0.382</td>
<td>0.443</td>
<td>0.500</td>
<td>0.241</td>
</tr>
</tbody>
</table>

Table 4: Characteristics of employees by job cluster

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer-focused employees</td>
<td>N</td>
<td>266</td>
<td>269</td>
<td>262</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>34.936</td>
<td>47.6</td>
<td>9.922</td>
<td>38.954</td>
<td>13.617</td>
</tr>
<tr>
<td></td>
<td>8.456</td>
<td>50.0</td>
<td>7.639</td>
<td>4.020</td>
<td>2.894</td>
</tr>
<tr>
<td>Front-office employees</td>
<td>N</td>
<td>216</td>
<td>216</td>
<td>210</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>37.505</td>
<td>51.9</td>
<td>12.881</td>
<td>36.599</td>
<td>12.230</td>
</tr>
<tr>
<td></td>
<td>10.015</td>
<td>30.1</td>
<td>9.574</td>
<td>3.179</td>
<td>2.964</td>
</tr>
<tr>
<td>Back-office employees</td>
<td>N</td>
<td>92</td>
<td>91</td>
<td>89</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>38.837</td>
<td>39.6</td>
<td>13.860</td>
<td>36.683</td>
<td>12.189</td>
</tr>
<tr>
<td></td>
<td>10.448</td>
<td>49.2</td>
<td>10.107</td>
<td>2.949</td>
<td>2.864</td>
</tr>
<tr>
<td>Total</td>
<td>N</td>
<td>574</td>
<td>576</td>
<td>561</td>
<td>546</td>
</tr>
<tr>
<td></td>
<td>36.528</td>
<td>47.9</td>
<td>11.654</td>
<td>37.730</td>
<td>12.870</td>
</tr>
<tr>
<td></td>
<td>9.510</td>
<td>50.0</td>
<td>8.955</td>
<td>3.750</td>
<td>2.993</td>
</tr>
</tbody>
</table>
Table 5: Correlation indexes between provided skills and overall performance by cluster

<table>
<thead>
<tr>
<th></th>
<th>Customer-focused employees</th>
<th>Front-office employees</th>
<th>Back-office employees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning skills</td>
<td>0.610</td>
<td>0.655</td>
<td>0.591</td>
</tr>
<tr>
<td>Banking business intelligence</td>
<td>0.607</td>
<td>0.632</td>
<td>0.451</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.572</td>
<td>0.660</td>
<td>0.628</td>
</tr>
<tr>
<td>Analytical skills</td>
<td>0.521</td>
<td>0.674</td>
<td>0.664</td>
</tr>
<tr>
<td>Information selection and process</td>
<td>0.582</td>
<td>0.713</td>
<td>0.686</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.566</td>
<td>0.573</td>
<td>0.647</td>
</tr>
<tr>
<td>Tasks planning</td>
<td>0.573</td>
<td>0.599</td>
<td>0.686</td>
</tr>
<tr>
<td>Knowledge transfer</td>
<td>0.560</td>
<td>0.652</td>
<td>0.678</td>
</tr>
<tr>
<td>Problem solving</td>
<td>0.573</td>
<td>0.660</td>
<td>0.615</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.581</td>
<td>0.618</td>
<td>0.596</td>
</tr>
<tr>
<td><strong>Strategic skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perseverance and focus on targets</td>
<td>0.643</td>
<td>0.689</td>
<td>0.654</td>
</tr>
<tr>
<td>Negotiation</td>
<td>0.648</td>
<td>0.625</td>
<td>0.609</td>
</tr>
<tr>
<td>Focus on clients</td>
<td>0.641</td>
<td>0.722</td>
<td>0.582</td>
</tr>
<tr>
<td>Strategic focus</td>
<td>0.641</td>
<td>0.691</td>
<td>0.625</td>
</tr>
<tr>
<td>Persuasion</td>
<td>0.597</td>
<td>0.641</td>
<td>0.550</td>
</tr>
<tr>
<td><strong>Relationship management skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td>0.657</td>
<td>0.728</td>
<td>0.664</td>
</tr>
<tr>
<td>Teamwork</td>
<td>0.612</td>
<td>0.677</td>
<td>0.562</td>
</tr>
<tr>
<td>Relationship management</td>
<td>0.464</td>
<td>0.591</td>
<td>0.245</td>
</tr>
<tr>
<td>Communication</td>
<td>0.499</td>
<td>0.595</td>
<td>0.561</td>
</tr>
<tr>
<td><strong>General skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign languages</td>
<td>0.203</td>
<td>0.290</td>
<td>0.155</td>
</tr>
<tr>
<td>Standards and procedures</td>
<td>0.530</td>
<td>0.495</td>
<td>0.596</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.554</td>
<td>0.584</td>
<td>0.497</td>
</tr>
<tr>
<td>Information systems</td>
<td>0.395</td>
<td>0.609</td>
<td>0.537</td>
</tr>
</tbody>
</table>

Correlation indexes between overall performance and core skills emphasised

The final step of the suggested methodology identifies different types of skill (mis)match by comparing individual average scores in job-specific core skills and supplementary skills with the average scores achieved by the members of the same cluster. “Strong” core or supplementary skills are identified when the employee scores a higher value than the average achieved in the corresponding cluster. On the contrary, a “Poor” skill level corresponds to lower than average scores.

The result of the classification procedure is reported in Table 6. All types of skill (mis)match identified by Allen and van den Velden (2001) are represented in the examined sample. An ANOVA confirmed that the distribution of wrong skills, skill shortage, skill match, and skill surplus does not significantly vary across the three clusters. Table 6 shows a concentration of skill shortage (combination of poor core and supplementary skills) and skill surplus (strong core and supplementary skills). In other words, employees are either very good or very bad performers in all the knowledge domains of retail banking, irrespective of the peculiarities of their specific job. This may be due to undetected complementarities between core and supplementary skills or to an insufficient specialisation of jobs among retail bankers, as data show that many employees are called to perform the whole range of tasks that take place at bank branches.
In order to test the effectiveness of a job-based approach to the identification of core and supplementary skills, we replicated the classification routine under the hypothesis of identical job profile for all the examined retail bankers. Core skills, equal for all clusters, were identified as those showing the highest correlation index with employees’ overall performance. The results reported in Table 6 confirm the opportunity of a job-based analysis. When overlooking job peculiarities, the analysis overestimates skill surplus among Customer-focused employees. This is due both to the higher scores on skill levels on average achieved by the members of this cluster and to the larger dimension of the cluster itself, which steers correlations between skill levels and overall performance towards the skills that more dramatically affect the performance of this group. Not surprisingly, Front-office and Back-office employees present markedly lower rates of skill surplus in favour of a higher incidence of skill shortage.

<table>
<thead>
<tr>
<th>Table 6: Skill (mis)match by job cluster with job-specific skill profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer-focused employees</td>
</tr>
<tr>
<td>#</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Wrong skills</td>
</tr>
<tr>
<td>Skill shortage</td>
</tr>
<tr>
<td>Skill match</td>
</tr>
<tr>
<td>Skill surplus</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 7: Skill (mis)match by job cluster without job-specific skill profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer-focused employees</td>
</tr>
<tr>
<td>#</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Wrong skills</td>
</tr>
<tr>
<td>Skill shortage</td>
</tr>
<tr>
<td>Skill match</td>
</tr>
<tr>
<td>Skill surplus</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

6. The Economic Return to Skill Mismatch

In order to test the explanatory power of the proposed measures of skill (mis)match, this section presents some simple estimates of the return to skills and education. The empirical analysis tests the ORU specification of the Mincian wage equation (Duncan and Hoffman, 1981) through OLS regressions. Results are displayed in Table 8.

Model 1 explains the logarithm of the total gross hourly wage with the “classical” variables of human capital, including required education, overeducation, undereducation and experience. All coefficients are statistically significant and display the signs usually found in the literature (Groot and Maassen van den Brink, 2000; Sloane, 2003). The requirement of additional years of education involves a wage premium, which also exists, despite being smaller, in the case of over-education. A qualification below the required level involves a wage penalisation. Experience in the labour market is recognised by the employer in the form of an additional monetary reward; yet, the negative coefficient of the squared term signals the existence of a saturation effect.

The “traditional” snapshot remarkably changes when including additional explanatory variables on job and skill matching. The relevance of job and skill mismatch in mediating the impact of human capital on wage is confirmed by the growing model fit (decreasing coefficient of the F-test) and by the increasing share of explained variance (growing value of the adjusted R2). It has to be noted that the highest increase in the value of the adjusted R2 from the baseline (Model 1) corresponds to Model 3 (the variance of data explained by the estimate switches from 17.9% to 21.3%), which remarkably includes skill mismatch effects.
Table 8: The economic return to skill mismatch

<table>
<thead>
<tr>
<th>Variable description</th>
<th>Regressor</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td>6.413 ***</td>
<td>6.489 ***</td>
<td>6.389 ***</td>
<td>6.387 ***</td>
</tr>
<tr>
<td>Required education in years</td>
<td>Required_edu</td>
<td>0.065 ***</td>
<td>0.058 ***</td>
<td>0.055 ***</td>
<td>0.052 ***</td>
</tr>
<tr>
<td>Years of overeducation</td>
<td>Overeducation</td>
<td>0.021 *</td>
<td>0.013</td>
<td>0.021 *</td>
<td>0.014</td>
</tr>
<tr>
<td>Years of undereducation</td>
<td>Undereducation</td>
<td>-0.023 *</td>
<td>-0.018</td>
<td>-0.017</td>
<td>-0.015</td>
</tr>
<tr>
<td>Years of experience in the labour market</td>
<td>Exp</td>
<td>0.042 ***</td>
<td>0.038 ***</td>
<td>0.045 ***</td>
<td>0.043 ***</td>
</tr>
<tr>
<td></td>
<td>Squared_exp</td>
<td>-0.001 ***</td>
<td>-0.001 ***</td>
<td>-0.001 ***</td>
<td>-0.001 ***</td>
</tr>
<tr>
<td>1 for female</td>
<td>Gender</td>
<td>-0.031</td>
<td>-0.038</td>
<td>-0.028</td>
<td>-0.032</td>
</tr>
<tr>
<td>1 for cluster Customer-focused</td>
<td>Customer-focused</td>
<td>0.114 **</td>
<td></td>
<td>0.118 **</td>
<td></td>
</tr>
<tr>
<td>1 for cluster Front-office</td>
<td>Front-office</td>
<td>-0.001</td>
<td></td>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>1 for wrong skills</td>
<td>Wrong_skills</td>
<td>0.031</td>
<td></td>
<td>0.054</td>
<td></td>
</tr>
<tr>
<td>1 skill shortage</td>
<td>Skill_shortage</td>
<td>0.030</td>
<td></td>
<td>0.043</td>
<td></td>
</tr>
<tr>
<td>1 for skill surplus</td>
<td>Skill_surplus</td>
<td>0.222 ***</td>
<td></td>
<td>0.232 ***</td>
<td></td>
</tr>
<tr>
<td>F-test</td>
<td></td>
<td>19.198 ***</td>
<td>14.931 ***</td>
<td>15.609 ***</td>
<td>13.768 ***</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td>0.179</td>
<td>0.186</td>
<td>0.213</td>
<td>0.224</td>
</tr>
</tbody>
</table>

582 observations; OLS regressions; dependent variable: logarithm of total gross hourly wage

*** p < 0.01; ** p < 0.05; * p < 0.10

Model 2 in Table 8 shows that, when taking into account the peculiarities of the performed job, overeducation and undereducation are no more significant determinants of wage. In other words, and according to the predictions of the Job Competition Model (Thurow 1975), working in a banking firm as a Customer-focused employee improves earnings, irrespective of the actual over or undereducation, because the needed skills are acquired on-the-job. Model 3 introduces skill mismatch and shows that skill surplus downsizes the impact of required education on wage in comparison with the baseline model. This evidence supports the hypothesis that the increasing level of schooling required by banking firms aims at building up stocks of slack resources to cope with change and uncertainty. Eventually, Model 4 in Table 8 confirms that the omission of the effects of both job and skill mismatch leads to an over-estimation of the return to required education and to an over-statement of the importance of educational mismatch. However, it has to be noted that only Customer-focused employees benefit from a significant wage increase in comparison with Back-office employees. At the same time, only skill surplus is associated with a significant wage premium. On the contrary, Portuguese banking firms are not using the wage leverage to discriminate between matched employees and employees suffering from wrong skills or skill shortage1.

7. Concluding Remarks

Researchers have long expressed their discontent with the prevailing proxies for skill mismatch, such as the levels of performance, the years of education, or the educational qualifications. This paper argues that the above measures cannot capture the full essence of skill mismatch, which is an inherently bi-dimensional concept, as it involves both a horizontal dimension (“What is the degree of overlapping between provided and required skills?”) and a vertical one (“What is the level of effectiveness in the available skills?”).

The proposed methodology supports the multi-dimensional nature of skill (mis)match by discriminating between the effectiveness in core and supplementary skills. The opposition between core and supplementary skills proved to be a viable solution to identify different types of alignment and misalignment between required and provided skills. Of course, the above analysis is still largely explorative and serious improvements are needed to refine the underlying theoretical foundations and the empirical methodology.

The results obtained for a sample of Portuguese retail bankers emphasize the importance of taking into account the job-specific nature of skills. Three different jobs have been identified within the broad occupation of retail banker, each characterised by a specific profile of core skills and individual features. In particular, polyvalent customer-focused employees are characterised by a higher educational profile and younger age. This finding suggests that further research based on panel data may offer interesting insight on the evolution of jobs and skill requirements in the

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1 A model with interaction terms between job profiles and types of skill mismatch displayed no difference with Model 4 as for sign and significance of common coefficients, while the coefficients of all interaction terms are non-significant at standard levels.
banking industry, possibly outlining segregation effects due to age or education.

Despite being preliminary, the provided empirical analysis has demonstrated that overlooking job-specific features leads to an inaccurate identification of skill (mis)match. In particular, an undifferentiated occupation-based list of core and supplementary skills increases the measured rate of skill surplus in larger professional profiles and in better performing jobs.

The obtained results also confirm that skill mismatch, at least in the case of surplus skills, is a significant determinant of earnings in the Portuguese banking industry. Omitting this variable overestimates the importance of required education and educational mismatch. The inclusion of skill mismatch variables shows that, irrespective of the educational qualification attained by their employees, Portuguese banking firms appreciate and reward the whole range of provided skills, possibly because they provide a buffer of slack resources to cope with change and uncertainty. This evidence suggests that an important future line of research should concern the source of those slack resources: were surplus skills acquired in the education system or after the entry in the labour market?

8. References


SCHOOL TO WORK TRANSITION IN THE TURKISH LABOR MARKET

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Institute for the Study of Labor (IZA)

Abstract: This study considers subjective evaluation of the school to work transition in the Turkish labor market using a special module of the 1997 Household Labor Force Survey. We use vocational high school and university graduates' self-assessment of their education in two dimensions. They are asked to assess the extent to which their education is related to their current job and enhanced their productivity in their job. The analysis is carried out for men and women separately. Further, the analysis is extended to the graduates of various types of vocational high schools.

1. Introduction

The school to work transition includes several issues concerning schooling, training and employment. One of the criticisms leveled at the school to work transition is the weak link between schooling and employment. This paper will provide evidence on various aspects of the relationship between schooling and employment in Turkey. The main questions asked are as follows. To what extent do the knowledge and skills the graduates obtained from years of schooling and training relate to their jobs? Do the education and skills acquired at schools have a favorable impact on the eventual job performance? Therefore, this study postulates a connection between education training and subsequent employment by examining the effect of education on equipping the individuals with adequate and an appropriate level of knowledge and skills to meet the demand in the labor market. These issues are investigated for two levels of schooling, namely vocational high schools and universities. Further investigations are carried out using different types of vocational high schools which involve different programs of study. More clearly, the links between education and employment are investigated for different types of vocational high schools. All analyses are carried out for men and women separately to examine the differences by gender by using a special module of the 1997 Household Labor Force Survey. Such issues related to the vocational education programs are critically important for Turkey but they have never been systematically analyzed for vocational high schools in general and by the type of vocational high schools in particular. Therefore, the results could generate important policy implications concerning the Turkish education system, especially at a time when educators worldwide are increasingly advocating a greater emphasis on education and training.

The rest of the paper is organized as follows. Section 2 provides background information on the educational system and labor market characteristics in Turkey. The data utilized in this study are discussed in Section 3. A brief review of the literature appears in Section 4 together with a discussion of the methodology. The analysis of the survey data and the estimation results are shown in Section 5. Conclusions are given in Section 6.

2. Educational and Labor Market Background in Turkey

Educational System

Until the educational reform of 1997, the compulsory level of schooling was five years of primary school education. In 1997, this compulsory level of schooling was extended to eight years covering middle school as well. Since the survey data used in this study pertains to 1997, which is the year of educational reform, the relevant school structure is the pre-reform one. During the pre-reform period, the three years of middle school education followed the compulsory five years of primary schooling. Further education could continue along either at General High Schools or at Vocational High schools, which typically take three, but sometimes four years of study. University education provides two-to six years of training depending on the program of study. The extension of compulsory schooling to eight years and the establishment of the 25 new universities since the early 1990s expanded the educational opportunities greatly. Enrollments have increased at all levels recently and the gender gap in education reduced substantially. Adult literacy increased from 90 percent for men and 67 percent for women in 1990 to 95 percent for men and 80 percent for women in 2002. Secondary education gross enrollment rates increased from 46 percent for boys and 30 percent for girls in 1990 to 76 percent for boys and 52 percent for girls in 2000, and 94 percent for boys and 81 percent for girls in 2007. Gross enrollments at the university level was 26 percent for boys and 19 percent for girls in 2000 and 43 percent for boys and 34 percent for girls in 2007 (Turkish Statistical Institute, 2009).

Labor Market Characteristics

In this section we outline some salient patterns in the Turkish labor market.
3. The Data

The data used in this study comes from the October 1997 Household Labor Force (HLFS) of Turkey conducted by the Statistical Institute of Turkey. The October 1997 HLFS includes a special section called “Education and Training Supplementary Questionnaire” which was implemented only in the October 1997 survey. This section elicited information on the formal and adult education of the population. The survey covers 21,004 households, which included 15,530 urban households and 5,474 rural households in all the geographical regions of Turkey. Urban locations are those with over 20,000 population. There are a total of 51,022 individuals, 26,388 of which are women and 24,634 of which are men.

According to the October 1997 HLFS, the labor force participation rate among individuals who completed formal education is about 52 percent. This rate is about 50 percent among those who completed primary schooling and rises consequentially for each level of education. For instance, 67 percent of vocational high school and 81 percent of university graduates participate in the labor force. The labor force participation rate differs by geographic location. Participation rates are higher in the rural than in the urban areas. There are vast differences in the participation rates by gender. The participation rate for females in 24 percent is significantly lower than that for males at 74 percent. However, this gender gap declines with level of education. The female participation rate among the university graduates is about 72 percent compared to the 87 percent for males. The 1997 HLFS also give information about the participation rates of those individuals who received adult education. For instance, the participation rate for those who completed apprenticeship (assistant master or master) training is about 87 percent, and for those who completed vocational training courses it is about 60 percent. Thus, the individuals who completed apprenticeship or course training have much higher participation rates than those individuals who completed formal education.

4. Methodology

The transition from school to work is a main concern in many countries because of its implications for unemployment. Many countries rely on apprenticeship systems besides formal education in order to reduce unemployment and improve the employment prospects of the population, in particular those of youth. For instance, in countries such as Germany, Luxembourg, Austria and Denmark with highly developed apprenticeship systems, over three-quarters of the youth aged 16-24 years in 1996 were in employment a year after completing their education. In contrast, in countries such as Finland and Italy where apprenticeship systems are not well developed, less than one-third of the youth had a job. Stern (1999) argues that in the United States combining academic and vocational education may improve students’ both academic performance and their work-related capacities. In the US, substantial vocational education courses are followed both by upper secondary school students planning to work after graduation and by those planning to continue their education. Meyer and Horn (1990) reports that the majority of those graduating with a terminal degree from secondary schools do not obtain jobs related to their vocational training. This is attributed to the inability to find a job related to their training, among other factors.

In Japan, upper secondary schools play a crucial role in the school to work transition. In order to ensure a smooth school to work transition, semi-formal contracts are signed between employers and school officials, whereby lists of students are recommended to prospective employers. To receive recommendation from teachers, students need to have outstanding academic achievement and motivation. Mitani (1999) discusses that the criterion of selection for employment is trainability rather than special knowledge or skills. Ryan (2001) reviews the school to work transition in five industrial countries.

This study relies on examination of distributions of various self-assessment questions. Pearson Chi-Square test statistics are reported at the bottom of the tables of relevant distributions. The analysis concentrates on vocational high school and university graduates’ self-assessment of their education in two dimensions. The graduates are asked to assess the extent to which their education is related to their current job and enhanced their productivity in their job. The distributions are produced for men and women separately. Further, the analysis is extended to the graduates of various types of vocational high schools.

Budria and Telhado-Pereira (2009) also use individuals’ subjective evaluation of the effect of their training activities on their employment, job related skills and productivity. They argue that subjective evaluations provide direct and more reliable information and straightforward interpretation. (Budria and Telhado-Pereira, 2009 : 55).

In the 1997 HLFS, individuals are asked the following questions to evaluate several aspects of their education:

1. Is the department in the educational institution you have graduated from related to your present job? (Question no. 48).
2. Did your education taken in educational institution help you to do your job better? (Question no. 50).
3. What is the reason of not working at a job related to your education? (Question no. 49).
4. Where did you learn your main Occupation? (Question no. 41).
The answers to the first two questions ranged from 1- Yes, 2- Partially to 3- No. Question 1, essentially probes the match between content of education and skill requirements of the job. Therefore, this question can be related to the literature on educational mismatches that has received much attention recently. See for example Budria and Moro-Egido (2008). Educational mismatching is important because such workers not only report lower levels of job satisfaction and are less productive (McGuinness, 2006), but also earn less (Hartog, 2000). The second question essentially asks about the contribution of the education to productivity. Question 3 is asked only to individuals who are not working at a job related to their education. In Questions 3 and 4 the respondent is confronted with several choices. The responses to Questions 1-4 are presented in Tables 1-4. In the latter part of our analysis, the first two questions above are tabulated for the vocational high school graduates by the type of various vocational high schools attended. The tabulations are provided in Tables 5-6. Finally, a logit analysis is performed to determine the factors that contribute to better job performance, including level of education controlling for gender, marital status, and age.

5. Estimation Results

In this section, we first present the tables for the distributions in relation to the responses to Questions 1-4 of vocational high school and university graduates. These are given in Tables 1-4. Tabulations are given for men and women separately. Next, the responses to Questions 1-2 are tabulated for vocational high school graduates in Tables 5-6 again by gender. In the notes section of each of the tables Pearson Chi-Square statistics are reported for men and women separately. These statistics test the independence of vocational high school and university levels of education for the question asked in each table.

Table 1: Relationship of Education to Current Job, Turkey, 1997 (N=3,334) (%)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Is Education Related to Current Job?</th>
<th>Vocational High School Graduates</th>
<th>University Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>43.3</td>
<td>67.8</td>
</tr>
<tr>
<td></td>
<td>Partially</td>
<td>14.7</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>42.0</td>
<td>18.1</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td>100.0 (1.045)</td>
<td>100.0 (1.359)</td>
</tr>
<tr>
<td>All Men</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>Yes</td>
<td>52.4</td>
<td>76.3</td>
</tr>
<tr>
<td></td>
<td>Partially</td>
<td>12.4</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>35.2</td>
<td>11.7</td>
</tr>
<tr>
<td>All Women</td>
<td></td>
<td>100.0 (273)</td>
<td>100.0 (657)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>(1,318)</td>
<td>(2,016)</td>
</tr>
</tbody>
</table>


Notes: Men: Pearson Chi-Square=180.26 (degrees of freedom=2; p<.001)
Women: Pearson Chi-Square=72.89 (degrees of freedom=2; p<.001)
The numbers in parenthesis give the number of observations.

Distributions Related to Questions 1-4

Table 1 presents the distribution of responses in relation to Question 1. The distribution in Table 1 indicates that about 58 percent of the vocational high school and 82 percent of the university graduate men believe that their education was either directly or partially related to their current job. Thus, the incidence is much higher among university graduate men than among high school graduate men. The results were similar for women graduates. About 88 percent of university and 70 percent of vocational high school graduate women believe that their education is either directly or partially related to their current job. Thus a significantly larger proportion of women than men think that their education is directly or partially related to their current job. The proportions are higher among university graduates than among vocational high school graduates. The Pearson Chi-Square test indicates a strong, significant association between education level and relatedness of education to current job for both men and women, implying that the higher the level of education, the higher the probability that individuals believe their education is related to their current job.
Table 2: Contribution of Education to better Job Performance, Turkey, 1997 (N=3,334) (%)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Has Education Contributed to better Job Performance?</th>
<th>Vocational High School Graduates</th>
<th>University Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>46.3</td>
<td>70.7</td>
</tr>
<tr>
<td></td>
<td>Partially</td>
<td>15.5</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>38.2</td>
<td>13.6</td>
</tr>
<tr>
<td>All men</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(1,045)</td>
<td>(1,359)</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>Yes</td>
<td>55.3</td>
<td>74.9</td>
</tr>
<tr>
<td></td>
<td>Partially</td>
<td>15.4</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>29.3</td>
<td>8.1</td>
</tr>
<tr>
<td>All women</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(273)</td>
<td>(657)</td>
<td></td>
</tr>
</tbody>
</table>


Notes: Men: Pearson Chi-Square=205.30 (degrees of freedom=2; p<.001)
Women: Pearson Chi-Square=77.57 (degrees of freedom=2; p<.001)
The numbers in parenthesis give the number of observations.

The respondents' perceptions on the contribution of education to the individuals' productivity is examined in Table 2. Nearly 86 percent of the university and 62 percent of the vocational high school graduate men think that their education contributed to their better job performance while these percentages for women are 92 and 71. Thus, a significantly larger proportion of women than men think that their education contributes to higher productivity in their job. Furthermore, larger proportions of university graduate than vocational high school graduate men and women think that their education directly or partially contributed to their higher productivity. The strong, significant association between education level and its contribution to productivity of both men and women as indicated by the Pearson Chi-Square test implies that the higher the level of education, the higher its perceived contribution to better job performance.

Table 3: Reasons for not Working at a Job Related to Education, Turkey, 1997 (N=858) (%)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Reasons for not Working at a Job Related to Education</th>
<th>Vocational High School Graduates</th>
<th>University Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Couldn't find related job</td>
<td>53.5</td>
<td>38.6</td>
</tr>
<tr>
<td></td>
<td>Not interested in subject</td>
<td>9.1</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Education was not sufficient</td>
<td>3.9</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>To continue family business</td>
<td>11.2</td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>Insufficient income</td>
<td>5.7</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td>Unsuitable working condition</td>
<td>5.9</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>Changed job</td>
<td>5.2</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>5.5</td>
<td>11.0</td>
</tr>
<tr>
<td>All men</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(439)</td>
<td>(246)</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>Couldn't find related job</td>
<td>68.8</td>
<td>44.2</td>
</tr>
<tr>
<td></td>
<td>Not interested in subject</td>
<td>13.5</td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td>Education was not sufficient</td>
<td>3.1</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>To continue family business</td>
<td>3.1</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Insufficient income</td>
<td>0</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>Unsuitable working condition</td>
<td>5.2</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>Changed job</td>
<td>1.0</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>5.3</td>
<td>7.8</td>
</tr>
<tr>
<td>All women</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(96)</td>
<td>(77)</td>
<td></td>
</tr>
</tbody>
</table>

Source: 1997 Household Labor Force Survey. Authors' computations

Notes: Men: Pearson Chi-Square=187.32 (degrees of freedom=7; p<.001)
Women: Pearson Chi-Square=92.28 (degrees of freedom=7; p<.001)
The numbers in parenthesis give the number of observations.

The distribution of the reasons that the individuals who do not have a job related to their education, give for this situation are given in Table 3. Almost 40 percent of university graduate and 54 percent of vocational high school graduate men claim that they...
could not find a job related to their education. The relevant percentages for women are almost 45 and 70. Thus, a significantly larger proportion of women than men claim that they could not find a job related to their education. The percentage of those who claim that they could not find a job related to their education is larger among vocational high school graduates than among university graduates. The statistically significant Pearson Chi-Square test implies that the probability of not being able to find a job related to one’s education is lower at higher education levels. Not being interested in the subject is given as the second important reason for not working at a job related to their education. The percentages are somewhat higher for women than for men. Another important reason for not working at a job related to one’s education is to continue family business. This is a more important reason for men than for women since in general it is boys rather than girls who are being trained for the family business. A similar interpretation is also obtained by Tansel (2002). Among both men and women a larger proportion of university graduates than vocational high school graduates gave insufficient income and unsuitable working conditions as their reasons for not working at a job related to their education. This suggests that university graduates might be more choosy in their job search.

Table 4: Where Did They Acquire Their Occupational Skills? Turkey, 1997 (N=3,334) (%).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Place of Acquisition of Occupational Skills</th>
<th>Vocational High School Graduates</th>
<th>University Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>Vocational school</td>
<td>38.9</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>University or higher ed.</td>
<td>0</td>
<td>69.2</td>
</tr>
<tr>
<td></td>
<td>Apprenticeship school</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>On the job training</td>
<td>49.6</td>
<td>23.4</td>
</tr>
<tr>
<td></td>
<td>Interior service education</td>
<td>3.2</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Vocational course</td>
<td>1.5</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Foreman-apprentice relation</td>
<td>1.1</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>5.5</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>All men</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(1,045)</td>
<td>(1,359)</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>Vocational school</td>
<td>48.4</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>University or higher ed.</td>
<td>0</td>
<td>75.6</td>
</tr>
<tr>
<td></td>
<td>Apprenticeship school</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>On the job training</td>
<td>44.0</td>
<td>19.7</td>
</tr>
<tr>
<td></td>
<td>Interior service education</td>
<td>2.2</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Vocational course</td>
<td>1.8</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Foreman-apprentice relation</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>3.3</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>All women</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(273)</td>
<td>(657)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>(1,318)</td>
<td>(2,016)</td>
<td></td>
</tr>
</tbody>
</table>


Notes: Men: Pearson Chi-Square=1293.56 (degrees of freedom=8; p<.001)
Women: Pearson Chi-Square=527.76 (degrees of freedom=8; p<.001)
The numbers in parenthesis give the number of observations.

Finally, in Table 4, we investigate where the individuals acquired their occupational skills. As expected, nearly 70 percent of university graduate men reported acquiring their occupational skills at a university while about 40 percent of vocational high school graduate men reported acquiring their skills at a vocational high school. These percentages are somewhat higher for women with almost 76 percent for the university graduates and 50 percent for the vocational high school graduates. As expected, among the university graduates, for both men and women a higher percent acquired their occupational skills at a university. The second most important process of skill acquisition is on-the-job training. A significantly higher percent (50 for men and 44 for women) of vocational high school graduates than university graduates reported acquiring their skills through on-the-job training. The corresponding percentages for the university graduates are 23 for men and 20 for women. The Pearson Chi-Square tests indicate that the probability of relying on formal education for skill acquisition is higher at higher education levels. As a result, on the job training appears as an important skill acquisition procedure in the Turkish labor market. This has important policy implications.
Table 5: Relationship of Education and Current Job by Type of Vocational High Schools, Turkey, 1997 (N=1,318) (%)

<table>
<thead>
<tr>
<th>Types of Vocational High School</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Partially</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Religious</td>
<td>26.7</td>
<td>13.3</td>
<td>60.0</td>
<td>16.7</td>
</tr>
<tr>
<td>Technical</td>
<td>39.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism</td>
<td>42.0</td>
<td>16.3</td>
<td>44.6</td>
<td>46.9</td>
</tr>
<tr>
<td>Military/</td>
<td>88.1</td>
<td>18.6</td>
<td>39.4</td>
<td>34.2</td>
</tr>
<tr>
<td>Police/</td>
<td>88.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>44.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.9</td>
<td>5.9</td>
<td>93.0</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.5</td>
<td>66.6</td>
<td>50.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Total</td>
<td>43.3</td>
<td>14.6</td>
<td>42.1</td>
<td>52.4</td>
</tr>
<tr>
<td></td>
<td>(453)</td>
<td>(153)</td>
<td>(439)</td>
<td>(143)</td>
</tr>
</tbody>
</table>


Notes: Men: Pearson Chi-Square=16929.68 (degrees of freedom=27; p<.001)
Women: Pearson Chi-Square=4747.81 (degrees of freedom=21; p<.001)
The numbers in parenthesis give the number of observations.

Vocational High Schools by Type

This section examines the link between education and employment by the type of the vocational high schools. First, we try to find out if the subject of study by various vocational high school types is related to the current job. The related distribution is given in Table 5. The Pearson Chi-Square tests for men and women indicate that there is significant association between various types of vocational high schools and whether the education is related to the current job. The most important observation in Table 5 is the very high percents of military/police and health high school graduates men and women who report that their education is directly or partially related to their current job. These percentages are 88 for military or police high school graduate men and about 93-94 for health high school graduate men and women. The percentages of commercial or tourism high school graduate and technical high school graduate men and women who report that their education is directly or partially related to their current job ranged between 55-61 percent. However, the corresponding percentages were only 40 for men and 33 for women religious high school graduates. Thus, 60 percent of men and 67 percent of women religious high school graduates worked at jobs which are not related to their education. These results imply that the military or police and the health high schools are the forms of formal education that are most efficient in imparting the necessary job skills to their graduates while the religious high schools are the least efficient in doing this.
Table 6: Contribution of Education to better Job Performance by Type of Vocational High Schools, Turkey, 1997 (N=1,318) (%)

<table>
<thead>
<tr>
<th>Types of Vocational High School</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Partially</td>
</tr>
<tr>
<td>Religious</td>
<td>25.0</td>
<td>11.7</td>
</tr>
<tr>
<td>Technical</td>
<td>44.0</td>
<td>15.8</td>
</tr>
<tr>
<td>Commercial/Tourism</td>
<td>44.7</td>
<td>19.1</td>
</tr>
<tr>
<td>Military/Police</td>
<td>86.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Health</td>
<td>88.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Finance</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Other</td>
<td>43.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Total</td>
<td>46.3</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>(484)</td>
<td>(162)</td>
</tr>
</tbody>
</table>


Notes: Men: Pearson Chi-Square=17053.27 (degrees of freedom=27; p<.001)
Women: Pearson Chi-Square=4762.54 (degrees of freedom=21; p<.001)
The numbers in parenthesis give the number of observations.

The productivities of the graduates of various types of vocational high schools are examined in Table 6. The respondents assess the contribution of their education to better job performance. The Pearson Chi-Square tests by gender indicate that there is a significant association between the type of vocational high school and the individuals’ belief about the contribution of education to better job performance. The distribution in this table is similar to the one in Table 5. Almost 90 percent of the military or police high school graduates and over 90 percent of the health high school graduates believed that their education helped them to do their job better.

The corresponding percentages ranged between 60-70 for men and women graduates of commercial or tourism high schools and technical high schools. In contrast, only about 37 percent of men and 33 percent of women graduates of religious high schools thought that education contributes to their better job performance. These results indicate lower productivity for the graduates of religious high schools.

Table 7: Logit Analysis of the Perceived Contribution of Education to better Job Performance (N=2,694) (%)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Wald Statistics</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Level</td>
<td>0.96*</td>
<td>0.38</td>
<td>6.48</td>
<td>2.60</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.71*</td>
<td>0.36</td>
<td>3.90</td>
<td>0.49</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>-0.26</td>
<td>0.44</td>
<td>0.34</td>
<td>0.77</td>
</tr>
<tr>
<td>Divorced</td>
<td>-2.81**</td>
<td>1.07</td>
<td>6.84</td>
<td>0.06</td>
</tr>
<tr>
<td>Widowed</td>
<td>-2.06</td>
<td>1.65</td>
<td>1.55</td>
<td>0.13</td>
</tr>
<tr>
<td>Age</td>
<td>0.01</td>
<td>0.02</td>
<td>0.02</td>
<td>1.00</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.53</td>
<td>2.35</td>
<td>2.26</td>
<td>0.03</td>
</tr>
</tbody>
</table>


Notes: * p<= .05; ** p<= .01; *** p<= .001.
Regression Analysis

Analysis in this section is preliminary. Table 7 presents the results of a logit regression analysis of the determinants of the contribution of education to better job performance. Accordingly, the dependent variable takes a value of one if the individuals believe that their education directly or partially contributes to their better job performance, and zero otherwise. The explanatory variables are as follows. Education takes a value of one if the individual is a graduate of a university or higher level, and zero if the individual is a graduate of a vocational high school. Gender takes a value of 1 for men and zero for women. Marital status is represented with three categories. Married takes a value of one, and zero otherwise. Divorced takes a value of one, or zero otherwise. Widowed takes a value of one, or zero otherwise. Age is a continuous variable. There are 640 observations with missing values, which appeared to be scattered randomly across categories of the dependent and explanatory variables. There are 2000 graduates who believed that their education contributed to better performance at their job and 694 observations who believed otherwise. The Chi-Square test (6; 2,694) = 2,665, p<.001) tests the full model against a constant-only model and indicates that the predictors as a set reliably distinguish between graduates who believe that their education helped them to do their job better and those who did not share this belief. The Cox and Snell R-square is 0.63, which is relatively high. The prediction success of the model is impressive: 95 percent of those who believed in the contribution of education and 89 percent of those who did not are correctly predicted with an overall success rate of 93 percent. Table 7 shows the estimated regression coefficients together with their standard errors, Wald statistics and the odds ratios. The results indicate statistically significant perceived contribution of university level education toward explaining the better job performance as compared to the vocational high school level.

6. Conclusions and Policy Recommendations

This paper considered the link between education and labor market performance in Turkey. Several dimensions are investigated in this regard using the individuals’ self-assessment. The first pertains to job related skills, namely whether vocational high school and university graduates are able to obtain jobs that are related to their education. The second pertains to productivity, that is, whether vocational high school and university education contribute to better job performance. There has been no previous attempt to evaluate the education system in Turkey empirically along these dimensions. For this purpose, we used the special module of the October 1997 HLFS and Pearson Chi-Square tests and a logit regression. The findings provide support for the human capital theory in that both vocational high school and university education provide job related skills and improve productivity. Women tend to benefit more from schooling both in terms of provision of job related skills and in terms of improving their productivity. Another important result is that on the job training is the second important process for acquiring occupational skills after formal education. These findings provide support for the human capital theory in that schooling provides job related skills and improves productivity. An examination of various vocational high school types indicates that military or police and health high schools are the most efficient in imparting the necessary job skills to their graduates while the religious high schools are the least efficient in this respect. Similarly, the military or police and health high schools contribute to higher productivity of their graduates on their jobs compared to religious high schools. Thus, policy makers must be cautious about increasing the numbers of religious high schools if the concern is efficiency and productivity in the labor market.

The following generalizations can be made from our analysis. First, the higher the level of education, the higher is the probability that individuals believe that their education is related to their job. Second, the higher the level of education, the higher is the probability that individuals think that their education contributes to their job performance. Third, the higher the level of education, the lower is the probability that individuals cannot find a job related to their education. Fourth, the higher the level of education, the higher is the probability that individuals rely on formal education for the acquisition of their occupational skills.

These findings show that it is less likely for graduates from secondary vocational education in comparison with university graduates to find a job that is directly related to what they have learned in school. Additionally, in terms of job performance, it is more likely for university graduates than vocational high school graduates to think that their education has helped them in their work. It is not surprising, therefore, that our study shows a greater reliance on on-the-job training for secondary vocational graduates than for university graduates.

In terms of policy development, several implications follow from the foregoing results. Ensuring that all graduates benefit from their education is a clear priority - we suggest that the government promote on-the-job training/apprenticeship programs to students, especially at the secondary school level, and develop such a system between schools and prospective employers to further hone the skills of potential job candidates. Furthermore, areas such as relevance of curriculum and teaching (in terms of quality measure) should be reviewed, specifically in alignment with the demands of the labor market. Experiences from OECD countries, such as United States and Japan, may be useful and applicable to Turkish vocational secondary schooling. Vocational high schools in Turkey may need to integrate vocational training in academic coursework to provide students with the opportunity to learn academic skills in an alternative, applied context. In this way, vocational high school students will
be able to cope and compete in the contemporary labor market as they adjust their skills to suit its changing needs.

7. References


INNOVATIVE MODERNIZATION OF CURRICULUM IN SLOVENIA

NATALIJA KOMLJANC
The National Education Institute, Slovenia

Abstract: Knowledge is the primary source for social progress. Progress has driven a shift from manual work to “thinking” jobs. Classical curriculum for lifelong education is lagging behind. Still dominant educational paradigm focused on what students know should be improved by focusing on their competences. We need to restructure the school curriculum to reflect forms of learning which develop creative ability. The innovative way of modernizing schooling starts from “bottom up” and is getting closer with the one from “top down”. The fusion of both ways of modernization does not bring only school practice closer to the legislation and theory but to the economy as well, namely when school solutions turn out as worthy innovations for everyday life. The innovative projects in Slovenian schools show a strong tendency to replace classical curriculum by innovative one. The needs and contents of modernization show that each project team creates a more efficient pedagogical communication. Thus, we find that more and more practitioners are aware of three pedagogical challenges: open and flexible curriculum, innovative forms of bringing a student and a teacher closer with the social learning group and innovative learning and teaching where school develops prior knowledge by planning a personal curriculum.

Keywords: competence, personal curriculum, creative learning society, open flexible learning environment, feedback.

1. Knowledge is the primary source for social progress

Technological progress, organizational changes and intensified global competition have driven a shift from manual work to “thinking” jobs. Economic structures of society are undergoing a dramatic transformation, but our education structures are lagging behind (Seltzer, Bentley 1999). The dominant educational paradigm still focuses on what students know rather than how they use that knowledge.

Students can use their knowledge and skills creatively to make an impact on the world around them. We need some radical changes to the education system. We must restructure the school curriculum to reflect forms of learning which develop creative ability. Only radical action said Seltzer, Bentley (1999) will ensure the opportunities presented by the knowledge economy. Tom Bentley (2007) found out that the first time in history knowledge is the primary source of economic productivity.

2. Opportunities for developing creative ability

The classical knowledge could be restructured by developing creative ability. There are four different theories in understanding what useful knowledge is.

Scholar Academics ideology

The Scholar Academics knowledge gives people the ability to understand their world. It takes the form of both “content” and “process” (Schwab, 1964, p. 72 in Schiro, 2008, p. 40). Knowledge has also a form that is called didactic, or didactic. The didactic knowledge is repeatable and impersonal. After all, knowledge is only a representation of reality and not reality itself. Students learn about reality; they do not learn reality. Teachers transmit knowledge of reality; they do not transmit reality. People possess knowledge of reality; they do not possess reality (Schiro 2008).

Social Efficiency ideology

The knowledge valued by Social Efficiency educators has two characteristics. Firstly, it is by nature a capability for action that can be taught by learners. Secondly, its identification and its worth demand the acceptance of the duality of subjective and objective reality. Knowledge is capability for action identifiable as the “successful performance of a class of tasks” (Gagne, 1962, p. 355 in Schiro, 2008, p. 77). It is a skill. It is something that a person can learn to do. There is a certainly a relationship between having the necessary information to act and being able to act, between “knowing that” and “knowing how”. However, for Social Efficiency educators, the ability to act is more important than the ability to be informed (Schiro, 2008).

Learner Centred ideology

The Learner Centred ideology knowledge takes the form of personal meaning. Personal meanings are created when sensory information is perceived by a learner and incorporated by the learner into his or her existing cognitive structure through the twin processes of accommodation and assimilation. Knowledge takes the form of personal meaning because of its personal significance to its creator within the meaningful context of previously acquired knowledge. Knowledge takes the form of idiosyncratic personal meanings because of how it is related to a learner’s uniquely organized set of previously acquired meaning and because of the unique context in which it is acquired.
Knowledge is actively constructed, invented, created, or discovered by learners. Learners are constantly constructing and reconstructing their cognitive structures (Schiro 2008). Reflection is an important way of constructing knowledge.

Social Reconstruction ideology

Social Reconstructionists consider knowledge as a social construction. Knowledge is socially constructed, culturally mediated, and historically situated (McLaren, 2007, p. 210 in Schiro, 2008, p. 168). Knowledge is a social construction deeply rooted in the nexus of power relations. It is a product of agreement or consent. Knowledge gives children the ability to interpret and reconstruct their society. Social interaction with peers and adults in a cultural context is extremely important in individual’s construction knowledge. Children go through the process of rediscovering meanings and reconstructing their conceptual structures continuously over an extended period of time as they learn about their world (Schiro 2008).

Creativity

Creativity is the application of knowledge and skills in new ways to achieve a valued goal. To achieve this, creative learners must have four key qualities (Seltzer, Bentley, 1999):

1. The ability to identify new problem, rather than depending on others to define it;
2. The ability to transfer knowledge gained in one context to another in order to solve a problem;
3. A belief in learning as an incremental process in which repeated attempt will eventually lead to success;
4. The capacity to focus attention on the pursuit of goal, or set of goals.

Creative environment

Creativity cannot be learned in a vacuum. It is a form of interaction between the learner and his environment (European Parliament, 2008, The European Year of Creativity and Innovation, 2009). Learning environment that encourages creativity has the following characteristics: trust (secure), freedom of action (creative application of knowledge), variation of contexts (learners need experience for applying their skills in a range of contexts), balance between skills and challenge (people are engaged in challenging activities), interactive exchange of knowledge and ideas (creativity is fostered in environments where ideas, feedback and evaluation are constantly exchanged), real world outcomes (creative ability and motivation are reinforced by the experience). Concrete outcomes change the way things are done (Bentley, 2007, Komljanc, Zajc, 2009).

Innovative society

Innovative society needs more autonomy: personal security, time for exploring and reflecting, technical equipment, transfer of ideas and thoughts, assessing novelities, linking learning groups, encouragement, and feedback for learning development. A key factor for real open environment is a mutual adaptation in a learning process (Komljanc 2009a). It could be enriched by positive climate, creativity, didactical principles, cooperation, and connection with industry, personal learning, and outcome oriented learning. By redesigning the classical school environment we need to start with transformation of teaching methods (Marsh 2004). We need to start with self-assessment, self-evaluation, change the aim of learning and teaching, reduce the goals in syllabus, connect with real life, industry, and spread well developed novelities. Supportive learning climate is facilitated by good personal relationship, humour, and exploring achievements and on-going discovery. Learning environment has influence on the student’s achievement when it enables innovative performance and creative products in process with time for individual improvement, intention because of the adaptation of learning aims and outcomes (Komljanc, 2009b).

Performance in the living environment

The main difference between the school of the 20th and the 21st century is not just discovering new theories of learning and teaching but the cultural enriching, refining performance curriculum with personal life in the living environment, with the living environment being expanded by movement of people, information, ideas, products and innovations. This is why the future of learning and teaching will direct itself not only to the contents but also to the strategy of changing, presenting and evaluation of achievements (Komljanc 2009a).

3. Innovative way of modernizing schooling

The innovative way of modernizing schooling starts from “bottom up” and is getting closer with the one from “top down”. The fusion of both ways of modernization does not bring school practice closer only to the legislation and the theory but to the economy as well, namely when school solutions turn out as worthy innovations for everyday life (Marsh 2004, Komljanc 2008).

The innovative projects are a part of the pedagogical renovation in Slovenian schools but are not optimal for building the so called sustainable knowledge. Namely, up until now innovations from below have been goal oriented towards social relations. But politics encourage modernization of the contents of individual disciplines in the curriculum from “top down”.

Thus it looks for the verification of the renovation value by engaging practitioners and theoreticians, more rarely pedagogues.
and economy. Traditionally, the Slovenian schools nurse schools’ renovation from “bottom up” when it comes to the education (social relations) and insist on the renovation of the curriculum from “top down”, more precisely only with renovation of the subject curriculum and curriculum of individual disciplines, often without the cooperation with teachers, who educate, and economy, which uses and at the same time develops top-level realizations of individual disciplines. Unfortunately, these two disciplines of modernization are often consciously, systematically not connected, upgraded. They are often separately treated and evaluated, also rewarded and financed (Komljanc 2009a).

According to the fact that we have experiences and evaluations of good and less good renovations, it would be reasonable to logically connect the renovation of education and schooling to each other, unite them into a uniform renovation with the combination from “bottom up” and from “top down”. Along with this, we must not forget about the things that have been left out up until now, not only in education but in schooling as well: to take into consideration pedagogical and methodical realizations of didactic workers and to include more current top-level realizations of the researchers and performers in economy into curricular contents (Komljanc, 2009a).

4. Modernizing Slovenian schools with three challenges

In the last ten years the innovative curriculum is becoming more and more interesting for our teachers and students. In the last three years the number of schools in the innovative projects of the National Education Institute of Slovenia has increased for three hundred percent (300%). More on the website of the National Education Institute of Slovenia: http://www.zrss.si/.

This piece of information indicates a strong tendency toward the withdrawal of the Slovenian schools from classical to innovative curriculum. The needs and contents of modernization show that each project team creates a more efficient pedagogical communication in its own way (Komljane 2008). Thus, we find that more and more practitioners are aware of three pedagogical challenges, transformations of three classical didactical paradigms, namely:

1. innovative transformation of the classical curriculum into innovative open and flexible curriculum,
2. innovative transformation of the classical differentiation (separating) of learning into innovative forms of bringing a student and a teacher closer with the social learning groups and
3. innovative transformation of the classical individualization of learning (the learning plan of an individual) into learning and teaching (lessons) where school develops prior knowledge with the so-called personal curriculum (programme) of the individual student and teacher in the social learning group

(Data from year reports Innovation projects from the National Education Institute 2008).

5. Open and flexible curriculum which bring people together in their personal learning programme

Open learning

Characteristics for open flexible curriculum are: safety exploring for adaptation, flexible learning and teaching process, formative assessment knowledge, enrichment curriculum, cooperative learning environment with possibilities for reflections, mutual adaptation in real life (Komljane, Zajc, 2009). But there are some didactic barriers for open learning environment in Slovenian schools such as classical school grading, rigid school organization concerning the running of learning process, closed learning environment, classical forms of teaching, rare peer learning, classical formal parent associations (teachers recognitions from NEIS research project about formative assessment knowledge 2006 - 2009) . But the barriers could as well be challenges for open learning in our schools. Reflection and different forms of formative assessment knowledge with efficiency feedback could help in the process of transforming teaching methods. Feedback is a big benefit for students to accomplish better learning achievement and at the same time rise motivation for presenting their knowledge (Komljane 2009e).

Outcomes

A school shows its real flexibility by using expected outcomes for each student in a learning process. Outcomes are the one very democratic form of the reference learning levels, which respect not just the standards but also the pre knowledge of each student as well as his or her learning needs and wishes. Both, a teacher and a student moderate the expected outcomes. Both of them assess in reaching of the learning process and give each other the feedback for improving the learning strategy and achievement at the end of the learning process. A teacher respects the student's wishes about presentation of his or her achievement (Komljane, 2009c). The basic school principle is a school for all and everyone (UNICEF’s aim 2009, European Parliament, 2008, The European Year of Creativity and Innovation, 2009).

Flexibility

Flexibility respects differentiation in learning dynamic of each student in a social group. Flexibility gives an opportunity for combining contents, aims, methods and learning forms, using different sources and also different sort of assessment knowledge. Benefits from flexibility represent better support for a student in the learning process. Differentiation makes sense in a formative assessment and especially in a feedback and “feedforward” (Torrance 1993). Flexibility facilitates an
integrative approach for developing minds in interesting heterogenic learning groups (Renzulli 2007).

Learning place

Learning place has a big influence on students’ achievement. The more opportunity a student has to rich different learning experiences, the more dynamic and intensive is his or her communication with the sources (Bentley, 2007, Komljane, Zaic, 2009). There are also more opportunities for questioning and presentations and more interaction with others. A rich open learning environment leads students into a real life experience. They are involved in the solving of real life problems. Because of that, the students are more motivated for research and comparing and moreover, the content is fresh. There is more opportunity for meeting with specialists and people who posses wider knowledge experience. Rich open environment provides opportunities for different situations and taking part in the story. A student has more opportunity for interaction with the world and because of that more courage, self-esteem and willingness for communication with different people. School could enrich experience from the environment and at the same time, it could deal with it in the environment. School is interesting not just for students but also for adults and tourists from abroad.

Cooperation

Open learning fixes the relations between »I’m learning by myself« and » I’m learning with others«. By a systematically planned open learning in school-based curriculum we can achieve better conditions for developing pre knowledge, thinking skills and also presentation of the new knowledge. In order to achieve a systematic and beneficial open learning there must be a permanent cooperation between a teacher and a student. Feedback, again, is very important. There should be a lot of interaction between the students as well (Komljane, 2009c).

Reflection

Grading more stimulates competitiveness than cooperation between students. Because of that the more interesting is how to build knowledge on reflections, which stimulate growing knowledge of each student in a social learning group. Teachers who still use classical assessment knowledge may not be able to see the values of reflection of peoples’ learning and achievement. A classic school does not give opportunities for developing ideas and reaching a personal goal, neither a learning aim of a class (Komljane, 2009b).

Chatting

The school for future supports the learning culture and art of communicating with each other. A student communicates with different sources which he/she can observe, compare and adapt new knowledge. Open learning environment is a place for socializing and bringing people together for learning from experiences. The more a student copes with a teacher in an open learning environment the more efficient is his personal curriculum as well as the school curriculum. Chatting with students is not a frequent activity in classic schools, but it could be a very interesting method if we allowed it systematically and aim oriented. Chatting could be a very efficient form of a team work.

Parents’ participation

Sustainable knowledge is acquired by experiences. Parents could be very important supporters in a socialization process because they care for good connection between a home and surroundings and also a school life. Parents could also take part in a regional curriculum as workers and families. Parents are very important regulators for opening the school to the real life (The European Year of Creativity and Innovation 2009).

6. Innovative open school in Slovenia

An open school is for all and everyone. It is not just a corridor with classes, but also the place for experiences which build sustainable knowledge. A classic school is only one of the forms for achieving knowledge.

An open school does not »bites«; it gently and efficiently assesses growth of the pre knowledge. Chatting is desired when it is lead in the way that it gives the opportunities for new ideas, personal aims and outstanding recognitions.

An open free communication is a part of the innovative project for developing pedagogue from »bottom up«. In Slovenia, this is quite rife way of actualizing a curriculum. Free open learning is the most contemporary pedagogical way which is respected also by the headmasters in the Slovenian schools. In today's conditions we could accomplish a very efficient flexible school learning which would give us the opportunities for even greater autonomy in a lifelong learning process.

7. References


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Abstract: In the context of the recent financial crises, the concept and the definition of nomadic work has to be redefined. Many workers are being laid off and new organizational redesigns have taken place or are in the planning phase. Nomadic work with its variety of applications can be seen both from employers' and (prospective) employees' point of view as an opportunity to reduce the tension between employers' needs/offers and employees' needs/offers. It is vital for organizations to get well educated students who can deal with nomadic work.

Studies were conducted in several countries (Germany, the Netherlands, Uganda, UK and Israel) by using multiple methods. Questionnaires and interviews were distributed to managers, workers, and students to explore preferences for nomad work and experiences with nomad work. Responses were obtained from 175 students, 145 organizations and 171 "nomad workers".

Results indicate that students prefer autonomy in their work above nomadic work. A preference for nomadic work determines their choice for the kind of organization they want to be employed with. Findings also revealed that Work-Life Balance (WLB) management was a major concern of nomad workers although many of them reported having a good balance of nomadic work and family requests. Country-specific differences with respect to nomadic work(ers) as well as practical implications for organizations and students are discussed in the paper.

Key words: nomadic work (types & quality), employers, students, work-life balance.

1. Introduction

The recent financial crises rocked the employment strategies of organizations. Many workers were laid off by organizations since they started reducing employment costs aiming at having a chance to economically survive. This can also be considered as a starting point to think about changes of work itself as well as restructuring workplaces (Arthur et al., 2005). Bearing this in mind, organizations are faced with difficulties in managing the expected developments for the future and the implications for the organization of work so that the quality of work, creativity, flexibility, mobility and innovation of employees are increased, which in turn will improve productivity (Statement from informal Council meeting of Employment, Social and Health Ministers, Helsinki, 6–8 July 2006).

The combination of mobility and flexibility of workers (Avery & Zabel, 2001) steadily increases the number of what some call "nomadic work" or “nomad workers”. Concerning this concept of nomad work, there are several issues that are important to scrutinize, from a theoretical as well as a practical perspective.

The objective of the current study is therefore to examine what nomad workers, managers, and students think about nomad work. The results can contribute to research in the field of work and labor in theory and practice. Consequently, we address the following core questions in our paper:

(1) What are students' expectations with regard to nomadic work?
(2) What are the experiences of workers with respect to nomad work?
(3) Are there, from a managerial perspective, differences in nomadic work across countries?

To our knowledge, answers to the before mentioned questions are rarely found in research. We conducted studies in Germany, the Netherlands, United Kingdom, Uganda and Israel and collected data using multiple methods (Tashakkori and Teddlie 2003).

We define nomad workers as workers who are flexible in time horizons, task accomplishments, working hours, balancing work and life, and working at various places. This has implications for inside and outside communication, network building, productivity, and efficiency of those employees who are probably high in self-efficacy with managing work, family requirements and obligations properly. Attributes such as age or gender do not matter in this context because the focus is on the application of the job (Rantanen et al. 2008).

This paper is outlined as follows: We start with describing a conceptual theoretical framework. Next, we go on with the method and results. We reflect on country differences in the discussion section and close the paper with conclusions, recommendations and a future research agenda.

2. Conceptual Framework

The following general conceptual framework portrays the relationship between employer and employee needs and wishes as interdependent in relation to nomadic work. We elaborate on the framework by describing types of nomadic work and the perceived quality of work and then continue with country specific considerations.
3. Employer-Employee Needs and Wishes

We take employer and employee needs and wishes as a starting point for examining nomadic work (ers). Bearing in mind that both employers and employees have their own ideas about needs and wishes associated with nomadic work, at a certain point they have to align their individual expectations which might lead to specific mutual agreements (Donelly 2006). The dependency on the employer’s side constitutes the dependency of the firm toward its clients, markets, competitors, stakeholders and shareholders. From that perspective, employers draw their own image of what an ideal nomad worker has to be and how this person should function. For example, Tienari et al. (2002) found that employers expect their ideal (nomad) workers to be flexible, communicative, willing to learn, able to put things into the right direction, increase company’s profit and have good social relationships with all parties involved. However, nomad workers are not always in ideal work situations. Take, for example, the quality of communication processes between nomad workers and their superiors or colleagues, which might be affected by the distance and work environment (Jackson et al. 1995). Furthermore, nomadic work puts high demands on leaders who feel that they lose control over workers who work outside their offices. Distance work requires thinking about new means of controlling and leadership. Insecurity of leaders related to nomad workers’ performance and task accomplishments also necessitates a management style that is based on results and not on close scrutiny of individual employees.

From the nomad workers’ point of view, expectations, needs, and wishes mainly lie in getting benefits such as excellent work conditions, a good working atmosphere, and predictable work schedules that enable them to balance work and life (FEWCS 2006). We know from the FEWCS (2006) study that nomad workers like the following issues: to have job and health security systems that are flexible and appropriate to their jobs; to avoid work stress; to have opportunities to learn (lifelong-learning) and to get training for further development of their skills; moreover, nomadic workers like job autonomy (FEWCS 2006). Workers who are willing and motivated to be flexible in work, time and place will have potential career perspectives inside and outside the company. However, for nomad workers, managing work/life balance might be a challenge.

An interesting question is how students, entering the labor market the first time, feel and think about their needs and wishes with respect to nomad work. What is the firms’ attractiveness for students to apply for a nomadic job? This is examined with our first question.

Q1: What are students’ preferences with respect to nomadic work and how does this influence their choice of employer?
4. Experiences with Nomadic Work

Nomad workers seem to prefer flexible work arrangements (FWA) since they believe that FWAs give them the opportunity to get the work-life balance (WLB) they would like to have. Although 80% of workers in the European Union (FEWCS, 2006) are satisfied with their work-life balance, it is necessary to have a closer look at work and family responsibilities which might be balanced or conflicting. Work-family conflict (WFC) or family-work conflict (FWC) is an experience in which demands from both work and family collide with each other and consequently affect an individual’s satisfaction and well-being (Rantanen et al. 2008). On the one hand, the individual’s and family’s well-being are affected, on the other hand, employers are involved as well because WFCs and FWCs can be reduced by a family-supportive organization, company culture and atmosphere (Lapierre et al., 2008). For nomad workers, a family-supportive work environment is an essential issue. Since they move around from project to project and from company to company, they only have fewer work family conflicts if they experience an adequate family-supportive environment for family needs and obligations and organizations’ expectations. In this respect, the job characteristics might correlate with WLB and also the importance of career opportunities is a core element in the context of nomadic work.

Career perspective is always a double-edged sword and can be perceived as a subjective, internal and individual development (Arthur et al. 2005) in which acceptance by others and perceived social integration in teams or in the organization play a role. In contrast, an external career perception or more objective development of an individual career can take shape in terms of receiving status symbols, a higher position, or a new position title that represents career development. However, there are some factors that influence a nomad worker’s career. First, the loss of intensive social interactions seems to lead to social isolation. Nomad workers are requested to have stable interactions with other people (colleagues, team mates and peers). Second, the psychological contract between employer and nomad workers is likely not to include obligations on the career perspective. Third, insecurity related to the job, task or company developments is a negative issue since nomad workers want security. Of course this depends on cultural influences, work philosophies and strategies. Fourth, if the productivity and effectiveness of a nomadic worker is declining, he or she becomes less interesting for the company and this might lead to being laid off. Fifth, nomadic workers need to be treated similarly to fixed-contract employees with regard to the monthly salary. Furthermore, there is a trend in organizations to outsource projects, assignments, or even more importantly entire departments that eliminates opportunities for workers to follow a predictable career path inside the company. Reduced workforce implies reduced employment security which may invoke severe discontinuity in career competencies (Defilippis and Arthur 1994). To support nomad workers with intelligent and smart work environments such as telecommunication does not automatically imply career developments. Here we come to our second question:

Q2: Is nomadic work experienced as beneficial by both employers and employees with respect to work-life balance and career perspectives?

5. Country Specific Considerations of Nomad Worker(s)

Although it can be assumed that there are similarities between employers’ and employees’ needs and wishes across countries, a cross country comparison of nomadic work can bring to the fore how different cultures, different philosophies and different resources affect working as a nomad. Aligning country-specific needs and wishes of employers and employees requires domestic negotiations to find a unifying approach that incorporates both interests. We want to examine whether similar nomadic work can also be found in European countries such as Germany, the Netherlands, and UK, as well as in countries outside Europe such as Israel and Uganda.

As regards Germany, the Netherlands, and UK, it can be argued that the requirements for nomadic work are almost the same. In Israel, nomadic work is probably an essential part of the economy, with, for example, Palestinian workers crossing the border every day to work in Israel (Portugali 1989). For Uganda, specific factors are expected. For the international examination our third question is formulated as follows:

Q3: Does nomadic work differ across countries?

6. Method

Q1: What are students’ preferences with respect to nomadic work and how does this influence their choice of employer?

Sample 1:

Responses of students in two selected universities in Northern Germany (175 students - 58% male and 42% female) were recruited by personally distributing questionnaires among students (potential graduates) who were selected, focusing on availability and accessibility in these universities. The mean age of students was 25 and their degree level ranged from Bachelor to Master. Furthermore, it was of importance that those questioned planned to enter the labor market as employees. The response rate was 98%.

Instrument

Students were asked about their preferences, needs, and wishes with respect to their prospective type of work (15 questions) and type of prospective employer (18 questions). Respondents answered the questions on a 4-point scale ranging from 1= fully disagree to 4= fully agree.
We first conducted the Principle Axis Factor Analysis (PAF) to examine the number of factors with respect to student preferences for type of work and type of employer. With respect to preference for type of work two factors emerged: preference for autonomy and preference for nomadic work. Preference for autonomy (Cronbach’s alpha = .70) included 5 items reflecting preferences for work variety, challenging tasks, autonomy, independence, and leadership. Preference for nomadic work (Cronbach’s alpha = .65) included 5 items reflecting preferences for project work, contacts with customers, teamwork, and national and international travels. With respect to preference for type of employer three factors emerged: employer provisions, opportunities offered for development, and opportunities offered for work-life balance. Employer provisions (Cronbach’s alpha = .65) included 5 items related to the name and image of the company, financial provisions such as a car, and career opportunities. Opportunities offered for development (Cronbach’s alpha = .62) included 5 items related to the absence of hierarchy, international composition of the workforce, entrepreneurial climate, attractiveness of products/services, and opportunities for learning and development. Opportunities offered for work-life balance (Cronbach’s alpha = .51) included 4 items related to work climate, work-life balance, flexible work hours, and working conditions. With multiple regressions it was assessed whether the preference for autonomy and nomadic work influenced the preference for the type of employer.

Q2: Is nomadic work experienced as beneficial by both employers and employees with respect to work-life balance and career perspectives? and

Q3: Does nomadic work differ across countries?

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<tr>
<th>Variable</th>
<th>Mean</th>
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<tr>
<td>1 Gender (2 = female)</td>
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<td>2 Preference for autonomy</td>
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<td>3 Preference for nomad work</td>
<td>2.75</td>
<td>.52</td>
<td>.10</td>
<td>.25**</td>
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<tr>
<td>4 Provisions by employer</td>
<td>2.96</td>
<td>.44</td>
<td>.02</td>
<td>.23**</td>
<td>.38**</td>
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<td>5 Opportunities for development</td>
<td>3.03</td>
<td>.43</td>
<td>.18*</td>
<td>.34**</td>
<td>.42**</td>
<td>.21**</td>
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<td>6 Work life balance</td>
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<td>.18*</td>
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Sample 2:

Responses were collected from 145 managers and 171 employees. Business sectors ranged from consultancy companies to production companies with the number of employed people ranging from 10 to 100. Data were gathered in Germany, UK, Israel, Uganda and the Netherlands. The majority of respondents were male with approximately 70% and female with 30%. The mean age of respondents was around 40.

Instruments

We used semi-structured interviews and questionnaires for face to face contact or contacts via phone. Our questions were related to the type of work, preferences for nomad work and the type of employers respondents wanted to work for. Question examples are: Do you want to work as a temporary worker? What are some of the reasons why your company offered the option of nomad working to employees? What is the average percentage of time you spend with your family in your leisure time? Do you prefer working away from home or at home? Would you prefer to work as a nomad worker (from home or any location of your choice)? What are some of the reasons that would discourage you from working as a nomad worker? What type of employer do you prefer to work for? Respondents answered on a 5–point scale ranging from 1=I fully disagree to 5= I fully agree or gave written or oral comments.

Analysis

We analyzed the responses by clustering the answers and aligned them to our 2 questions related to experiences with nomadic work and typical country-related experiences.
7. Results

Question 1

Descriptives
As can be seen from Table 1, the preference for autonomy is higher than the preference for nomad work. With respect to preference for type of employer, the wishes for work life balance are higher than the wishes with respect to opportunities for development and (financial) provisions. Female students more often opt for employers that provide opportunities for development. The preference for nomad work is related to choices for employers that provide (financial) provisions and opportunities for development.

Regression
Table 2 shows that students’ preference for nomad work is an important predictor for choosing employers that provide (financial) provisions (adjusted R square is .15) and opportunities for development (adjusted R square is .24). A preference for autonomy predicts a choice for employers that provide opportunities for work-life balance; this relationship is not strong, however (adjusted R square is .02).

<table>
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<tr>
<th>Variable</th>
<th>(financial) provisions by employer</th>
<th>Opportunities for development</th>
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<td>Preference for autonomy</td>
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We can conclude that with respect to our question 1 “What are students’ preferences with respect to nomadic work and how does this influence their choice of employer?” that students have a higher preference for autonomy than for nomadic work. The preference for nomadic work predicts the choice of employer, especially of employers that focus on providing financial benefits and opportunities for development.

Questions 2 and 3

Overall, for Germany, the Netherlands, and United Kingdom we did find that flexibility and mobility, individual development, salary, and career perspectives were considered as almost similar and that nomadic work appeared either as tele-work or as temporary work, working from home or working at home with a certain amount of autonomy to accomplish the tasks. Regarding the search process of nomad workers for an appropriate type of employer providing career opportunities, no general conclusion can be drawn. In general, 40% of the nomad workers evaluated their prospects for the future, career and promotion as good, 40% as moderate and 20% as bad. Balancing work and life was a major concern in all countries. Nomad workers indicate that they would rather prefer to get experience, and also have the opportunity of working with other people face to face, than working by themselves straight away. Furthermore, 70% of them mentioned that working as a nomad worker is very destructive, as there a lot of things that could detract someone from working efficiently. Respondents said that it takes discipline and also the experience of having worked from home to be a good nomad worker. Because of the fact that technology is becoming better, they believe that working as a nomad worker will become more dominant compared to the traditional worker. Regarding the disadvantages of nomad work, most of the managers (78%) stated that they worry about losing the social/working environment when a large part of the employees work from home.

It seems that with respect to question 2 “Is nomadic work experienced as beneficial by both employers and employees with respect to work-life balance and career perspectives” nomadic work has advantages and disadvantages.

With respect to country-specific differences, in Israel, the respondents referred to the influence of current developments in the domestic economy and to developments in the Gaza strip. For Uganda, the major concern related to accessibility to the outside world via satellite or internet. The material needed to work from home or at home with laptops and other electronic online devices is expensive and resources are limited so that nomad workers in Uganda have a huge problem to get connected to the internet in their homes. Therefore, the quickest option to communicate with others is using a telephone, which is quite expensive. Nomad workers also might use email in internet cafés, which sometimes could be very crowded and makes communication less effective. For Germany, the Netherlands, and United Kingdom, nomadic work was quite similar and took the form of either tele-work or temporary work, working from home or working at home with a certain amount of autonomy to accomplish the tasks.

We conclude that with respect to our question 3 “does nomadic work differ across countries” that mainly differences are found regarding contextual factors that influence telework, related to, for example, technology.
8. Discussion

This paper attempts to shed some light on current developments in nomadic work. The concept of nomadic work and the employment of nomad workers is of increased interest for organizations in the future. There are some positive signs that for nomad workers the means, tools and supportive activities are in progress, but these developments need to be further developed. Nomad workers experience flexibility and mobility in conducting their tasks and assignments. They work independently and appreciate self-managing tasks and job-autonomy. Nomad workers can live with rapidly changing markets and demands from clients because they use various types of work such as teleworking, contingent work or temporary work. To balance work and non-work responsibilities, nomad workers need to work in family and individually supportive work environments balancing work and life. With the participation in networks, nomad workers reduce their social isolation, increase their communication skills, extend their knowledge and their employability which leads to dynamic interactions with employers. It is a further opportunity for nomad workers to balance work and non-work responsibilities when they build networks that can function as a kind of buffer for stress and conflicts. These networks are defined as a set of employees or actors (nomad workers) who are linked to each other in a loosely or strongly tied way (Bartol and Zhang 2007). The connection between networks and the outside world has to be aligned to ensure common processes and outcomes (Wenger 2000).

For nomad workers, an individual career path is hard to pursue due to the fact that nomad workers are task driven and career developments are difficult to tackle as a permanent process. Appropriate career concepts are increasingly discussed in the academic world since two theories about careers appear to be conflicting rather than complementing each other. First, the traditional way of careers is described as an employee attaining promotion between two positions. Second, external labor markets have gained influence over today’s employment landscape as Arthur et al. (2005) revealed in their research paper. Furthermore, the concept of boundaryless careers leads to thoughts of subjective and objective careers involving internal and external labor markets. According to Defilippi and Arthur (1994) boundaryless careers are getting more related to this concept because fixed lattices of job positions and stable career paths have been increasingly eliminated over the last few years. In the next paragraph we list some advantages and disadvantages of nomadic work.

Advantages

Employers: Nomad workers with flexibility to take care of personal business on off days or through flextime have lower rates of absenteeism. In comparison with traditional workers, nomad workers can often work through mild illnesses or with sick children at home whereas traditional workers would need to take a day off, thus meaning no work received from them for that day. Consequently, more productivity is received from nomad workers. Having people working from home or from other mobile locations saves companies’ money through reduced office space. It also reduces gas emission through minimizing daily commuting. Last but not least nomad work options build a loyal workforce, saving the company from costly turnover. Nomadic work can also reduce wastage of time through minimizing daily commuting, thus more time is spent working.

Workers: Nomad work increases the employability of proximal or circumstantially marginalized groups, such as mothers and fathers with small children, the disabled or people living in remote areas. Nomad work offers possibilities for increased service and international reach, since workers in different time zones can ensure that a company is virtually open for business around the clock which in turn makes the job more secure by satisfying the company’s customers. Working as a nomad in international projects increases the level of social skills such as communication skills and skills dealing with different cultural backgrounds. Working from home or at home increases the balance between family and work and therefore can positively influence the relationship between parents and children.

Disadvantages

Employers: Fellow employees in the employer’s office sometimes resent nomad workers. Furthermore, there is a high risk of confidential data loss resulting from loss of documents. There is cost involved in ensuring remote workers have the necessary access to tools, resources and network infrastructure. Managers need to be aware that although overhead decreases, the cost of technology becomes greater. Furthermore, the use of non-standard software can create problems.

Workers: Some workers may find their work load increased to the point where they have more stress than before. Distractions at home can have a similar effect, especially among workers who leave the office to be better able to care for small children. Nomad workers may lack the sense of loyalty to the company that they would have if working at an office and additionally, they could lose space in their homes, possibly even suffer the cost of converting a room into an office. Nomad workers can experience a loss of social community with co-workers and must be able to overcome feelings of isolation. Although this can be done by finding a social life away from the company work environment, it precludes the ability to develop close connections with those that share the common experience of the company and the functions they may perform.

Some additional risks of nomad work need to be mentioned here. For people working as nomad workers, the physical and psychological effects have not been thoroughly examined so that...
we lack findings about implications on nomad workers and their work. It can be said at this stage that nomad workers have to take care of their work load in terms of working hours, physical and mental risks. Students who start their career as nomad workers right after their studies to pay special attention to their mental and physical stability.

Although our paper has strengths, such as the inclusion of samples of students, managers as well as nomad workers, the use of multiple sources of data, and the range of counties involved, some points need specific attention. First, the number of interviews conducted outside European countries was very limited which limits the possibilities of generalizing the results. Second, using multiple methods is a challenge. We used qualitative data (statements which were interpreted) next to analyzing quantitative data. Third, we asked respondents about their perception of specific issues, which might be biased. Fourth, the studies were conducted at different points in time (over a period of 12 months) which might have an influence since the economical situation changed rapidly in this period.

9. Suggestions and Recommendations

For Policy

For nomad workers a differentiated view on their work and non-work situation might be considered. They need a combination of flexibility and security which seems to be covered by the flexicurity concept. The flexicurity concept takes us from a job security mentality to an employment or employability security mentality that also includes income security (NIDI, 2008; European Commission, 2007; Belker & Wiltgen, 2008; EES, 2008).

The current European Commission policies imply that workers have to develop their own employability to maintain state-of-the-art skills, to maintain their value and to develop their career perspectives. That means nomad workers have to manage changes in work and work places rapidly and take training and personal development opportunities when they appear. On the one hand, Europe needs to find new ways of making work and workers more flexible; on the other hand, employment security needs to be ensured. Furthermore, a fair and performance-oriented remuneration has to be implemented in policies and also the value and acknowledgement of nomad workers need specific attention in policies. Equal treatment of men and women working as nomad workers, more diverse workforces with different cultural backgrounds and further developed health promotion schemes seem to be of high importance for nomad workers.

For Companies

Companies need to think about their recruitment policies and how they would like to deal with employed nomad workers. Equal treatment of employees seems an issue with regard to nomad workers and permanent employment workers. Human resource managers should think about training and development tools such as trainings in social skills, communication skills, network building skills and motivation seminars for nomad workers and should help to implement new recruitment policies. Besides, family supportive programs are requested to give nomad workers the chance to balance work and non-work responsibilities. For nomad workers, the career perspective is part of their motivation and needs to be sensitively developed for the sake of fairness and perspectives. Moreover, there seems a trend that aging workers tend to become nomad workers which raise other questions.

For Students

Students reported that they want autonomy rather than nomad work. However, if they start working as a nomad they should be educated to work in diverse teams. In this respect diversity belongs to different cultural backgrounds, different attitudes of participants, and differences in beliefs, behavior, educational and professional background. Beside these soft skills, students need to be trained in project management, usage of technical equipment and managerial instruments in general. Moreover, mental and physical fitness is a must.

Future Research Agenda

Organizational research on nomad work seems to be at a starting point. In our view, the following areas for further research are of interest. The influence of the conceptualisation of nomad work as presented here on hard facts such as productivity, cost development and performance still has to be established. Furthermore, the influence of nomadic work on changing demands from customers, stakeholders and shareholders is interesting for researchers as well as for practitioners. In times of globalisation, research of nomad work on intercultural business would extend the knowledge in this area and would help to further develop boundaryless businesses.

At the individual level, more knowledge is needed on the mental health consequences of nomad work since it has not been sufficiently explored and examined over time. Also, the influence of psychological and physical stress factors on nomad workers needs more attention and requires research. For nomad workers the acknowledgement and value of their work and their status is important and therefore the question is relevant, requiring more statistics related to whether these are moderators or mediators of processes and outcomes.
10. References


Abstract: When it comes to permeability between vocational education and training (VET) and higher education (HE) and especially to accreditation of VET for HE programmes, the question of equivalence of learning outcomes of VET and HE is raised. To date, there has been no systematic analysis providing evidence that there is an equivalence of learning outcomes of VET and HE (or to be correct: there is none). This is now undertaken by the German federal initiative on “Accreditation of Prior (Certificated) Learning from VET for HE” (ANKOM), finished after almost four years at the end of June 2009. However, the results of the ANKOM initiative by analysing the pilot projects and their accreditation models have shown that there is considerable effort involved to make permeability within the educational system real when applying quality-assured recognition procedures. The article describes the general findings of the initiative regarding the evaluation of the accreditation models developed.

Key words: Accreditation, recognition, prior (certificated) learning, accreditation of prior (certificated) learning (AP(C)L), formal learning, informal learning, non-formal learning, learning outcomes, qualifications framework, taxonomy of educational objectives, reference system, equivalence, methodology, evaluation, verification, lifelong learning, vocational education and training (VET), higher education (HE), permeability, credit system.

1. The German Initiative on Accreditation of Prior Certified Learning from VET for HE (ANKOM) – Objectives and Structure

In autumn 2005, the German Federal Ministry of Education and Research (BMBF) started the initiative on “Accreditation of Prior Learning for Higher Education” (ANKOM)¹ to improve the transition from (further) vocational education and training (VET) to higher education (HE) by reducing the redundancies when changing learning pathways. It is part of the lifelong learning strategy to enhance individual potentials and competencies by further education at academic level and thus also meet the increasing demand of the economy for a more highly educated workforce. Accreditation of prior learning for higher education intends to transform learning outcomes of VET into credits for a study programme in order to reduce the time and resources spent to attain a HE degree. By this way it also brings about more and better permeability in the educational system.

The federal initiative ANKOM consisted of two parts with different length of time:

- 12 project consortia in order to develop and set up recognition procedures to identify equivalent certificated prior learning outcomes of VET and accredit them for higher education (Accreditation of Prior Certificated Learning, APCL), running from autumn 2005 until June 2008, and
- a research project, accompanying the pilot projects, in order to give them advice and coordinate the projects’ developmental work to meet the initiative objectives, and after that period, evaluate and process the projects’ results to a generalised approach to APCL, finished in June 2009².

Additionally, an advisory board was set up, consisting of representatives of the relevant stakeholders of the educational system: the German Rectors’ Conference (HRK), the Confederation of German Employers’ Associations (BDA), the Association of Chambers of Industry and Commerce (DIHK), the Confederation of German Trade Unions (DGB), and the Industrial Union of the Metal Workers (IGM), as well as the Board of Trustees of the German Economy for Vocational Education and Training (KWB), besides the Federal Ministry of Education and Research (BMBF) and the Federal Institute for Vocational Education and Training (BIBB).

Project Consortia

The twelve projects were carried out by eight universities and four universities of applied sciences, each of which worked in cooperation with providers of further vocational education and training as well as chambers and professional associations, respectively. Each developing project was supported by a council of stakeholders from the different fields of vocational and higher education, e.g. representatives of companies, trade unions, more chambers and professional associations, if appropriate, and representatives of the committees of the HE institution and of the ministries involved (e.g. Ministry of Sciences and Culture, Ministry of Employment and Further Education). The members of the project advisory board constituted a network which tried

¹ In German: ANrechnung beruflicher KOMPetenz auf Hochschulstudienkänge. For further information see http://annkom.his.de/initiative/index_en.php.

² This part of the initiative is in the process of being prolonged for another two years in order to disseminate the findings and provide support to new initiatives.
to bridge the different interests expressed by the organisations of the vocational education and training, the social partners (employers and trade unions), and the higher education institutions. So that highly complex structure of each project consortium ensured that the solutions found were broadly accepted and practical in operation.

The 12 project consortia worked on developing accreditation procedures in four fields:

- Business Sciences (4 projects),
- Engineering (2 projects),
- Health and Social Care (4 projects), and
- Information Technology (2 projects).

**Accompanying Research**

The accompanying research project, carried out by the Hochschul-Informationssystem (HIS)\(^3\) and the VDI/VDE Innovation + Technik (VDI/VDE-IT)\(^4\) in cooperation with the Bundesinstitut für Berufsbildung (BibB)\(^5\), also reflected the dual structure of the initiative by binding together research institutions specialised on VET (such as VDI/VDE-IT and BibB) and HE (such as HIS) respectively. The tasks of the research project while accompanying the pilot projects from October 2005 until June 2008 were to:

- provide advice and support to the development projects,
- organise workshops and meetings to enhance the sharing of knowledge and experiences between the pilot projects,
- assess the project results,
- take steps which lead to trust between the stakeholders, and
- promote the APCL/APEL discourse and procedures in Germany.

After that, for the following the initiative concluding 12 months, the major goals of assessing the projects’ accreditation models were to identify:

- generic approaches to accreditation of prior (certificated) learning (AP(CL)) as well as
- operational good practice, policies and infrastructure, and
- general principles of good practice in assuring and enhancing quality standards in AP(CL).

Before describing the findings of the evaluation of the project results regarding generalisation in the next chapter, we need to bear in mind the tremendous task that lay ahead. This is shown by the following list of challenges concerning the co-operation of two separate parts of the educational system - VET and HE, such as:

- understand each other,
- speak the same language,
- remove mental barriers (e.g. ignorance, prejudices),
- come to a shared understanding,
- make compromises to achieve the objectives,
- find and agree on cross-sectoral (VET & HE) solutions,
- meet the requirements of an assessment of equivalence to be appropriate, reliable, valid and transparent, and
- set up practical accreditation procedures.

Regarding these preconditions it is well comprehensible why the people involved were called “pioneers of accreditation/recognition”.

2. **General Findings of the ANKOM Initiative**

When evaluating the accreditation models of the pilot projects, the overall questions were what are the common features and what are the differences of the approaches, and is there a best practice model suitable for all cases?

**Matrix of the Meta Accreditation Model**

The projects co-operating within the initiative very closely by cluster work and bilaterally, at the end it was not surprising to find an identical approach to addressing the question how to set up accreditation procedures in order to identify, verify and recognise equivalent learning outcomes from VET for HE programmes. The general approach can be described as follows:

- First (Re-)Describe learning outcomes of both programmes (VET and HE) by a common reference system.
- Second: Develop and carry out a methodology to assess equivalence of learning outcomes from different educational settings referring to content and level.
- Third: Develop and set up a procedure to implement quality-assured accreditation of prior learning in the higher education institution.

Besides setting up a concept for each step, the procedure of implementing them must also be taken into account (see Fig. 1). This implies the necessity to consult and integrate all stakeholders of VET and HE institutions in order to ensure that the recognition system developed will be acceptable and work in practice.
Describing Learning Outcomes

Learning outcomes are the basis for aligning VET and HE. The concept of learning outcomes is the key to comparing the results of different learning processes and finding equivalent qualifications. Yet, learning outcomes are described by different reference systems in different learning environments which makes it difficult to compare them. That was the case when setting out to recognise specific VET certificates with HE study programmes in ANKOM. That problem was solved by using the same reference system to describe learning outcomes of VET and of HE. The pilot projects did not use the same classification system, but according to their objectives different ones of the following list:

- a qualifications framework, such as for example, the European Qualifications Framework for Lifelong Learning (EQF) (European Parliament 2008), the Qualifications Framework for the German Higher Education (KMK 2005), the German HE Qualifications Framework for Social Work (Bartosch et al. 2006),
- a taxonomy of educational objectives, for example by Bloom (195), Anderson & Krathwohl 2001, Moon 2006, Dreyfus & Dreyfus 1986, or even developing a taxonomy for domain specific requirements based on the ones mentioned,
- a work task oriented approach which tries to derive the skills and competence needed from the job description, and
- a competence oriented approach which describes modules by competence based learning outcomes.

As the first draft of the German Qualifications Framework (DQR) was issued as recently as February 2009, it will be necessary to try to apply this classification system for describing learning outcomes of VET and of HE, too. This could possibly reduce the use of different kinds of reference systems to probably one?

Apart form the work task and the competence oriented approach respectively which both turned out to be very time-consuming and therefore not practical, the other instruments describing learning outcomes from different learning settings proved to fit the purpose. Whereas some projects used either a qualifications framework or a taxonomy of educational objectives, there were others which combined them to come to an elaborate description of learning outcomes of VET and of HE in order to be able to align them.

Methodology of Verification of Equivalence

No matter how sophisticated the way is to verify the equivalence of learning outcomes from VET, the decision as to whether to recognise them is always taken by an expert of the HE discipline based on empirical evidence of different complexity as regards content and level of learning outcomes. The types of verification methodology vary according to the number of experts from HE and VET involved and to the diversity of evidence-based sources used which together make up a different degree of structuredness. All in all three kinds of verification approaches set up by the pilot projects were found (see Fig. 2):

- weakly structured,
- reasonably structured, and
- strongly structured.
Figure 2: Types of Equivalence Verification Methodology

<table>
<thead>
<tr>
<th>Type</th>
<th>Experts involved</th>
<th>Instruments used to support decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weakly structured</td>
<td>HE teacher responsible for the module concerned</td>
<td>rather unstructured assessment of documents (portfolio)</td>
</tr>
<tr>
<td>Reasonably structured</td>
<td>more than one HE teacher involved, and expert(s) from VET</td>
<td>checklist, guideline with a list of criteria how to assess documents; questionnaires (VET participants, HE students), discussion of results</td>
</tr>
<tr>
<td>Strongly structured</td>
<td>more than one HE teacher, also from other HEI involved, expert(s) from VET</td>
<td>psychometric measurement procedure</td>
</tr>
</tbody>
</table>

The verification process being weakly structured, then it is likely that just the HE teacher of the module to be substituted is involved, and his or her assessment of the portfolio of the student applying for recognition is supported with no or little methodological means. The portfolio comprised of documents like references, job descriptions, official documents like qualification certificates, and of working samples is (roughly) evaluated in terms of content described by learning outcomes and level of the study module concerned.

Regarding reasonably structured verification there is more than one HE teacher involved and also experts from VET are consulted. There might be more than one cycle of assessment taking place. And for transparency and validity reasons the alignment of learning outcomes of VET and HE is supported by different means, like a checklist, or a guideline with criteria how to assess the equivalence of the learning outcomes from different learning settings. Furthermore, students with a VET background and participants of a further vocational training course are questioned on their opinion whether there are equivalent learning outcomes of VET and HE. The findings of these diverse empirical sources are discussed together by experts from HEI and of VET (for example teachers of vocational schools and VET providers, examiners of the chamber and representatives of companies). Finally, the decision of equivalence is made by the HE teachers appreciating the results of this consultation on empirical evidence.

A strongly structured and therefore most sophisticated verification method developed in the ANKOM initiative is a psychometric measurement procedure, such as the Module Level Indicator (MLI) by the University of Oldenburg, focusing on identifying the level of a learning outcome as to the classification of the European Qualifications Framework (see Fig. 3).

Figure 3: Design of the Module Level Indicator (MLI)

<table>
<thead>
<tr>
<th>Aims of the tool</th>
<th>Source / Basics</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>comprehensive description of a module regarding multiple competence dimensions</td>
<td>EQF</td>
<td>8 scales (so far)</td>
</tr>
<tr>
<td>test theoretically constructed reliable scales</td>
<td>QF for German HE degrees</td>
<td>applicable from different perspectives: teachers, experts, VET graduate, HE student</td>
</tr>
<tr>
<td>applicable to different kinds of: modules, disciplines/domains, teaching and assessment</td>
<td>EHEA-Framework</td>
<td>each scale with 5-10 Items</td>
</tr>
<tr>
<td>validity of a construct of an entire score as to EQF classification</td>
<td>expert interviews</td>
<td>items referring to learning outcomes proved</td>
</tr>
</tbody>
</table>

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The MLI draws on different qualifications frameworks and expert interviews for the design of the criteria to assess learning outcomes of VET and HE. The tool comprises three categories of learning outcomes, such as knowledge, skills and competence, each of which subdivided into two to three scales with 5 to 10 items each (see Fig. 4).

**Figure 4: Scales and Examples of Items of the MLI**

<table>
<thead>
<tr>
<th>Knowledge</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Actuality</td>
<td>„The module contains at least some in-depth knowledge on the actual state of research within the domain.“</td>
</tr>
<tr>
<td>Critical Appreciation</td>
<td>„The module provides an awareness for the limits of the knowledge acquired.“</td>
</tr>
<tr>
<td>Interdisciplinarity</td>
<td>„The module contains interdisciplinary topics, requiring knowledge from different domains.“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Solving Skills</td>
<td>„The learning objectives or examination questions require comprehensive cognitive of practical skills.“</td>
</tr>
<tr>
<td>Relation to Practice</td>
<td>„The module provides knowledge with immediate practical usability.“</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Competence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>„The module contains learning objectives implying non-predictable changes.“</td>
</tr>
<tr>
<td>Communication</td>
<td>„The learners have demonstrated their ability to communicate their understanding of the domain to other learners.“</td>
</tr>
<tr>
<td>Awareness of ethical and social issues</td>
<td>„When solving problems, the learners take into account interests of others and show solidarity with people affected by the solutions.“</td>
</tr>
</tbody>
</table>

Depending on the assessment of a learning outcome in regard to these evaluation dimensions, the MLI tool accounts for which level of the qualifications framework this learning outcome addresses.

**Levels of Verification and Types of Accreditation:**

Looking for equivalent learning outcomes of VET and HE can be dealt with at different levels:

- to assess the individual person with his/her prior learning, and
- to assess the certificate with defined learning outcomes.

According to the level of assessment the following specific types of accreditation were identified:

- individual level (micro level): individualised accreditation,
- certificate level (macro level): generalised accreditation, and
- both levels integrated: combined accreditation.

These types of accreditation vary in terms of the kind of learning, application area, number and transferability of credits (see Fig. 5).

**Figure 5: Types of Accreditation**

<table>
<thead>
<tr>
<th>Type of Learning</th>
<th>Individual Level</th>
<th>Certificate Level</th>
<th>Levels added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-formal, informal learning and/or formal (all types)</td>
<td>formal (certified) learning only</td>
<td>non-formal, informal learning and formal (all types)</td>
<td></td>
</tr>
<tr>
<td>Application Area</td>
<td>All areas, as the individual person is addressed</td>
<td>restricted to the specific VET certificate</td>
<td>all areas</td>
</tr>
<tr>
<td>Number of Credits</td>
<td>Not fixed, as dependent on the individual person</td>
<td>fixed, as dependent on the specific individual person</td>
<td>maximum amount</td>
</tr>
<tr>
<td>Credits transferable</td>
<td>Not possible, as dependent on the individual person</td>
<td>Possible, as fixed and dependent on the certificate</td>
<td>Fixed number of credits only</td>
</tr>
</tbody>
</table>
Individualised accreditation can bring about the maximum amount of credits to be recognised, integrates formal, non-formal and informal learning, and is applicable to all disciplines as the learning outcomes of the individual person is considered. But it requires a lot of resources to do it this way by both the individual person and the HE institution. Hence generalised accreditation is more economic for both parties, as the identification of equivalent learning outcomes of a specific VET certificate to a specific HE programme is done prior to granting it and the result of this alignment is shared by all holders of the VET certificate assessed. This situation is shown by the application flows below (see Fig. 6). However, generalised accreditation also implies some limitation, as this option applies only to formal learning testified by VET certificates with a fixed number of credits to be acknowledged.

From the applicant’s point of view, the combination of individualised and generalised accreditation allows most of his or her prior learning accredited in the most efficient way.

**Application Flows**

The following chart shows which steps to take to apply for recognition of prior learning according to the type of accreditation.

**Figure 6: Application Flows**

<table>
<thead>
<tr>
<th>Individual Accreditation</th>
<th>Generalised Accreditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information &amp; Counselling</td>
<td>Information &amp; Counselling</td>
</tr>
<tr>
<td>Application of Accreditation</td>
<td>Application of Accreditation</td>
</tr>
<tr>
<td>Application Processing</td>
<td>Application Processing</td>
</tr>
<tr>
<td>Verification of Equivalence</td>
<td></td>
</tr>
<tr>
<td>Decision of Accreditation</td>
<td>Accreditation of an individual amount of credits</td>
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<tr>
<td></td>
<td>Accreditation of a fixed amount of credits</td>
</tr>
</tbody>
</table>

The differences between the two application flows refer to the steps ‘information & counselling’ and to the (coloured) additional requirements concerning the preparation as well as the assessment of the individual portfolio which comprises the evidence of prior learning, and the decision of the accreditation based on these sources. For the whole process of individual accreditation guidance is needed which takes up further resources for all parties involved.

### 3. Conclusion

Drawing conclusions from the overall evaluation of the projects’ results regarding accreditation models, they are as follows:

- There is equivalence of VET and HE regarding learning outcomes (proof of concept).

The pilot projects have developed and tested accreditation models and thus proved that different learning environments can procure equivalent learning outcomes.

- There are different approaches to address recognition/accreditation of prior learning: at individual level, at certificate level, and a combination of both options.

There is not only one way of dealing with accreditation of prior learning. Depending on the aims pursued and the means available it seems likely to set up different approaches which fit the purpose. Accreditation at certificate level tends to be more economic regarding the cost-benefit ratio of resources spent and numbers of recognition cases possible, but it has its limitations in terms of excluding non-formal and informal learning. This might be a negligible point for the time being in order to get accreditation of prior learning off the ground. Recognition at individual level includes all kinds of prior learning, and yet, the time and effort expended by both the individual person and the HE institution are considerable. So the question is to get the balance right and join forces to the benefit of VET and HE.

- So far there has been little practical experience with (enhanced) accreditation of prior learning for HE, and
therefore support for HE institutions and other parties interested is needed to make a breakthrough.

The whole matter of accreditation of prior (certificated) learning is new to HE institutions. Although there has always been some practice of individualised recognition, it has never happened on a large scale. To change this unsatisfactory situation for the better, resources for competent and sustainable support in terms of information and counselling for HE institutions interested in granting accreditation of prior learning and for people seeking recognition are needed. With ANKOM finished now there are some really good examples to be spread and more sophisticated experience to be drawn upon which other HE institutions can benefit from and thus make it easier for them to set up accreditation procedures at an advanced level.

• Without adequate study programmes for persons gainfully employed, there will be no big demand for recognition of prior learning, and thus no real breakthrough in this matter.

However, the results of the ANKOM initiative show that there is considerable effort involved to make permeability within the educational system real when applying quality-assured recognition procedures. Moreover, this is not enough, as further steps need to be taken when it comes to an increased number of well-designed study programmes which meet the needs of employers and their employees to be qualified at academic level and thus provide highly-qualified specialists and executive staff for a knowledge-based economy. So it is necessary for both the HE institutions and the employers to co-operate and pool resources to the benefit of all parties involved.

4. References


RATING AND RANKING: A FUZZY APPROACH TO THE INDIVIDUAL BUNDLE OF COMPETENCE

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Abstract: As competences-based research incorporates the multidimensional nature of skill, we usually have to tackle a large amount of data. In this context, different clustering methods are used to reduce the data in a manageable way. This paper focuses an application of fuzzy sets theory to competence assessment procedure. This approach deals simultaneously with case clustering and individual heterogeneity. Our empirical research analyzes the bundle of competences of a sample of non-managerial retail clerks of the banking industry in Portugal. By assumption, the population under study can be decomposed into a fuzzy partition of typical competence profiles. Each clerk is then represented by a set of grade of membership (GoM) scores that rate his or her similarity to each typical profile. Both profiles and GoM scores are estimated from a dedicated survey data. The results achieved unveil a hierarchical partition of competences though the individual bundles of competences are almost homogeneous. This particular bundle configuration potentially allows GoM scores to be used to rank clerks by competences. The ranking is provided by a utility function derived from an original theorem.

Key words: competence, fuzzy partition, rating, ranking.

1. Introduction

Economic research, and also common sense, supports the idea that labour force competence is of fundamental importance to organizational performance. By assumption, the competences provided include the necessary knowledge, skills and abilities to do the tasks required in jobs or occupations. This approach leads to a multidimensional concept of competence and falls within the framework of job matching. Therefore, a list of elements of competence is crucial to the empirical analysis design in order to assess individual heterogeneity. Heterogeneity is understood herein as the individual combination of elements of competence to perform assigned tasks. The empirical measurement of each individual often leads to a large number of different conditions gathered in a multidimensional vector. As a result, the surveys and resulting dataset are usually hard to manage. Moreover, we face further difficulties when we try to compare individuals with each other for ordering purposes, particularly when no utility function is available.

The aim of this study is twofold. First, we intend to reduce the data in order to represent individual heterogeneity in a competence structure in a manageable way. This structure involves clusters or typologies of competence that prevail in a particular job context.

To deal simultaneously with the dual problem of competence clustering and individual heterogeneity, our analysis resorts to the concept of partial membership of fuzzy sets theory (Zadeh,1965). The fuzzy approach strives to find the common population characteristics, i.e., clustering, and simultaneously to quantify the importance of these characteristics in each member of the population. This process is referred to as fuzzy representation of individuals.

The second goal of this study is to use fuzzy representation to rank individuals by competence. For this purpose, an original theorem on unit simplex is presented and under certain conditions this provides a mapping of workers' multidimensional features into the interval [0,1] (Suleman and Suleman, 2010).

The empirical research resorts to a dedicated survey designed to study the valuation of competences in the labour market which was applied to non-managerial retail clerks of the banking sector in Portugal. The empirical analysis was carried out using a Grade of Membership (GOM) statistical model (Woodbury and Clive, 1974), which is based on fuzzy partitions. The empirical findings reveal a hierarchical competence structure characterized by symmetrical bundle of competences. This means that although differences between banking employees' competences do exist, i.e., workers perform differently, their distribution on the competence fuzzy structure shows that no substantive difference is found within individuals regarding the elements of competences under analysis. Therefore, the bundle of competences within individuals is almost or quasi-homogeneous. The particular distribution of employees in this structure leads to their ordering by competence. A number between 0 and 1 is then attached to each employee, so the greater the number, the more competent the employee.

2. Theoretical Framework

In the economic analysis of the quality of goods, Lancaster's approach assumes quality as a bundle of properties or characteristics. Consumers are then interested in goods for the characteristics embodied and not due to goods for their own
sake. Thus, for Lancaster goods are collection of characteristics that cannot be divisible and separated.

Turning to the labour market, Hartog assumes that it is composed of a supply of bundle of capabilities i.e. individuals are endowed with stocks of capabilities, specified by \(X_{ij} = 1,2,\ldots,J\), the capability endowments. The labour demand is decomposed by jobs requiring capabilities in different amounts and different combinations; jobs are required bundles of capabilities, Hartog (1977: 161) insists. In other words, jobs and workers are assumed as vector of characteristics or attributes that imply a price or a wage rate (Rosen, 1974; Lucas 1977, Léné 1999). Moreover, individuals may be assumed as offering their bundle of skills to a single employer, and consequently the skill “package” cannot be unbound so that each is offered for a better price (Léné, 1999) or it can be decomposed in a number of different capabilities (Hartog, 1980). By this, he argues that if these properties are ruled out the capability price can be predicted through linear price equation. Thus, the labour market can be structured in terms of groups of capabilities which are relevant to explain job wage rates.

Indeed, new approaches in economics of education consider that the concept of competence introduces the multidimensional feature of labour force quality. In many studies, economists have tried to ascertain the most valued competences in the labour market (Green, 1998; Heijike and Ramaekers, 1998; Allen and van der Velden, 2001; Paul, 2002; Heijike, Meng and Ramaekers, 2002; Loo and Semeijn, 2004; Suleman and Paul, 2005; Suleman, 2007). A list of competences is therefore crucial to the design of the empirical analysis; it includes knowledge, skills, behaviours, attitudes, and abilities, and other relevant individual attributes, such as educational attainment, field of education, tenure, age, and gender, as well as the attributes of the assigned job. The new surveys and resulting dataset are generally difficult to manage.

The relevant question raised is: how can workers be illustrated empirically as a collection of acquired skills and jobs as a collection of required skills? As far as we know, no research has considered the potential of an empirical analysis that targets workers and jobs as “package” of attributes. Assuming that individuals are bundles of competences and not a homogeneous stock of human capital, the first aim of this paper is to use a latent variable statistical model, namely GoM model (Woodbury and Clive, 1974), to reduce the dimension of the individual vector of attributes. Formally, if \(X_i = (X_{i1}, X_{i2}, \ldots, X_{ij})\) is the vector of \(j\) attributes or manifest variables recorded for the individual indexed by letter \(i\) or, for short individual \(i\), the model output allows the analysis of his/her characteristics through the equivalent latent variables vector \(g_i = (g_{i1}, g_{i2}, \ldots, g_{ik})\), where \(K < J\). The case \(K \ll J\) is of interest. In our empirical study, a reduction from \(J = 30\) to \(K = 3\) was achieved.

Our second goal concerns the classification of individuals on the basis of their specific bundle of competences. Essentially, we are interested in developing analytical tools to rank individuals by competence in addition to those used for performance appraisal.

Performance appraisal methods are known to place heavy emphasis on subjective measures in most cases, and are thus judgmental assessments based on comparative and absolute procedures (Fisher, Schoenfeldt and Shaw 1996). While comparative procedures are norm-referenced – ranking (Viswesvaran and Ones 2000), and are used to compare one employee directly with another, absolute standards refer to criterion-referenced methods – rating (Viswesvaran and Ones 2000) where the performance is measured on the basis of specific dimensions.

Not surprisingly, this presentation of performance appraisal reveals that the methods are generally descriptive. A total score for each employee is usually computed by summing (or weighted summing) the ratings across all aspects of performance (Fisher, Schoenfeldt and Shaw, 1996). It is worth noting that this procedure ignores the more than possible interdependency among manifest variables thus carrying redundant information. In any case, it uses multiple aspects of performance and the core outcome is generic information of each employee anchored on a singular numeric result. The use of this numeric result to rank employees by competence is, however, debatable. We bet on a different analysis yet keeping the same purpose of ranking.

Our approach tries to capture net individual \(i\) heterogeneity by assuming that the interdependency among \(J\) attributes gathered in \(X_i = (X_{i1}, X_{i2}, \ldots, X_{ij})\) is governed implicitly by \(g_i = (g_{i1}, g_{i2}, \ldots, g_{ik})\). Thus, this virtual ratings vector is, by assumption, sufficient to represent individual \(i\). Therefore, each coordinate of \(g_i\) should be interpreted as implicit rating of this individual in a specific competence dimension.

The second stage of our analysis is to find a utility function to order individual vectors like \(g_i\). This exercise allows subjective measures of competence appraisal to be integrated. Our approach tries to incorporate both rating and ranking through an analytical tool to assess employees against the standards and, subsequently, compare them according to their unique position toward standards. This issue is addressed in greater detail in Suleman and Suleman (2010).

3. The Data

To illustrate the individuals as vectors of competences rather than a stock of homogenous human capital, we need a dataset with adequate information on different attributes or on different aspects of quality of the labour force. Like research that tries to assess the matching of acquired and required skills (e.g. Heijike and Ramaekers 1998; Allen and van der Velden 2001, Paul 2002; Heijike, Meng and Ramaekers 2002), we assume a homogeneous reference, such as education field or occupation, to check for individual level of competence. This research aims to assess the individual level of competence with regard to particular job requirements.
Our dataset came from an original survey conducted in the banking industry. The survey was specifically designed to study the value of competences. The purpose of the data collection was to assess employees’ competences and subsequently to test the influence of assessed competences on earnings and incentives (Suleman and Paul, 2005) and also to determine sources of kinds of competences (Suleman and Paul, 2007). Several aspects of competences were then collected either by assessment or by gathering general information on other attributes.

Generally, competence is defined as:

*Acquired bundle of knowledge, skills, behaviours and attitudes effectively used by employees to successfully perform a task or solve a problem.*

This definition is relevant in the context of the transition from school to work. Moreover, it allows the role of other sources of competence like experience or tenure to be checked since skills and attitudes are not acquired exclusively in school, as Thurow (1976) points out.

Relative to the matching theory, we agree that all acquired knowledge, skills and attitudes are not equally productive (Heijke and Ramaekers, 1998), but we argue that occupational context contributes to increasing or depreciating those competences (Suleman and Paul, 2007). Thus the data collection on competences should integrate all these arguments.

In order to address the holistic and multidimensional perspective as stated by the above-mentioned research, our main methodological options were to:

- Circumscribe competence measurement to a well-bounded occupation inside an industry. This option allows the analysis of individual competence levels in a similar occupational context. The inquiry focussed on clerical jobs within bank branches;
- Build up a list of competences that integrates knowledge, skills and attitudes required in an occupation, with a small description of each one (example of competence description: technical knowledge: economics, business; general knowledge: foreign languages). A list of J=30 aspects of competence was then constructed and is displayed in Table 1;

### Table 1: Elements of competence

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>1</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>Technical knowledge</td>
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<tr>
<td>Specific technical knowledge</td>
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<td>General knowledge</td>
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<tr>
<th>Behaviours and attitudes toward others</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>9</th>
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<tr>
<td>Relationship with colleagues</td>
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<td>Team working</td>
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<td>Communication skills</td>
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<td>Willingness to help others</td>
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<td>Negotiation skills</td>
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<td>Persuasion skills</td>
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<th>Behaviours and attitudes toward organization</th>
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<td>Perseverance and goal-oriented attitudes</td>
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<td>Client-oriented attitudes</td>
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<td>Adaptableity</td>
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<td>Innovative attitudes</td>
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<td>Favourable learning attitudes</td>
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<td>Proactive attitudes toward learning</td>
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<td>Cooperation (with organizational goals)</td>
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<tr>
<th>Cognitive and technical skills</th>
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<td>Work planning</td>
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<td>Ability to transfer knowledge and experience</td>
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<td>Ability to understand the banking specificities</td>
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<td>Ability to understand corporation strategy</td>
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- Use rating scale to assess each employee in some point on the competence (and performance) continuum, such as “very low” to “very good”, which are assigned to the scores 1 to 5, respectively.

- Ask supervisors to assess each of their subordinates using the list of knowledge, skills, behaviours and attitudes, since they offer the way as firms stakeholders check for the matching of acquired and required competences;
• Collect complementary information such as individual attributes, performance level (overall contribution and performance level achieved in a set of occupation specific tasks), individual wage composition and monetary and non-monetary incentives.

The final sample of 600 clerks from the banking industry, responsible for commercial tasks in three financial corporations (with five banks) integrates information on employees: age, gender, level and domain of education, tenure; on job characteristics: name and corresponding position; on competence and performance assessment: supervisors’ rating on performance and competences (knowledge, skills and attitudes); on compensation schemes: salary level, base pay, other fixed compensation schemes, bonuses, profit sharing and stock-options; and on non-monetary incentives: promotion.

The competence list was built up from research oriented to the banking industry and it was checked with human resources managers and some supervisors of banking branches. It discriminates kinds of knowledge, skills, behaviours and attitudes in number of 30.

4. GoM Model Formulation

To analyze the individual’s bundle of competences we used the grade of membership (GoM) model developed by Woodbury and Clive (1974). The model is based on a fuzzy partition which means the universe from which the data is sampled can, by assumption, be decomposed into K>1 fuzzy classes, each with a specific set of characteristics. The number of fuzzy classes K is fixed a priori. Individuals are then allowed to have either crisp or partial membership in these classes. Class assignment is made according to the similarity of individuals’ characteristics to those representing fuzzy classes. For example, a grey colour can be decomposed into proportions of black colour and white colour. In this case, these two colours represent K=2 fuzzy classes. The grey colour should be a partial member of two extreme colours. GoM model can be formulated as follows.

Let \( X = (X_1, X_2, ..., X_J) \) be a random vector whose components are discrete categorical variables with the set of outcomes of \( j^{th} \) variable being \( \mathcal{L}_j = \{1, 2, ..., L_j\}, 1 \leq j \leq J \). The \( L_j \) categories are assumed exhaustive and mutually exclusive. Continuous variables, if any, should be approximated by categorical variables with comparable distribution. The key problem faced in GoM analysis is the representation of the distribution of \( X \) denoted by \( \Pr[X=x] \),

\[
\mathbf{x} = (x_1, x_2, ..., x_J) \in \mathcal{L}_1 \times \mathcal{L}_2 \times \ldots \times \mathcal{L}_J
\]

in an individualized heterogeneity context.

Consider \( N \) independent realization of the random vector \( X \) i.e., a random sample \( X_i, X_{i+1}, ..., X_N \), where \( X_i = (X_{i1}, X_{i2}, ..., X_{ij}) \), \( 1 \leq i \leq N \). This variable is referred to as the measurement vector of individual \( i \) and its generic coordinate \( X_{ij} \) as the outcome of individual \( i \) on the measurement \( j \). Assume that \( X \) implicitly carries information about the position of individual \( i \) in a fuzzy partition in form of a latent variable \( g_i = (g_{i1}, g_{i2}, ..., g_{ik}) \in S_K \), \( 1 \leq i \leq N \), where \( K \) is the number of partition classes and \( S_K \) is the unit simplex with \( K \) extreme points,

\[
S_K = \{ a = (a_1, a_2, ..., a_K): a_k \geq 0 \land \sum_{k=1}^{K} a_k = 1 \}
\]

As referred above, \( K \) is fixed a priori.

Denote the conditional probability of the coordinate \( X_{ij} \) taking the value \( g \) given that \( i \) is crisp member of \( k \)-fuzzy class, as

\[
\lambda_{ijk} = \Pr[X_{ij} = l | g_k = 1]
\]

As probabilities, \( \lambda_{ijk} \) verify the following constraints:

\[
0 \leq \lambda_{ijk} \leq 1 \text{ and } \sum_{i=1}^{L_i} \lambda_{ijk} = 1 \text{ for each } j \text{ and } k.
\]

The basic assumption of GoM model is that, given \( g_i \), the probability of individual \( i \) having outcome \( l \) in measurement \( j \) is a convex combination of \( \lambda_{ijk} \), i.e.,

\[
p_{ijl} = \Pr[X_{ij} = l | g_i] = \sum_{k=1}^{K} g_k \lambda_{ijk}
\]

This expression is referred to as the GoM model itself (Manton et al., 1992).

GoM model identifies the fuzzy partition that, by assumption, structures the underlying population by probability vectors, \( \Lambda_k \),

\[
\Lambda_k = \{ (\lambda_{ijk}, l \in \mathcal{L}_j) \mid 1 \leq j \leq J \} \text{, } 1 \leq k \leq K
\]

These vectors gather conditions that characterize the fuzzy partition classes. For this reason, they are referred to as typical profiles.

It is worth noting that the vectors \( \Lambda_k, 1 \leq k \leq K \), are mapped into the vertices of unit simplex \( S_K \) as they are represented in this convex set by the canonical base of \( \mathbb{R}^K \), namely the \( K \) coordinates vectors \( (1,0,...,0), (0,1,...,0), ..., (0,0,...,1) \). In this way, the generic coordinate \( g_k \) of \( g = (g_1, g_2, ..., g_K) \in S_K \), \( 1 \leq i \leq N \) is interpreted as the amount of typical profile \( \Lambda_k \), \( 1 \leq k \leq K \), shared by individual \( i \). The convex set \( S_K \) can be used to get a notion of the distribution of the population in a fuzzy partition. Particularly, when \( K \) is 2, 3 or 4, additional advantage is provided by the graphical representation of \( S_K \). This feature is explored in our empirical analysis.
5. Empirical Analysis

It is known that economic studies of education have a long tradition of understanding the kinds of skills that are predominantly related to education. The discussion is largely based on the distinction between cognitive or non-cognitive skills. Thus, our pivotal variable is educational attainment which is decomposed into three categories: low secondary, secondary and higher. In the GoM model notation, the value of $K$ was set to three. Such decomposition incorporates the main trends of the banking sector in Portugal. From our initial sample of 600 individuals, we omitted seven due to non-standard education levels. Thus, the final sample size is $N=593$. Besides the $J=30$ elements of competence (Table 1), additional 6 variables were considered in the analysis (demographic variables): gender, age, tenure and education; institutional affiliation: referred to as bank, and coded as A, B and C; and assigned job (dummy: 1 = in charge of portfolio customers; 0 = all other clerks). Hence, the total number of variables is $J^* = 36$. The last 6 variables are auxiliary variables and they are generally used for the characterization of typical profiles (Singer, 1989).

The GoM parameters, $\lambda_{ji}$ and $g_{ik}$, estimation strategy was based on the maximum likelihood method using the product multinomial likelihood function (Manton, Woodbury and Tolley, 1994):

$$ L = \prod_{i=1}^{N} \prod_{j=1}^{J^*} \prod_{l=1}^{L} \left( \sum_{k=1}^{3} g_{ik} \lambda_{jl} \right)^{y_{jl}} $$

(2)

where

$$ y_{jl} = \begin{cases} 1 & \text{if } x_{jl} = l \\ 0 & \text{otherwise} \end{cases} $$

An empirical measure of model goodness of fit gives a p-value of less than $10^{-6}$ leading to the acceptance of the $K=3$ fuzzy classes model when compared to the so-called independence model, with only one class.

The empirical findings will be analyzed in two steps. In the first step, the fuzzy structure will be examined by characterizing $K=3$ typical profiles resulting from the application of the GoM model to the dataset; in the second step, the individual distribution will be carried out by depicting estimates of individual vector $\mathbf{g}_i = (g_{i1}, g_{i2}, g_{i3})$ in the unit simplex $S_3$. The dataset and the results are available on request.

Typical Profiles

Regarding the $J = 30$ competence variables (Table 1), the estimated values $\hat{\lambda}_{ji}$ show that it is possible to associate Low, Medium and High competence levels to $K=3$ typical profiles. Thus, they are likely to define a hierarchically fuzzy structure (Fig. 1) of competences in the commercial activity of the banking sector. This structure is represented by the unit simplex $S_3$. The Low, Medium and High competence profiles are represented by the vectors $(1,0,0)$, $(0,1,0)$ and $(0,0,1)$, respectively.

The next step in our analysis is to characterize the typical profiles achieved in terms of (other) professional characteristics so as to make inferences on their contribution to inducing performance. This information is provided by 6 auxiliary variables. Table 2 summarizes empirical evidence that are the results of GoM model application.

Table 2: Typical professional profiles and demographic characteristics

<table>
<thead>
<tr>
<th>Typical Profile</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>A, B, C</td>
<td>A, B, C</td>
<td>A, B, C</td>
</tr>
<tr>
<td>Age</td>
<td>35 – 54</td>
<td>------</td>
<td>25 – 34</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Both</td>
<td>Both</td>
</tr>
<tr>
<td>Education</td>
<td>&lt; Secondary</td>
<td>= Secondary</td>
<td>Higher</td>
</tr>
<tr>
<td>Tenure</td>
<td>&gt; 20</td>
<td>10 – 20</td>
<td>1 – 10</td>
</tr>
<tr>
<td>Portfolio</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(*) No prevalent condition found.

The characteristics emerging from typical profiles show that education contributes to competence-acquisition. In other words, higher education levels lead to greater competences. Contrary to other human capital predictions, the same does not hold for seniority and for the age which is a proxy for experience. In short, tenure and age do not lead to higher competence for typical profiles, unlike education.

Besides these supply-side characteristics, no gender discrimination is found either man or woman can accommodate any profile as well, despite some male prevalence in the lower profile.
From the demand-side, an analysis of the important details of typical profiles reveals that no particular bank can be assigned to any profile. Thus, the hierarchical fuzzy structure that emerges seems to be common to the banking sector rather than to any particular institution. Furthermore, the prevalence of customer portfolio in the High typical profile leads this particular characteristic as a distinguished feature in the commercial activity. Note that this characteristic is not found to be prevalent in Medium and Low typical profiles.

The next stage of our analysis concerns the employees’ distribution across the fuzzy structure defined by typical profiles, as described above.

**Competence Distribution**

Intuitively, it is expected that all remaining individuals spread across $S_3$, sharing different typical profile characteristics. But the results obtained so far are somewhat counter-intuitive. By depicting the individual estimated vectors $g_i = (g_{i1}, g_{i2}, g_{i3})$ in $S_3$ (Fig. 2), we found that 76% lie on the edges connecting Low to Medium and this profile to High, vertices included. Furthermore, when partial membership is relaxed to 0.90, i.e., considering individual vectors such that $g_{i1} + g_{i2} \geq 0.90$ or $g_{i2} + g_{i3} \geq 0.90$, the rate increases to 93%.

From convex sets theory, it is known that the unit simplex points lying on the edge connecting two extreme points do not share the remaining vertices. In this context, i.e., $K=3$, the third coordinate of individuals lying on the edge Low-Medium is zero, that is $g_{i3} = 0$. Additionally, when moving from Low to Medium along the edge connecting these two profiles, the first coordinate $g_{i1}$ decreases while the second, $g_{i2}$, increases by the same amount. The starting point is the vector $(1,0,0)$ and the vector $(0,1,0)$ is the end point. The same holds for individuals lying on the edge Medium-High, though in this case $g_{i1} = 0$.

Although individuals have different competences, i.e., workers perform differently, their distribution on the fuzzy structure shows that in individuals are not expected to have a substantive difference in the various competences considered in the analysis. In other words, the individual bundle of competence is almost or quasi-homogeneous. Similarly, no evidence of (substantive) expertise is found in any of the required competences. The same should not hold if individuals are located alongside the edge connecting Low to High. In this case, imbalanced bundle of competences would be expected, the higher ones acting as compensation for the lower competences. Few cases, more precisely, six cases were found on this edge in this analysis.

![Figure 2: Distribution of individuals in a fuzzy partition](image)

**Ranking by Competence**

The particular distribution of individuals on a fuzzy hierarchical structure motivated us to establish a theorem on unit simplex. A result of this theorem, and also of its corollary, leads to a ranking system by competence. The theorem is demonstrated in Suleman and Suleman (2010).

Theorem 1: Let $S_k$ be the unit simplex with $K$ extreme points, namely $V_1 = (1,0,...,0)$, $V_2 = (0,1,...,0)$, ..., and $V_K = (0,0,...,1)$. Consider the strictly decreasing real function $\eta : \mathbb{R}^n \rightarrow [0,1]$. Thus, the function $\rho : S_k \rightarrow \mathbb{R}$ defined by

$$\rho(g) \equiv \rho(g_1, g_2, \ldots, g_K) = 1 - \sum_{k=1}^{K-1} \eta(k) \times g_k,$$

is strictly increasing along the edge of adjacent extreme points $V_m$ and $V_n$, for $1 \leq m < n \leq K$.

Corollary 1: Consider the sequence of $q$ integers, $n_1, n_2, \ldots, n_q$ such that $n_1 < n_2 < \ldots < n_q$ and suppose that the vertices $V_{n_1}$ and $V_{n_q}$, $1 \leq \alpha < q$, are adjacent. Thus, the function $\rho(g) \equiv \rho(g_1, g_2, \ldots, g_K)$ increases along the path of edges connecting the vertex $V_{n_1}$ to the vertex $V_{n_q}$, from the lowest value $\rho(V_{n_1})$ to the highest value $\rho(V_{n_q})$.

The application of the theorem, and particularly of its corollary, to rank individuals by competence, is valid only on edges of the unit simplex. It covers 76% of individuals in our problem, namely those positioned in the path Low-Medium-High. However, we will apply it to all individuals in the sample to get an estimate of each competence. Recall that 93% were estimated to be close to the referred path.

Without loss of generality, we consider the decreasing function $\eta(k) = 1/k$ which leads to the utility function

$$\rho(g) \equiv \rho(g_1, g_2, \ldots, g_K) = 1 - \left( g_{i1} + \frac{1}{2} \times g_{i2} \right).$$

Noting that this function depends only on $g_{i1}$ and $g_{i2}$, the individual position in $S_3$ can be depicted in a peculiar 2-D image, as in Figure 3.

![Figure 3: Individual rank in a fuzzy partition](image)
In this figure, the origin is the projection of the point (0.5,0.5,0.0). Two straight lines must be taken into account. The lower one corresponds to ranks of individuals on the Low-Medium edge and the upper one to individuals on the Medium-High edge. It is known that these edges are characterized by vectors \((g_{11}, g_{12}, 0)\) and \((0, g_{12}, g_{11})\) respectively. Starting from the Low typical profile, where the utility function is worth 0, \(g_{11}\) decreases while \(g_{12}\) increases by the same amount. The intersection point \(\rho(\cdot) = 0.25\) is the rank of individuals represented by the vector \((0.5, 0.5, 0.0)\). The lower line ends at the point \((0, 1, 0)\), the Medium typical profile representation, and it is worth the rank 0.5. A similar argument applies to the upper straight line. All estimated values of \(\rho(g_{1})\) are depicted in grey.

Additionally, Figure 3 shows a higher concentration of individuals in the Medium-High edge vicinity. Its estimated rate is approximately 70%. This may signal the demand for more qualified young people who are expected to have the appropriate required skills.

6. Concluding Remarks

This paper offers a methodological contribution to analyze heterogeneous data often associated to a competence assessment process. Our analysis was driven through a grade of membership (GoM) model applied to multivariate categorical data on competence assessment of \(N=593\) banking employees. The model allowed the initial individual 30-dimensional vector of attributes to be reduced to three GoM scores each accounting for his/her rate in the Low, Medium and High typical profiles. These profiles represent a competence fuzzy partition and were constructed empirically.

Furthermore, empirical findings reveal that most retail bankers share no more than two profiles at the same time. This particular employee distribution on fuzzy partition permitted the use of Theorem 1 to rank them by competence.

Despite the small sample size of the available data, we hope this paper sheds light on the potential of the fuzzy sets theory to understand the individual bundle of competences and consequently to design more incisive human resources policies.

7. References


QUALITY ASSURANCE: A MEANS TO RESPOND TO THE EXPECTATIONS OF EDUCATION AND TRAINING USERS

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Abstract: Qualifications frameworks are intended, amongst other things, to promote better understanding of qualifications and consequently to facilitate recognition of qualifications across the different sub-systems of education and training (e.g. Initial VET, HE, continuing VET). The more general objective is to facilitate learners' progression and eliminate dead-ends in their learning paths. The way frameworks operate with regard to this aspect is that they make explicit how qualifications relate to each other in terms of level.

To translate this 'relationship' between qualifications located in the framework to real possibilities for learners to progress vertically (to another level) or horizontally (using credit transfer) requires that the stakeholders competent for deciding on access to programmes and/or credit transfer (exemption from parts of qualifications or programmes) trust the way the other qualifications have been designed and awarded. This means that they have to consider that the qualifications (and the learning outcomes) the learner has already achieved are: 1) really at the level as corresponding to the framework 2) relevant to the labour market or the field of study. It also means that the award of qualification to the learner, following the assessment, validation and recognition, has been done in a valid and reliable manner and hence the learner has achieved at least the minimum standard expected..

Key words: Quality assurance, qualifications system, quality, stakeholders' involvement, EQARF, Standards and Guidelines for Quality Assurance in the European Higher Education Area, trust.

1. Introduction

The topics of quality and of quality assurance are a “refrain” of many European and national discussions on qualifications systems and their reforms. Quality figures among the four long term objectives of the Education and Training 2010 Work Programme and of the revised strategic framework for 2020⁴ and quality assurance is a clear priority in the Copenhagen and Bologna processes⁵. In this context quality and the mechanisms to ensure that it is continuously enhanced are seen as a condition for:

- Improving European education and training systems in view of raising EU population competence levels as well as the relevance of these competences;
- Building trust among the different systems (across countries) and sub-systems (within a country) in view of strengthening mobility, permeability and flexibility of learning pathways but also improving qualifications' recognition on the labour market.

As such quality assurance has an intrinsic role of perpetuating improvement and supporting accountability and an extrinsic role in supporting exchange between the system and its context. Enhancing quality in education and training is an objective with multiple dimensions that concern aspects such as content of learning and of qualifications (standards and curricula), supply (teachers, teaching methods and materials, etc.), award of qualifications (assessment, validation and recognition), etc..

The Decowe conference has for main topic to examine how competence development is supported and can be enhanced in the world of work and education. This paper was prepared for the workshop focused on the role of qualifications systems with this regard. It argues that quality assurance, as a process that aims to ensure that the objectives of learning are met, has a clear role to play in debates and policies on improving learners' competence and should not be put aside as a mere accountability and monitoring tool. It first examines the rationale for considering quality assurance among the core mechanisms to support learning policies. It then briefly presents the European policies with regard to quality assurance in VET and higher education as well as certain issues concerning the quality assurance practice in European countries. The last section discusses the challenges that quality assurance policies are facing when it comes to their implementation at institutional level as well as in view of improving trust.

2. Qualifications Systems and Quality Assurance: the Context and Some Assumptions

The OECD (2007) definition of a qualifications system identifies quality assurance as one of the mechanisms that contribute to recognition of learning:

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¹ The Education and Training 2010 Work Programme and the revised strategic framework for 2020 set the objectives for European cooperation in education and training in view of contributing to reach the Lisbon objectives. For more information see: Internet: http://ec.europa.eu/education/lifelong-learning-policy/doc28_en.htm

² The Copenhagen and Bologna processes are inter-ministerial policy cooperation channels in the area of vocational education and training and higher education respectively. For more information see: Internet: http://ec.europa.eu/education/vocational-education/doc1143_en.htm and http://www.ond.vlaanderen.be/hogeronderwijs/bologna/
Qualifications systems include all aspects of a country’s activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policies on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society. Qualifications systems may be more or less integrated and coherent. One feature of a qualifications system may be an explicit framework of qualifications.

The same study identified quality assurance as a rather strong mechanism that can support lifelong learning policies (see p.156) by increasing the way stakeholders value learning and qualifications. This is based on the assumption that existence of quality assurance processes guarantees, to the stakeholders interested, that a certain standard has been observed when designing a qualification, delivering learning as well as when it comes to its assessment, validation and recognition. Among the other nineteen mechanisms identified by the OECD study, several require to be underpinned by quality assurance if they are to perform their role, showing that quality assurance is indeed a “refrain” that comes back as soon as policies to address complex systems with multiple stakeholders and traditionally low trust are discussed.

For examples this is how quality assurance is related to mechanism to improve learners’ progression, transfer and recognition of learning:

- **Qualifications frameworks**: these represent qualifications in a structure (of levels most often) based on a set of agreed criteria. Their goals are, amongst others, to improve the understanding of links between qualifications and improving opportunities for progression and transfer.

In order for the framework to be credible and hence to be used as a basis for recruitment or giving access to or exemptions from programmes or qualifications, it needs to be managed through a quality process. This concerns the ways in which qualifications are referenced to the framework (see Bjornavold and Coles 2010 as well as Commission 2008) but also how the framework is constructed (i.e. meeting the needs of its users), monitoring and evaluating the contribution of the framework to its objectives and revising qualifications in the framework.

- **Credit systems**: enable progressive accumulation and transfer of learning by describing qualification/ programme components (units or modules) in terms of standards and by putting in place discrete assessment, validation and recognition process for each component. Credit systems also imply existence of standards, requirements or criteria that govern accumulation and transfer in terms of what credit can be accumulated to which qualification.

- Credit systems are based on the principle that learning that has been assessed “elsewhere” (another country, institution) can be taken into account for a qualification “here” (institution where the learner seeks recognition). Therefore they require confidence that the assessment that took place “elsewhere” was valid and reliable and is hence acceptable for the qualification the learner applies for. In other words credit systems also necessitate quality assurance, specifically with regard to assessment (note: it is assumed here that the quality assurance of the standard used for assessment is examined as part of the qualifications framework).

- **Validation and recognition of non-formal and informal learning**: makes it possible for learners to identify, document and recognise their competence which were not acquired in a formal learning process giving them access to or exemption from study programmes or the award of (full or partial) qualification. It is underpinned by the existence of standards against which individual’s competence are identified as well as appropriate (formative and summative) assessment methods.

- Credibility of validation of non-formal and informal learning is crucial as this is, in many systems, a new way of getting access to qualifications. As any innovation in education and training it still needs to meet broad acceptance and credibility by stakeholders concerned. Therefore the relevance of the standards used as well as the reliability and validity of assessment for validation of non-formal and informal learning (like in the case of formal learning) have to be ensured (Cedefop 2009a).

As the above mechanisms are high on national and European agendas (as prove also the contributions to the Decow conference) (see Commission 2009 a, Cedefop 2008) it is also necessary to address the underpinning issue of appropriate quality assurance. Other policies that are paid increasing attention, such as anticipation of skills needs or partnerships between education and training institutions and the labour market, can on the other hand contribute to strengthening quality assurance.

The examples of policies outlined above illustrate that quality assurance cannot be seen as an isolated standardised mechanism. It is always context-dependent (see Cedefop 2003) and based on the understanding of objectives and expectations of different stakeholders concerned. If quality is understood as the point where the goals (of the learning process and the qualification) are fulfilled (Cedefop 2003, quality as fitness of purpose in UNESCO-CEPES 2007), quality assurance is the process put in place to optimise the chances that this goal is met. Hence understanding the learning context and identifying the needs and
expectations of the actors concerned as well as monitoring the extent to which these needs are met are among the core concerns of quality assurance.

When speaking about quality assurance in the context of education and training the stakeholders, whose goals and needs have to be taken into account, are multiple. These are mainly:

- the learners (but also parents who have a clear role in deciding their children’s education pathways - especially in the earlier stages) who on one hand shape the education and training offer by applying their choice (not always informed) and constitute the demand for learning. On the other hand they are in term the ones who use the competences and qualifications acquired in the system on the labour market as well as in their social and personal lives.
- the employers who are the other component of demand and who require labour force with certain (basic, technical, interpersonal, etc.) competences as well as with the capacity to further adapt;
- the state or the region in the capacity of funding authority with focus on efficiency but also as a regulator whose concerns are related to a wide range of issues among which employability, equity, citizenship (but also for example innovation, sustainable development, etc.).
- other education and training systems towards which the learners can progress to or have his credit transferred. This last category of stakeholders is often omitted but if the expectations are that learners will be capable of progression and transfer among different systems and institutions they should also be seen as the users of learning delivered and accredited in other parts of the qualifications system.

Finding the appropriate balance between these different concerns is a difficult exercise also because some of the interests may in fact go in different directions. For example the demand on qualifications on the side of learners (in terms of numbers of candidates as well as expectations on content), may be contrary with the recruitment needs of employers, creating mismatch. Learners’ choice is a “multi-variable process” influenced by factors such as parents’ advice, school performance, previous working experience or contact with the profession or hazard (see for example Maxwell, Cooper and Biggs 2000, Hemsley-Brown 1999 Hodkinson 2004). It is rarely a rational choice taking into account future employability and employment prospects. On the other hand learners’ are the main actors in their learning process and their needs should be addressed. Similarly, the concerns of employers need to be counter-balanced by interests of other stakeholders (e.g. the state). Especially in sectors that are weakly organised or mainly dominated by SMEs, employers’ expectations may be related to their short term needs (rather than long term forecast) and focused on certain specific competence. While adaptability of the labour force and the capacity to change not only company but also profession and employment sector are clearly in the interest of both the individual and the public sector (avoiding phases of unemployment).

Therefore any quality assurance process in education and training should be based on understanding the broader picture in which it operates. However, as will be discussed below, this is not always in line with education and training institutions’ internal logic who often consider learners as their main clients (since they are often related to the source of funding) and have little incentives to cooperate with the other types of users.

3. The Current Focus of Quality Assurance in VET and HE

In VET the European approach to quality assurance, as formulated in the European Quality Assurance Reference Framework (EQARF) is articulated around the quality cycle based on:

- planning (that reflects the strategic vision shared by the relevant stakeholders and includes explicit goals/ objectives, actions and indicators);
- implementation (plans are devised in consultation with stakeholders and include explicit principles);
- evaluation (of outcomes and processes is regularly carried out and supported by measurement);
- review.

It combines internal and external evaluation like most quality assurance approaches.

As already noted above, this quality assurance approach is complementary with other policies being developed. The first principle of EQARF (planning) is complementary to other policies focusing on national and regional identification of current and future skills needs (in terms of both quality and content). These can enhance the relevance of qualifications for the (current and future) labour market provided that channels exist through which this type of studies can feed into the design of education and training systems. The structure of EQARF is also complementary with policies focusing on creating partnerships between VET providers and systems and employers. Such policies are increasingly present. As identified in the Commission Joint Report on Progress in implementation of the Education and Training 2010 work programme (European Commission 2009 a) more than half EU-27 countries emphasise partnership with employers (or their representatives) in their recent VET policies.

However, the reality of VET systems and of their different aspects is not yet following the quality logic proposed by the European framework. The European Network on Quality assurance in VET (ENQA-VET) regularly organises peer-learning activities for policy makers involved in quality assurance...
of VET or specific aspects of VET policies. The table 1 below summarises the extent to which and how the aspects of VET examined in ENQA-VET recent activities apply the quality assurance cycle. It shows that the extent to which planning and implementation with stakeholder involvement, as well as assessment, evaluation and review are in place varies greatly. In general, these observations can be made:

- learners’ involvement is weak or even inexistent in planning and evaluating many aspects of VET;
- social partners’ involvement is strong at strategic policy level, the design of learning content and learners’ assessment, but their roles in evaluation and feedback are unclear;
- evaluation and feedback mechanisms are scarce though monitoring of certain standardised information is often in place.

The Table 1 below also shows that the focus on QA in VET as being promoted by European policies is far from the vision of bureaucracy and paper-filling with which it is often associated.

Accreditation of VET providers (which is often seen as bureaucratic control measure – see ENQA-VET 2009 a) and their monitoring are only one mechanism of this quality approach. For example with regard to quality assurance of learners’ assessment, a recent Cedefop study (2009b) identified no less than thirteen methods (concerning both assessment planning and implementation) in the sample of nine countries studied. Only one of these methods was related to accreditation. The Cedefop (2009b) study also showed that the extent to which quality assurance in VET is explicitly formulated in a code of practice varies greatly from country to country. The study was focused only with the quality assurance of assessment, validation and recognition in the formal learning VET systems. All countries studied had certain (though different) mechanisms through which the relevance, validity and reliability of assessment was addressed but little or none had this information easily accessible. As will be discussed in the section on challenges below this is can create an obstacle for building trust among systems.

Table 1: Snapshot of EU countries’ situation with regard to implementation of quality assurance in different aspects of VET (based on ENQA-VET Peer Learning Activities)

<table>
<thead>
<tr>
<th>Purpose and planning</th>
<th>Accreditation of providers</th>
<th>Evaluation of VET systems</th>
<th>Learners’ assessment</th>
<th>Role of social partners in VET policies</th>
<th>Work-based learning</th>
<th>Recognition of NFIL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common and mandatory</td>
<td>if existing covers both</td>
<td>national procedures</td>
<td>involvement in</td>
<td>national plans and structures exist but</td>
<td></td>
<td></td>
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<tr>
<td>planning</td>
<td>general education and</td>
<td>(more or less</td>
<td>strategic planning</td>
<td>reforms do not always focus on</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>VET</td>
<td>generalised)</td>
<td>as well as standard</td>
<td>work-based</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Little scope for strategic</td>
<td>different from</td>
<td>or curricula design</td>
<td>learning</td>
<td>many countries have a legalistic</td>
<td></td>
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<td></td>
<td>decisions</td>
<td>IVET to CVET</td>
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<td>framework but little</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>is known about financial</td>
<td></td>
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<tr>
<td>Implementation</td>
<td>lack of social partners’</td>
<td>limited resources</td>
<td>stronger with regard</td>
<td>many actors are involved but limited</td>
<td>supported by outcomes</td>
<td></td>
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<td></td>
<td>and students’ participation in this process</td>
<td>roles of players unclear</td>
<td>to apprenticeships</td>
<td>students’ involvement in QA</td>
<td>based standards and related to the</td>
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<td>than school based</td>
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<td>formal system</td>
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<td></td>
<td></td>
<td></td>
<td>learning involvement in teachers’ training</td>
<td></td>
<td>lack of funding</td>
<td></td>
</tr>
<tr>
<td>Assessment and</td>
<td>periodical and based on</td>
<td>more often monitoring than</td>
<td>rarely involved in</td>
<td>QA is a matter of enterprises and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluation</td>
<td>standardised indicators</td>
<td>evaluation (inspection, supervision, statistics, etc.)</td>
<td>governing boards or</td>
<td>knowledge about it is limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>awarding bodies</td>
<td>little or no quality indicators</td>
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<tr>
<td></td>
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<td></td>
<td>involved in student assessment</td>
<td></td>
<td>some countries have undertaken evaluations</td>
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<tr>
<td>Feedback and review</td>
<td>hardly any</td>
<td>little or not based on empirical findings</td>
<td>strong involvement in review of qualifications standards or curricula</td>
<td>unclear and not well organised</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>consultation role with regard to VET policies</td>
<td>lacking or information is missing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Non-formal and informal learning*

Source: Author based on ENQA-VET Policy Briefs1

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1 For more information see http://www.enqvnet.eu/policy-briefings.html
In higher education quality assurance is mainly the responsibility of higher education institutions themselves (Ministerial Meeting Berlin 2003) combined with external quality review. The European framework for quality assurance in Higher Education is set in the European Standards and Guidelines for Quality Assurance (ENQA 2005) and is completed by the establishment of a European Register of Quality Assurance Agencies (Council, Commission and the European Parliament 2006). This framework is based on the principles of internal and external quality assurance as well as the mission of quality assurance agencies. The internal process should address issues such as putting in place an explicit quality assurance policy and procedures, approval monitoring and review of programmes, students’ assessment, staff, students’ resources, etc.

The standards and guidelines put certain emphasis on stakeholders’ involvement though this can be considered somewhat weaker than in VET QA processes (e.g. none of the standards requires stakeholder involvement in its title). The guidelines state that stakeholders’ interests should be taken into account but it is up to the institutions themselves to define who the stakeholders are and to what extent these should be involved. However the guidelines do encourage institutions to collect employers’ feedback to their programmes and call for their involvement in the work of the quality assurance agency. Learners’ involvement is also highlighted at several occasions namely with regard to programme design and their satisfaction with teaching and programmes delivered.

In Higher education quality assurance agencies are considered an important mechanism in putting in place quality assurance. This is mainly due to the fact that higher education institutions are autonomous and the processes of accreditation and audit are often the only means to constraint the ways in which they design programmes or deliver learning. As shown in the ENQA 2008 survey audit and accreditation are the core of these agencies’ work (p. 24). The “mushrooming of quality assurance agencies” (European Commission 2009 b) is among the most visible developments in this area across Europe. However, besides accreditation (which is often bureaucratic and concerns mere control of compliance with set criteria) little is known about what other quality assurance measures are higher education institutions across Europe putting place and which aspects of their activities these concern.

Regarding the needs of stakeholders other than the academic world, the EUA (2007, p.57) survey of higher education institutions identified that students’ involvement in quality assurance is increasing. The raise in students’ participation was confirmed by the ESIB (2009) survey of students’ unions. With regard to participation of labour market representatives (employers or trade unions) the European Network for Quality Assurance in Higher Education (ENQA) identified that these were members of quality assurance agencies’ boards in slightly less than 50% of cases (ENQA 2008, p.57). However beyond this form of participation their involvement in internal quality assurance remains low1 and is only slightly higher for external quality assurance2 (ESIB 2009, p.55). The main actors in higher education quality assurance remain academic staff and higher education institutions themselves (ESIB 2009, p.55).

These data show that quality assurance in higher education remains very much focused on the supply of learning provided by institutions and the internal expertise of the academic world. Policies (European and national) exist to strengthen cooperation between universities and the labour market (see for example the University Business Forum) but these have not yet been integrated into institutions quality assurance measures. Students are the main source of feedback outside the academia. They are perceived as the main clients of higher education institutions while employers’ feedback and consultation seem neglected.

4. Challenges for Strengthening Quality Assurance Culture

The introduction to this paper outlined that quality assurance has an intrinsic and an extrinsic role. Its extrinsic role is concerned with development of trust among different stakeholders and systems. The previous sections showed that (sometimes important) gaps exist concerning this aspect of quality assurance approaches in both VET and higher education. Learners’ and labour market representatives’ involvement exists at least in parts of the quality assurance system (though could be improved). However, what is striking is that cooperation across education and training systems in this area is inexisten and these sectors seem to interpret quality assurance in different manners (e.g. higher education giving little emphasis on outcomes of the learning process and VET paying only limited attention to learners’ engagement). While it is obvious that VET and higher education necessitate adapted quality assurance mechanisms that are fit for their specific contexts, the users to whose needs they respond and to whom they are accountable are broadly speaking the same (though their expectations will differ according to the level and type of qualification). Space for cooperation among the sectors with regard to quality assurance certainly exists (e.g. consultation, exchange of expertise, participation in governing boards) and could contribute to raising the quality of both and mutual trust among them.

At the same time instruments such as qualifications frameworks and credit systems assume that the existence and transparency of quality assurance processes will support credibility, trust and

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1 Students unions reported trade unions participation in internal quality assurance in less than 10% of responses and employers’ participation in 20% of responses.
2 The number of responses identifying employers’ participation in external quality assurance was 35% while trade unions’ involvement was unchanged – less than 10%.
3 http://ec.europa.eu/education/higher-education/doc1261_en.htm
greater permeability across education sectors. This is for example behind the EQF and also the European Higher Education Area Qualifications Framework reference criteria related to quality assurance. However one can wonder whether this can be realised through mere description of quality assurance measures and systems. As noted in the Irish referencing report to the European Qualifications Framework (NQAI 2009, p. 68) the quality assurance processes in place in a country can have great complexity which is difficult to understand without the contextual knowledge (as it can be developed through cooperation and exchange).

Further challenges for creating a quality assurance culture across systems but more specifically within institutions are:

- The costs: setting up a platform for consultation, involving stakeholders in the design and award of qualifications, putting a monitoring system in place and organising regular evaluations and reviews all requires investment. Lack of financing is for example one of the obstacles to the quality of the programme design process in higher education in the context of Bologna reforms which introduced new qualifications (EUA 2007, p.19). In addition to investment it also implies decisions regarding the sources of funding and who pays for what. If the costs that quality assurance will impose on education and training institutions are too high compared to returns in terms of greater learners’ enrolment or private investment, they are unlikely to implement these with appropriate attention.

- Motivations for education and training institutions to implement quality assurance but also for stakeholders to participate in this process. This issue is also closely linked to questions of financing but also those of power and reputation. Many education and training institutions are implementing quality assurance measures simply because they have to. This pressure that is imposed on them is from the outside (often the government) is unlikely to result in a quality culture if there are no motivations intrinsic to the institution to improve its quality (these can come for example from the side of learners, teachers or the governing boards).

If outcomes of evaluations (such as benchmarking) are publicly available and discussed (e.g. in the media) this can also create motivations for institutions to strengthen their quality assurance (though it can also distort the practice by focusing only on aspects depicted in the benchmarking exercise).

To summarise it can be said that in order to over-ride the “bad publicity” from which quality assurance often suffers (i.e. being seen as a synonym of form filling and procedures) it can be presented as an element of evidence-based policy making in education and training as well as a platform for exchange and feedback. As such it is a learning process for institutions concerned and contributes to creating a stimulating learning environment. The focus should be on developing quality assurance means that are adapted to their context and which create channels that enable continuous exchange and feedback, an objective that is is for the moment not accomplished in many systems and institutions.

5. References


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LEARNING OUTCOMES BASED APPROACH IN HIGHER EDUCATION SYSTEM OF GEORGIA

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Abstract: Relations of higher education institutions with employers/labour market are shown in the article based on the study of Georgian professors, students, graduates and employers. The survey of 2500 stakeholders was conducted to develop a list of generic and subject specific competences in 10 subject areas in the frames of the Tuning-Georgia project. In general, employers show strange trends: the competences that should be important for employers are not as important. Employers admit that their employees lack Ability to apply knowledge in practical situations and Ability to plan and manage time, which should be an alert for educators. The survey results, supported by results of other studies (both: quantitative and qualitative) show that there is a lack of connections between employers and academics. University curricula do not reflect market demands partly because universities do not have effective dialogue with employers and partly because employers are not able to articulate their own needs.

Key words: generic competencies, subject-specific competencies, employers/labour market.

1. Introduction

Higher education system of Georgia has been in the process of extensive reforms since 2005, for that time two major innovations, directly related to each other, were carried out:

- The new Higher Education law was adopted by Georgia’s Parliament in 2004. The components of the law are mainly driven by western European and USA achievements and experience in the field (www.mes.gov.ge).
- Georgia joined the Bologna process in May 2005, expressing its desire to become a member of the European community and be able to exchange students as well as specialists within the united European space.

Institutional accreditation decreased number of universities from about 250 to 60. Out of the current universities, 20 are public and 34 –, private 71% of these institutions are located in Tbilisi, capital of Georgia. There are three cycles of education – 240 ECTS for bachelor, 120 ECTS for master and 180 ECTS for PhD levels. Major nationwide achievement is eradication of corruption (Glonti 2001, Kachkachishvili 2001, Rositashvili 2004, Hotlge 2005) prospering in Soviet Union times as for entering higher education institutions, as during study at these institutions. In general, level of research and teaching is constantly improving and all Georgian universities aim at getting closer to the European space of education; although the process often goes on with deviations, difficulties and problems (Machabeli 2007, Glonti 2007, Maisuradze 2007, Glonti and Chitashvili 2006)

One of the most problematic spheres is employment of graduates and relations of higher education institutions with employers/labour market. Based on the 2008 Fall study (EPPM 2008) 60% of universities report to have collected data on employment of their students, but much lower percent can provide actual database.

85% of universities report to have special activities dedicated to employing their graduates, out of them, 53% have contracts with employers on employment and internship issues, 27% of universities organizes meetings with potential employers, 20% of universities carry out regularly inquires about vacancies on job market and makes the information available for their students. However, interviews with experts in the field of higher education show that most of these activities are carried out only superiordy and just as a formality for accountancy reasons. Nearly no university has student placement, only few private universities with business administration programs report to have business sector involved in development of curricula.

Most of the relations with employers then are dedicated to supporting graduates in entering job market after they have already been educated, while one of the main TUNING principles tells higher education institutions to bring market interests and demands into university curricula and develop needed job skills during study.

Carried out in 2007-2009, the Tempus project “Application of Tuning approaches in Georgian higher education system” (TUNING-Georgia) was important to bring content changes and support development of student-centred higher education system

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1 All data and results provided in the article are retrieved from the research in the frames of TUNING-Georgia project, thanks to the courtesy of Pablo Beneitone. Beneitone, P. Identifying Key Competences: The Outcomes of the Stakeholders Survey. Presentation made at the working seminar in Gronning, 2008.

2 According to Georgia Department of Labor, unemployment rate is 10.3% in Georgia: http://www.dol.state.ga.us/ and according to department of statistics, it is -13.3% www.statistics.ge.

3 Interviews were carried out in the frames of the study on student-centered learning at Georgian universities with academics and administrators from Ministry of Education and Science of Georgia (in total 18 interviews).
in Georgia. The project was co-coordinated by professors Robert Wagenaar (University of Groningen) and Julia Gonzales (University of Deusto), 10 experts from European countries and about 100 representatives of 7 Georgian universities took part in the project.

Student-centred learning is one of the main principles, while learning outcomes based curricula and syllabi are the milestones of the TUNING approach (Beneitone, Esquent, Gonzalez, Maleta, Shuf, Wagenaar 2007). Provided that any higher education program is based on learning outcomes in the form of competences, participants of the TUNING – Georgia project carried out a survey of 2500 stakeholders to develop a list of generic and subject specific competences in 10 subject areas included in TUNING project4.

I will first discuss generic competences for Georgia and compare these to the European generic competencies, than I will discuss subject specific competencies for education sciences and teacher education for Georgia, and finally, I will compare Georgian results on subject specific and generic competencies.

2. Generic Competencies – Georgia

I was not able to obtain information about differences among 10 subject groups regarding importance of generic competences. Most likely, there should have been variances in answers, let us say, of business administration and some other competences. The list of Generic competences for Georgia was made based on the European one and consists of 31 competences. We asked stakeholders to rate the list on a 4 point scale (1 – none, 2- weak, 3 - considerable, 4 – strong) according to perceived importance of these competences and level of development by university degree in educational programs provided by the respondents’ respective universities. Besides, respondents were asked to rank five most important competences. The stakeholders who filled up the questionnaire were university professors, students, graduates and employers. The survey was carried out on the basis of 7 universities participating in Tuning-Georgia project.

All 4 groups were unanimous in their views: by importance, 29 out of 31 competences were rated over 3: means varied from 3.83 to 3.11 and respective standard deviations were small enough – from 0.01 to 0.14. Overall the importance scores varied from 2.76 to 3.83.

In terms of achievement, fewer competences rated over 3: from 13 - for students and employers through 14 – for professors – to 18 – for graduates. Means varied from 3.00 to 3.38 and standard deviations varied from 0.04 to 0.13. Not surprisingly, mean scores for achievement are lower than those for importance, but positively enough the gap is quite small - 0.45.

Most of these competences are rated over 3 and the scores are very close to each other, however, it is very interesting to look at their hierarchical order.

Importance

In terms of the top five competences, all 4 groups named 3 common competences:

- ability to apply knowledge in practical situations;
- capacity to learn and stay up-to-date with learning,
- ability to work autonomously.

All 3 groups, but students, had one more competence in common:
- ability to communicate both orally and through the written word in native language.

Two groups: professors (3rd from the top) and students (5th from the top) had one more competence Knowledge and understanding of the subject area and understanding of the profession in common, and two other groups – graduates and employers had the same competence rated as sixth from the top.

Employers and graduates instead had another competence - Determination and perseverance in the tasks given and responsibilities taken – in their respective lists of the top five competences. This skill probably shows itself to be needed more after students start working.

Academics, students, employers and graduates were also unanimous with the least important competences:

- ability to show awareness of equal opportunities and gender issues;
- ability to communicate with non-experts of one’s field.

These competences were given the lowest rates by all 4 groups. Then the groups started to diverge: students and graduates were the closest to each other with only one competence difference. If we take graduates as a basis for comparison, each group then had one less important competence of its own.

4 The ten subject areas are: History, European Studies, Nursing, Education Sciences and Teacher Education, Earth Sciences, Mathematics, Physics, Engineering, Chemistry, Business Administration.
Table 1: Least important generic competencies

<table>
<thead>
<tr>
<th>The least important competences</th>
<th>Graduates</th>
<th>Employers</th>
<th>Academics</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to show awareness of equal opportunities and gender issues</td>
<td>2.94 (0.05)</td>
<td>2.98 (0.09)</td>
<td>2.82 (0.08)</td>
<td>3.08 (0.1)</td>
</tr>
<tr>
<td>Ability to communicate with non-experts of one’s field</td>
<td>2.93 (0.08)</td>
<td>3.00 (0.06)</td>
<td>2.90 (0.04)</td>
<td>2.76 (0.07)</td>
</tr>
<tr>
<td>Appreciation of and respect for diversity and multiculturality</td>
<td>3.15 (0.05)</td>
<td>3.20 (0.1)</td>
<td>3.15 (0.06)</td>
<td>3.20 (0.08)</td>
</tr>
<tr>
<td>Ability to work in an international context</td>
<td>3.07 (0.1)</td>
<td>3.12 (0.06)</td>
<td>3.19 (0.07)</td>
<td>3.19 (0.06)</td>
</tr>
<tr>
<td>Commitment to safety</td>
<td>3.16 (0.1)</td>
<td>3.35 (0.09)</td>
<td>3.17 (0.10)</td>
<td>3.13 (0.1)</td>
</tr>
<tr>
<td>Spirit of enterprise, ability to take initiative – employers and academics</td>
<td>3.17 (0.05)</td>
<td>3.18 (0.02)</td>
<td>3.11 (0.10)</td>
<td>3.26 (0.04)</td>
</tr>
<tr>
<td>Ability to act with social responsibility and civic awareness - students</td>
<td>3.18 (0.09)</td>
<td>3.30 (0.08)</td>
<td>3.24 (0.08)</td>
<td>3.20 (0.08)</td>
</tr>
<tr>
<td>Ability to communicate in a second language – employers</td>
<td>3.21 (0.09)</td>
<td>3.18 (0.04)</td>
<td>3.23 (0.1)</td>
<td>3.21 (0.08)</td>
</tr>
<tr>
<td>Ability to motivate people and move toward common goals – academics</td>
<td>3.26 (0.07)</td>
<td>3.30 (0.07)</td>
<td>3.13 (0.03)</td>
<td>3.30 (0.08)</td>
</tr>
</tbody>
</table>

Based on the data from the table we can conclude the following:

1. No wonder commitment to safety is rated low; there is lack of culture of safety at jobs in general, although it is slowly entering Georgian market. While employers rate it the highest – 13th from the bottom, students rated it the 3d, graduates – 5th and academics – 6th. The gap here among employers and the rest of three groups is quite large.

2. Ability to motivate people and move toward common goals is least important for academics (rated 4th from the bottom), then to employers (rated 10th from the bottom) and then less important for grads (rated 11th from the bottom) than for students (rated 14th from the bottom), although the scores are close enough. So, comparing these 4 groups show that students rate this ability the highest among all the groups, which is surprising. Apparently, this competency should be less interesting for students and the most interesting for employers, but employer’s rate it lower than graduates and students.

3. Ability to communicate in a second language is the least important for Georgian employers (rate 4 from the bottom) and it is probably because there is not much of such context in Georgia, while for graduates, professors and students it is equally important (rate 8 from the bottom). And indeed, ability to work in an international context is also rated very low by all 4 groups, although, surprisingly enough it received the highest rating from academics (7th from the bottom) probably because they foresee such environment in the nearest future to come? It is especially interesting because competence spirit of enterprise received the lowest rating from academics and this is understandable – it is not important skill for professors at all.

4. Ratings for Spirit of enterprise, ability to take initiative yield interesting results – it is scored the lowest by professors, which is not surprising but followed by employers (rated 5th from the bottom), which is very surprising, also it is rated the highest by students (12th from the bottom). Employers might not like their employees to take initiatives, but they should definitely appreciate spirit of enterprise!

The largest gap among the 4 groups studied is with the competence Ability to undertake research at an appropriate level. While academics rate it the highest, 10th from the top; all 3 other groups rate it relatively lower: 19th for students, 20th for graduates and 26th for employers.

Correlations among the 4 groups surveyed showed quite high agreement, the smallest association is found between academics and students – 0.88 and the highest association is found between employers and graduates 0.97, however, all correlation coefficient values are very high and again show that the 4 groups studied are unanimous in rating importance of generic competences from the list.
Table 2: Correlations by importance of generic competencies

<table>
<thead>
<tr>
<th></th>
<th>Academics</th>
<th>Employers</th>
<th>Students</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academics</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employers</td>
<td>0.902</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>0.875</td>
<td>0.912</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Graduates</td>
<td>0.939</td>
<td>0.966</td>
<td>0.954</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Achievement

All 4 groups think that competences *Ability to work autonomously and Knowledge and understanding of the subject area and understanding of the profession* are achieved well, these are among the top five on the list of achievements.

Three groups but students equally rate *Ability to communicate both orally and through the written word in native language* as the top achieved capacity. Students rate achievement of this ability as 8th from the top - 7 steps lower, this means universities are not good enough in development of this competence.

Three groups but graduates consider *Ability to apply knowledge in practical situations and Capacity to generate new ideas (creativity)* rated as important to the extent of 16 through 19th and showed achievement with ratings of 20-21st. For employers the largest gap was found with two competences: *Ability to apply knowledge in practical situations and Ability to plan and manage time*, graduates add *Ability to work in a team* and students share the large gap with all these three competences.

To sum up, the difference between importance and achievement of generic competences is the following: the range for importance is 2.76 - 3.83 and the range of achievement is 2.47 - 3.35.

3. Comparing European and Georgian Results

Based on rankings, three generic competencies are equally important for Georgian and European respondents. These competences are:

- ability for abstract thinking, analysis and synthesis;
- ability to apply knowledge in practical situations;
- knowledge and understanding of the subject area and understanding of the profession.

Georgian and European experts also have similar lists of the least important competencies:

- appreciation of and respect for diversity and multiculturality;
- ability to work in an international context;
- ability to communicate with non-experts of one’s field;
- commitment to safety;
- ability to show awareness of equal opportunities and gender issues.

There is one competence that is highly important for Europeans - 3 and 4th range; and less important for Georgians – 8-14 ranges: *14. Ability to identify, pose and resolve problems*.

Correlations among the four groups of experts were quite high in European as well as in Georgian sample that shows enough cohesiveness among these four groups in views about competences. However, there were slight differences. In European group, correlations among these groups ranged from 0.92 to 0.97, except correlation between professors and employers – 0.79. In Georgian group, correlations were in the range of 0.92 and a relatively low correlation was between professors and students – 0.88.

The following tendency can be traced: in Europe, professors diverge from employers in opinions regarding importance of competences and level of achievement, while in Georgia, they diverge from students. The latter might be result of soviet legacy
of “professor-centred” approach versus student-centred approach, where professors are the sole proprietors of knowledge and students are considered as non-mature adolescents, need to be taken by hand and lead to specific goals. In this approach, therefore, the goals and the ways to reach them are set and designed by professors. If this is the case, then, probably, professors and students have different opinions on many aspects of teaching and learning, including importance of competences and the level of their achievement (Telia, Niauri 2004).

4. Subject Specific Competences

Georgian list of 25 subject-specific competences for education sciences and teacher education was developed on the basis of surveying 130 stakeholders. Group of professors (30) consisted of academics from Tbilisi State University and Ili Chavchavadze University; students (40) from the same universities representing the first and the second cycles of education were involved in the students group, graduates¹ (30) of the same universities who are currently employed in education sector, were included in the graduates group and the group of employers (30) consisted of directors of day care centres, elementary, primary and secondary schools, as well as representatives of non governmental organizations working in the education sphere.

The mean scores given to importance of competences are quite close to each other, minimal mean score was 3.00, maximal mean score was m 3.76 and SD varied from 0.02 to 0.12. Mean scores of the top five competences ranged from 3.76 to 3.70; the difference - 0.06, and the overall range – 0.76 are very small.

According to the level of achievement, there is a large difference among competences; the scores range from 1.96 to 3.23, the range here is 1.27 and larger by 0.51 than in case of importance of competences. The distribution of answers here is also slightly larger, SD = 0.09 – 0.17 this means that those studied have more diverge opinions about how well the competences are taught at our universities than about how important these competences are.

Also, according to respondents, level of achievement of competencies is lower than their importance. When importance of competencies ranges from scores 3 and 4, which means that all competences are almost equally important and even very important, according to respondents, the educational programs of higher education institutions are not able to develop these competences to the desired level. Scores here range from 2 to 3, meaning that the experts make one step backwards in assessing achievement of competencies. Only one competence, based to experts, is developed relatively better, with the mean score of 3.23: knowledge of the subject to be taught.

If we consider traditional higher education system in Georgia (as one of the Soviet republics) and its approach to occupation in general and occupation of a teacher specifically, the result will not look surprising. Traditionally, the main thing was to provide students with knowledge and not with skills. Regarding an occupation of a teacher, he/she should very well know the subject to be taught and this is proved by the survey results, the smallest gap between importance and level of achievement – 0.37 is with this very competence.

The largest gap between importance and achievement - 1.14 scores - is shown by two competences:

- ability to understand trends in education and be able to recognize the potential implications;
- ability to improve the teaching and learning environment.

According to the importance and level of achievement, there is a large gap in two more competences from the list of top five:

- ability to create a climate conducive to learning - 1.07;
- ability to recognize and respond to the diversity of learners and the complexities of the learning process - 1.00.

According to those surveyed, these four competences are very important, all of them are in the top five of the list, but, are not worked out correspondingly.

From the top five important competences, only one competence - Commitment to learners' progress and achievement - is relatively better developed - the gap is 0.94.

Overall, all top five competences are less developed by our higher education institutions. Thus, important information for our educators - they should improve development of these competences.

From the list of bottom five competences, competence 14 stands alone: ability to lead or coordinate multidisciplinary educational team - 1.04 is the gap.

The data on importance and achievement of 5 top and 5 bottom competences are provided in the table below:

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¹ 3 years after graduation was requirement to qualify as a graduate.
Table 4: subject specific competencies by their importance and level of achievement

<table>
<thead>
<tr>
<th>Subject specific competencies</th>
<th>Importance</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 most important competences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to recognize and respond to the diversity of learners and the complexities of the</td>
<td>3.76</td>
<td>2.76</td>
</tr>
<tr>
<td>learning process</td>
<td>(0.07)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>Ability to create a climate conducive to learning</td>
<td>3.73</td>
<td>2.66</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>Ability to understand trends in education and be able to recognize the potential implications</td>
<td>3.70</td>
<td>2.56</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Commitment to learners’ progress and achievement</td>
<td>3.70</td>
<td>2.76</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Ability to improve the teaching and learning environment</td>
<td>3.70</td>
<td>2.56</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>5 least important competences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to design and implement varied strategies to evaluate learning based on specific</td>
<td>3.26</td>
<td>2.46</td>
</tr>
<tr>
<td>criteria</td>
<td>(0.14)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Awareness of the different roles of participants in the learning process</td>
<td>3.23</td>
<td>2.60</td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Ability to identify potential connections between aspects of educational theory and</td>
<td>3.13</td>
<td>2.26</td>
</tr>
<tr>
<td>educational policies and contexts</td>
<td>(0.10)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>Awareness of the different contexts in which learning can take place</td>
<td>3.06</td>
<td>2.30</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Ability to lead or coordinate multidisciplinary educational team</td>
<td>3.00</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
<td>(0.15)</td>
</tr>
</tbody>
</table>

It is interesting to know, that data from professors and employers are very close to each other; the largest gap between importance and achievement of competencies was shown by students, while the smallest gap was shown by graduates. Probably, after graduation and starting to work, the graduates revise their position and think that learned and gained more, than they assumed so before, as students.¹

These data are very important for universities as the students think they are not given chance to correspondingly develop subject specific competencies necessary to make a good professional in education sciences and teacher education.

Correlations according to scoring importance of subject-specific competencies are still high among all four groups, but lower than in case of generic competences. The highest association here is between graduates and students, and the lowest association is between employers and students.

Table 5: correlations by importance of subject specific competencies

<table>
<thead>
<tr>
<th>Academics</th>
<th>Employers</th>
<th>Students</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.7522531</td>
<td>0.73351898</td>
<td>0.76627964</td>
</tr>
</tbody>
</table>

Correlations according to scoring achievement of subject specific competences is again lower than those of generic ones, the highest correlation is between employers and academics – 0.86 and the lowest correlation is between graduates and students.

Table 6: correlations by achievement of subject specific competencies

<table>
<thead>
<tr>
<th>Academics</th>
<th>Employers</th>
<th>Students</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.86304664</td>
<td>0.81209845</td>
<td>0.75989192</td>
</tr>
</tbody>
</table>

¹ Those who graduated 3 years ago were included in the category of alumni; therefore, there is not much difference in teaching provided by the higher institution programs between current students and alumni.
To compare scores for importance and achievement of subject specific competencies, the range for importance is 3.00 - 3.76 and the range for achievement is 1.96 - 3.23.

Finally, comparing scores for generic and subject specific competencies yields the following table.

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Importance</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>2.76 - 3.83</td>
<td>2.47-3.35</td>
</tr>
<tr>
<td>Subject specific</td>
<td>3.00-3.76</td>
<td>1.96-3.23</td>
</tr>
</tbody>
</table>

The lists of generic and subject specific competences for Georgia are very similar to their European counterparts. The Georgian rankings are also quite close to those gained from the European stakeholders. In general, stakeholders in Georgia and Europe emphasize similar competencies, although there is one “global” difference most probably caused by the traditional European and traditional soviet understanding. Soviet system put larger accent on professor-centeredness, while European system put larger accent on student-centeredness.

5. Conclusion

Results of our survey support the finding in the following:

In general, employers show strange trends: the competences that should be important for employers are not as important.

Three competences, in my opinion, should be perceived as very important market requirements - *Awareness of the different roles of participants in the learning process; Ability to identify potential connections between aspects of educational theory and educational policies and contexts; Awareness of the different contexts in which learning can take place* – but are not considered as such by stakeholders, including employers and according to the same stakeholders are not developed enough by university degrees. Stakeholders recognize importance of 4 other competencies - *Ability to improve the teaching and learning environment; Commitment to learners’ progress and achievement; Ability to understand trends in education and be able to recognize the potential implications; Ability to create a climate conducive to learning – however, they think these are not developed enough by universities*

All surveyed groups show that *ability to work autonomously is well developed by university degrees; however, reality does not fully comply with these results. Another study of employers in the frames of the dissertation thesis showed that employers are mainly concerned with employees having possessed superficial skills, like to be able to behave well and to realize orders (Nadareishvili 2009).*

Employers admit that their employees lack *Ability to apply knowledge in practical situations and Ability to plan and manage time,* which should be an alert for educators.

It is very important, that competencies gained by students fit demands of labour market. This is the reason to ask opinion of employers and alumni – they provide information on demands and expectations of labour market, especially that, currently, there is no other research data available for Georgian labour market. Learning outcomes in the forms of competences worked out by students should be based on requirements of both: labour market and the discipline (Gonzalez, Wagenaar 2008; Gonzalez, Wagenaar 2003; Gonzalez, Wagenaar 2005).

The survey provided very interesting results and the ordered lists of generic and subject specific competencies in ten subject areas are an asset to higher education institutions in Georgia. Tbilisi State University, for example, decided to move to TUNING approach step by step – on the level of programs only in ten subject areas and on the level of syllabi – in all curricula (Glonti, Chitashvili 2006; Glonti, Bakradze 2006; Javakhishvili, Aslanishvili, Glonti 2007). From now on, while designing or redesigning any educational program, its authors can use these lists of competences.

However, the survey results, supported by results of other studies (both: quantitative and qualitative) show that there is a lack of connections between employers and academics. According to 2008 EPPM study university curricula do not reflect market demands partly because universities do not have effective dialogue with employers and partly because employers are not able to articulate their own needs (EPPM, 2008).

6. References


Qualifications and Competences – What Could and Should Be Created at a University?

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Abstract: How should a study programme be designed? In what way should a graduate be prepared to meet growing demands of the job market and employers? Is it possible to prepare graduates in such a way that they could immediately start working on highly responsible tasks in their job? These and many more questions should determine the approach that people in charge of drafting study programs and setting higher education methods take.

A thorough analysis of requirements set for graduates should make one raise doubts about the possibility of meeting them during the first-cycle study programs. It appears that, at the current level of development, meeting the needs of the job market would be possible only if universities were capable of providing tailor-made education for each particular student, customized to a given employer’s requirements.

Preparation of graduates in compliance with the demands of employers should be based on a radically different operational philosophy. There appear to be three levels of qualifications and competencies which graduates should be equipped with. The first one covers the ability to learn and to think in a constructive manner. The second level comprises general qualifications and competencies associated with widely recognized knowledge domains. The third level should focus on qualifications and competencies corresponding to the field of study (narrowed scope of knowledge defined as a discipline of science).

The proposed paper shows the way in which graduates’ learning outcomes and study programs are formulated within the framework of the above-mentioned three levels at which qualifications and competencies as well as methods of programme delivery, the main one being project based learning.

Key words: qualification, competence, graduate, study programme, educational methods, framework for qualifications structures, learning outcomes.

1. Introduction

Continuous civilization development brings about a continuous improvement of the standard of living, however, at the same time, results in a rapid increase in the amount of information, which in a direct influence the amount of knowledge in particular, traditionally defined areas. Increasing specialization requires differently prepared candidates for a job, and especially, graduates of higher education institutions. There exists a need for modification of study programs so as to best match them to employers’ demands, or more generally speaking, to the job market.

How should a study programme be designed? In what way should a graduate be prepared to meet growing demands of the job market and employers? Is it possible to prepare graduates in such a way that they could immediately start working on highly responsible tasks in their job? These and many more questions should determine the approach that people in charge of drafting study programs and setting higher education methods take.

A thorough analysis of requirements set for graduates should make one raise doubts about the possibility of meeting them during the first-cycle study programs. Is it possible now to fulfil all the demands employers might have? Or would it be more viable to select certain skills to equip the graduate with, who then, in a short period of time, would be able to improve and develop his competencies in accord with the requirements of a particular employer and who would, additionally, have acquired permanent ability of continuous learning. It appears that, at the current level of development, meeting the needs of the job market would be possible only if universities were capable of providing tailor-made education for each particular student, customized to a given employer’s requirements.

No matter what activity is undertaken, it should be borne in mind the following four fundamental educational goals need to be met:

- preparation for work or vocation,
- preparation for active citizenship in a democratic society,
- individual growth,
- creation and updating broad knowledge bases at advanced levels [1, 2].

Educational Goals in Higher Education

The educational goals presented above have been formulated as separate issues, however, it should be remembered that the division lines separating them are blurred and that the elements they comprise are interlinked. All of them have both individual as well as social aspects.
Preparation for work or vocation constitutes the very aspect, which, for the last several years, has dominated public debates on education. Recently, employers have been complaining that the educational systems existing in many European countries at present produce graduates who are not properly prepared to succeed at the job market – an issue which has become the driving force behind the Bologna Process [3].

Although it is true that democratic institutions and laws constitute a necessary condition for the existence of democratic societies, they can only function in societies cultivating democratic culture, in which the principle of tolerance is binding and where differences and open debates are accepted. In the end, democracy depends on active participation of educated citizens. Therefore, education at all stages plays the key role in the development of a democratic culture. Apart from universal (all encompassing) skills, active citizenship requires general knowledge in different fields of study as well as shaping democratic attitudes and values and critical thinking skills. This aspect of higher education was mentioned in the Bologna Declaration whereas the Bologna Process, the Prague and Berlin Communiqués stressed the problem further [3].

Individual growth stands as yet another aspect of higher education which, so far, has not received sufficient attention in political texts concerning the Bologna Process. Although individual growth as a goal of education in general and of higher education seems to have been of greater import for previous generations, it has remained to be regarded as one of the principles on which education in Europe is based. It would appear that the rationale behind the aforementioned principle has been undermined by the development of mass education; nevertheless, it has to be clearly stated that while preparation for work or vocation is a major educational goal, individual growth as another education goal must not be neglected [3].

For the society as a whole, the possibility of taking advantage of advanced knowledge in a variety of disciplines is crucial. At the highest level of advancement, this concerns research and preparation for conducting it. However, not only research is at issue here due to the fact that advanced knowledge and its conveyance play an extremely important role in various fields of study and at the levels ‘below’ the research level. Therefore, even though mastering the skill and the methods of welding at an advanced level and the skills to further hone such a craft as such are not contained within the ‘research’ category, those skills and their conveyance may be of great consequence in the contemporary, technologically advanced society. Heed was paid to this aspect of higher education in the Berlin Communiqué within the context of the European Higher Education Area, European Research Area and the inclusion of the doctorate as the third Bologna cycle [3].

Contradictory Goals

Even in the sketchy description of the particular goals of higher education, some contradictions and dangers can be noticed. The best possible preparation for work or vocation all but imposes individualization of the process of education, not its uniformication to suit the masses. Training in proper skills and competencies in preparation for work or vocation may limit proper preparation for scientific life within the academia. Participation in the life of the society requires general knowledge, to which part of the time allocated to study programs needs to be devoted in order to convey it and to inspire interest in learning. How can two, such seemingly conflicting goals be reconciled?

Preparation of graduates in compliance with the demands of employers should be based on a radically different operational philosophy. One should define the structure of general competences and skills which each graduate of a given study-cycle should acquire and these competences and skills should be defined within only broadly determined domains of knowledge. Next, competences required in specific knowledge domains ought to be identified. Above all, education methods and study programs should ensure that each graduate acquires a lasting ability to learn throughout his/her whole life.

2. Levels of Qualifications and Competencies

There appear to be three levels of qualifications and competencies which graduates should be equipped with. The first one covers the ability to learn and to think in a constructive manner. Instilled habit of and ability to learn and to think constructively will allow the graduate on entering the job market to quickly adjust to employers’ demands. However, it will only be possible if the graduate has acquired adequate competences and skills in other fields of study.

The second level comprises general qualifications and competencies associated with widely recognized knowledge domains. In the case of engineering, the ability to communicate fluently in one internationally used language, the ability to understand phenomena occurring in the surrounding world as well as the possibility to apply fundamentals of economy and management to engineering could be classified as such qualifications and competencies. This area should also encompass the general knowledge necessary for life in a democratic society.

The third level should focus on qualifications and competencies corresponding to the field of study (narrowed scope of knowledge defined as a discipline of science). These three levels should be represented by prepared qualification framework.

The framework structure of qualifications allows for a systematic way of presenting a complete set of qualifications awarded within a given system of education and for a possibility of moving for students and other persons between various paths leading to the
same qualifications. Thus, qualifications should be described in a way which would include all educational goals, which, in turn, would mean that the framework structure needs to be multidimensional [3]. The description of qualifications and competencies that graduates are required to be able to demonstrate does not guarantee that the designed study programs should ensure their acquisition. What is needed are forms which would enable one to state that the learning outcomes of the education provided under a given study program allow for the acquisition of such qualifications and competencies. In the Bologna Process terminology those forms are known as qualification descriptors. They stand as clear reference points which describe the most important outcomes of a program leading to qualifications and, frequently, do so in reference to levels existing in a given country.

Typically, in the system of qualification structures now in existence, the second and the third level of skills and competencies are considered while it is tacitly assumed that learning/study skills and constructive thinking skills will have been acquired by graduates due to the application of proper teaching methodology in higher education as well as elsewhere.

If the structure of learning outcomes defines what a graduate should know, understand and/or be able to demonstrate on graduating, one should consider the extent of a common, preferably of international scale, interpretation and definition of learning outcomes. As a result of the ‘Tuning’ project, the following three paths have been defined:

- knowledge and understanding,
- ability to apply knowledge in practice,
- attitude.

‘To know and to understand’ stand for the theoretical knowledge of a given field of study as well as the capacity to acquire knowledge and understanding. ‘Ability to apply knowledge in practice’ should be interpreted as ‘knowing how to act’, therefore the ability of practical and operative application of knowledge in specific situations. The last path is the ‘attitude’ path and it should be understood as one relying upon awareness and understanding of ‘who to be’ and coming down to possessing values constituting the core of the way one perceives and cooperates with others as well as in social context.

The definition of the qualification framework and the descriptors ensuing from it must be applied to every level of education and should constitute a continuum in the entire process of education encompassing all types of schools. Ensuring continuity and sequentiaity of education will allow one to mould the graduate properly so that he/she will be able to undertake professional occupation in accordance with the learning outcomes description for a given professional title or academic degree. In the process, a few factors, which are extremely significant and at the same time dangerous for the process, should be regarded.

It is crucial to identify the disciplines for which qualification frameworks should be defined. Too big a number of them will lead to detail overload and the end result will be contrary to the intended one. The definition of descriptors for particular disciplines should proceed with the participation of employers’ representatives, however their requirements should be stated with an adequate degree of generality. Moreover, the completed framework should not be treated as direct indications for study program design.

3. Sequence of Educational Process and Study Programmes

The process of defining the framework of qualifications and descriptors should happen not only for the sake of all cycles of higher education but also for all levels of education that a human being may undergo. It would seem beneficial if IT or metrological terminology was used for such a purpose. The core of the process would be to define the values at the starting point of each level (input), and subsequently, based on the results of the education process, the values at the exit point (output), that is learning outcomes, could be defined. Retaining such a structure and adjusting the knowledge content for each level (one class in an educational system) would allow for the generation of required skills and competencies. Simultaneously, from the very beginning of the educational process, the ability to learn and to think constructively should be developed keeping the level of abstraction adequate to the developmental age of the student. So constructed an education system allows for sequentiaity of the process and offers an easy tool to assess a particular individual’s capabilities (pupil, student, adult – respectively) for further growth.

The capacity for self-improvement of a human being, which stems from his/her parents’ care, talents, skills and qualifications acquired in a formal, informal as well as extra-formal way should also be paid heed to at each level of education.

Study program design process should also proceed based on the assumption that those applying for entry to higher education institutions possess precisely defined skills and competencies. Such an approach might result in an exclusion of a number of candidates from higher education, at least for the period necessary for them to achieve the defined level of qualifications.

Descriptors of learning outcomes for the first, second and third cycles have been defined and as such should be considered when study programs for those three cycles are being designed. Those descriptors, however, describe only general competencies that a student on completing a given higher education cycle should have acquired, regardless of the profile or the study field. Therefore, the descriptors for broad education areas should be
Qualifications that signify completion of the first cycle are awarded to students who:

- have demonstrated knowledge and understanding in a field of study that builds upon and their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;
- can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;
- have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;
- can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;
- have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

Qualifications that signify completion of the second cycle are awarded to students who:

- have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;
- can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;
- have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;
- can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;
- have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

Qualifications that signify completion of the third cycle are awarded to students who:

- have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;
- have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;
- have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;
- are capable of critical analysis, evaluation and synthesis of new and complex ideas;
- can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;
- can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society [4].

In the above mentioned descriptors the word “professional” is used in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and that involves the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions. The latter may be identified with the profile (specification). The word “competence” is used in the descriptors in its broadest sense, allowing for gradation of abilities or skills. It is not used in the narrower sense identified solely on the basis of a “yes/no” assessment. The word “research” is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional “scientific method” [4].

The study program design process should begin with the definition of learning outcomes both those ensuing from the descriptors as well as those generated for each particular field or even course of study. The third level of competencies and skills ought to be formulated with the participation of representatives, specialist in a given discipline, of the higher education institutions and employers, and subsequently, an adequate level of generalization should be achieved. This constitutes the most difficult element of the process of defining learning outcomes due to the fact that a number of groups surface there, not infrequently, representing contradictory interests.

The designed study programs enable one to verify differences in competencies deriving from ‘entry data’ for a particular study
cycle. This regards the identification of the skills and competencies, which stem from an adequate knowledge base, should be conveyed and generated in students during the process of delivering the designed program in order to achieve the progression from the student profile to the graduate profile of a given study program.

To define the progression in skills and competencies, as well as the knowledge content necessary to achieve them, is the starting point to designing an actual study program. Further description, even though generalized, of the process of study program design will be limited to the field of engineering since this is the field of expertise for the author of the foregoing paper.

The structure of a study program, regardless of the study cycle, ought to, naturally, shift the weight assigned to core content courses and specialized content courses. The time framework assignment may be compared to a house construction:

• foundations first: core general knowledge which becomes a tool for further development,
• walls and ceilings second: core content and competencies in a given discipline as the load-bearing elements – pillars of the future graduate,
• the roof third: knowledge, skills and competencies enabling the graduate to incorporate and apply the core knowledge to engineering problem solving.

As is the case with each newly constructed house (shell condition), the interiors may be freely and arbitrarily arranged on condition that the structure of the building is sound. A well-designed study program allows for an individual’s growth and adjustment for work or vocation requirements by way of a relatively undemanding adaptation to typically highly specialized requirements of a given work place.

The first stage of a study program ought to encompass courses from the above mentioned core knowledge content and traces of introduction to specialized content. The share of the core knowledge should decrease during the later semesters/trimesters/years of study, whereas the share of specialized content should gradually increase to reach its peak half way through a cycle and diminish gradually towards the end of the cycle. Half way through the study program, formation of competencies which would allow the graduate to apply the acquired knowledge and skills in practice ought to be increasingly focused on. Although this may not proceed without further conveyance of knowledge, the type of courses taught should clearly indicate a change in the character of the issue studied.

The core knowledge should be conveyed in a time-honoured manner, in the form of lectures, tutorials and laboratories, however the latter need to inspire autonomous reasoning, while all of them should motivate students to learning. The possibility of traditional methods of teaching should be excluded on the grounds that they are obsolete and suitable only for a nineteenth century school.

In the area of knowledge and skills in a particular discipline, it is crucial to employ project based learning wherever possible. The benefits of such manner of modelling of skills and competencies (along with adequate knowledge expansion) are commonly known; however, within the field of engineering, they appear to be especially easy to incorporate and brings about outstanding results. It should be borne in mind that a student at this stage has not yet been sufficiently theoretically prepared and, therefore, that the form of lecture should still be retained, however, in an entirely different form. Each course should be supplemented with materials (theory, sample tasks, sample applications), and the lecture itself serves the role of a guide to those materials and gives room for explanation of the most complex aspects of a given problem.

Application of the skills and competencies so far acquired ought to be proceeded based exclusively on the project method. It seems that the best results are brought about by such projects which touch upon issues previously covered in the course of study in the broadest possible way, which however, clearly necessitate expanding that knowledge if the project is to be completed properly and correctly. Completing a project individually or as a group (groups of 3 to five students) creates an opportunity for the development of many competences within the personal growth area, democratic citizenship area as well as for the definition of one’s role within various groups of students.

The end result of an adequate sequence of education and of ensuring learning outcomes are achieved at every, even the smallest, stage of education, starting from preschool through primary, secondary and tertiary school to further education within the system of lifelong learning, is the possibility of a precise description of entry point requirements which ought to be interpreted as the minimum that needs to be fulfilled by everyone who is about to start their higher education.

Implementation of the proposed study program structure may be hindered by various factors, the most important of which appears to be academic teachers and their sufficient substantive preparedness as well as their experience in cooperation with industry or experience resulting from their own employment within industry. An academic teacher leading projects (individual or group) needs to readjust their behaviour and become a guide for the student or group of students.

4. Summary

The foregoing paper is a result of nearly thirty-years’ of personal involvement and observation of study program design processes in Poland in the area of engineering. During that period, the
Bologna Process principles have been introduced, and, more importantly, there occurred a shift in political systems. A rapidly growing number of people undertaking higher education studies is an result of those changes. Unfortunately, this rapid growth is accompanied by deteriorating quality of candidates for those studies. The approach discussed here has been tested in study programs designed for the first and second cycle studies within the field of Management and Manufacturing Engineering, the graduates of which immediately gain employment in industry, and the employers’ opinion confirms the assumptions presented. The graduates are equipped with a sound knowledge base and they have acquired a great capacity for learning, which relatively shortens the time need for their adjustment to their work place. The paper contains a general description of Dublin descriptors which constitute a universal, nevertheless rather general, index of qualifications of graduates of specific study cycles. The process of design of a specific study program must take into account the local job market needs as well as the foundations that a contemporary engineer of a particular field of study should be able to demonstrate.

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LEARNING OUTCOMES AND EDUCATIONAL REFORM: SOME LESSONS FROM THE UK'S NVQS

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1. Introduction

People and organizations in the knowledge society are learning to The recent CEDEFOP report The shift to learning outcomes (2008) suggests that as a result of the increasingly central role being given to the concept of learning outcomes we are witnessing the emergence of a ‘new learning paradigm’. It can be seen as prefigured in the writing of earlier generations of progressive and radical educationalists such as Dewey, Friere and Illich. However it is no longer just a ‘theory’; it is advocated by governments and international organisations such as the OECD and UNESCO, and of course the EU and is associated agencies such as the ETF and CEDEFOP. This new paradigm represents a shift in educational policy from giving priorities to the organization of knowledge (curricula), institutions and pedagogies– in other words, ‘inputs to learning’ – to what a student is assessed as knowing or being able to do at the end of a learning process- ‘learning outcomes’. Despite its largely ‘vocational’ origins, this ‘shift’ is not restricted to the vocational educational sector- it is as much a feature of the Bologna Process and the Tuning Project that are part of the emerging European Higher Education Area as of the EQF with its eight learning outcomes-based levels and the growing number of learning outcomes-based National Qualification Frameworks.

The educational claims made for the new ‘paradigm’ are considerable. As one EQF document states:

“in a few years from now, students, institutions, parents , and employers in Europe(and beyond) will be talking in terms of learning outcomes- what a graduate can actually do at the end of a degree (or diploma) programme”.


No longer, we are led to assume, will people be talking about the degree or diploma they were awarded by a particular university or college!

The primary goals of the new paradigm, in keeping with its outcome or instrumental focus are, however, economic as much as educational. It is assumed or hoped that by making learning more transferable, a focus on learning outcomes will make qualifications more portable and as a consequence more useful as learners become more mobile and more employable. Qualifications based on a learning outcomes framework will, it is envisaged, act like a monetary currency and facilitate an ever more extensive and trans-national market in skilled labour. The guiding role of role of a human capital approach to education and training and a neo-liberal confidence in markets is not hard to see.

I want to make two preliminary observations on the emergence of this new paradigm which are only indirectly related to the main theme of this paper. Firstly its claim for linking a learning outcomes approach and employment are premised on predictions about the internationalization of labour markets at a time when governments appear to be emphasizing national policies. Second it can be seen as an important but as yet little analysed example of what Jenny Ozga, Martin Lawn and others refer to as ‘soft power’(Lawn 2006, Ozga 2009) . Unlike the introduction of the Euro currency or the recent constitutional amendments, to the EU, learning-outcome based qualifications are being introduced and implemented through a process of informal persuasion and consensus and independently of any national legislation. Partly as a result they have been the subject of little wider debate, either nationally or within EU forums.

The implications of this ‘soft power’ approach to the internationalization of educational policy appear considerable, not the least for the debate about overcoming the ‘democratic deficit’ in Europe. My concern in this paper, however, is not with the new learning outcomes paradigm of an example of the new politics of ‘soft power’ but with the paradigm itself, how it is likely to work, and what it leaves out or marginalizes. Another paper would be needed to explore the relationship between these questions and the wider processes of ‘soft power’ that they are embedded in.

There are at least two ways in which the new learning paradigm itself might be approached. One is to draw on the experience and evidence of countries where a learning outcomes model has already been introduced. The other is to undertake a conceptual critique of the assumptions of the new paradigm-. A good example of a step in this direction is the excellent paper by Brockman, Clarke and Winch (2007). These two approaches are, of course not entirely separate. Therefore, after listing some of conceptual problems which a focus on learning outcomes gives
rise to, I will draw on the case of NVQs in the UK. Launched over 20 years ago, NVQs were probably the first example of an attempt to establish an outcomes-based framework for vocational qualifications. Furthermore, one of the framework’s designers, Gilbert Jessup (1991), envisaged that the outcomes approach could be extended to all types of learning.

The case of NVQs raises many conceptual and policy issues, some of which I shall refer to. A primary policy issue is one of the rationales for this excursion into the history of educational policy. Given the increasingly widespread acceptance of learning outcomes approaches (especially but not only for VET), how is it that so little has been learned, in the UK and elsewhere, either from the problems that NVQs gave rise to, or from the critiques that were made of them. I have two other reasons for taking the case of NVQs. The first is that despite their problems, NVQs in the UK have had their successes. I will take two examples of what are widely agreed to be NVQ successes—accounting and health and social care, not because they answer the criticisms that have been made of NVQs or of outcomes approaches more generally, but because, in different ways they point to a more adequate approach to the role of qualifications, and a broad concept of outcomes in educational reform. Secondly the very fact that, despite its flawed assumptions, the learning outcomes paradigm has become such an accepted feature of educational policy at both international and national levels suggests that there are some deeper questions that we need to ask about the sources of new educational policies. I will return to this point in the final sections of the paper. The has six parts.

- a list of the claims and assumptions of the ‘new learning paradigm’ and some of their implications;
- the origins and legacy of NVQs;
- the two NVQ ‘successes’ and their possible implications;
- some reflections on the new paradigm and possible lessons for the future;
- conclusions.

2. The Learning Outcomes Paradigm and Its Assumptions

The concept of a new paradigm is useful for analysing a shift in educational policy but it has some limitations. It is useful in making explicit the aspects of existing policies that are being replaced or at least treated as secondary as new priorities are emphasized. There is a tendency in many of the policy documents to stress the new priorities and what they are expected to achieve and play down what they will replace. In the case the new learning paradigm, the shift of emphasis is away from the primary role for institutions, syllabuses, curricula, and specialist role of teachers as professionals. In other words the new paradigm de-emphasises the whole institutional fabric of what we have come to associate with education, whether in schools, colleges or universities, and whether for general, vocational or professional purposes. It implies a process of de-differentiation in which what is common to different types of learning, learning sites and acquiring knowledge in different domains is given greater importance than what is specific to each. This de-differentiation trend is most explicit in the level descriptors of the new learning outcomes-based qualification frameworks such as the EQF. They use a definition of learning outcomes that is general enough to include any type of learning about anything that is achieved in any site; institution-based learning in school, college or university becomes just one option. It is perhaps not surprising that the ‘iceberg metaphor is invoked in arguing that accredited, institutional learning is ‘the tip of a learning iceberg’, most of which is hidden, tacit and unrecognized.

The claims made for the new paradigm are many; what I want to stress is both the challenges it poses to what is assumed to be the increasingly out of date existing paradigm and the possible the consequences, if these challenges are successful.

The limitations of an analysis in terms of two opposing ‘paradigms’ is its tendency to polarize ‘input’ and ‘outcome’-led approaches and define each term to emphasise their opposition. as if they were inevitably either/or options and not just tendencies. However, as in the case of NVQs to be discussed later, these polarising tendencies can easily occur; furthermore the old/new paradigm distinction does bring out important issues that are obscured in the rhetorical enthusiasm for what it is often claimed the new paradigm can achieve. The five issues that I raise below includes claim made for the ‘new paradigm as well as the assumptions that it makes and their possible implications. Their purpose is not just critique but to open a debate about educational purposes and practices by making explicit what tends to be implicit in documents such as CEDEFOP’s Shift to outcomes (2009). The list does not claim to exhaustive.

(1) The new learning paradigm assumes that learners (i) will naturally, ‘learn’, acquire knowledge and develop skills, if they are freed from the restrictions of inputs such as prescribed curricula, and (ii) are able to make their own decisions about the sequencing, pacing and selection of knowledge. These assumptions are exemplified in the emphasis on learner choice and the modularization of curricula in the new paradigm.

(2) It assumes that qualifications can be expressed in terms of learning outcomes that are independent of the programmes and learning processes that lead to them. This offers possibility ‘in theory’ that any learning can be accredited as
equivalent to formal learning. However it plays down the importance of access to institutional learning, especially for those denied it earlier in their lives.

3. In focusing on performance related outcomes, it focuses on the learner’s capacity to use knowledge rather than its potentially transformative capacity (Magalhaes 2008)

4. It stresses the role of teachers as ‘facilitators’ of learning and plays down their role as ‘transmitters’ of the specialist knowledge that learners do not have access to at work or outside formal educational institutions.

5. It treats learning outcomes as potentially the product of any type of learning undertaken in any site. It thus reduces the role of educational institutions to just one of many learning sites. This fails to recognize that many workplaces and other sites of informal learning provide at best limited opportunities for the acquisition of specialist knowledge.

Underlying these claims and the assumptions that they make is the absence of any engagement with the core curriculum issue “what knowledge can (and should) learners acquire?”. Before suggesting a more adequate approach to educational reform which places what knowledge the learner needs to acquire at the centre of any reform and not just ‘the learner’, the next section considers NVQs as perhaps the first example of the new learning paradigm ‘in practice’. As the criticisms made of NVQs by researchers and employers have shown, the model on which they were based led to many of the problems I have associated with the new learning paradigm.

3. The Legacy of NVQs; an Early Example of the New Learning Paradigm

NVQs were launched in the UK in 1987 as a framework to:

(i) replace the existing ‘jungle of vocational qualifications’,
(ii) certificate the work place learning of school leavers on work-based youth training schemes programmes and,
(iii) to shift control of vocational qualifications from providers (the further education and technical colleges) to users (employers, and less directly, learners).

Government saw learning outcomes based qualifications as a tool for:

(a) overcoming what became known as the ‘provider capture’ of qualifications, and
(b) (b) the certification of informal and especially workplace learning. (Raggatt and Williams 1999)

NVQs were therefore developed in direct opposition to four features of traditional VET programmes and qualifications- time serving and the judgment of master craftsmen, and college-based syllabuses and examinations. The former were seen as leading to excessive control by trade unions and the latter as giving teachers too much power. Assessments based on learning outcomes administered by trained assessors not associated with colleges or unions were seen as the solution that gave power and choice to employers and learners themselves. The first Deputy Chief Executive of the government agency responsible for NVQs expressed the vision of the new paradigm in the following terms:

“the shift to an outcomes-led system of Education and Training means a qualification-led or assessment –led system… As candidates do not have to undergo any particular programme of learning, the award of an NVQ is based solely on the outcome of assessment” (Jessup 1991) (my italics).

Most of the NVQs awarded since 1987 have been low level (levels 1 and 2 and below skilled craftsman) and to two categories of learners:

(i) those on schemes funded by government or those working in the public sector where NVQs were compulsory,
(ii) a smaller number in fields such as engineering where employers used them but insisted on additional non-outcome based qualifications achieved through college-based learning and assessed by examinations.

Successive reviews were responses to (a) complaints by employers that learning outcomes were too trapped in jargon and did not provide a reliable way of assessing competence, and (b) research which demonstrated that that learning outcomes assume rather than assess the knowledge that underpins workplace competence.

Because the government wanted to establish a market in qualifications, they did not legislate that all VQs should be NVQs and based on learning outcomes. As a consequence vocational qualifications were not rationalised, they proliferated. The primary reason for the failure of NVQ’s to become a national outcomes based framework was not just their design. The idea of qualifications based on learning outcomes identified by and owned by employers was at odds with how employers actually use qualifications in a system with a minimum and uneven tradition of partnership between employers, the state and unions. This was of course in sharp contrast to those countries following the German tradition (Brockman, Clarke and Winch 2007).

4. NVQ Successes; What Can Be Learned from Them?

Despite the many criticisms and attempts to reform NVQs, there are examples where they are widely accepted by employers and employees in a sector and used successfully as a basis for progression and promotion. I want to mention two- those for Accounting Technicians and health and care workers employed in the National Health Service who in the past would have gained no qualifications at all.
NVQs for Accounting Technicians

NVQs for Accounting Technicians are distinctive in a number of ways. Firstly they are sponsored by the leading Professional Associations of Accountants. Secondly, they provide a route (taken up by 30%) to graduate equivalent professional status. Thirdly a substantial part of their assessment is based on written examinations and a syllabus not on the assessment of learning outcomes (or competences). Fourthly, learning outcomes were interpreted as broad guidelines for programmes and examinations as statements of performance. The government’s accrediting agency for NVQs (NCVQ) was persuaded to modify its outcomes-based framework to fit in with the profession’s view of the skills and knowledge needed by Accounting Technicians; they did not require the profession to comply with the national outcomes framework.

Two factors made Accounting a distinctive case; one was the status and power of the profession which held a virtual monopoly of the occupation. Secondly, the profession had an intrinsic interest in the level of the knowledge and skills of the technicians who would be working for them. The example suggests that a primary condition for the quality of occupational learning is the involvement of the key profession in the field; it is this that underwrites the trust in a vocational qualification, not the specificity or rigour of the learning outcomes. The learning outcomes framework associated with the NVQ framework played a relatively limited role in guiding those developing the programmes and undertaking the assessment. In that way the Professional Associations and their off-shoot, the Association for Accounting Technicians, operated more like universities; they had the power and prestige to persuade the accrediting agency to modify the framework outcomes to suit their purposes; they were not required to treat the NVQ framework as a set of rules that they had to comply with.

This example of a strong profession-led occupation suggests that it is the human resource development strategies of the profession and their employers which determine the extent to which their less qualified employees were able to progress and develop their skills and knowledge; qualifications themselves play only a supportive and secondary role in this process. The problem for educational reformers that this example raises is the case of sectors in which HRD strategies are limited to higher level employees or hardly exist. It is difficult to see what a focus on outcomes can achieve in sectors dominated by work requiring low levels of skills and knowledge, where institutions are weak and there are no well developed professional associations; the retail trade provides many examples of this situation. The case of accounting, points to a totally different model of reform to one that relies on learning outcomes.

Health and Care NVQs in the NHS

The National Health Service has a large number of low level and, in the past, unqualified employees. In her research (Cox 2006), Anne Cox found that the NHS’s approach to Human Resource Development (HRD) which was supported by both managers and employees provided a context in which NVQs and their emphasis on outcomes were seen as useful by both groups. Employees saw them as providing opportunities to acquire skills and knowledge that could lead to the possibility of becoming nurses or midwives.

In contrast to the accounting example, where the key role is played by the professional association, in the NHS the key role is played by senior management who initiated the Human Resources Development policy. However, the lesson that it was occupational demands for improvement that drove the use of qualifications and not the reverse is similar in each case. The NHS adopted an HRD policy which emphasized staff progression across traditional occupational divides (such as nursing assistant to midwife). As a result, it was the additional learning opportunities to acquire new skills such as blood testing, and the use of ECGs (not prescribed by the NVQ outcomes), and the partnerships that were developed with local colleges and universities that helped build the credibility NVQs among managers and employees, not the specific learning outcomes.

In each case the credibility and ‘success’ of the NVQs depended on the organization of work and employers and managers having with a relatively long term view of HRD. Both examples suggest that vocational education reform has to begin with how new workplace demands for learning are created, and not with the specification of outcomes for demands which may not exist.

5. Some Reflections on the Role of Learning Outcomes as a Basis for Educational Reform

There is no evidence from government statistics or research that NVQ’s have been associated with significant improvements in the skills and knowledge of the UK workforce, or with the improvement of the status of vocational programmes, or that achieving an NVQ, unlike a degree, is linked to higher wages. Furthermore, employers have not taken up NVQs with any enthusiasm (the current estimate is that 12% of the workforce has an NVQ) despite the learning outcomes model being specifically designed to express employer needs. Educational researchers have highlighted the problems that the NVQs learning outcomes based model and the functional analysis methodology on which it was based gave rise to; however these findings have had little impact on policy.

If these rather negative conclusions are accepted, it leaves a question as to why the broadly similar learning outcomes-based model associated with what CEDEFOP refers to as the ‘new
learning paradigm’ has become so widely supported. I offer a number of possible reasons as a contribution to debate; they can be no more than speculations without further research.

(1) The first possibility is that NVQs are a special case of the new learning paradigm and that the lessons about their weaknesses have been learned. The problem with this explanation is that none of the documents promoting the new learning paradigm explicitly address the weaknesses of the learning outcomes model adopted for NVQs or how they might be addressed within the framework of the ‘new’ paradigm.

(2) Much of the advocacy of the new learning paradigm comes not from researchers but from international organisations which have a remit to promote an increasingly global and flexible labour market. This means that a strategy which offers at least the theoretical possibility of transferability and portability of qualifications is likely to be attractive. The two questions this raises are:

- Is there any evidence that, in practice, learning outcomes likely to facilitate transferability? Insofar as there is evidence, it suggests that transferability is more likely to be achieved through institutional partnerships.
- If a learning outcomes based system is to be the form that education and training systems of the future will take, what other consequences are likely to follow? There is no evidence that the new learning paradigm is being adopted by elite schools, universities or professions, or by the successful Asian countries. It is possible therefore, that the new learning paradigm, if widely adopted, could lead to the emergence of new inequalities with syllabuses and access to specialist knowledge being restricted to the few as they were in earlier eras.

(3) Despite the ‘credit crunch’ and the re-discovery of Keynesian economic strategies, neo-liberal economics and an enthusiasm for markets shows little sign of being questioned in the field of educational policy. In this context, the new learning outcomes paradigm, with its potential for quantitative data, can appear attractive to governments, not the least as a tool for controlling public expenditure. One recent indication in the UK of future possibilities is the licensing of private companies like McDonald’s to accredit and ‘badge’ their own qualifications. They are able to obtain public funds for the training and ‘qualification’ of their restaurant staff. This is almost all at low levels and because the outcomes are tied to the specific McDonald’s methods of fast food delivery, they offer virtually no progression possibilities.

(4) As I mentioned at the beginning of this paper the new learning paradigm places great emphasis on the individual learner and her/his choices. It is often linked to strategies and slogans such as open learning, access, widening participation and the recognition of the culture and experience of subordinate groups. It thus can appear anti-elitist, against selection and even anti-institutional in a way that made deschooling theorists such as Illich and Reimer attractive to Left and progressive teachers in the 1970s. For those involved in adult education and disadvantaged groups generally, it can be easy to forget the links between the new paradigm and its neo-liberal politics and its systematic neglect of the difficult epistemological and pedagogic issues associated with moving beyond everyday experience. For some types of learning, regardless of the background of the learner, access to a specialist institutional context and teachers with specialist knowledge may be of crucial importance.

(5) The extent to which the new paradigm is being implemented through what I referred to earlier as ‘soft power’ puts more power in the hands of professional administrators. At the same time, it is politicians and practitioners whose views get marginalized and researchers run away to escape the jargon and the rhetoric. In the context of ‘soft power’, the emphasis is on cooperation and consensus building rather than to debates about educational purposes.

(6) Another possibility which relates to the ‘soft power’ thesis is the emergence of a kind of ‘dual reality’ especially in the countries in Europe with strong institutional provision of education and training. What I am suggesting is that the new learning paradigm may be accepted at an official level; most countries, and especially those which have recently joined the EU want to show that they endorse the paradigm. However, given the vagueness of the terms like learning outcomes and competences and in the absence of any powerful regulatory backing, the older institution based systems may be able to continue relatively unchanged. The problem with such a possibility is that real changes in economics and labour markets are taking place and a ‘dual reality’ approach may make engaging with these changes even harder.

6. Conclusion

An assessment of the NVQ experience suggests that learning outcomes are unlikely to be a major resource for educational reformers. The two examples of successes succeeded by using and transforming rather than being driven by learning outcomes. The Accountants and the NHS managers used NVQs to suit their needs. In the accounting case, this involved changing many of the rules of the NVQ framework and in the case of health care it involved making available additional learning resources which employees saw as part of the whole approach to human resource development (including the NVQs).

The NVQ experience suggests that starting with a framework of learning outcomes will not fulfil the claims made for the new paradigm. Outcomes have to be led by demand and demand is led by innovation and decisions about new products and services. A longer historical viewpoint would see the old paradigm as arising in response to a specific phase of industrial development.
The question then becomes how might it be reformed in light of 21st century skill and knowledge needs, not on the basis of ideas about learners and learning which have little basis in reality.

The best examples of the 19th century model were demand-led at a time when industrialization was beginning to incorporate the discoveries in the natural sciences. They were closely linked to establishing institutions in close partnership with private and public sector employers. Leading members of the professions and universities where the new knowledge was being produced were closely involved in the design and assessment of the new qualifications at every level.

None of these conditions apply to NVQs or to the new 'learning outcomes paradigm'. The problem with the new paradigm is that it tries to break with the past rather than learn from and build on the past. Outcomes, broadly defined are like educational goals, important as a guide and a resource for critically examining existing practice. Separating outcomes from the learning processes that lead to them and blurring the differentiation of sites of learning and their purposes involves two basic errors, one about learning and the other about knowledge. The former error treats learning as an outcome as if it was the product of an industrial process, like a screw or a light bulb—something which can be tested, not as an institution involving mental and social transformations. Likewise learning outcomes have no place for knowledge as a source of transformation and itself an institution with rules and structures of its own. These are some of the lessons which we must learn from the experience and legacy of NVQs if we are to claim that our paradigm is really new.

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7. References


Section 5
Various Aspects of Teaching, Learning and Qualification Development
THE EARLY PROFESSIONAL DEVELOPMENT OF BEGINNING TEACHERS IN THE UK: WHAT CAN STUDENTS TELL THEM?

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Abstract: This paper will consider the implications for, and the potential benefits of, the involvement of students located in state secondary schools in the early professional development of beginning teachers England and Wales.

Teacher training in the UK has, during the past twenty years, been strictly controlled by government legislation and has produced (in the view of many academics) an instrumental model of professional development which denies the autonomy of beginning professionals to explore their developing practice and evaluate their progress in a reflective manner. This is particularly so for teachers completing their initial training in universities before becoming newly qualified teachers in state secondary schools. The paper offers a case study of student involvement in the early professional development of teachers and claims that this attempt at collaborative professional development promotes elements of school improvement, student attainment, teacher professional development and social justice. The paper concludes with an evaluation of the potential benefits of student – teacher collaboration in the early stages of the professional development of teachers.

Key words: initial teacher education, student voice, citizenship education, collaborative learning and teaching.

1. Introduction

The aim of this paper is to explore the potential for students in state maintained secondary schools in England to collaborate and participate in providing verbal and written evaluative feedback to trainee teachers as they begin to develop their pedagogic and professional practice in the classroom. The training programme, which will constitute the main focus of the discussion, is the one year Postgraduate Certificate in Education (PGCE), which the majority of graduates wishing to teach in the secondary sector, undertake as the professional route towards gaining Qualified Teacher Status (QTS). The involvement of students in the professional training of teachers is intended to provide an element of ‘value added’ to the trainees in terms of an additional source of evaluative feedback of their evolving classroom practice and to students as a means of assisting them to understand the complex nature of learning and teaching and of taking some degree of ownership of their individual learning requirements.

The context of the study is located within the successive policy initiatives implemented by government in the UK during the past thirty years, which have influenced what occurs in state maintained schools and in the training of teachers to work in those institutions. Government has also concerned itself with broader issues relating to the rights and welfare of children reflected, for instance, in the Children Act (1989), Every Child Matters (2004) and The Children’s Plan (2006).

A second initiative, which took place over the same period of time, was the emergence of the Student Voice movement in England and Wales. This development was broadly linked to the concepts of children’s rights, as outlined in the United Nations Convention (1992) and had been given impetus within the school system by the research and publications of a range of academics working on issues related to school improvement, student attainment and social justice (Fielding 1997, 1999, 2001, Rudduck 1996, 2004). The model of social justice within schools which they promoted acknowledged children’s rights to participate in discussions and decisions related to their learning needs and personal welfare, the ways in which they engage and interact with the adults who teach them and the nature of the learning and teaching community and environment. It is possible to argue that the levels of student misbehaviour, truanting and short-term exclusions from school might be partly attributable to students’ dissatisfaction with the educational provision they receive and might be ameliorated by a shift in attitude which would afford them some practical and purposeful voice in their education.

The project, which is outlined below, attempted to engage students in meaningful ways with the experiences of trainee teachers who worked with them on a daily basis. It offered students the opportunity to undertake structured observations of trainees working in the classroom to develop their skills of planning, teaching and assessment and to provide principled feedback to trainees on their evolving practice. It sought to provide trainee teachers with the opportunity to receive an enhanced range of feedback on their practice (in addition to that which they regularly gained from school mentors and university tutors) and to engage in reflective analysis with those whom they taught. The key aims and objectives are stated below:

- To explore the potential for involving students in the evaluation of trainee teachers’ progress towards meeting the requirements for Qualified Teacher Status
• To develop a framework of systematic observation, recording and reporting (both verbal and written) between students and trainee teachers

• To develop a model of practice which would promote the above aims in an ethical and practical manner and which would provide an element of ‘value added’ to both students and trainees

The project ran between 2002 and 2007 and took the form of an ‘unfolding study’ (Punch, 2000). It involved the establishment of a pilot case study based on three schools within the Portsmouth Initial Teacher Training Partnership. The findings from the study would inform the further development of the project. The pilot study forms the basis of the paper.

2. Initial Teacher Training in England and Wales: changing patterns of power and control

The literature on Initial Teacher Training in England and Wales has been dominated over the past three decades by issues of ownership and control of teacher training by successive governments since 1976. Such control is evidenced in the Department for Education Circulars (9/92) and (9/93a), which required Higher Education Institutions (HEIs) to establish training partnerships with schools and the Department for Education and Employment Circular (4/98) which set mandatory standards for trainee teachers to achieve. This sequence of government interventions in teacher training effectively moved control from HEIs to a form of partnership with schools who were required to share in the formative and summative judgements on the quality of trainee teachers working in their classrooms. Initial responses from HEIs in the literature from 1990 onwards reflected a growing concern over loss of autonomy in the training process. It was clear, nevertheless, that government believed a greater degree of accountability and consistency in training provision was required and that a substantial school based element of the training programme would provide the necessary craft skills and practices alongside subject knowledge and pedagogic theory.

The academic literature continued to contest the nature of such control over teacher training (Graham, 1998, Hoyle and John, 1998) but paid little attention to the needs and status of the client group (students) for whom such training is undertaken. By the turn of the millennium relatively few studies of students’ perceptions of trainee teachers’ work in the classroom and its impact on their learning had been published with the notable exceptions of Lang (1993), Meighan (1997), Everton, Hopper and Thwaites (1999) and Bedfordshire County Council (2001).

In any case such studies concentrated mainly on the nature of student – trainee personal interactions rather than focussing upon students’ perceptions of how effective trainee teachers were in classroom management and pedagogy. This is not surprising given the levels of entitlement afforded students in the world of schooling, yet studies on student attitudes and levels of disaffection (Barber 1996, Rudduck et al. 1996) suggested that students not only resented such isolation from issues of control but were potentially both able and willing to exercise their judgement in a principled way in matters relating to their educational experiences. As Verhellen (2000) suggested:

‘For children themselves it means that they are seen as not-yets: children are defined as not yet knowing, not yet competent, and not yet being. By defining childhood as a preparation or transition period, children are placed in a state of limbo. They are obliged to wait and are required to prepare themselves as future performers.’ (p. 33)

Zion (2009) concurs: ‘Students are affected daily by educational decisions made by adults inside and outside of school, but their voices often go unheard in the raging debates about schooling and school reform…students can provide insight into the effectiveness and sustainability of reform efforts, what helps them learn or gets in the way of their learning, and what the school personnel might do to increase their opportunities for learning.’ (p. 134)

As indicated above, schools have been centrally involved in the training of beginning teachers for more than two decades yet rarely have students’ opinions been sought on the impact the presence of trainees in their classrooms might have on their educational progress and wellbeing, let alone whether they, as learners, might have helpful contributions to offer on the developing practice of the trainees. Teachers have traditionally preserved their authority status either through habit or suspicion and trainee teachers are, possibly, most nervous of all in protecting their image.

As Rudduck and Flutter (2004) commented: ‘Engaging in (student consultation) presents, for teachers, some potentially uncomfortable prospects: in particular concerns about being on the receiving end of personal criticism and concerns about what happens if the familiar hierarchical structure of the classroom is challenged by the principle of partnership.’ (p. 147)

Yet partnership in training was what the government had sought to achieve. Might it yet grow another, more radical strand?

Student Voice and Initial Teacher Training:

Student Voice (sometimes termed pupil voice) has developed, both within the literature and daily practice, as a portmanteau term over the past twenty years. In its broadest application it
refers to elements of a school’s activities, which involve students in some degree of interaction and decision-making in respect of policy and practice.

The two titles illustrate something of the problematic nature of the concept:

‘pupil’ connoting someone who is under the direct authority of a teacher or tutor, in essence a subordinate status; ‘student’ connoting someone who has, potentially, a greater share of autonomy in the organisation of their educational experience.

At its most asc, Student Voice implies an element of agency on the part of the individual learner, a capacity to select from, reflect upon, and critique what is on offer in schools. Robinson and Taylor (2007) argue that at the heart of Student Voice practice are four core values:

1. A conception of communication as dialogue.
2. The requirement for participation and democratic inclusivity.
3. The recognition that power relations are unequal and problematic.
4. The possibility for change and transformation’ (p. 8)

This is both an admirable and aspirational set of values yet Rudduck and others remind us that schools are conservative by nature and are often reluctant to acknowledge the changes and developments in young peoples’ attitudes and capacity to respond to their learning environment.

The emergence of an interface of trust, transparency and mutual respect in schools will require careful cultivation and the process towards collaborative engagement between students and adults may well be slow and painful. Rudduck and Flutter (2002) suggest:

‘…it takes time and very careful preparation to build a climate in which both teachers and pupils feel comfortable working together on a constructive view of aspects of teaching, learning, and schooling.’ (p. 53)

It is clear that achieving such a consensual forum for productive dialogue will affect the traditional structures and relationships, which have prevailed in schools for more than a century. Fielding (2001) commented:

‘For many teachers Student Voice is seen as either peripheral, irrelevant or corrosive of the already diminishing legitimacy of teacher professionalism.’ (p. 105)

Rudduck and Flutter (2004) argue for a transformatory approach as advocated by Robinson and Taylor above:

‘In most schools transformation will be about re-casting teachers and pupils in a more participatory and collaborative relationship, reviewing perceptions of pupils’ capacities to contribute actively to a range of school activities and allowing them to move outside their assigned cells as learners of the statutory curriculum into learning associated with a wider range of roles and purposes.’ (p. 139-40)

It was this approach which sought to inform the project outlined below. Yet throughout the project’s planning and implementation there was an awareness of the unequal and problematic power relations instanced above. As Fielding (2001) suggested, the subject of any Student Voice initiative is underpinned by the imperatives of:

‘Who is allowed to speak?
To whom are they allowed to speak?
What are they allowed to speak about?
What language is encouraged/allowed?’(p. 100)

In other words, schools will police the process of Student Voice interactions with extreme care, alert to the possibilities of dissonant voices disrupting the apparent democratic surface of school life. The potential for transformation may become diluted by a process of assimilation; risk taking converted into risk avoidance.

Such concerns were apparent from the outset when the project was in its planning stage and issues of equity, transparency and ethical risk taking were present throughout the discussions, which preceded the project in its pilot phase.

3. Students’ evaluations of Trainee Teachers: pilot project

The pilot project was undertaken as a collaborative programme between three ITT partnership schools in the city of Portsmouth and the researcher based in the School of Education and Continuing Studies of Portsmouth University. The schools were selected on the basis that they were among the first to have been involved in the ITT partnership programme, hosted large numbers of trainee teachers on a regular basis who were well supported by experienced school-based mentors and provided regular access to the researcher throughout the pilot project.

It was important at the outset to establish that there would be a sufficient number of trainee teachers willing to participate in the project so, at the same time as schools were contacted, the current cohort of PGCE English trainees was approached to ascertain their willingness to be involved. The choice of curriculum subject was made on the basis that the researcher had both academic and pastoral responsibility for this particular group and would be able to monitor, advise and intervene as the
pilot evolved. Twelve trainees (40% of the cohort) expressed an interest in participating.

It was crucial that a number of key ethical concerns would need to be addressed before the project was launched and that these would require close monitoring throughout the life of the project. If any of the ethical issues became critical the researcher and school-based co-ordinators resolved to terminate the project in order to minimise risks occurring to the participants. It was agreed that if any participant, either student or trainee teacher, became uneasy with their on-going involvement they would be free to withdraw from the project with immediate effect.

For students participating it was crucial that no aspect of their involvement, however interesting it might be for them personally, should impede their anticipated academic progress. Particular care was taken to ensure that full and informed consent was obtained from individual students, their parents or carers and senior management of the schools.

For the trainee teachers participating, it was equally crucial that no aspect of their involvement should impede their progress towards meeting the requirements for Qualified Teacher Status and the opportunity to gain subsequent employment. It was particularly vital that their developing confidence as beginning teachers and their day-to-day working relationships with students should not be adversely affected by their participation in the project.

A working party was formed to co-ordinate the development and schedule of activities for the pilot; this comprised the project co-ordinators from the three schools and the researcher. The initial proposals for action included:

- Establishing a focus group of the trainees who were to participate in the project.
- Identification of students who were to participate in the project, arrangement of school-based briefings for students and the setting up of university-based training on observation and feedback techniques.
- The establishment of protocols for school-based observations by students on trainee teachers; deciding on the frequency and number of observations and consideration of practical procedures to facilitate effective observations and discussions of the sensitivity of such episodes – particularly issues of confidentiality and the establishing of mutual trust and a shared understanding of the purpose of the observation.

The working party met at regular intervals throughout the pilot to monitor and review progress.

4. Trainee Teachers’ Focus Group

The focus group meeting was intended to provide an opportunity to explore attitudes and perceptions related to participation in the project. It took the form of a free-flowing SWOT analysis, a consideration of the strengths, weaknesses, opportunities and threats associated with being observed and evaluated by students. The discussion was intense and a number of initial comments produced the following consensual views:

- Objective data on an individual trainee’s classroom performance might not always be possible to produce.
- Constructive comments from students should be encouraged and responded to and adverse judgements should not be viewed as personal attacks.
- Students who participated in the project would be known to have been thoroughly briefed and trained and were assumed to be honest and positive in their motivation and judgements.
- The advantage to trainee teachers would be that they gain a clearer insight into students’ expectations and what teaching strategies worked effectively in the classroom.

Some initial concerns raised by the trainees included:

- The possibility that student – trainee relationships might be adversely affected by the change in role and balance of power in the classroom.
- Students might be unrealistic in their expectation of trainee teachers’ abilities – possibly expecting them to exhibit the same levels of confidence and competence as their regular, more experienced teachers.
- Students might not fully understand and apply the criteria which they were using to evaluate trainees’ classroom practice.

These initial thoughts from members of the focus group were supported by some rich reflective comments:

‘I think a child is going to see it…as they have a say in their education more than the relationship with the teacher being badly affected.’

‘I don’t see it as a child having an advantage over you - if anything I think they will see it as an advantage to themselves, to gain an insight and input into how they’re being educated.’

‘Their feedback to us is vital…we’ll know what students expect in a teacher, which is like a golden nugget of information…to find out what kids actually want and what will motivate them to work is ideal.’
The focus group discussion produced a pragmatic and reflective set of responses. It should be noted that many beginning teachers view the prospect of being observed in the process of learning their craft with some trepidation, however experienced the observer may be. The potential for destabilising the personal and professional dynamic of the classroom as a consequence of involving students in such observations could not be underestimated. Much depended on the maturity and principled approach of the students selected to ensure that such a situation was not provoked.

5. Students’ training for observation and evaluation of Trainee Teachers’ classroom practice

Six students from Year 8 (aged 12) in each of the three schools were invited to participate in the pilot project. Year 8 students were selected on the basis that they would have settled into their secondary education and have become familiar with established patterns of good practice in the classroom. The selection of the students by their class teachers, trainee teachers’ subject mentors and project co-ordinators was made against the following criteria:

- Students selected would be interested in working positively with trainee teachers.
- Students would understand the criteria for making formative evaluation on trainee teachers’ classroom practice.
- Students would sustain a level of interest and involvement for the duration of the pilot project.
- Students would feel confident in providing trainee teachers with verbal and written feedback on their classroom practice.

The six students selected from each of the three schools attended two training sessions at Portsmouth University’s School of Education and Continuing Studies. On each occasion they were accompanied by their class teacher or the school’s project co-ordinator. After a buffet lunch and an introduction to the nature and focus of the project they were engaged in collaborative workshops designed to raise their awareness of the work of trainee teachers in the classroom and develop skills of observation and evaluation.

Session 1

The six students from each school were asked to identify key features which they believed contributed to making a good teacher. A short verbal ‘brainstorming’ session led to an extended period of discussion and debate on the personal and professional indicators involved in identifying a good teacher. The students elected to use flip chart paper and marker pens to illustrate and label such features. They worked in discrete school groups, though the visual and written presentations which resulted from forty five minutes of intense discussion and note making revealed striking similarities. Their views on what constituted a good teacher combined both personal and professional attributes.

Personal features included:
- Being friendly but formal in manner
- Being smartly but casually dressed
- Being consistent in manner and approachable
- Being able to deal with difficult situations
- Being patient and willing to listen
- Being able to identify (and possibly solve) problems
- Being fair and firm.

Professional features included:
- Being able to explain instructions clearly
- Being able to support individual learning needs
- Being able to control the whole class
- Being able to structure lesson activities clearly
- Being able to explain tasks in a variety of ways
- Being able to offer praise and sanctions in a calm and positive manner
- Being able to mark and comment on work in a reasonable time
- Being able to respond to the mood of the class.

To an experienced professional these might seem obvious criteria for becoming a successful classroom teacher but it is noteworthy that the Year 8 students who would have experienced several dozen teachers to date in their educational careers were able to distil these features so consistently. They were equally keen to record the characteristics of less successful teachers which provided the obverse of the above lists.

The attributes or characteristics listed are general and it soon became obvious that the students were less secure in being able to identify the attributes of a good English or Maths or Science teacher. This is not surprising as their level of specific subject knowledge would not be sufficient to provide such clear cut judgments.

The first session ended with a whole group discussion of the extent to which a trainee teacher would be expected to exhibit these qualities in their first year of teaching. The students were sensitive to the fact that trainee teachers were still learning their craft and would be demonstrating a variety of levels of success in relation to the characteristics listed above.
Session 2

On their second visit to the University the three groups of students were shown a training video produced by the Teacher Training Agency (now the Training and Development Agency for Schools) which is often used to assist subject mentors in schools in their development of formative judgements related to trainee teachers’ classroom practice. The extract chosen showed a trainee teacher of English in the final stage of her second phase of training. The students were asked to provide written comments or notes on her setting of learning outcomes for the lesson; her monitoring of students’ progress and her ability to motivate students.

The students worked in pairs and observed a ten minute sequence of the training video. As with their comments on what makes a good teacher, there were consistent observations and recommendations on the performance of the trainee teacher on the video clip. This suggested firstly that they could transfer their theoretical assumptions of a good teacher onto an example of actual classroom practice, and secondly, they could sustain their attention over a reasonable length of time. The video clip was a mere ten minutes; an average classroom lesson would extend to forty five minutes and beyond.

The two training sessions provided evidence that the students from each of the three schools were both intellectually curious about what makes a good teacher and were capable of forming principled and balanced judgments in observed practice. At no time in these sessions were they formally introduced to the Standards which trainee teachers have to meet, though their comments revealed a tacit understanding of the classroom performance criteria which are implicit in the Standards. The training sessions also demonstrated their capacity for patient and good-hearted tolerance of trainee teachers’ lapses or mistakes which suggested that the trainee teachers they would observe in their own classrooms would not be placed at risk.

6. Students’ evaluations of Trainee Teachers in Partnership Schools

The third and final phase of the training programme provided an opportunity for each of the volunteer trainee teachers to be observed on two occasions (approximately two weeks apart) by a pair of student observers. In each case the lesson plan was provided to the student observers who were required to participate in the lessons as well as observe and record – a high level of activity. It was agreed that if the students’ ability to participate actively in the lesson was compromised, then further observations and evaluation activities would cease. Each of the student observed lessons was also observed by the relevant subject mentor and the visiting University tutor. In each case students, though essentially working in pairs, sat apart in the classroom and only discussed their findings after the lesson had concluded.

The students used the standard observation form employed by university tutors and subject mentors. This is a template which provides a running record of the lesson, together with opportunities to record summative comments and set targets for further practice. The students were encouraged to record their observations in whatever way they felt most comfortable in so doing. What emerged over the sixteen observations undertaken was a consistent approach to the process of observation, evaluation and recording. The following is an outline of the process of recording which the students undertook:

- **Beginning of lesson:**
  - Voice/presentation
  - Capturing the attention of the class
  - Stating aims of lesson
  - Revision of previous work

- **Teaching technique:**
  - Questioning
  - Practical work
  - Organisation of lesson
  - Explanations and clarifications
  - Use of board and resources
  - Timing of activities
  - Class management/trouble shooting
  - Motivating students
  - Seeking out, helping and showing concern for students
  - Encountering difficulties

- **Assessment and monitoring:**
  - Revision of previous work
  - Checking that lesson aims were met by the students
  - Checking that lesson aims were met by the teachers
  - Target setting
  - Use of praise and sanctions

This is a formidable taxonomy of classroom skills which trainee teachers by the last phase of their PGCE programme are just beginning to implement in full. They are difficult to record, particularly as they often occur simultaneously in a lesson and in a dynamic of real-time flux.
7. Students’ reflections on the process of observing Trainee Teachers

The three groups of student observers met to consider their involvement in the process of observing trainee teachers. Each was invited to write an account of what the experience had given them and how, if at all, it might have proved of help to the trainees they had worked with.

Lucy commented: ‘This…is a great help to trainee teachers, as it allows them to not only hear feedback from official observers, but to hear the opinions of the ones who benefit most from their methods…the students. They get advice from those who have had previous experiences of being taught. Yes, teachers have been taught, but most of the time the probably don’t remember what school was like in their adolescence! I think the views of students who are actually experiencing different methods of teaching everyday are vital, because after all, we students are the ones who benefit from this, not only the trainee teachers.’

Her concern that trainees receive direct and specific advice from those engaged in learning was evident, as was her belief that students had current and in-depth understanding of personal learning experiences which would prove helpful to the trainee.

Matt was keen to indicate his awareness of the pressures trainees experienced in their early classroom encounters: ‘From participation in this project I have learned that being a trainee teacher is a lot harder than I thought. They have to plan a lesson, control a class they don’t know, work in a school with teachers they have to get to know quickly and all the time being watched and assessed by students younger than them…I learned that confidence plays a big part in teaching.’

This capacity to empathies with the challenge faced by the trainees was apparent from the outset and appeared to be at least one factor which motivated the students to participate in the project. It appeared that their own sense of being vulnerable and under pressure at times in their learning life could be translated into the experiences of beginning teachers.

Danielle also exhibited this empathetic stance when she commented on her participation in the project: ‘From this experience I now know how the student teachers feel when teaching a class. I understand that if students are behaving badly the student teacher may feel under pressure and nervous. I know how hard it is for the trainees to manage the class.’

The student observers also reflected upon their own experiences in a role which was unfamiliar to them and which, at first, seemed to destabilize the normal dynamic of the classroom as they had experienced it previously.

Claire admitted: ‘At first when I was asked to observe the student teachers I was nervous about sitting at the back of the classroom and making notes. But once I started I found it was easy. I was also unsure about giving them feedback because I thought they might take things the wrong way. However, I found that if I told them something they needed to improve on after I told them something they did well, it made it easier for them to understand.’

Sarah-Jayne believed that both parties had gained from the experience. In respect of the trainees she suggested: ‘They have benefited from us observing them, because they now know what students think of the way they teach and ways to improve. In order to help them improve we gave them feedback on the lesson, their performance and tips on ways to handle students differently. From us observing them they can see what their teaching is like from a student’s point of view, making it easier for them to understand what students like and how they like to learn.’

Adam also saw a reciprocal benefit in being involved: ‘We benefited from this project as we learnt a lot about how teachers do their job. Also I think that the student teachers have to learn a lot in a short time and appreciated what we said so they could improve their teaching.’

It is possible to construe these comments (and similar others) as idealistic and somewhat naive. Yet it was apparent that each of the student observers had taken their role seriously, had wanted to do what best they could to inform and support the trainees and had gained some initial purchase on the complex interplay between learning and teaching. They were articulate, enquiring and high achievers in their own right and so rose to the challenge with enthusiasm. A greater risk factor would have been involved if less confident, less motivated pupils had been offered a similar opportunity. Schools at the outset of the project were not prepared to take undue risks which might jeopardise the internal dynamic of the school or the early professional development of trainee teachers. Yet if the ethos of Student Voice is to be implemented fully and a sense of democratic participation to be realised it will be essential to offer similar opportunities to those students who are at the margins of such initiatives.

8. Trainees’ reflections on being observed by Students

Notwithstanding some of their earlier concerns and uncertainties, the majority of the trainees who volunteered to participate found the experience to have yielded positive outcomes. Only one of the group, a mature woman who had entered teacher training as a career change, had elected to withdraw. She freely admitted that, for her, the challenge of her notion of a changing hierarchical relationship within the classroom and her previous experience of being with children prevented her from feeling comfortable with the process and might have led her to leave the PGCE program.
In the main the group, particularly the younger members, had felt they had gained in their professional development from feedback by students.

Lisa commented: ‘The benefit was being able to see the perception of me as a teacher from a student’s point of view as opposed to another teacher…I felt their comments were very rational and supportive’.

Simon described overcoming his initial concerns: ‘It is a bit daunting in that it puts you in a defensive position if anything should go wrong…it’s justifying yourself to the people that you teach…what I was worried about was that the classroom relationships would deteriorate…some respect might be lost…the students were a lot more forgiving than I had anticipated.’

Sara saw gains, potentially, for the students as well as the trainees: ‘I think that actually considering the process of being taught helps them to value a little more of what goes on in a school…The students see teachers as human beings who can improve in what they do and be praised…I think it’s the integration of students into adult life that helps to bring them on a little bit.’

Opinion was divided on the issue of whether it was preferable to be observed by students whom the trainees taught on a regular basis or whether neutral observers were better suited to the task. It was felt generally that a blend of the two options would provide a useful spectrum of feedback, though it was acknowledged that setting up such a pattern would be difficult to achieve. The trainees were agreed that if the feedback was to be used as a developmental tool to assist their progress then it would need to be undertaken at regular intervals and woven in with the feedback received from subject mentors, though they were aware that establishing a pattern of observations which linked a sequence of student and mentor episodes in a coherent and developmental way would be a logistical challenge for a school both in timetabling and development of human resources. They were alert to the fact that some schools viewed teacher training as part of their core business, whilst others placed it in a more peripheral context.

Overall, the benefits to their professional development of student observation and feedback was seen as an additional and informative contribution and outweighed the potential risks of undermining effective classroom relationships and management.

9. Ways Forward

The pilot project and its subsequent reiterations in the original group of schools, together with further innovations in schools in Hampshire, Southampton and the London Boroughs of Hackney, Kingston, Newham and Tower Hamlets suggest that it is feasible to involve students in the evaluation of trainee teachers’ classroom practice. The research to date suggests that students are capable of the practical operation of such evaluations and are capable of forming balanced and principled judgements which can be recorded and reported in both verbal and written form. Trainee teachers, on their part, appear willing to receive such commentaries and evaluations as contributing to their formative development of good classroom practice.

Yet as Fielding (2001) notes with caution:

‘Are we witnessing the emergence of something genuinely new, exciting and emancipatory that builds on rich traditions of democratic renewal and transformation? …Or are we presiding over the further entrenchment of existing assumptions and intentions using student or pupil voice as an additional mechanism of control?’ (p. 100)

The warning is salutary and should serve to alert all those with a concern to ensure that schools become sites of genuine interaction between students and teachers that the process is gradual, the outcomes potentially problematic, yet with benefits in terms of understanding the complex nature of learning and teaching that accrue to all.

10. References


THE RELATION BETWEEN PERSONAL GROWTH NEEDS CONCERNING THE DEVELOPMENT OF PERSONAL QUALITIES AND THE FIVE FACTOR MODEL OF PERSONALITY

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Abstract: In this study the relationship of personal growth needs (PGN) concerning competence development with the Five Factor Model (FFM) of personality variables is studied. Hereby we only focused on competences with personal qualities as developmental goals. To effectuate competence development personal growth needs are considered to be essential motivational elements of an employee's personality that form a stable basis to effectuate personal change concerning competence development. The overall conclusion of this study is that moderately weak relationships exist between PGN and the FFM domain variable openness. Relatively strong relationships exist between PGN and three FFM facets variables, sociability, openness for change and goal directedness. Therefore, competence development seems to have quite strong relationships with social aspects of work like synergy and good cooperation between colleagues, with openness towards new behavior patterns or new ways of doing things and with being goal directed. Additionally added items, constructed with the purpose to assess issues directly related to personal growth needs, proved to be valid and reliable measures of personal growth needs. Strongest relationships with PGN were found for the experienced meaningfulness of competences. Although strong relationships existed between the three mentioned facets and personal growth needs, it is advised to add extra items to measures to measure the essence of personal growth needs for selection or developmental assessment purposes. Further implications for the development of competences within organizations were discussed.

Key words: Five Factor Model of personality, work related competence development, personal qualities as developmental goals; personal growth needs, personal change.

1. Introduction

Nowadays, personal qualities closely related to the Five Factor Model (FFM) of personality are highly relevant for many aspects of an organization’s effectiveness (Teth & Rothstein 1991; Barrick and Mount 1991; Salgado, 1997; Anderson & Viswesvaran, 1998; Barrick, Mount & Judge 2001; LePine 2003; Peeters, Van Tuijl, Rutte, and Reymen 2006). The fast development of knowledge (Kessels 2001, Kessels and Kwakman 2007) and highly changeable jobs and work roles (Anderson, Lievens, van Dam, & Ryan 2004) have illustrated the importance of studying personal qualities that form the basis of adaptive capacities of employees and students to perform effectively in a quickly changing environment. Interestingly, the majority of personal qualities are closely related to FFM variables (Furnham 2008). For instance, the capacity to be innovative is very much overlapping with the FFM domain variable openness, and the capacity to cooperate effectively in teams shows a great amount of overlap with the FFM variables sociability, altruism, the appreciation of personal honest feedback and trustfulness. The Five Factor Model of personality, being the dominant model in the field of work related personality research (Smith & Schneider, 2004, p. 388; Furnham 2008, 124; Arnold, Silvester, Cooper, Robertson & Barnes 2005, 119), offered “a simple, unifying framework that allowed research to flourish and contributed substantially to the accumulation of knowledge on the correlates of personality variables” (Smith & Schneider, 2004, pp. 389).

According to Furnham (2008), the essential part of the concept competency is formed by personal qualities related to variables in the FFM of personality. Furnham (2008), but also Kluytmans (1999) or Merrienboer, Klink van der, & Hendriks, (2002) argue that a great amount of conceptually overlap can be found between personality traits measured by FFM variables, the fast majority of work related personal qualities and competences. An example is the competence social sensitivity, which is used for British general practitioners.

This competence is very close related to the FFM major dimension altruism, especially with two of its sub scales: cognitive and emotional supportiveness. If these concepts overlap to a large extent, work related personal qualities and competences should also be considered as very stable constructs over time, just as it is widely accepted for the construct of personality (John & Srivastava 1999, McCrae and John 1992). As a result, the development of work related personal qualities and competences will require a strong, intrinsic need for personal change or personal growth (Smith and Schneider, 2004). Indeed, Hogan
(2004, 1996) and Hogan and Holland (2003) emphasize that the need for personal growth should be defined as a stable, situation independent characteristic, being an important part of an employee's personality or identity. According to these authors personal growth needs are motivational elements that form a stable basis for goal directed behavior or purposive action, thus highlighting the importance of personal growth needs for the development of work related personal qualities.

Hensel, Meijers, van der Leeden and Kessels (2009) show that personal growth needs are related to a positive attitude concerning competence development, with only personal qualities as developmental goals. They also demonstrate that the effect of personal growth needs on this attitude was fully mediated by the experienced meaningfulness of competence development with personal qualities as developmental goals. In their study, the need for personal growth is conceptualized as a latent variable, measured by several indicator variables. Although Hogan (2004) stresses that a need can be qualified as a stable, situation independent characteristic describing a person, it is unclear whether the need for personal growth can be conceptualized as a personality trait. The FFM of personality does not seem to offer the possibility to assess personal growth needs. A major point of criticism on the Five Factor Model is its comprehensiveness (Smith and Schneider 2004, 389). Some authors point out that important relationships, like the one between personal growth needs and FFM domain variables, are unclear (Staw 2004, 16; Smith and Schneider 2004, 390). As we explained above, the need for personal growth is considered to be an essential, motivational factor to effectuate developmental goals that are related to personal qualities or competences. Therefore the valid and reliable measurement of personal growth needs during a development of selections assessment can be of considerable use, when developmental capacities concerning personal qualities are important for the job. Because work related personal qualities related to FFM variables are relevant for an organization's effectiveness, the assessment of employees' personal growth needs with respect to the development of personal qualities related to FFM variables is important.

In this paper we re-examine the approach of Hensel et al (2009) to measure personal growth needs and we study the relationship of this latent variable with the variables in the Five Factor Model (Big Five Model) of personality. We will focus on personal growth needs with respect to the development of competences with personal qualities as developmental goals. In most cases where the relationship between FFM variables and work related behaviors is studied, researchers only examine the five major dimensions called domains, often referred to as the “Big Five”. As far as we know, no studies are available that focus upon the sub dimensions, called the facets. Smith and Schneider (2004) argue that lack of knowledge concerning the relevance of the facets for specific work related behaviors is a major point of criticism on the use of the FFM. In this paper, we will therefore study the relationship of the need for personal growth with both FFM domain and facet variables. "Because the quintessence of personal growth needs cannot be grasped by the FFM variables" (Funder, 2001), we expect to find non-existent or weak relationships between personal growth need and the domain variables and moderate to relatively strong relationships between personal growth need and specific facet variables.

2. IMIC model of Personal Growth Needs: Measurement and Prediction

A MIMIC model (Jöreskog and Goldberger 1975) was hypothesized for personal growth needs concerning the development of personal qualities by a S-HRD program. MIMIC stands for a multiple indicators and multiple causes model, in its simplest form containing a single latent variable. The model consists of a measurement part and a prediction part. The measurement part can be compared to a confirmatory factor model in which one latent variable is measured. The prediction part can be seen as a multiple regression model in which the latent variable serves as the outcome. Two versions of this model were studied: one using the five FFM domain variables as predictors, the second one using a set of FFM facet variables. The model is illustrated in Figure 1 below for the case of the domain variables.

Figure 1: Conceptual diagram for the MIMIC model containing the domain variables as predictor
In Figure 1, the latent variable Personal Growth Needs (PGN) is measured by four indicator variables, GENATT, MEANING, QUALITY, and MOTIVA, which are discussed in detail in the method section below. We study the relationship between personality variables and personal growth needs with the regression part of the model.

3. Method

Participants

Data were obtained for a sample of professionals (N=122) in higher vocational education participating in a S-HRD Program, where only personal qualities served as developmental goals.

Measures

Personal Growth Needs. Four items were used to measure PGN. The choice of these items is based on the study of Hensel et al. (2009). The four items are described as follows.

(1) I am strongly intrinsically motivated to develop personal qualities to improve my work as a professional (MOTIVA).

(2) I consider the development of competences, with personal qualities as developmental goals as very meaningful (MEANING).

(3) The development of personal qualities in higher vocational education will lead to significant improvement of the work (QUALITY).

(4) Generally speaking, I consider myself to be very positive about competence development, with personal qualities as developmental goals (GENATT).

Personality variables. FFM domain and facet variables were measured using the Dutch version of the Neo PiR (Hoekstra and De Fruyt, 1999).

4. Statistical analysis

SPSS reliability analysis was used to estimate the reliability of the four item instrument measuring PGN. Facet variables that could act as predictors for PGN were selected by inspecting correlations between facet variables and a sum score of the four items measuring PGN.

Linear structural relations modeling was used to test the MIMIC model described above. Fit of the model was evaluated by several indices of model fit, including: $\chi^2$, the ratio of the $\chi^2$ to the degrees of freedom, the Bentler-Bonnett (1980) normed fit index (NFI), the comparative fit index (CFI) (Bentler, 1988), and the root mean square error of approximation (RMSEA). Tabachnick and Fidell (2007) give rules to choose among, and to evaluate fit indices. These include: $\chi^2$ should be non significant, the ratio of the $\chi^2$ to the degrees of freedom should be less than two and values of NFI and CFI should be higher than 0.90. The value of RMSEA should be 0.06 or less for a good fitting model, between 0.06 and 0.10 for a modest fitting model; values larger than 0.10 are indicative for a poor fitting model.

Models were estimated with AMOS version 16.0, using the method of maximum likelihood. Regression weights were tested using t-tests. Standardized solutions were used for interpretation. All other analyses were performed using SPSS version 17.0.

5. Results

The reliability of the four item instrument measuring PGN proved to be very satisfactory (Cronbach’s Alpha of 0.8).

MIMIC model with FFM domain variables as predictors

In Figure 2 below the standardized solution is presented of the MIMIC model using domain variables as predictors for PGN.

![Diagram showing the standardized solution of the MIMIC model with FFM domain variables as predictors for PGN](image-url)
The fit of this model is very good ($X^2 = 20.2$, df $= 20$, $p = 0.45$, $X^2 / DF = 1.1$, NFI $= 0.94$, RMSEA $= 0.009$, CFI $= 0.99$). Results presented in Figure 2 show that all four variables are good indicators of PGN, MEANING is the strongest indicator of PGN (loading equals .90), whereas MOTIVA (loading equals .29) is the weakest. The proportion explained variance of the four indicator variables is 0.42 for GENATT, 0.81 for MEANING, 0.57 for QUALITY, and 0.29 for MOTIVA, respectively.

The regression part of the model shows that only openness (OPEN) is a significant predictor of PGN ($p = 0.018$). The other domain variables have non significant weights (EXTRA, $p = 0.26$; AGGREA, $p = 0.149$; CONSC, $p = 0.47$ and NEURO, $p = 0.31$). Together the FFM domain variables explain 11% of the variance of PGN.

The fit of this model is good ($X^2 = 20.7$, df $= 14$, $p = 0.11$, $X^2 / DF = 1.48$, NFI $= 0.90$, RMSEA $= 0.06$, CFI $= 0.97$). The part of the model measuring PGN is highly similar to that in the model using the domain variable as predictors. Also the proportion of explained variance regarding the four indicator variables is similar to the values reported for that model (see Figure 2).

The variables SOCIA ($p = 0.004$), CHANGE ($p = 0.01$) and GOALD ($p = 0.047$) are significant predictors of PGN. Together these three FFM facet variables explain 17% of the variance of PGN.

### 6. Discussion

The overall conclusion of this study is that moderately weak relationships exist between personal growth needs and the domain openness, and relatively strong relationships exist between the facets sociability, openness to change & goal directedness and personal growth needs concerning the development of competences. It should be highlighted that in this study we only focus on competence development, with personal qualities as developmental goals. This was done to focus only on the development of competences that can be related to a need for personal growth or personal change. This is based on the assumption that the development of job related operational skills or knowledge is unrelated to personal growth needs. The four items constructed to measure PGN in a direct way can be considered as valid and reliable measures of the latent variable personal growth needs (PGN). The reliability analysis in SPSS resulted in a Cronbach's Alpha of 0.8, the percentage explained variance of PGN on the items GEANTT, MEANING, QUALITY and MOTIVA were 0.42, 0.8, 0.56 and 0.28 respectively. These results can be considered as very satisfying. It is interesting to see that the experienced meaningfulness (MEANING) and the experienced added value (QUALITY) show the strongest results, whilst the explained variance of the item measuring intrinsic motivation was significantly lower. Earlier research by Hensel et al (2009) has shown that the experienced meaningfulness of the concept competence should be considered to be a mediating variable, fully mediating the effect of personal growth needs on the overall evaluative...
summary of overall attitude cornering competency. As the found relationship for intrinsic motivation is weaker than those found for meaningfulness, a need for personal growth seems to be closely related to meaningfulness. Experienced meaningfulness is a very personal characteristic. Subsequently, competency is interpreted according to personal cognitive and affective frames of references. Because a personality trait is defined as a strong inner tendency to think, feel and behave in a specific way in most situations (McCrae & Costa, 1989) the assumption seems to be justified that personal growth needs can be considered as an important characteristic of an employee’s personality. Therefore, the experienced meaningfulness should be considered to be highly determined by a latent variable belonging to an employee’s personality or professionals identity: personal growth needs.

The FFM facets variables seem to match in a more specific way to personal growth needs than the FFM domain variables. The use of the facets in the MIMIC model resulted in better results than using the domains. The three facets sociability, openness to change and goals directedness seem to grasp the essence of personal growth needs in a more specific way than the domain openness. Concerning the relatedness of the domain openness with personal growth needs a significant but small effect could be detected (11% explained variance, leading to a multiple correlation of 0.33). Therefore, we assume that personal growth needs cannot be directly measured by FFM domain variables. The use of the three facets, sociability, openness to change and goals directedness in the analysis leads to stronger results, 17% of the variance is explained, leading to a multiple correlation of 0.41. The fact that these three facets originate from three different domains makes us conclude that personal growth needs have no direct relationship to the five dimensional structure of the Five Factor model of personality. We consider sociability, openness to change and goal directedness to be relatively strong facilitating variables, measuring a relatively wide range of aspects of competence development, with personal qualities as developmental goals. They can be considered as reasonable measures of personal growth needs for developmental or selection purposes, although additional items have to be constructed to capture the quintessence of personal growth needs as the motivational basis for personal change to develop competences. The fact that the three facets originate from three different domains makes us assume that personal growth needs are related to three issues of an employee’s personality, affiliation with the social aspects of work, innovative capacities and conscientiousness. These three issues seem to represent the underlying characteristics of the three FFM domains, from which the three mentioned FFM facets originally belong to: extraversion, representing the social dimension of the personality, openness representing the innovative and creative dimension and conscientiousness representing planning and control of goal directed behavior. Further research on the matter could clear whether even stronger relationships can be found if items are added to the existing FFM personality test with the purpose to measure those aspects that are directly related to the social, innovative and conscientious aspects of personal growth needs. This is in line with the work of Staw (2004) arguing that a taxonomy used for the measurement of personality traits should include additional measures for personal growth needs. The fact that personal growth needs form an essential motivational basis for competence development with personal qualities as developmental goals is based on an earlier study (Hensel et al, 2009). This study has shown that personal growth needs form an important motivational basis for competence development.

The fact that the strongest relationships are found for, sociability, openness to change and goal directedness can easily be interpreted. Competence development, with personal qualities as developmental goals seems to be a social issue. Sociability measures enjoyment interacting with others, a strong inner appreciation of a work environment which can be characterized by intense cooperation and synergy between colleagues. It could mean that sociability is correlated to a kind of social sensitivity that certain personal characteristics are positively related to synergy between employees, effective group decisions making, cooperation and communication between colleagues and departments. Characteristics related to the facet sociability can be considered to form a motivational basis for reflecting on personal qualities, inhibiting dysfunctional behaviors and developing new effective behaviors or personal qualities. Openness to change needs no extensive explanations. This is a positive predisposition for change, including personal change. Openness to change is defined as a strong consistent inner tendency to behave in a new, different way, being intellectually curious to find new ways of doing things. The implication and relatedness to competence development is pretty obvious. The relevance of the facet goals directedness seems to show that employees with stronger personal growth needs are not only reflective but also goal directed. They have a strong consistent inner tendency to achieve goals to effectuate a personal change. But it is the combination of the three facets that makes sense. Competence development has strong social aspects, one needs to be open for new behavior patterns. But reflection and insight alone is insufficient, the effectuation of personal change is supported by goal directedness.

The relationship between the three facets sociability, openness to change, goal directedness and personal growth needs has implications for competence development programs, when personal qualities have to be developed to support the effectuation of the organizational strategy. Lower averages on these three FFM facets have a significant negative effect on the experienced meaningfulness of the personal qualities or competences that have to be developed. Subsequently intrinsic motivation will be low as studies have shown that a negative experienced meaningfulness will lead to a negative attitude towards competence development (Hensel et al, 2009). The implication for Strategic Human Resource Development (S-HRD) programs used for the development of personal qualities is that different
policies should be applied, dependent on the strength of personal growth needs of employees participating in the S-HRD program. Personal growth needs can be assessed using the three mentioned facets, but these measures should be combined with additional items, measuring specific issues of the applied competence development program. Employees with low personal growth needs should participate in S-HRD goal setting. The rationale behind this is that participation in the process of creating and designing competences which are of strategic importance will enhance the employee’s commitment for the development of personal qualities. By reflecting on competences which are of critical importance for the success of the job employees are stimulated to analyze critical successful behaviors related to personal qualities or competences. A goal setting dialogue should be held with employees with high personal growth needs. Goals setting should be used to match the employees’ personal growth needs with those developmental goals, which are considered to be the key qualifications of the S-HRD competence development program.

It is surprising to see that openness to values, a facet of the domain openness, which was highly relevant for the relationship between personality and professional development, does not appear to have a significant relationship with personal growth needs. A study has shown that this FFM facet is one of the most relevant variables for work related learning used for professional development (Hensel, Meijers, van der Leeden, Kessels & Hayes, 2009). This can be explained by the fact that the key issue studied is competency, not personal qualities. A major point of criticism on the concept competency is its lack of conceptual clarity and the great variety of clearly different definitions (see for an overview on the matter in Furnham, 2008, pp. 319-320; or Kluymans, 1999; or Merriënboer, Klink van der, & Hendriks, 2002).

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TRADITIONAL DIFFICULTIES AND NEW SOLUTIONS FOR CROSS-BORDER INFORMATION SYSTEMS OF PROFESSIONS AND PROFESSIONAL QUALIFICATIONS

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Abstract: Working on a European system of professions and vocational trainings one is invariably confronted with three long-term trends which, in conjunction, are not only highly contradictory, but lead to seemingly insurmountable problems. These trends are the path-dependencies of national systems of professions, the process of European integration and, finally, the growing discrepancies between professions and actual work practices.

Turning to the new information platform of “No Borders”, the presentation will focus on a possible solution for the current predicaments by introducing in-depth descriptions of competencies and skills. The paper focuses on the issue of comparability and will elaborate on the comparative advantages of using such a system as a common basis both for different national systems of professions and for a European information platform.

Key words: radical constructivism, cross-country comparisons, national systems of professions, vocational trainings.

1. Introduction

Problems in cross-country comparisons of professions and vocational trainings abound. These problems range from the non-identity of seemingly identical professions across countries to the practical identity of seemingly different professions across countries and a similar configuration can be found in the domain of vocational trainings, too. Based on a new platform under the name of “No Borders”, the articles will focus on two major issues. First, the process of cross-country comparisons will be analyzed in an in-depth way. The theoretical background for this analysis comes from constructivist approaches and the focus, thus, will be directed to the multiplicity of operations and their necessary cognitive ingredients inherent in comparisons. Second, the article then shifts to the issue of cross-border comparisons of professions and vocational trainings. Here, a new solution will be outlined which should offer a new basis for determining functionally similar or dissimilar professions across countries.

2. General Background

Working on an international system of professions and vocational trainings one is invariably confronted with three long-term trends which, in conjunction, are not only highly contradictory, but lead to seemingly insurmountable problems.

First, in the course of long-term industrialization processes, systems of professions have been steadily growing within the confines of national states. As a consequence, the national trajectories of systems of professions have led to a wide variety of different national configurations, to different networks of stakeholders and to increasingly complex problems of comparability and compatibilities at the inter-national level.

Second, from the second half of the 20\textsuperscript{th} century onward however, a different long-term trend has been set in motion which is directed toward European integration, a free movement of labour across borders and a need for European information systems on professions, vocational trainings or on the status of the European recognition for professions.

A third important component lies in the increasing discrepancies between national systems of professions and the actual routines and practices on the workplace. Here one is confronted with a dual discrepancy. On the one hand, one finds increasing variations of work routines within a given profession. On the other hand, growing similarities in the actual work practices between different professions remain mostly unrecognized, due to the well-established national system of professions.

Taking all three trends together one clearly sees the striking inconsistency between the path-dependency and the various lock-ins of national systems of professions and the need for European solutions in the domain of professions and vocational trainings.

3. On Comparing

The starting point for the subsequent explorations lies in an in-depth analysis of the operation called comparing in general, independent of the issue of comparing professions across countries. As usual, a dictionary entry for the verb to compare could help to produce the necessary ingredients for the subsequent analysis. From Apple Computer’s OS X version of the Oxford American Dictionaries, to compare is: estimate, measure, or note the similarity or dissimilarity between: individual schools compared their facilities with those of others in the area | the survey compares...
prices in different countries | total attendance figures were 28,000, compared
to 40,000 at last year’s event.

• (compare something to) point out the resemblances to; liken to: her novel
was compared to the work of Daniel Defoe.

• (compare something to) draw an analogy between one thing and (another)
for the purposes of explanation or clarification: be compared the religions
to different paths toward the peak of the same mountain.

• [ intrans. ] have a specified relationship with another thing or person in
terms of nature or quality: salaries compare favorably with those of other
professions.

• [ intrans. ] be of an equal or similar nature or quality: sales were
modest and cannot compare with the glory days of 1989.

From this dictionary entry it becomes quite clear that the
operation called comparing or, alternatively, operation Op\(\text{C}\) must
be qualified as a rather complex one, because it requires at least
two objects \(O_1, O_2\), in some instances also measurements and,
finally, a relation of similarity or dissimilarity between these
objects \(S(O_1, O_2)\). Despite the inherent complexity of the
operation Op\(\text{C}\) the main response, so far, was an attempt towards
trivialization.

4. Comparisons – Trivial Version

The trivialization of the operation Op\(\text{C}\) in a cross-country context
consists in a two-fold reduction. First, within a national context,
comparisons are treated as a search-process for suitable similarity
relations \(S(O_1, O_2)\) between two objects. These similarity
relations should be based on the attributes and the descriptions of
\((O_1, O_2)\). Second, across countries with different languages,
the problem was reduced to a translation problem and of finding
the most suitable translation from language \(L_i\) to Language \(L_j\).
Figure 1 shows the trivialization of the operation Op\(\text{C}\) within a
given language and, thus, within a national context.

Thus, the trivial version of cross-country comparisons places
heavy emphasis on the issue of translations. Here, a successful
translation from a given language \(L_i\) into a second language \(L_j\)
solves most of the relevant cross country comparison problems.

5. Towards a Constructivist Logic of Comparisons

Within the next step the trivial approach to the operation Op\(\text{C}\)
will be replaced by far more complex versions which place
special emphasis on all the necessary cognitive routines inherent
in the operation Op\(\text{C}\). The theoretical background for this
analysis comes from constructivist approaches\(^1\) and will be
introduced in a stepwise fashion.

\(^1\) On constructivist methodologies see Müller/Müller, 2007, Müller 2007a,b or
Müller 2008a,b.
Following Gordon Pask\textsuperscript{2}, Humberto R. Maturana, Heinz von Foerster and many others, operations require an operator to whom the operations Op\textsuperscript{C} can be attributed. The important point in the inclusion of operators for operations lies in the fact that operators can be characterized as goal-oriented. Thus, the goals of the operator can be characterized as the first essential ingredient for a non-trivial version of the operation Op\textsuperscript{C}. In the case of cross-country comparisons of professions, the specific goals of the actual operators become vital because comparisons can be made for different purposes and the dictionary entry already indicated that to compare serves a variety of different purposes. Furthermore, Figure 2 points also to the issue that operators usually operating in a given language L and that cross-country comparisons include a translation problem as well.

Introducing the operators of comparisons as well as the goals of operators is only the first step in the unfolding of a complex configuration of the operation Op\textsuperscript{C}. The next steps will introduce a dense package of additional ingredients. Figure 3 summarizes these additional ingredients which can be summarized in the following way.

The first additional ingredient lies in the units of comparisons which have been classified in a highly general way as objects. For objects a state space description will be introduced which is based on a set of attributes or, more specifically, as functions. The general form for an object O can be written down as

\[ O = \text{df} < M, F > \]

where \( M \) specifies a yet undefined set and \( F \) a finite or infinite sequence of functions on \( M \). Since

\[ F = \{ F_i | F_i \text{ is a function on } M \land 1 \leq i \leq n \} \]

with \( n = \{1, 2, ..., \infty\} \), any function \( F_i \) which will be labelled as a state function

\[ F_i : M \rightarrow V_i (V_i \text{ as yet unspecified co-domain}) \]

describes a general attribute of an object O. Moreover, any value of \( F_i \) exemplifies a special attribute of a particular component.

For illustrative purposes, a national system of professions may be composed, inter alia, of a set of different professions as objects where each profession can be characterized by the number of employees (E), the unemployment rate (U), average wages (W) etc. These attributes of professions can be conceptualized as state functions. More specifically, any such state function can be described as a mapping of pairs (attributes of an object, time) into the realm of natural numbers \( \mathbb{N} \).

\[ F_{1i} : E : O_i \times T \rightarrow \mathbb{N} \]
\[ F_{2i} : U : O_i \times T \rightarrow \mathbb{N} \]
\[ F_{3i} : W : O_i \times T \rightarrow \mathbb{N} \]

Since \( F_i (i = 1, 2, ..., n) \) can be defined as the \( i \text{th} \) state function of \( O_i \), \( F \) the total state function and its value

\[ F(m) = M \rightarrow V_1 \times V_2 \times ... \times V_n = F_1(m), F_2(m) ..., F_n(m) \]

can be introduced as the total state of \( O \) at \( m \). (\( m \in M \)). This approach which is based on Mario Buner (1977, 1979) can be characterized as the state space approach SSP and becomes the second major ingredient for the Op\textsuperscript{C}.

The next important ingredient in the operation called comparing lies in the specification of a common domain or a reference domain for the objects of comparisons. In the trivial version the issue of reference domains does not even appear as a special problem or as a missing element. Reference domains for objects can be characterized, very generally, by two requirements. First, the reference domain must be empirically accessible and measurable. Second, the reference domain must serve as an embeddedness domain for both objects of comparisons. Using currency comparisons as an example, the embeddedness domain for two currencies consists of, quite obviously, the entire range of goods and services in two regional units with different currencies. Finally, the reference domain and the state space of objects have to be accessible empirically and, thus, measurable. Thus, comparing requires a multiplicity of measurement processes as well and these measurement processes may use different types of scales – nominal, ordinal, cardinal – and different methods of observation/measurement. But from an operational point of view, measurements inherent in comparisons have to be made explicit and not, as in the trivial case of comparisons, implicit.

Figure 3: The Basic Ingredients in the Operation “Comparing” (Op\textsuperscript{C})

![Figure 3: The Basic Ingredients in the Operation “Comparing” (Op\textsuperscript{C})](image)

In this way, the basic ingredients for the operation Op\textsuperscript{C} have been specified and Figure 3 summarizes the discussion so far and extends the trivial scheme into a complex configuration with a large number of different operations like state space specification.

\textsuperscript{2} On Gordon Pask, see as a brief introduction Glanville/Müller, 2007.
of objects, the identification of reference domains and, finally, actual measurements both in the domain of objects and in the reference domain.

The discussion so far can be summarized by a different constructivist account of comparisons which uses a slightly different terminology, namely events and not objects or quality of comparisons instead of measurement. Nevertheless, the basic argument of comparing as a complex operation remains intact.

That around which (in which) the comparison is built is called the quality of the comparison. It is what is held in common—or what is taken to not be held in common—in the events as observed by the agent. The shared element, the quality, provides the basis for particular outcomes of comparing that are logical rather than grammatical (Glanville, 2009).

6. Cross-country Comparisons in the Context of “No Borders”

The discussion so far leads, then, to the complex configuration of the operation Op6 within the context of the current project “No Borders”.

Turning to the elements of Figure 4 more specifically, the goals of the operators – the team responsible for “No Borders” as well as the Austrian Ministry of Labour, Social Affairs and Consumer Protection (BMASK) - lie in two different domains:

- The first goal was a purely national one, namely an integration of heterogeneous data sources and resources for professions, vocational trainings, funding opportunities, the spatial information relevant for users and the issue of international recognition of Austrian professions and qualifications.
- The second goal was to introduce a national system of professions and vocational trainings which addresses all the relevant issues inherent in a complex mode of cross-country comparisons.

The most significant differences to the traditional ways of cross-country comparisons lie in the remaining components of Figure 4. As can be seen, a reference domain (RD) which embeds both professions and vocational trainings has been specified as competencies and skills. Seen from the perspective of competencies and skills, professions can be conceptualized as clusters of competencies and skills and vocational trainings as a system of a transfer for new or additional competencies and skills.3 In this way a common conceptual basis can be built which fulfills the two basic requirements for reference domains, namely empirical observability on the one hand and the embeddedness function on the other hand.

Within the next stage of “No Borders”, the current system of professions will be enlarged by including this new reference domain for a total of 150 professions which in the Austrian context are the ones with the highest frequency. For these 150 professions an in-depth description of competencies and skills will be constructed which will be far more comprehensive and systemic than the currently included descriptions of professions or of career patterns in the “No Borders”-information system. In the future this reference domain will be extended so that it is capable of embedding the entire spectrum of professions in the “No Borders” - database.

Likewise the domain of vocational trainings will be enlarged and systematized as well. The goal here lies in a system of competencies and skills which can capture the opportunities for vocational trainings for the 150 professions as well so that both areas can be characterized by one and the same reference domain.

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3 On the issue of competencies and skills, see Erpenbeck and Rosenstiel, 2007 or Rauner et al. 2009a,b.
The next step will consist, then, in the actual measurements for the new reference domain, for the 150 professions in question and for the vocational trainings accessible for these professions. This measurement process will turn out to be complex and diversified and will include elements like in-depth analysis of job-offers in newspapers, expert interviews, self-reports by employees across different professions and the like.

It is hoped that this target can be accomplished by the end of the year 2010 and that a common reference domain both in German and in English can be established which can be used by information systems in other countries as well.

The huge advantage of such a cross-country reference domain is enormous because it offers a range of new possibilities for establishing:

- equivalence relations between competencies and skills and professions;
- similarity relations between skills and competencies and different professions;
- equivalence relations between different professions;
- equivalence relations between competencies and skills and vocational trainings;
- similarity relations between different vocational training programs; and
- similarity relations between professions and special vocational training programs.

It goes without saying that this list can be extended in a manifold of ways once two, three or more country-specific information systems, based on the same reference domain have been included into the system.

In this way it is hoped that “No Borders” does not remain a purely Austrian initiative which helped to eliminate some urgent shortcomings in the Austrian environment. Rather, “No Borders” is currently produced as a cross-country information system, based on a novel way of comparisons across countries for professions and vocational training.

7. Outlooks

Towards the end, another form of summary will be given which re-states the complexities inherent in comparisons in a different, though highly related constructivist language. Ranulph Glanville (2009) described the basic operations in comparing in the following way:

Bringing together two events to make a comparison is the basis of logic and the basis of pattern making ... The outcomes of acts of comparison are of three kinds - identity, scale, contrast - determined by the purpose, P, of the agent and the location of the quality ... Where the quality distinguished is that which is held in common, and that quantity of that quality in each event is not distinguished between either event, the agent makes an identity. Call the outcome of this kind of comparison identity, I ... Where the quality distinguished is that which is held in common, and the quantity of that quality in each event is such that one event contains the other (and, conversely, the other is contained within the one), the agent makes a comparison leading to scale. Call the outcome of this kind of comparison scale, S. (Glanville, 2009)

So it goes.

8. References


EDUCATION, TRAINING AND THE RE-DEFINITION OF SKILL IN CURRENT LABOUR MARKETS

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Abstract: This paper is based on an assumption that there is a widespread belief that the future successful economies will be largely defined by the degree to which they can be oriented to global competition in the field of knowledge production and application. It is assumed that the as manufacturing is re-located to low wage economies the future of “developed” sites of production will be the retention of the value-added elements of the newly globalised regime of accumulation. Within these conditions it is assumed that human capital will be the key supply side component of economic success and informs public policy in the international arena despite criticism of frequent reductionist usage (see Brown et al 2001).

In the case of the United Kingdom moral panics over the nature of the labour force go back at least to the emergence of industrial capitalism during the nineteenth century when it was argued that British goods were becoming inferior to those of emerging nations – particularly Germany (Roderick and Stephens 1981). It is suggested that in recent years such concerns have reached hegemonic proportions. For example, the late years of the twentieth century saw nation states promoting variations on a theme of human capital growth: the “Skill New Zealand” Programme (Education and Training Support Agency 1993) and the “Surpassing Ourselves (USA)” initiative (O’Connor 1994) resonate with the Australian search for a “clever society” and the U.K. initiative of “investors in people” aimed at embedding human resource development in the workplace. Great stress has been placed on using qualifications achieved as a proxy for skills and using accreditation targets as means of measuring the effectiveness of educational institutions despite the persistent critique of the weakness of such measures. In the United Kingdom this discourse has generated policy aspirations ranging from the proposed raising of leaving age from initial education to eighteen years to the commitment to achieve a fifty per cent attendance in higher education by the immediate future. In nearly every area of social policy education/training is a central strategic component. Particularly in the area of employment/welfare practice there is pressure to couple welfare benefits to attendance at some form of skill-related activity. Although it would be inaccurate to suggest that the UK has reached a state of “workfare” practices the current Prime Minister has made it clear that for unemployed people the option of doing nothing to address what is perceived as their lack of labour relevant qualities during economic inactivity is not an option.

Alongside the general shift toward utilitarian reforms of policy lies a commitment to a policy of inclusion that is aimed to draw previously “excluded” groups into the training arena. Groups defined by various indicators – gender, ethnicity, location, and cultural history – have been targeted for particular attention. Widening access has been addressed by financially supporting groups such as young people from deprived backgrounds to requiring institutions of higher education to facilitate access for previously under-represented groups within their student profile.

The modes of provision have also undergone change with the rise of distance learning models and increasing flexibility of delivery by providers. Of particular interest is the modularisation/competencies – based provision which reflect in their adaptability the assumptions concerning the flexible workers they are in part aimed at within the context of lifelong learning. This search for relevance to the needs of the economy has been reflected in the degree to which the vocational areas of training have been much more tightly linked with employers’ associations in respect of the actual nature of the curriculum offered. This is promoted within the discourse of “relevance” to the actual labour market – a rationale also used for the development of degrees with a specific vocational focus and often the subject of claims that such awards indicate the decline of the traditional academic standards. It has been suggested that this stress on relevance has in fact reduced the critical range of learning in the sector in the sense that learning may only be seen to be of value if it contributes directly to credit within the award system – with all other issues being deemed of little importance (Wallis, 2008). This issue is re-visited below in the context of the emergent meaning of lifelong education in practice. Finally, it needs to be noted that there are serious doubts about the ability of either the employer bodies or the students themselves to be confident regarding the future skill requirements in the occupational sectors, leading to judgements being made on essentially short term calculations. There is certainly considerable comment regarding precisely which skills will be needed in the future and the extent to which such attributes echo “traditional” educational outcomes related to general intellectual capacity.

In the context of the United Kingdom there exists a further issue relating to the status of vocational education within society in general and the educational world in particular. Within the discourse of human capital promotion there have been a series of attempts to position vocationally related learning within a clear
hierarchy of education. The government has produced a national qualifications framework (NQF) that is intended to locate any award at a particular level of complexity and highlight the parity of work across all forms of learning. In recent years attempts have been made to open out the curriculum in secondary schooling to enable young people to undertake openly vocational courses alongside traditional academic study and to introduce awards which are openly vocational but still bear the title of their academic counterparts (Applied General Certificates of Secondary Education and “Vocational” A-Levels). However, it is interesting to note that the key attempt to broaden 16-19 education to provide an expanded curriculum involving “traditional” and vocational components (Department for Education and Skills 2004) was quietly disregarded – a fact that may indicate that the established award at year 13 within schooling – the so called “gold standard” of Advanced level qualifications based on traditional subject areas – retains a privileged place in the educational world and may be seen by politicians as currently impregnable. With such a traditional model at the base of the educational system there is a real danger that there will be a hierarchy of status within the provision that will effectively undermine any attempt to produce a system of parity of esteem between awards in reality.

This last point is underlined by the most recent efforts to introduce vocational options into schooling. The U.K. government has recently launched a new series of awards into schooling directed specifically at young people seeking vocational routes within schooling. Designed in collaboration with occupational sectors, the new Diplomas in Education attempt to create a blend of theory and practice, elements that had formerly been perceived as separate. Currently, five vocational areas are available with seventeen being planned by 2013 covering the entire range of occupational opportunities. Response to these new awards has been mixed but they appear to have been less than successful within their own terms, with even a key government minister expressing profound misgivings even at the outset of the scheme (Johnson 2007). Similar concerns were expressed about aspects of the scheme by the Confederation of British Industry (2008). Perhaps the most important indicator of the persistence of hierarchical perception is indicated by the fact that at the outset only slightly more than half the places were taken in the initial five occupational area pilots (Balls 2008).

The final example of attempts to integrate vocational education into the mainstream has been the re-designing of the system of apprenticeships in the United Kingdom. After a key government report (DfES 2001) attempts have been made to extend apprenticeship opportunities within the economy by both simplifying the design of established apprenticeships and extending the formal qualifications into emerging areas of the workforce and areas where previously no systematic training existed. In the process the apprenticeship, which was traditionally time-based and related directly to skilled labour, has been re-defined with some awards being achievable within a year or less. After receiving a highly challenging response to the first attempts to promote apprenticeships (House of Lords 2007) the government has now introduced a three tier award within schools which enables students as young as fourteen to engage in “young” apprenticeships delivered by partnerships including schools. VET institutions and local employers. The apprenticeship model is considered so important that the government has pledged itself to the provision of places for all who can benefit from them in the near future.

This brief and selective sketch is intended to convey the extent to which the British case study reflects what are claimed as global features of current education policy. Since the previous Prime Minister announced that his main priorities for government were “education, education, education”, policy initiatives in this field have continued unabated with the constant element of the importance of human capital to the future of the state. The critical publication in respect of current policy and one that captures perfectly the dominant discourse is: Prosperity for all in the global economy – world class skills (The Leitch Report) (H.M.Treasury, 2006). This document has been the key guide to policy of recent date and has generated a number of key texts assessing the extent to which government strategies are meeting the “Leitch agenda” (see for example Delivering World-class Skills in a Demand-led System (Department for Education and Skills 2007); and World class Skills: Implementing the Leitch Review of Skills in England (Department for Innovation, Universities and Skills 2007). These documents underline the extent of commitment to the human capital approach that is being cited as largely universal. The essence of the work appears in the opening of the report:

In the 21st century, our natural resource - and their potential is both untapped and vast. Skills will unlock that potential. The prize for our country will be enormous – higher productivity, the creation of wealth and social justice.

The alternative? Without increased skills, we would condemn ourselves to a lingering decline in competitiveness, diminishing economic growth and a bleaker future for all. (Leitch Report, 1).

It might appear that the bleak future is emerging despite the labour market interventions. Unemployment continues stubbornly to remain at high levels and the situation of the young is causing particular concern. Recent publications have revealed an alarming increase in young people who have dropped out of the system entirely. Those who are not in employment, education or training (NEETs) between 18-24 were totalled at 835,000 in the second quarter of 2009 (DCSF 2009), and some have even suggested that official calculations might be over-optimistic (Field and White 2007). Such results have led to the claims that the U.K. is in danger of producing a “lost generation” with few prospects of self advancement despite the “new deal” rhetoric. One recent analysis on the potential outcome of the current
recession suggests that up to a million young people will be applying for unemployment benefit if the current economic crisis follows previous patterns and that one fifth of all school leavers in 2009 may find themselves reliant on state benefit by the time they are twenty one (Dorling 2009). This economic analysis is further developed by linking the lack of employment opportunities to potential problems on the broader social front, including lawlessness, domestic violence and an increasing use of drugs (Audit Commission 2009). It is perhaps at this point that the individualised construct of human capital comes into contact with the broader notions of social capital and may raise the question of whether more collective approaches to unemployment may be of considerable value.

Two more basic questions remain in respect of current assumptions. Firstly, is it reasonable to assume that the economy will be able to create the demand for more highly skilled labour? Will the majority of work become more highly “skilled” or will the new occupations remain largely unskilled and with technology ever threatening to de-skill current areas of work. Even the political representatives are beginning to acknowledge that they may be better advised to speak of “re-skilling” rather than “up-skilling” in the current circumstances (House of Commons 2008).

This is a crucial issue in respect of the rapid expansion of higher education based on student loans, as the promise of highly paid employment is used to justify the entry into student loans which currently are said to average £23,000 at the time of completing a degree (push.com). It is in this context of large numbers of people achieving ever higher qualifications that concern has been expressed regarding the rise of intensified credentialism with “skilled” workers being underemployed and “crowding out” less skilled members of the workforce previously considered competent to perform occupational roles effectively. The experiences of this “overskilled workforce” (Borghans & de Grijp, 2000) may weaken the claimed correlation between formal education, income and status.

Of particular interest is the question of why – in the face of repeated shortfalls in outcome - has the human capital discourse remained so powerful. As mentioned earlier the key concepts relating to the future of knowledge economies and how to maximise economic advantage have reached almost hegemonic status – they set the “horizons of meaning” in respect of what can be thought about the issues. In short, lifelong learning has become defined specifically in terms of economic necessity which in turn defines the educational forms perceived as relevant to creating “skilled” workers. It is suggested that such policies are formulated in terms of technical challenges of form, modes of delivery and curricular format which may be devised in many cases without reference to the potentially different purposes of learning throughout life or even the lived reality of the learners in whose name the developments are undertaken. It is in this context that the competence-based models can be located.

It suggested that many of the features of current policy and practice use concepts that have their own ideological histories in the field of education and may provide an insight into alternative strategies that may move beyond approaches that seem to be failing within their own terms. First is lifelong learning – the central conceptual element of current policy. The education of people throughout the lifespan has a long history in the United Kingdom (see Kelly 1970) but lifelong learning as an informing principle was perhaps at its most influential internationally during the latter half of the twentieth century and associated particularly with the work of UNESCO and specifically the publication of Learning to Be (The Faure Report) (1972) and related publications (Dave, 1976);

Skager, (1977); Cropley, (1979)). It is interesting to note that the definition of the lifelong learner in this context is much more holistic - perceived as negotiating all the complexities of the lifespan not only those associated with *bono economicus* It is argued that the current notions of lifelong learning have been largely stripped of all but the utilitarian component. It is suggested that other concepts are similarly used within a discourse that omits key aspects of their original meaning.

The concept of self direction relates directly to work in lifelong learning from the early work of Knowles (1973) and his promotion of andragogy, to Tough’s work on the universal presence of learning projects among adults (1979) and the widely referenced work of Maslow and his promotion of “self-actualisation” (1962). One could also include the related work of Rogers on mature person hood (1994). It is claimed here that current notions of self-direction – albeit underpinned by advice and guidance – are impoverished in much current usage where self direction is largely contained within a set of pre-determined options and where choice is essentially restricted to the sequence and form of learning. The essential question emerging relates to the ontological assumptions around what it means to be an educated adult in the twentieth century. It is argued here that in defining adult learning in such a narrow way there is a denial of whole areas of human existence.

This tendency to reductionism is also present in other areas such as the established knowledge that adults tend to learn in order to solve problems – a key transferable skill in current policy. It is accepted that the process of problem solving may be transferable from the workplace much literature locates problem solving in all aspects of the lifespan and a key to motivation. The same limited usage applies also to the central concept of reflection – particularly critical reflection. Although, as thinking beings, we could be said to be in a permanent state of reflection what is of concern here is its range and openness within the learning context. At the basic level Kolb’s work on the learning cycle (1984) keeps reflection tightly limited within the stated process, and Schon’s attempt to explore the nature and functioning of the
“reflective practitioner” (1991) tends to depend on definitions of already defined areas of activity.

Within the traditions of lifelong learning there also exists a tradition of critical reflection that seeks to explore the nature of lifelong learning in a broader sense – to move beyond narrow definitions of education and locate the learning processes in the broader social context. The first of these traditions locates educational activity in an analytical discourse that seeks to explore the extent to which learning operates to improve the circumstances of the mass of people and in what ways. Usually associated with Marxist analysis such a collective drive to enable political empowerment appears in the nineteenth century in the United Kingdom as the movement for “really useful knowledge” (Johnson, 1979) in which learning was judged of value to the United Kingdom as the movement for “really useful knowledge” (Johnson, 1979) in which learning was judged of value to the extent to which it served to strengthen the position of working people. Again, there is a definite issue of relevance here but it is of a different nature to what is promoted now and clearly locates education in its political place within society.

To some extent the work of Gramsci (1971) instances a similar recognition of the political nature of education and its function of justifying a status quo or even “naturalising” a social order as immutable. In both of these cases the role of lifelong learning is to provide alternative learning for citizens that enables them to see ways to move towards a new social order. Here the idea of criticality is located within a broader paradigm and, significantly the work is seen as being a collective endeavour rather than that of individuals striving for self-interest. These notions compare interestingly with the current notions of working with others, which are often seen as a collection of interpersonal skills, whereas the collective activities of the radical tradition are openly orientated to overall social change.

Finally, perhaps the most valuable comparator from the established adult learning tradition is Paulo Freire (1972), whose work has had global impact. The primary call by Freire is to make clear the purpose of educational activity. Such statements are often omitted or principles taken for granted. Freire’s own statements regarding the need to “humanise the world”, to transcend conditions of oppression, acknowledge that the search for liberation will take different forms throughout space and time. Such a statement within current human capital policy might oblige providers to explore the extent to which the “technical activities” are serving to support international liberal capitalism which promotes a rigid individualism. Using Freire’s analytical “orientation towards the world” the stress on the individual has a profound impact on the maintenance of the status quo in that learners are “given” the control of their own learning and any failure will be experienced as personal and internalised. It is suggested that such ownership of failure fosters a quietism – “a culture of silence” – that serves to legitimate the status quo. An approach to lifelong learning based on problem-posing – as opposed to problem-solving strategies - would pour new meaning into the nature of learning. It would perhaps expose the “banking” nature of current practices – the tendencies to conceive learning as “deposits” of skill and knowledge most readily exemplified by some competency-based approaches.

Perhaps the most important element of this tradition of lifelong learning is the requirement on the educator to acknowledge the value base which legitimizes their practices. For Freire if it is the human’s “ontological vocation” to humanise the world then any action including education can be judged as either operating for that purpose or not. In short, there is no practical or moral neutrality for the educator so ethical and practical decisions have to be made and analysed for their probity and consistency.

Such acknowledgement of political responsibility seems very distant from the technical discourse informing lifelong learning strategies.

This paper has tried to address some of the issues arising from assumptions in respect of human capital policy in general and the case of the United Kingdom in particular. Questions remain regarding the extent to which supply side intervention in the labour market can resolve the problems of unemployment and re-orientate economies for the future. The discussion has tried to highlight the ways in which current discourse defines particular concepts and practices to legitimate policy. It is suggested that much policy and practice only retains credibility if it is abstracted away from the social context in which it operates and that the causes of current labour market problems - such as the late re-configuration of capital – remain unaddressed in favour of activity directed at the symptoms in terms of the inadequacy of human capital supply. Behind the blizzard of legislation over recent years the question still remains as to whether the increased aggregate of skills is capable of resolving structural problems in the economy as one group of authors ask: Are skills the answer? (Crouch et al, 2004).

References


Internet: http://www.push.com.uk/ (22 August 2009)


This study presents part of the results of research carried out with 1568 students in their last year of non-compulsory secondary education in the Region of Aragón (Spain), in order to find out the factors which have a bearing on their choice of university education, hence, improving the career guidance process. Specifically, this presentation will refer to work values and transversal competencies. This is deemed to be an important contribution, as it is an integral part in terms of the variables which influence the academic decision process, given the sample studied and the influence of the educational and proactive intervention field in the labour market.

Work values refer to the expectations people have about their professional development. Work values are linked with other relevant variables in career development, like professional interests or vocational personality (Finegan 2000; Berings, Fruyt & Bouwen 2004; Xenikou 2005; Rottinghaus and Zytwoski 2006), are formed in a specific work context (Mukherfee 2006) and they influence the orientation intervention designed as, for example, an element of the professional portfolio or the development of transversal participatory and personal skills (Valentine 2004, Hirsch 2006, Cortés 2009).

Our theoretical reference is the MOW (Meaning of Working Study) Group. The MOW International Research Group (1987) differentiates between five components of the meaning of work: centrality of work, societal norms, results assessed on the work, importance of work objectives, and identification with the work function. The MOW Group prepared a questionnaire, The Meaning of Working: An international View, (1987), with 27 items researching into the aspects pointed out above. This questionnaire is the base used to develop the items relative to the values (see 25 and 27 of the questionnaire2). The authors have continued extending the studies, especially at an empiric level, in various contexts (Ruiz Quintanilla and Wilpert 1991), for example, in Israel (Harpaz 1998, Gmemon and Hellman 2006).

The term skills is polysemous with a variety of definitions in existence at present. However, this work is based on the competences terminology and proposal presented by the Tuning study (Gonzalez and Wagenaar, 2003) and DESECO (Definition and Selection of Competences) of the OECD (2005), as valid and meaningful frameworks in the pre-university, university and labour market preparation educational field. The competencies are seen as knowing and understanding (theoretical knowledge of an academic field, the ability to know and understand), knowing how to act (practical and operational application of knowledge in certain situations) and knowing how to be (values as an integral element of the way of perceiving and living with others in a social context) in life and, within it, in the work place. Three types of transversal competencies are addressed in this work (from item 31 to 56 questionnaire1): instrumental, interpersonal and systemic (Gonzalez and Wagenaar 2003). The first are those that involve cognitive, methodological, technological and linguistic skills. The second are the individual's abilities to express their feelings, know how to be critical and be self-critical, as well as the social skills related to interpersonal skills, ability to work in teams or the expression of social or ethical commitment. The third are the skills and abilities that involve a combination of understanding, sensitivity and knowledge that allows the individual to see things as a whole.

EMPIRICAL PART

Objectives and hypotheses

Objective 1: Ascertain the work values of students in the last year of non-compulsory secondary education, in accordance with gender, Mode and future choice.

- Hypothesis 1. Work values depend on gender, Mode and future choice.
- Objective 2. Ascertain the transversal competences of the students in the last year of secondary education.
- Hypothesis 2. Students will be qualified in most of the skills for future higher studies at a "significantly high" level.
- Objective 3. Investigate the relationship between work values and competences for last year secondary school students.
Sample

The total number of respondents was 1564 students in the last year of secondary school, the year that is usually prior to going to University and for this reason stratified sampling was conducted of the population (7168 students enrolled in 2008-2009) from the three provinces in Aragon. Thus, the sample consisted of boys (624) and girls (939) from the four specialist areas: Humanities and Social Sciences (HCS) (630), Natural and Health Sciences (CNS) (479), Technology (T) (286) and Arts (A) (169).

Table I: Distribution of sample according to type of Specialist area and gender

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Social Sciences (HSC)</td>
<td>190</td>
<td>440</td>
<td>630</td>
</tr>
<tr>
<td></td>
<td>30,2%</td>
<td>69,8%</td>
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</tr>
<tr>
<td>Natural and Health Sciences (NHS)</td>
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<td>479</td>
</tr>
<tr>
<td></td>
<td>35,5%</td>
<td>64,5%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Technology (T)</td>
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<td>286</td>
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<td></td>
<td>78,3%</td>
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</tr>
<tr>
<td>Arts (A)</td>
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<td>128</td>
<td>169</td>
</tr>
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</tr>
<tr>
<td>Total</td>
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<td>939</td>
<td>1564</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

We also note that from this sample 71.4% choose to go to University (64.9% of males and 75.5% of females), and 15.6% chose a training course and 9.8% are undecided. Less than 1% want to join the workforce and 2.5% did not respond at all.

Information collection method: ORIENTAUNI

The data were collected with the ORIENTAUNI questionnaire (Cortés, Arraiz, Sabirón, Bueno and Berbel 2009) (see questionnaire in Spanish and English personal web). To develop this test the following process was conducted: 1st) discussion group with career counsellors from high schools in the Region of Aragon to ascertain what variables would have a bearing on the questionnaire, and 2nd) theoretical revision on the issue. From both references a questionnaire was drafted and validated in two ways: 1) By six experts (3 career guidance counsellors and 3 university lecturers from the area of Vocational Guidance). After their findings (as to the validity and reliability of the test), the questionnaire that had been passed to the pilot group was reworked. 2) Through this pilot group, with 20 students from the last year of non-compulsory secondary education. When finished, some of the findings from this second test were re-incorporated.

The result is a questionnaire with 65 items: 58 closed and 7 open. The questionnaire includes 6 parts: A) Identification Data (1-3); B) Family situation (4-9); C) Future status (10-24); D) Values and options (25-30); D) Core competencies (31-56) and E) Academic and school situation (57-65). The reliability is also adequate in throughout the entire questionnaire (Cronbach’s alpha = 0.74) and on the skills sub-scale (Cronbach’s alpha = 0.909).

Open questions (18, 21, 59, 60, 64 and 65) were categorized a posteriori, such as 18 and 19 which refer to the three university degrees they would like to take, the following three (59 to the 61) on the subjects taken during the last year of secondary school. 64 and 65 refer to asking for comments on the questionnaire and information on how to contact them for possible further research. Specifically, questions 18 and 21 are categorized into five macro university areas: Experimental Sciences, Social Sciences and Law, Health Sciences, Humanities and Technology, and a further four categories were added: none, do not know/no answer, training course and do not wish to continue studying.

With regard to the items that concern us for this study, item 25 provides 5 choices: to get promotion, have a high income, free time for other things, have more chances of finding a job and to improve society and help others; 27 has also 5 options: dynamic / interesting / varied, social prestige, stable income, learn constantly and, be original and creative. The items relating to competences (31 to 56) are a Likert scale with 5 levels of importance: a lot (rated with a 1), fairly (2) sufficient (3), some (4), none (5).

Results

Objective 1. Ascertain the work values in the last year of non-compulsory secondary education, in accordance with gender, Mode and future choice.

Hypothesis 1. Work values depend on gender work, Mode and future choice.

As to why you would choose a profession (item 25), the main reason is to help improve society and help others (28.8%). Also highlighted in the results obtained is the importance of finding work as a value (22.6%). In the chosen profession free time available for other things (13.5%) or promotion (14%) was of least influence and obtaining a high income is in an intermediate position (17.4%). The following table II shows the distribution of work values by gender (item 2) and the subject specialisation Mode chosen (item 1).
It is noteworthy that women choose their profession to improve society and help others (27.3% in women and 18.3% in men). In contrast, men valued obtaining higher income levels (27.3%) more than women (11.9%). Regarding the subject Mode; Humanities and Social Sciences, and Natural and Health Sciences are those that most lean towards the option of improving society and helping others, with 21.7% and 22.3% respectively compared to 12.1% between the two remaining specialist areas. The latter occurs mainly in women (16.4% and 16.2% in the two Modes mentioned), although it emerges that men in the Technology Mode are more inclined than women in the same Mode (12.2% versus 1.4%) towards higher incomes.

Regarding the future choice (see Table III) (item 18), for Social Sciences and Law (which is the preferred choice of 47%), Health Sciences and Humanities, the most important thing is to choose a profession to improve society and help others (14.9%, 7.7% and 1.7% of the total or 31.7%, 46.2% and 31.6% for each specialty). It is also noteworthy that the first specialist area mentioned the option of the possibility of finding a job obtains 10.3% (22% of the specialist area) and that the higher incomes is the best rated on the lists of technical degrees. 3.9% of students who do not know what they want to study and 3.6% lean towards Vocational Training. Here, although the percentage is low, there appears to be predominance for higher incomes and promotion. In this table two options are taken for granted: none of the options and no wish to continue studying, as they contain a small percentage with respect to the total (1.9% and 0.3%).

<table>
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<tr>
<th>Gender (item 2)</th>
<th>Mode (item 1)</th>
<th>Promotion</th>
<th>High income</th>
<th>Free time</th>
<th>Work as a value</th>
<th>Help improve society/help others</th>
<th>Total</th>
</tr>
</thead>
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<td>% of total</td>
<td>% of total</td>
<td>% of total</td>
<td>% of total</td>
<td>% of total</td>
<td>% of total</td>
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<tr>
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<tr>
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<td>Help improve society/help others</td>
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<td>4,4%</td>
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<td>23,4%</td>
<td>29,0%</td>
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</tr>
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</table>

When performing the Chi-square test, it appears that the reasons why a profession is chosen depends upon the gender (Chi-square = 123,039, p < .000), Mode (Chi-square = 95.558, p < .000) and the future (Chi-square = 168.454, p < .000).

Together with item 25, item 27 gives a complete understanding about work values. So the best rated option is that their career choice (item 27) will provide a dynamic, interesting and varied job (38.4%), and the least chosen option is to obtain social prestige and be admired by others (7,1%). Obtaining a steady income is valued at 21%, learning constantly 16.3%, being original and creative 16%.
In Table IV it is found that men value social prestige (10.7% versus 4.9%) and a stable salary (27.8% versus 17.1%) more than women. However, women value continuous training more, i.e. 19.5% as opposed to 11.7% of men. For both, having a dynamic / interesting / varied job is the most important. As for the Modes, noteworthy is that obtaining a dynamic / interesting / varied job is very significant for all specialist areas especially the first two and for women (in Humanities and Social Sciences, 8.9% of men and 20.4% of women, and that of Natural and Health Sciences, 12.7% and 16.3% respectively). Being original and creative is very important (11%) in the specialty of Arts with respect to others, especially for women.

Regarding the future choice (see Table V), for all areas the most important aspect is that it is a dynamic / interesting / varied job, especially for the Health Sciences, Experimental Sciences and Social Sciences and Law (8.7%, 2.0% and 17.6% of the total or 52.5%, 44.9% and 17, 6% of the mentioned specialist area). It is also noteworthy that in the third specialist area stated, the option of a steady income obtains 10.9% of the total (23.4% of specialty), while in the area of Humanities only 0.3% (5.8 % of the specialist area). For the Humanities specialist area, the most important reason for choosing a job is that it is original and creative (4.1% of the total or 48.8% of the specialist area). Continuous learning is a relevant variable, especially for Experimental Sciences (1.4% of total or 30.4% of specialist area) and for Technical sciences (3.7% or 31.7%). 3.7% of students lean towards Job Training, and who opt for a job that lets them be creative and original (46.6% of the specialist area). In this table two options are taken for granted: none of the options and no wish to continue studying, as they contain a small percentage with respect to the total (1.9% and 0.3%).

### Table IV: Job expectations by gender and secondary school subject specialisation and mode

<table>
<thead>
<tr>
<th>Gender (item 2)</th>
<th>Mode (item 1)</th>
<th>Dynamic, interesting and varied job</th>
<th>Social prestige</th>
<th>Steady income</th>
<th>Learning constantly</th>
<th>Being original and creative</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td>HSC</td>
<td>Count 55</td>
<td>30</td>
<td>66</td>
<td>21</td>
<td>15</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>8.9%</td>
<td>4.9%</td>
<td>10.7%</td>
<td>3.4%</td>
<td>2.4%</td>
<td>30.4%</td>
</tr>
<tr>
<td></td>
<td>NHS</td>
<td>Count 78</td>
<td>14</td>
<td>43</td>
<td>23</td>
<td>11</td>
<td>169</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>12.7%</td>
<td>2.3%</td>
<td>7.0%</td>
<td>3.7%</td>
<td>1.8%</td>
<td>27.5%</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>Count 80</td>
<td>18</td>
<td>55</td>
<td>25</td>
<td>43</td>
<td>221</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>13.0%</td>
<td>2.9%</td>
<td>8.9%</td>
<td>4.1%</td>
<td>7.0%</td>
<td>35.9%</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Count 215</td>
<td>66</td>
<td>171</td>
<td>72</td>
<td>91</td>
<td>615</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>35.0%</td>
<td>10.7%</td>
<td>27.8%</td>
<td>11.7%</td>
<td>14.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>HSC</td>
<td>Count 190</td>
<td>29</td>
<td>86</td>
<td>75</td>
<td>56</td>
<td>436</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>20.4%</td>
<td>3.1%</td>
<td>9.2%</td>
<td>8.1%</td>
<td>6.0%</td>
<td>46.9%</td>
</tr>
<tr>
<td></td>
<td>HNS</td>
<td>Count 152</td>
<td>12</td>
<td>50</td>
<td>82</td>
<td>13</td>
<td>309</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>16.3%</td>
<td>1.3%</td>
<td>5.4%</td>
<td>8.8%</td>
<td>1.4%</td>
<td>33.2%</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>Count 15</td>
<td>4</td>
<td>12</td>
<td>9</td>
<td>21</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>1.6%</td>
<td>.4%</td>
<td>1.3%</td>
<td>1.0%</td>
<td>2.3%</td>
<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>Count 28</td>
<td>1</td>
<td>11</td>
<td>15</td>
<td>69</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>3.0%</td>
<td>.1%</td>
<td>1.2%</td>
<td>1.6%</td>
<td>7.4%</td>
<td>13.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>Count 385</td>
<td>46</td>
<td>159</td>
<td>181</td>
<td>159</td>
<td>930</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>41.4%</td>
<td>4.9%</td>
<td>17.1%</td>
<td>19.5%</td>
<td>17.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
When performing the Chi-square test, it appears that what is expected in a job depends on gender (Chi-square = 60.402, p < .000), Mode (Chi-square = 284.182, p < .000) and the future choice (Chi-square = 218.709, p < .000). Therefore, our hypothesis 1 is true, given that the work values, understood as the reasons for choosing a job (item 25) and what you expect to find in a job (item 27) depend on gender, Mode and future choice, because significant differences are found in all cases (p < .000).

A contingency table has been drawn up to see the relationship between the reasons (item 25) and work expectations (item 27), and the significance between both variables is relevant according to the Chi-square = 243.801, p < .000; and the Lambda test.
What mainly appears, on the contingency table is that those who opt to improve society and help others are those who expect, in the majority, a dynamic interesting varied job (46.7%) and to continuously learn (27.2%). Those who justify finding more work and having free time, mainly present expectations of having a dynamic job (37.7% and 39.5% respectively) and a steady income (30.9% and 27.6% respectively). Having a high income is especially important with a stable salary (37.4%), but very low with constant learning (5.6%) or being original (13.7%). The fact of getting promoted is mainly linked with finding a dynamic / interesting / varied job with 39.3%.

Objective 2. Ascertain the transversal competences of the students in the last year of secondary education.

Hypothesis 2. Students will be qualified in most of the competences for future higher studies at a "significantly high" level.

Table VI: Socio-Professional Competences (from most to least important)

<table>
<thead>
<tr>
<th>Item</th>
<th>Tip of competencies</th>
<th>Competencies</th>
<th>N</th>
<th>Mean</th>
<th>Dev. tip</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Systematic</td>
<td>Do the job as well as possible</td>
<td>1560</td>
<td>1.55</td>
<td>.803</td>
<td>.645</td>
</tr>
<tr>
<td>56</td>
<td>Systematic</td>
<td>Guidance toward working efficiently</td>
<td>1559</td>
<td>1.78</td>
<td>.817</td>
<td>.667</td>
</tr>
<tr>
<td>45</td>
<td>Interpersonal</td>
<td>Knowing how to work in a team</td>
<td>1564</td>
<td>1.78</td>
<td>.834</td>
<td>.696</td>
</tr>
<tr>
<td>38</td>
<td>Systematic</td>
<td>Learning new things</td>
<td>1555</td>
<td>1.79</td>
<td>.806</td>
<td>.650</td>
</tr>
<tr>
<td>46</td>
<td>Interpersonal</td>
<td>Skills working with people</td>
<td>1560</td>
<td>1.85</td>
<td>.832</td>
<td>.693</td>
</tr>
<tr>
<td>44</td>
<td>Instrumental</td>
<td>Making autonomous decisions</td>
<td>1558</td>
<td>1.91</td>
<td>.851</td>
<td>.724</td>
</tr>
<tr>
<td>41</td>
<td>Systematic</td>
<td>Adapting easily to new situations</td>
<td>1559</td>
<td>2.01</td>
<td>.849</td>
<td>.720</td>
</tr>
<tr>
<td>34</td>
<td>Instrumental</td>
<td>Knowledge to devote yourself to the profession</td>
<td>1557</td>
<td>2.02</td>
<td>.893</td>
<td>.797</td>
</tr>
<tr>
<td>43</td>
<td>Instrumental</td>
<td>Know how to solve problems</td>
<td>1558</td>
<td>2.03</td>
<td>.858</td>
<td>.736</td>
</tr>
<tr>
<td>53</td>
<td>Systematic</td>
<td>Have initiative and enterprising spirit</td>
<td>1561</td>
<td>2.04</td>
<td>.893</td>
<td>.797</td>
</tr>
<tr>
<td>54</td>
<td>Interpersonal</td>
<td>Ethical commitment to your work</td>
<td>1555</td>
<td>2.05</td>
<td>.901</td>
<td>.811</td>
</tr>
<tr>
<td>51</td>
<td>Systematic</td>
<td>Ability to work independently</td>
<td>1563</td>
<td>2.05</td>
<td>.896</td>
<td>.803</td>
</tr>
<tr>
<td>42</td>
<td>Systematic</td>
<td>Capacity to have new ideas</td>
<td>1562</td>
<td>2.12</td>
<td>.866</td>
<td>.750</td>
</tr>
<tr>
<td>32</td>
<td>Instrumental</td>
<td>Ability to put theoretical knowledge into practice</td>
<td>1557</td>
<td>2.13</td>
<td>.901</td>
<td>.812</td>
</tr>
<tr>
<td>48</td>
<td>Interpersonal</td>
<td>Communication with non-experts in the field</td>
<td>1556</td>
<td>2.16</td>
<td>.882</td>
<td>.778</td>
</tr>
<tr>
<td>35</td>
<td>Instrumental</td>
<td>Oral and written communication in own language</td>
<td>1543</td>
<td>2.23</td>
<td>.952</td>
<td>.907</td>
</tr>
</tbody>
</table>

Hypothesis 3. Transversal competencies depend on gender and the future choice.

As can be seen on table VI, the competences which are ranked highest, (between a lot and sufficient) are, in order; interest in doing the job as well as possible; guide the work in order to efficiently obtain certain objectives; know how to work as a team; have the ability to work with people and know how to take decisions on your own; i.e., mainly systematic and interpersonal competences. Those that have been rated worse (near to enough) are: have the ability to work within a context other than Spanish, have knowledge of a second language, know how to plan and manage time, computer skills and learn how to obtain information and summarize ideas. All of them are instrumental skills. The rest range between enough and sufficient. In other words, hypothesis 2 is fully compiled with.
Significance analysis was carried out (using the Chi-square and ANOVA analysis) with the gender and the future choice, as key variables influencing competences. We highlight the most outstanding, since expressing all the tables would be too extensive. Interest in doing the job as well as possible is rated as "very important" by 65.3% of women and 48.4% of men (Chi-square = 58.410, p < .000), and especially for university degrees in Health Sciences (73.30% for the option of "a lot") as opposed to for example, 55.2% in Humanities (Chi-square = 79.670, p < .000). The guidance towards effective work is valued as "a lot" especially in women (45.2%) compared to men (36.8%) (Chi-square = 65.6158, p < .000). Ability to work in groups is "much" more important for women (43.3%) than men (38.3%) (Chi-square = 29.216, p < .000), as well as those who opt for Health Science (53.5%) compared to, for example, those choosing Humanities (32.9%) (Chi-square = 60.982, p < .002). Ability to work with others is rated in the maximum option by 42.4% of women and 30.3% of men (Chi-square = 39.119, p < .000), and 48.8% Students who opt for university studies in Health Sciences. Although, in contrast, only by 27.7% (in the "a lot" option) of the students in experimental sciences (Chi-square = 76.373, p < .000).

Among those ranked the lowest, differences are not significant, except that of having computer skills, which is more prominent (with "a lot") among men (24.6%) than women (15.7%) (Chi - square = 30.230, p < .000) and those who opt for Technical degrees (35.9%) (Chi-square = 111.448, p < .000) and learning to plan and manage time is highlighted with 23.9% as "much" and 36.1% as "quite" by women as opposed to 19.6% and 30.3% respectively by men.

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal</th>
<th>Ability to be critical and self criticism</th>
<th>1561</th>
<th>2,26</th>
<th>.901</th>
<th>.811</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Systematic</td>
<td>Search and analyze information from different sources</td>
<td>1560</td>
<td>2,27</td>
<td>.824</td>
<td>.678</td>
</tr>
<tr>
<td>49</td>
<td>Interpersonal</td>
<td>Appreciate diversity and multiculturalism</td>
<td>1554</td>
<td>2,27</td>
<td>.974</td>
<td>.949</td>
</tr>
<tr>
<td>52</td>
<td>Systematic</td>
<td>Learn to design and carry out a project</td>
<td>1562</td>
<td>2,35</td>
<td>.981</td>
<td>.962</td>
</tr>
<tr>
<td>47</td>
<td>Interpersonal</td>
<td>Ability to manage people, projects, a company etc.</td>
<td>1556</td>
<td>2,35</td>
<td>.965</td>
<td>.931</td>
</tr>
<tr>
<td>31</td>
<td>Instrumental</td>
<td>Obtain information and summarise ideas</td>
<td>1558</td>
<td>2,42</td>
<td>.922</td>
<td>.849</td>
</tr>
<tr>
<td>37</td>
<td>Instrumental</td>
<td>Basic computer skills</td>
<td>1548</td>
<td>2,44</td>
<td>.982</td>
<td>.964</td>
</tr>
<tr>
<td>33</td>
<td>Instrumental</td>
<td>Know how to plan and manage time</td>
<td>1555</td>
<td>2,45</td>
<td>1,120</td>
<td>1,255</td>
</tr>
<tr>
<td>36</td>
<td>Instrumental</td>
<td>Knowledge of a second language</td>
<td>1559</td>
<td>2,59</td>
<td>1,093</td>
<td>1,195</td>
</tr>
<tr>
<td>50</td>
<td>Interpersonal</td>
<td>Working in a foreign context</td>
<td>1560</td>
<td>2,61</td>
<td>1,117</td>
<td>1,248</td>
</tr>
<tr>
<td></td>
<td>N valid (as per list)</td>
<td></td>
<td>1427</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are differences in other competences: With reference to gender and the future in items 48, 49 and 50, and only in relation to the future choice for those corresponding to items 32, 35, 36, 40, 42, 47 and 52. Without stopping to comment on everything, what is noteworthy however is that in the ethical commitment to work, 34.4% of women rate it as "very important" and 24.8% men (Chi-square = 138.987, p < .000) or the facility to manage work and knowledge to design and implement a project is best rated by those on Technical degrees. Thus, we see that hypothesis 3 is complied with, although in some transversal competences statistically significant differences were not located. In addition there have been significant analysis of each competence with the others and in all cases the result is significant (Chi-square, p < .000).

Objective 3: Investigate the relationship between work values and competences for final year secondary school students.

To develop this goal we have conducted the ANOVA test between the variables related to competence (items 31 to 56) and items of work values: reasons for choosing a profession (item 25) and job expectations (item 27). With regard to item 25, there are significant differences with all competences, except for that of obtaining information and summarizing ideas (item 31), and in relation to item 27 significance is present in 12 of the 26 competencies. We analyzed these 12 competences where significant differences can be found with both items relative to the work values (see Table VII).
Table VII: Significance of the ANOVA among items 31-56 and items 25 and 27

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Item 25</th>
<th>Item 27</th>
</tr>
</thead>
<tbody>
<tr>
<td>R31</td>
<td>2,929</td>
<td>,020</td>
</tr>
<tr>
<td>R32</td>
<td>6,301</td>
<td>,000</td>
</tr>
<tr>
<td>R33</td>
<td>4,253</td>
<td>,002</td>
</tr>
<tr>
<td>R34</td>
<td>4,856</td>
<td>,001</td>
</tr>
<tr>
<td>R35</td>
<td>6,023</td>
<td>,000</td>
</tr>
<tr>
<td>R36</td>
<td>4,679</td>
<td>,001</td>
</tr>
<tr>
<td>R37</td>
<td>5,819</td>
<td>,000</td>
</tr>
<tr>
<td>R38</td>
<td>6,700</td>
<td>,000</td>
</tr>
<tr>
<td>R39</td>
<td>4,951</td>
<td>,001</td>
</tr>
<tr>
<td>R40</td>
<td>5,627</td>
<td>,000</td>
</tr>
<tr>
<td>R41</td>
<td>5,040</td>
<td>,000</td>
</tr>
<tr>
<td>R42</td>
<td>6,815</td>
<td>,000</td>
</tr>
<tr>
<td>R43</td>
<td>9,261</td>
<td>,000</td>
</tr>
<tr>
<td>R44</td>
<td>7,709</td>
<td>,000</td>
</tr>
<tr>
<td>R45</td>
<td>13,503</td>
<td>,000</td>
</tr>
<tr>
<td>R46</td>
<td>15,047</td>
<td>,000</td>
</tr>
<tr>
<td>R47</td>
<td>6,778</td>
<td>,000</td>
</tr>
<tr>
<td>R48</td>
<td>12,472</td>
<td>,000</td>
</tr>
<tr>
<td>R49</td>
<td>3,882</td>
<td>,004</td>
</tr>
<tr>
<td>R50</td>
<td>6,167</td>
<td>,000</td>
</tr>
<tr>
<td>R51</td>
<td>9,142</td>
<td>,004</td>
</tr>
<tr>
<td>R52</td>
<td>9,057</td>
<td>,000</td>
</tr>
<tr>
<td>R53</td>
<td>21,168</td>
<td>,000</td>
</tr>
<tr>
<td>R54</td>
<td>9,430</td>
<td>,000</td>
</tr>
<tr>
<td>R55</td>
<td>10,520</td>
<td>,000</td>
</tr>
</tbody>
</table>

So as not to dwell any further, we shall take for granted all the complete tables, but emphasise that that the reason those who opt for having free time when choosing a profession (from item 25) and the expectation of a steady income (from item 27) as work values give from fairly to sufficient importance to transversal competences: ability to apply theoretical knowledge to practice (2.32 / 2.35 on average respectively), learning new things (1.96 / 1.99), looking for and analyzing information from different sources (2.45 / 2.40), ability to be critical and self-criticism (2.43 / 2.45), ability to adapt to new situations (2.19 / 2.17), ability to have new ideas (2.20 / 2.33), ability to work with people (2.08 / 1.99), valuing diversity and multiculturalism (2.44 / 2.55), knowing how to design and carry out a project (2.23 / 2.20), having initiative and entrepreneurial spirit (2.14 / 2.22), ethical commitment to work (2.22 / 2.20), doing the job as well as possible (1.80 / 1.74) and guidance towards efficient work (2.03 / 1.95). Those who choose a job to improve society give quite a lot of importance to these competences (2.02, 1.70, 2.21, 2.14, 1.89, 2.06, 1.66, 2.03; 2.09; 1.94, 1.74, 1.43, and 1.65). In particular, as shown in the following graphs\(^1\), if we look at the competences of doing the job as well as possible, guiding work to effectively achieve goals, ability to work with others (of the highest rated as seen in the previous objective), it can be seen that in both, that those who score lower in importance in the first tend towards free time and a steady income, and those who score higher tend towards improving society and finding a dynamic / interesting / varied job in the first competence and learning continuously in the second and third mentioned competences.

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\(^1\) Graphs in Spanish because this language is SPPS. The translation is: promocionarse (promotion), suelto alto (high income), tiempo libre (free time), encontrar un trabajo o el trabajo como valor (work as value) and mejorar las sociedad/ayudar a los demás (help improve society/help others); dinámico/interesante/variado (dynamic, interesting and varied job), prestigio social (social prestige), sueldo estable (steady income), aprender constantemente (learning constantly) and ser original y creativo (being original and creative).
Cortes, P. A., *Generic Competencies and Work Values in Pre-university Students*

**Diagram R25**

- Mejorar sociedad/Ayudar a los demás
- Mas posibilidades de encontrar trabajo
- Tiempo libre
- Ingresos elevados
- Promocionarse

**Diagram R27**

- Ser original y creativo
- Aprender constantemente
- Dinámico/interesante/variado
- Sueldo estable
- Prestigio social

*Media de R55*
Opinion

The development of this paper provides descriptive data relevant to ascertaining the preferences and characteristics of academic and professional development of students in their final year of secondary school and who will, for the most part, choose to go to university. Work values and transversal competences are key variables for career decisions, although they can sometimes be somewhat hidden from the subject itself. In any case, in a career guidance process (diagnosis and intervention) they can be made
explicit through the career guidance counsellor. Few studies can be found on work values and transversal competences for students in their last year of secondary education (or pre-university year), let alone linking the two variables. In this direction, it is noted that all the objectives are suitably identified in this paper, similarly, of the three hypotheses suggested in this study, the first and second are fully met and the third partially.

The main reason that students choose their future profession is to help improve society and help others, especially women, in the specialist school subject areas of Humanities and Social Sciences, and Natural and Health Sciences and among those who will in the future opt for university degrees in Social Sciences and Law and Health Sciences. In contrast, obtaining a higher income is more valued by men than by women, in the specialist school subject of Technology and university degrees of a technical nature. Having free time for other things or getting promotion has been shown to have the least impact. Employment expectations for career choices, for both men and women, is that they will obtain a dynamic, interesting and varied job, primarily for the specialist areas of Humanities and Social Sciences, and Natural and Health Sciences, as well as those who lean towards future undergraduate studies in Social Sciences and Law, Health and Experimental Sciences. The least chosen was obtaining social prestige and being admired by others, although this, along with a steady income, which is the second most valued, was of more importance to men than women. However, women value continuous learning more than men, and are the students who in future tend towards Experimental Sciences. Being original and creative is most notable for the school specialist subject Mode of Arts and those who opt for a degree in Humanities.

Most of the competences are quite important for the students, a positive fact because it is relevant to the present and future academic and professional development. The systematic and interpersonal type are those best rated, i.e., those concerning knowing how to do things, how to act and behave, those which help to understand events in an organized and holistic manner (interest in doing the job as well as possible, guide the work effectively to achieve objectives, learn new things), and those related to social skills (i.e., teamwork; having the ability to work with people and knowing how to take decisions autonomously). And this is especially true in the case of students and who opt for university degrees within the range of the Health Sciences. In contrast the five worst rated are of an instrumental type and from these the most noteworthy are those related to the capacity to work abroad which are the least important, i.e., to have the ability to work in a context outside of Spanish and have knowledge of a second language.

Regarding the third objective, meaningful relationships between some competences and work values can be seen. Accordingly, noteworthy is that those who choose a job to improve society give sufficient importance to systematic competences, such as doing the job as well as possible and guiding your work to achieve objectives effectively, and interpersonal competences, such as critical and self-critical abilities, and valuing diversity and multiculturalism. In contrast these skills are less valued by those who choose values such as having free time to choose a profession and having a steady income.

What we see is that secondary school a student in their last year gives more importance to pro-social and intrinsic values than extrinsic ones, and this in fact occurs mostly among women and in areas of Humanities, Social Sciences and Health Sciences. This is consistent with the fact that they opt for interpersonal and systematic competences, such as the relationship between the two most important competences (doing the job as well as possible and guiding your work to achieve objectives effectively) with the value of working to improve society, which is of a prosocial nature. Men and, at times, those who opt for technical and experimental paths, are inclined more towards material values, such as a high income, prestige, or promotion, and less towards interpersonal skills.

In other words, it is once again confirmed (Cortes, 2009) that a number of differences (on the basis of gender, path, etc.), which despite the difficulty of the process, should be eradicated. In this regard, we believe that all the values and the competences are of equal importance and are essential for development, integration and professional maintenance, and herein the equal training and guidance for all students is essential.

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USING NARRATIVES AS INNOVATIVE TOOLS IN MATHEMATICS EDUCATION COURSE

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Abstract: In Finland the goal of elementary teacher program is to produce innovative, reflective and collaborative-oriented teachers who can combine knowledge of educational science with knowledge of subject pedagogy, e.g. mathematical pedagogy. In this paper we are presenting the use of narratives as tools in mathematics education course as one of the innovations in Finnish teacher education. Narratives are increasingly used as a methodological approach in research of educational experience, but also as pedagogical tools for facilitating students' views. Yet, in Slovenia, use of narratives has been neglected. Here we will describe two ways to reduce negative emotions towards mathematics by handling elementary pre-service teachers' memories from their years at school. The ways are 1) autobiographical, narrative interview and 2) 'narrative rehabilitation'. Through Ulla's mathematical biography we present how she handles her school time experiences and emotions and how the use of narrative rehabilitation during the mathematics education course influenced her views of mathematics. We conclude that emphasis in mathematics courses should not only be on future teachers' professional knowledge, but also on their personal beliefs and experiences. Therefore, narratives are one possible tool to reach this objective.

Key words: Elementary teacher education - Finland, mathematics education course, narratives, narrative interview, mathematical (auto) biography, mathematical identity, emotions.

1. Introduction

Finnish pupils had a great success in the PISA evaluations (2003, 2006), which raised interest in many countries as well as in Slovenia. In Slovenia, Finland is usually presented as a country with good educational system and good learning results of pupils. Because teachers often contribute to pupils' success, questions are raised, how teacher education programs are conducted, especially the elementary teacher program. In the following section we point out some main differences in Finnish teacher education in comparison to Slovenia.

From the 1990's, the objective of Finnish elementary teacher education program has been to produce innovative, reflective and collaborative-oriented teachers who can combine knowledge of educational science with knowledge of subject pedagogy, e.g. mathematical pedagogy. That is why Finnish teacher education is research-based (see, e.g., Lavonen, Krzywacki-Vainio, Aksela, Krokfors, Oikkonen, & Saarikko 2007). What may be seen as the significant difference between Finland and Slovenia is the high societal status of Finnish teachers. Elementary teacher education program is also one of the most popular university level programs among Finnish upper secondary school students. Only 10-15 % of applicants have an opportunity to begin their studies in elementary teacher education program. Therefore, Finnish program enrolls highly motivated and talented students. According to the culture of trust, in Finnish education system there are no school inspectors, no approval procedure for learning materials or national assessment system and, so teachers are really responsible for pupils' learning outcome. For that reason, the importance of research based teacher education stands out even more.

Also the contents of mathematics (education) courses in elementary teacher program in Finland and in Slovenia differ from each other. In Finland the contents of the courses seem to be closer to future teachers' needs because their main aim is to improve students' pedagogical subject knowledge. In Finland, the strong emphasis in math education of future elementary school teachers is not only on their professional knowledge, but also on their personal beliefs and experiences, which together construct "teacher knowledge" (cf. Connelly and Clandinin 2000). The aim of our article is to present narratives as tools in mathematics education course as one of the innovations used in Finnish teacher education. We will describe through Ulla's case an example of the use of narrative approach. Especially we will focus on how her identity work started during mathematics education course and how this influenced her view of mathematics.

2. Narratives in teaching, learning and research

Even though the narrative inquiry is more and more used for educational research purposes abroad, so far in Slovenia, there has been no much interest in using narratives.

According to Bruner (1986), people organize and manage their knowledge of the world in two broad ways: paradigmatic and narrative modes of thought. The power of paradigmatic thought is to bring order to experience by seeing individual things as belonging to the category, while narrative cognitions is directed to understanding of human action and therefore focuses on the particular and special characteristics of each action. Connelly and Clandinin (1990) were the first who used the term narrative...
inquiry in educational research. Their starting point was what follows: “Humans are storytelling organisms who, individually and socially, lead storied lives” (Connelly & Clandinin 1990, p. 2). Therefore, the study of narrative is the study of the ways humans experience the world. Narratives are variously described as a method, as the result of a method, as a way of making sense of life, as a phenomenon (e.g. Connelly and Clandinin, 1990; Gudmundsdottir, 1995).

And what exactly is narrative? Here narrative means a story that has characters; a beginning, middle and an end; and is held together by a series of organized events, called plots (see, e.g. Gudmundsdottir, 1995, Kaasila 2007). Analogously, Polkinghorne (1995) with narrative refers to a specific kind of prose text - the story and to particular kind of configuration that generates a story, called emplotment. In other words, emplotment is producing a meaning to the story.

Narratives have found their practical application in two areas in the field of education (Gudmundsdottir, 1995): The first is the teaching content and the second one educational research. Narrative inquiry has begun to be used as a tool for teacher development in teacher education programs (see, e.g. Conle, 2000, Kaasila 2007). Thus in research as well as in professional development, two aspects of narrative inquiry had become intertwined: the method itself is useful and the resulting narrative accounts are useful. So narrative has important meaning as a process and as a product (Connelly & Clandinin, 1990).

Telling stories involves reflection on, selection of, and arrangement of events in an artful manner, which contains meaning for the teller and seeks to persuade the listener of their significance (Watson, 2006). We agree with Sfard and Prusak (2005, 16, 21) when they define identities as “collections of stories about persons” and through narrative perspective stories are seen as “words that are taken seriously and that shape one’s actions”.

For teachers, issues of professional knowledge and practice are deeply entwined with each individual teacher’s past experiences and future goals and with their identities (Connelly and Clandinin, 2000). The importance of the concept of professional identity lies in the assumption that who we think we are influences what we do (Watson, 2006).

3. Narratives as innovative tools in mathematics education course

Mathematical (auto) biography and mathematical identity

In our study, we will use the following central concepts: mathematical autobiography, mathematical biography and mathematical identity. We see that in mathematical autobiographies pre-service teachers tell or write about past and present experiences they will see as meaningful for their development as future mathematics teachers. Mathematical autobiographies often involve personally meaningful episodes, important persons (role models), explanations, and especially the process how protagonists’ beliefs of learning and teaching mathematics have developed. A pre-service teacher’s mathematical biography is a life story, which a researcher constructs together with that student. (see also Kaasila, 2007) The researcher’s main task is to construct a retrospective explanation how the pre-service teacher’s earlier experiences have influenced his or her past and present mathematical identity (cf. Polkinghorne, 1995, Kaasila 2007).

Narratives have an important role when pre-service teachers develop their sense of identity, because they see themselves as protagonists in different stories. According to Kaasila (2007), a person’s mathematical identity is a part of his or her narrative identity. One’s mathematical identity is manifested when telling stories about one’s relationship to mathematics, its learning and teaching. What creates the identity of the character is the identity of the story and not the other way around. (Ricoeur, 1992) We want to emphasize that pre-service teachers – like all people - adapt their narration to their audiences and to the social conventions of how language is used. Mathematical identity is a context-bound concept: we can have many narrative identities, each of which is connected to different contexts or social relationships. (see also Kaasila, 2007).

a. Narrative rehabilitation

In this article we will describe two ways to deal with negative experiences and emotions by handling elementary pre-service teachers memories from their years at school. The ways are 1) ‘narrative rehabilitation’, 2) autobiographical interviews. We see that these ways complete each other.

By applying the thoughts of Valkonen (1997) we see that pre-service teachers, like all human beings, interpret their lives as a narrative. In forming their mathematical autobiography pre-service teachers will often use cultural story models. Narrative rehabilitation can support pre-service teachers in regaining authorship in their mathematical autobiography.

At the beginning of the mathematics education course (September 2008) the second author of this article presented excerpts (stories) from six pre-service teachers’ mathematical biographies taken from his dissertation (Kaasila, 2000). Then he applied narrative rehabilitation (cf. Valkonen, 1997) in the following way: pre-service teachers were offered opportunities to tell stories about their school time memories and share their experiences with other in smaller groups. If students remember from their past mainly failure, and if they see only menace in their mathematical future, they unconsciously interpret their mathematical autobiography from a viewpoint of a tragic story. When students reflect occasions and have an insight that the
interpretation can be changed, it can free them to search new aspects into their mathematical past and future, and their self-confidence as mathematics learner and teacher might improve. (Kaasila 2000, cf. Valkonen 1997)

**Autobiographical interview**

In this study, the first author of this presentation collected in spring 2009 qualitative data for her dissertation from Faculty of Education at University of Lapland in Finland. Her data consist of six second year pre-service teachers' narrative interviews. They had negative experiences about learning mathematics during their own school time. The interviews were made after mathematics education course and teaching practice. The aim of the narrative interviews was to get these students to tell stories about experiences and persons that are important to them. She used open questions that usually elicit narratives: the open-ended prompt “tell me …” makes it possible for interviewees to tell about things and events which are meaningful to them and often also to produce detailed narratives. In this article we will through Ulla's case describe how the use of narrative rehabilitation and autobiographical interview did improve her identity work. The other participants of our study had the same kind of experiences as Ulla had.

4. **Ulla's case: How did Ulla’s identity work begin?**

**Ulla: Needed encouragement, resigned**

Motto: “I was really happy that first we...were discussing about our experiences in math...”

Ulla's experiences with mathematics during her school years: Ulla’s negative experiences started in fifth grade. Math somehow became more difficult for her, mostly because of the content and the teacher. Ulla developed negative attitudes towards math: “So then, I started to think like really negative about it, like this patience...I didn't really have towards math, I just gave up...I don't get this and the teacher doesn't teach me, so I don't care. [...] Of course if you have some difficulties it gets more challenging and then it's easier to give up [...].”

In secondary school, Ulla's negative experiences continued. Again, the teacher was main character of her memories of that time, mostly because she favored pupils who were good in math: “Like I just remember that she was helping those very much and talking to them and giving them more challenging tasks... she didn't have the patience to teach those who are not good...she didn't encourage weaker pupils.« Her grades were lower at that time what also affected her attitude and emotions towards math. The second cause for her negative emotions was her teacher: “...I think the teacher in secondary school was a final drop. Like in a way that I'm just...I'm not going to succeed in math ever. Ulla also blamed herself for contributing to her negative experiences by giving up on math: “I think kind of...that I have already gave up on math. And then I didn’t get this encouragement from the teacher, like...I just gave up on learning...on trying to learn math.”

In upper secondary school, Ulla experienced some positive changes mostly because of the teacher: “And she was really like encouraging and when I asked for help, she explained. She helped people who needed help, and she was really excited about math herself [...] she was not just assuming that everybody knows that.” Ulla compared her teacher in upper secondary school with teachers that taught her before: “I think she was the first teacher for a long time that actually believed in me and she actually said...you can, you can do this [...] and she did not make me feel stupid.” Yet at the end of upper secondary school, Ulla’s negative attitudes towards math returned due to the new math teacher.

Ulla’s experiences with mathematics at university: Ulla is in the second year of her studies to become an elementary teacher. Ulla said, she liked mathematics education course and the lecturer of it: “I liked his methods very much, but I was really happy that first we...we started that we were discussing about our experiences in math...and that was really like...for me it was really important and I didn't expect that we would do that kind of things.” It was very relieving for her to see that she is not the only one with negative experiences and feelings. Ulla told that due to this course, her experiences with mathematics at university changed towards positive. The main reason for change was the teacher of the course: “[...] even though he is very good in math himself, he's not looking at you that you can't do it...he's encouraging.”

After the mathematics education course Ulla taught mathematics during the second year teaching practice. Before the teaching experience in grade 1, she was afraid and worried, but at the same time excited to teach math. About her teaching experience, she said: “I liked it and it was also surprising for me that it was actually...it was one of the most interesting subjects to teach, even though it was the first grade and the math is so simple there, but in a way how many different things you can do when you are teaching math to children.”

For future teaching, Ulla is a bit scared. She is confident about teaching lower grades, but she feels “challenged” to teach math to fifth or sixth graders. She sees some benefits from her negative experiences and emotions: «At least that I can understand students that have difficulties in math and that I know myself how to deal with those students, how to teach them. I would like to encourage them...all of them». As a future teacher, she wants for her pupils to have positive experiences with math, but she knows that she herself still has some negative attitudes towards math. Because of the pupils, she would like to change her attitude.
Summary of Ulla’s case: Ulla had many negative experiences and emotions during her schooling. It seems that teachers are the main characters in her negative experiences with mathematics. Due to difficulties with the content and teachers’ lack of encouragement, she developed negative attitudes towards math and completely gave up on it. During Ulla’s school years, she met with failure, she experienced math test anxiety and she was disappointed of herself. Belief of “not being able to succeed in math ever” was strongly present in her identity talk. In upper secondary school, she experienced first positive change due to the teacher. Ulla felt encouraged and believed in. At the end of upper secondary school, Ulla’s negative attitudes towards math returned due to the new math teacher.

Ulla’s second change occurred after mathematics education course at university. She liked it, especially the teacher and his way of teaching. Especially she emphasized the role of narrative rehabilitation applied during the course. Being encouraged to discuss about her prior experiences and realization of not being the only one with this kind of experiences elicited more positive attitudes. After the course Ulla had her first teaching experience in mathematics, which turned out to be positive. She still has some doubts about teaching in higher grades, mostly because of her math abilities. As a result of narrative rehabilitation she sees also benefits about her negative experiences, because she is able to take a role of a weaker pupil. She wants to offer her pupils positive experiences with math.

5. Discussion

Earlier we have considered how elementary education students’ views of mathematics changed during their mathematics education course in three Finnish universities. We identified the following central facilitators of change: 1) handling of one’s experiences of learning and teaching mathematics, 2) exploring content with concrete materials, and 3) collaboration with a partner or working as a tutor of mathematics. (Kaasila, Hannula, Laine & Pehkonen, 2008) Here we focused on the use of narratives as tools in mathematics education course, and we see it two folded.

Narratives in mathematics education course serve as rehabilitation of negative views that pre-service teachers carry with them from their previous school years. By giving to the students opportunity to talk about their memories, discuss them in groups and reflect on them, students with negative memories, seem to experience positive change just by recognizing “they are not the only ones”. When giving voice to pre-service teachers, a safe and supportive learning environment is created, and students feel that their stories matter. As we saw in Ulla’s case, there were some key events and significant others, especially some teachers, that formed her negative attitude towards mathematics.

At the same time, narratives have another role. Through autobiographical interview conducted here, we can see the development of Ulla’s mathematical identity. All Ulla’s past experiences influenced her past and present mathematical identity. In her past mathematical identity, Ulla’s view of herself as a learner shows strong “giving-up orientation” (Yrjonsuuri, 2007). Recently, when narrative rehabilitation was applied in mathematics education course, her view of mathematics changed through reflection of these experiences. It seems that narrative rehabilitation enabled her to find and reflect her negative experiences and to turn them into benefits. Ulla’s past and present mathematical identity have influence on her future one, especially on her view of herself as a mathematics teacher and on her future practice. According to Watson (2006), there is a link between professional identity and professional action; therefore mathematical identities can be seen as closely connected to mathematical practice.

According to Polkinghorne (2007), in narrative studies the purpose of the validation process is to convince readers of the likelihood that the claim can serve as a basis for understanding of action in the human realm. Often it is difficult to pinpoint the factor that has been most significant in pre-service teachers’ process of change. Here we have described Ulla’s case in detail, so that readers have an opportunity to see how the use of narrative rehabilitation has influenced her mathematical identity. Yet, all persons reflect on their past events from the perspective of their present situation: when relating a narrative, one knows how it will end and the narration is adapted accordingly (see e.g., Schütze 1984, Kaasila 2007). Although the findings of this study are promising, we will see later how long lasting the changes are.

The use of narratives as pedagogical tool and for purposes of professional development of pre-service teachers, as seen in this paper, was also studied and used by Chapman (2008). We agree with her, that narratives provide a reflective way of knowing, which is widely accepted as a central goal in teacher education, also in Finland.

It is also possible to use bibliotherapy to handle one’s experiences with mathematics. It means the use of reading to produce affective change and to promote personality development (Lenkowsky, 1987). The second author of this article has applied bibliotherapy during mathematics education course in the following way: when pre-service teachers wrote their mathematical autobiographies, they read six mathematical biographies included in Kaasila’s (2000) dissertation and selected the one that most closely resembled to their own background. Pre-service teachers’ identification with another student, having a similar background, can significantly contribute to changes in their mathematical identity (Kaasila, Hannula, Laine & Pehkonen 2008).
Some of the students due to their prior experiences, have poor attitude towards mathematics and one-sided beliefs on teaching mathematics (Pietila, 2002), and on the other hand, there are also students who have experienced only success during school years and may find it hard to understand pupils who are "weaker" in math (Kaasila, 2000). Considering also some findings that pre-service teachers can transmit e.g. their emotions (e.g. math anxiety) towards mathematics to their students (e.g. Gresham, 2007; Pietila, 2002), it is especially important to emphasize narratives during mathematics education courses. We believe that emphasis in courses should not only be on future teachers' professional knowledge, but also on their personal beliefs and experiences. So these kinds of innovations would be very welcome also in mathematics education courses in Slovenia.

6. References


THE ROLE OF VIRTUAL WORLDS IN TEACHING AND LEARNING

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Abstract: The paper describes current trends in online learning and virtual learning communities. It presents critical overview of current theoretical background and research. Challenges which emerge from pedagogical, social, and technological aspects of the active online learning are presented based on the review of tools, roles and techniques. Presentation summarizes the most important challenges and recommendations.

Key words: online learning, active learning, social constructivism, virtual communities, virtual worlds, collaboration, higher education, education theory.

1. Introduction

Today life requires that individuals and work teams create, learn, work and even exist without constraints of time and place. These needs emerge together with technological advancements, most probably with those which allow for real-time communication and collaboration among peers and co-workers, data sharing and collective creation of documents (Beldarrain, 2006). Audio(visual) conferencing, whiteboards, live presentation tools, application sharing, chats, and email are just a few of the variety of tools available for interaction and collaboration. Blogging, tagging, podcasting, and wikis as well as social software are technologies which are mostly discussed in today surveys and theories on active learning in online environments. As concerns the information and communication technologies (ICT), it serves as an infrastructure for learning and working in various on-line environments and simulated virtual worlds, however, it creates enormous pressure on teachers and instructors to keep a pace with the technological development in order to keep quality in their facilitation and supervision of learning process. Teachers’ traditional authority is challenged by the fact, that they are dealing with more technology savvy generation, however, it is just part of the nowadays challenges to the traditional teaching and instruction services.

New communication and information tools promise to bring more quality into teaching, learning, and working by providing access to colossal portion of information sources, and to facilities for active learning and problem solving. Although we share general view of the ICT as a platform, not a goal itself, technologies actually influenced the education theory, in particular anchored instruction and situated cognition. These learning theories recognize that technology impacts social interaction, which in turn, affects the learning process. Situated learning theory proposes that real-life problem solving should be a collaborative task, empowering learners to become part of learning community. Anchored instruction seeks to build problem-solving skills by anchoring instruction around a real-life situation or tangible problem (Beldarrain 2006, 147). It seems that most of the online learning applications stipulate these two theoretical starting points.

This article presents critical overview of current research and experience from various settings: on-line teaching in tertiary education sector, international research projects, professional development virtual community, distance e-learning, online learning tutoring classes, educative online computer games, and virtual worlds such as the SecondLife. Since we combine both synchronous and asynchronous teaching experience, distance learning, combined learning, both long-term and short-term virtual communities, we refer to that embedded experience in general as to “online learning” or “virtual worlds”. Only in case of some specific issue we make corresponding note.

2. Active learning

Widely shared opinion cross various researches and theoretical papers indicates that active learning is proper facilitator for higher quality in teaching and learning (Hutchinson, 2007; Ikpeze, 2007; Vonderell and Turner, 2005). Online environment increases problem-oriented, experience-based aspects of learning, therefore is it mostly appreciated for its potential to better match learning requirements emerging from the current career curves of individuals.

Behind this believe in universal effectiveness of active learning stays social constructivist theory which basically stipulates that learning is never context free, on the contrary it must integrate the association to real life experiences so that the learner finds him/herself in situations analogous to professional practice (Hutchinson, 2007). Constructive theory views learners as actively involved in the construction of knowledge, which includes analysis, synthesis, transformation, and assessment of information. Social constructivism posits that knowledge is constructed by people, in context, based upon interpretation of experience and knowledge (Palinsar 1998, Vygotsky 1978, Ikpeze 2007, 385). Constructivism is currently the most accepted epistemological position associated with online learning (Stacey, 1999 cited according to Hutchinson 2007, 358). It is supported by sociocognitive learning perspective, specifically Vygotsky’s
zone of proximal development which is the difference between what a learner can do without help and what he or she can do with help, in his words it represents the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (Vygotsky 1978, 86). This justifies the utilization of collaborative learning and working in online environments. As concerns online environments, collaboration means to learn through group interaction, reaching consensus, discussion, chat, negotiation, team work, peer review, and receiving feedback. However, we must keep in mind the fact, that this presents only a part of possible collaboration techniques, partly thanks to the constraints of information sources and communication tools that are currently available.

Although we do not deal with digital divide in this paper, we must keep in mind limits, barriers and different starting positions of those involved in online learning. Usage of online environment also presumes adequate level of ICT skills or “media literacy” as defined e.g. by UNESCO (Catts and Lau 2008). Without ability to master such an environment it is almost impossible to reach “flow experience” as a crucial moment which enables an individual to omit interface barrier, became a part of virtuality and fully participate with a little distinction between self and environment (M. Csikszentmihalyi 20).

3. Tools and Techniques

Since the interaction is core to the successful active learning, it is necessary to utilize some icebreaker activity at the beginning of the course/online activity. To this purpose usually serves some way of self-introduction; this means “static” setting of personal profile, photo/s, shared folders, avatar, nickname, icon (or other abbreviated forms of expression), role assignment etc., in general “setting of self”, and also “dynamic” aspects interconnected with usage and volume of using environment functionalities itself, i.e. (written) language behavior, response time, appearance etc. However, the methods of introducing oneself into an online environment are well accompanied by methods of tracking of an individual’s progress during the learning activities, and also after they are officially finished. For instance participants can use weblogs or e-newsletters to make personal notes and comments on learning progress, share digital repository or bookmarks in order to develop supporting library and information storage, develop on-line portfolio (usually includes interactive CV, supporting documents, and links to other people), or use social networking systems (sharing profiles and networking, clustering, tagging).

The key to success in online learning is to increase responsibility of each participant in terms of overall outcome of given online learning activity/ies. This means that each member of the group shall feel that s/he is responsible not only for her/his performance (fulfillment of tasks, quality of work, and gained knowledge and experience), but also for the performance of the others. This includes students as well as teachers. It requires development of such an environment and atmosphere within which participants perceive that they are bounded to the other members of the group in such a way that success will not be achieved unless the other members succeed (Hutchinson 2007, 361). Moreover, participants shall understand that their finished product will add to the knowledge base of the group, not just their own, that it can be further developed and shared, and that the group outcomes shall become a persistent repository of knowledge for its descendents (Beldarrain 2006, p. 148) – and not only for them when; outcomes can be published world-wide e.g. by using existing wiki-based collaborative environment like Wikipedia.org where anyone can add, change and delete encyclopedia entries.

Such a kind of motivation can usually be strengthened by role assignment, i.e. by setting different roles and related responsibilities in order to create a dual system in which the individual needs to make sure that not only s/he is learning himself/herself, but that others are learning too; more generally, make sure learning process work with all participants as with authors and users of information and knowledge (Bruns, 2007). Roles which come into consideration could be: prove reader, reviewer, checker, encourager, tutor, mentor (roles specifications are elaborated in chapter below); possible tools for increasing responsibility could be: group goals, group contests, collective quizzes and tests, feed back, peer review, and collective evaluation. The last two are considered in several studies as the most effective ones (Hutchinson, 2007); while the first facilitates the cognitive development of an individual, the other helps to comprehend the fundamentals of collective learning and collaboration effects.

 Mentioning collaboration, it is adored and hated within online learning at the same time. It seems it has the same role as the fire in the house, it heats and cooks, but at the same time it can burn the house in a few minutes. Teachers are mostly dreaming of having smoothly organized collaboration which only aims at achieving the goals of the course, i.e. learning something by doing something (also) collaboratively. However, the online environments are living organisms, not sets of pre-programmed robots, collaboration takes place when it has conditions to grow; it needs some time, atmosphere, and motivation to develop, it can not be forced, and on contrary in growing phase it can not be atomized. On the other hand in most common cases contact among participants is not limited to online interaction; there are continuous interactions and relations that can never be fully described and/or logged. From this point of view collaboration exceeds diversity of environments and become an universal tool, more principal than method. Numerous researches repeatedly indicate that collaboration helps to increase engagement in learning, quality of its outputs and achievements, and produces positive byproducts. There are tens of tools which can help to
start collaboration within online learning, from the mailing lists and c-conferencing to the instant messaging, (video)chats, wikis, shared documents, simulated worlds, and on-line educative games. But it is up to a teacher to keep it heating and cooking, not burning the entire project; basically it requires teachers to actively involve in the collaborative activities in order to make sure that the general objectives are not missed, that roles are balanced, and that possible blocks are cured (information overload, peer-value apprehension, exclusion or discrimination, dominating individuals, speed compromises the quality, social loafing, work redistribution etc.). So called “Web 2.0” tools that promise to take interactivity to the next level (Beldarrain 2006, 140) will hopefully bring stronger instruments into teacher’s hands, such as monitoring tools, tracking features and discussion threads analyzers, advanced search tools, automated alerts and bots, and analytical tools working with versioned documents. Second generation web can then be seen as more effective, easier to set, simply meshed-up, scalable and – last but not least – more intuitive usage of (not only) web-based tools.

But collaboration is definitely not the only way how to fulfill time spent in online environment; interaction can be categorized to three groups as person-person, person-object and object-object (Antonacci and Modaress 2005). When we speak about web-based online environment we can substitute “object” to any application or its functionality we are using for learning purposes – from email and instant messaging through blog, podcast and shared calendar to video conferencing and programming applications. In a very special case of 3D environments it covers interaction with virtual object and creating persistent interactive objects such as models and virtual copies as it is possible e.g. in SecondLife.com. All these examples of tools can become key elements of online virtual environment we set and interconnect for a special learning purpose as a collaborative platform. Not only personal ICT skills (media literacy) are trained during a process of interaction, also time, resource and information management (information literacy) became an important issue. Object-object interactions can be used as a passive technology-based automated processes (email resending via mailing-list) or as a sophisticated way of simulation; in 3D virtual world we can e.g. build models and simulate its physical behavior. 3D worlds have its huge advantage that they provide an environment and gives to users (some) possibility to change and modify it – actively by using avatars as an virtual extensions of user and passively via objects.

4. Challenges

Challenges emerge from pedagogical, social, and technological aspects of the active online learning; in next paragraphs we list those which are most relevant to our topic.

Although we read about learning in various research and theoretical papers on the topic, do we actually know exactly, what we are talking about? Learning is always at the heart of any teaching and training enterprise, however, we must understand how people actually learn and what is the role of teacher, learning participants, outside experts, and ICT tools when it comes to online environments. Do we learn more from reading the entries in Wikipedia or chatting with an expert? Shall we prefer reading and writing skills to ability to find and use information, contact, or electronic hints? Do we rather memorize pictures, sounds, texts, or something else? Obviously, the answer is not simple binary, since the fundamental question is not “book or film”, “text or picture” and likewise, but what are the requirements coming from the real life situations, and motivations that stay behind our learning.

From the case studies and our own teaching/learning experience which we have at our disposal, there are various methods and their combinations which can help us better understand our students.

First of all we need to know students motivations in taking the course, coming from the forced necessity to get credits (and diploma at the end), through the curiosity and e-learning euphoria, to the needs to acquire some practical skills (ability to work in virtual environments and use sophisticated ICT tools, ability to operate specific software, need to learn strategies to maintain social networks, skills in information retrieval, training in project management or research methods, etc.). All these attitudes and motivations can appear and none of them can be simply marked as “better” or “worse” – they only redefine behavior or group, it’s homogeneity and cohesion, powers and factors that will influence group as a whole and each member during learning process etc.

Secondly, we shall ask students to introduce themselves into the online environment by choosing their specific avatar and/or nickname as mentioned before. Later, we can ask as to how they would characterize their online personae, simply by explaining their interests, motivation, concerns, preferences, learning background, (professional) experience, hobbies and expectations; we can use their avatar’s development throughout given online learning experience as a background “story”. We also understand more about our students thanks to the various interactions during the online course, and the picture gets more clear at the end of the course, when we usually use combination of some evaluation techniques, such as questionnaire, feed back analysis, and interviews, in order to trace what exactly our students learned and how did this happen (in what way and what were the most effective ways).

The learner is our focal point in educational theory and practice in general. However, as concerns online learning environments, we need to involve specific methods to understand who our
learner actually is and what he/she wants. We might operate with more diverse group of participants within less diverse environment; i.e. our participants might be recruited from different nations, cultures, social backgrounds, education levels (and systems), and professional experience. Since ICT allows us to interact without constrains of time and place and we are able to put people together into a simulated environment (which is for sure much less complicated than putting them together in the real world) actually do not solve problem of difference itself.

Moreover, we as training providers are asked to simulate real situations in order to maintain problem-oriented active learning. In fact, this creates demand for high level ICT skills of the training personnel in order to be able to develop and maintain such an online environment which would meet above mentioned requirements. It also includes demand for regular update in ICT knowledge (media literacy) as well as ability to consider the best learning strategies to be accommodated within given online environment. Some authors call today teachers as information managers (Hutchinson, 2007).

Notwithstanding, the software and hardware tools available are usually in some respect limited, i.e. they are either already given since they are installed within the institution (school) and/or there are limited financial sources if it comes to the question of acquiring new SW and HW equipment. Moreover, ICT used for online environments are limited by their own nature, they allow only limited number of interactions, variety of functions, and transfer capacities. It is not meant to say that ICT limit us in our teaching and learning, the opposite is probably the true, we just need to consider current technologies and their limits as a framework within which we develop our virtual words, generate knowledge and experience. It also means that new and for learning more suitable tools and environments will for sure appear continuously; what more, tools adapted and accepted by learning community will be few steps behind the most recent widely available high-tech tools. ICT itself and it’s usage can be no longer presented as a kind of advantage, it became standard. This can be seen when more strongly when we get in touch with digital-born generation learners – youths used to network, immediately solve their information and communication needs in “zero time” and constantly investigate new platforms and new emerging technologies.

In previous chapter we touched the responsibility issue regarding anyone participating in teaching/learning process. In other perspective it also means to move from passive to active learning, and to increase student engagement with learning (Hutchinson, 2007). This is not that smooth as to be said. This task creates new challenges for pedagogical work, such as demand for supportive, motivational, encouraging, mentoring, peace making, facilitating and managing activities from the side of the teacher and/or others in relevant role/s (tutors, mentors, group leaders etc.) within the environment which utilizes many-to-many mode of communication (Crosbie 2006). The teacher is supposed to monitor course activities, communication, and individual achievements continuously, and immediately react (provide feedback, mentor, write an answer, explain, pacify conflicts). This means two changes in pedagogical work: 1) it shifts energy spent by reading materials and preparation of presentations to energy invested in communication and organization of the course, and 2) it demands flexible rhythm of the instructional activities – less is made according to a time plan and in given regular time intervals, activities are spread out in time and provided on demand. To put it in other words, expertise in the subject, which was traditionally the domain of the teacher is now (also) available externally, while the teacher is required to become good navigator, manager, facilitator, mentor, and tutor. It doesn’t mean that teachers are becoming less experts, on the contrary, it means that their memory, knowledge, experience, contacts, and skills are extended, balanced, and challenged by internet sources. Moreover, part of their traditional tasks, i.e. authorship of a study materials and lecturing, become a distributed task assigned to anyone involved in teaching/learning process. While the traditional distinction between teacher and student is melted, the emerging challenge for the instructor is to provide accurate, high quality, updated, pertinent and tailor-made content and activities.

Since the virtual learning is mostly organized by a physical institution, it creates a tension between the notion of virtual learning community and traditional educational discourse. The challenge to (among others) higher education institutions is obvious: the are organized around the classes, departments and colleges, fixed roles of teachers, managers, tutors, teaching assistants, hierarchy of sciences and credits, while at the same time they do their best to keep pace with new technologies, methods and labor market requirements driven by flexibility, continuous life-long learning, participation and interaction. In the current state-of-arts it is almost impossible to go ahead without any changes of the rules required within these social institutions and at the same time maintain true collaborative learning community. Some scholars even argue that a true socially inclusive “community of learners” can only be achieved through the “complete deconstruction of present institutions of higher education” (March and Richards, 2001, p. 447 cited according to Goodfellow, 2005, p. 115). This might sound alike prognosticating voices, which few decades ago forecasted the end of the cinema thanks to VCR, or later the end of the book since the new media emerged. Although we do not think that virtual learning communities will usher in the end of higher education institutions, the rising of virtual learning communities and arbitrary forces of globalization (Goodfellow, 2005, p. 115) represent significant challenge which has to be seriously taken into account.
5. Who is who? Changing roles in the online environments

The essential for any research and application of online learning is the challenge coming from the changing roles of those involved in teaching and learning. The roles are changing not only if compared to the traditional teaching and learning, but at the same time during the genesis of a virtual learning community itself. In other words, the traditional dichotomy between teacher and student is suppressed while at the same time the roles are no more physically bounded with the concrete person. However, for the quality assurance of the course it is crucial to manage the roles and assign them in order to facilitate active learning. We list the most often roles with their cornerstone description, keeping in mind that while the role of the course leader, instructor (formally teacher) remains stable, the rest is dynamic and relative to the concrete person/s. It is also important to mention, that each learning setting requires different set of the roles, i.e. not all roles listed has to appear in every course.

Instructor designs and leads the course. It is widely argued that instructor’s involvement in designing the course and setting ICT platform is the secondary factor, while her/his role is critical in creating the environment that supports and a course that encourages active learning (Havard, Du and Xu, 2008).

We should also take into account that ICT platform, it’s technical architecture, user interface design, available functions and scalability – more widely described as a “code” (Lessig, 1999) – predefines virtual online environment itself. Challenging instructor’s skills on a one hand, on the other hand Code became an important “role” also; it become a part of social processes and interactions, can strengthen or weaken (or even completely degrade) group identification and collaboration processes etc. The situation will not change even if we involve IT expert as a special role because in most cases IT expert is not an educator at the same time, therefore s/he can not be pro-active in a field of code setting.

The role of the tutor is to facilitate and moderate group discussions, provide assistance and be a mentor for the group. Setting up of smaller groups, 7-9 (Hutchinson, 2007) is recommended.

Discussion leader’s job is to present weekly topic, pose relevant question, and provide a synthesis of discussion. (Ikpeze, 2007, p. 387)

Discussion moderator is here to promote discussion, lead the discussion in terms of its topics and goals, make sure that everyone is equally involved, bridge inequalities, pacify conflicts.

Reviewer, editor, prove reader, discussant are roles assigned to concrete tasks, such as outcomes presentations, delivery of papers, reviewing of interim outcomes, meetings and discussions etc. Primary goal is to facilitate active learning, ensure high quality of outcomes, and reach the objectives of the course. Secondary role is to assist instructor in her/his communication with course participants.

External experts provide assistance to simulated real tasks, expertise, commentary, and sometimes also assessment of the individual concrete output.

As already mentioned above learning groups are more like organisms, living networks that can grow and enrich individuals cover by them or stand still, disintegrate and fall to pieces. Roles we quickly introduced in here should be assigned not because of establishing universal hierarchy of power and control as a traditional model student – teacher. All of them follow social network processes that can appear in online environment with the aim of clustering initial setup and (later) group workflow. Without such an environment moderation online group members need to start interacting without its virtual identity – and with virtual noones. Role assignment can lead to shorter introductory phase, shorten or even skip primer virtual homogeneity and strengthen personal feeling of responsibility and group involvement.

6. Research

Few years ago any research in this field was totally missing or negligible. Nowadays we can draw the support from social networks of those involved in online teaching, blogs and scholarly articles. Current research aims at getting more exact and upstanding grounds for what was originally individual experience or observations. Therefore researches are focusing on collecting evidence from the concrete online courses, on technological, organizational, and educational grounds, provision of typology (types of online courses, virtual communities, roles or tools) and discussing of pedagogical methods. Researches are most often those, who are directly involved in online teaching and/or learning, plus their research studies are in all cases we had at our disposal based on quite small sample, such as two teachers only, one course, few students, one year experience and likewise. Quite a number of research studies are focusing on technology and ICT tools employed in online learning. Their conclusions usually summarize the best practices, practical recommendations, and lessons learnt.

It seems that current research aims at helping those who are directly involved in online teaching, thanks to own position of the authors, the recommendations are addressing the teachers, not that much the HEI managers, students, faculty, library, and others who might concern. It doesn’t say much about electronic sources and pedagogical methods, probably because authors believe in unshakable position of the teacher; this is understandable, since those who are teaching online and are open
to share their experience and research are usually most enlightened teachers at given institution.

The scope of research and evaluation methods has to significantly develop; better sampling, more evidence, comparisons as well as statistical methods, analytical approaches, and sophisticated evaluation methods have to be employed in future research on virtual communities and online learning. There is a lack of comparisons and evaluations done in the field since the current research is relatively novel to the educational discourse; therefore the third party is not considered and involved in the survey or in evaluation.

Even if we are critical to methods and outcomes of current researches there is an enormous challenge in a field of analyzing these fragments of gathered knowledge about learning processes in online environments. What more, through phenomenon like virtual communities, collaboration (mass) effects and marketing-driven online game environments researches in a field of online environment learning become more visible, recognized as valuable and become far more attractive – for sure for a new generation of young PhD. students and there thesis.

7. Conclusions

The question behind this text is “what can new media and virtual worlds bring new into the (life long) learning process”? What is added value of online teaching and learning within the learning discourse? Let us formulate possible answers.

1. Online learning experience brings up personalities which take responsibility for their learning, it teaches how to learn, not what has to be memorized.

2. Collaborative tools allow for certain types of engagement and interactions which would otherwise not be possible. Virtual worlds can simulate not only the real-life situations, but also virtual-life situations, or situations which are not currently possible (cultural diversity, democracy, moments from our history, projections of future, simulation of different outcomes from the same situation, etc.). Notwithstanding, people can make more contacts and interactions in virtual life than in real life in given time interval.

3. The core of the quality assurance of online learning is to manage roles of those involved in the teaching and learning process, on the other hand we can conclude that we actually can experience various roles than in the real life.

4. Using online environment in learning process also requires from all participants appropriate level of media (and information) literacy; without knowledge of participant, their skills and attitudes goals can be hardly reached and not all possible tools will be utilized. This means that virtual learning communities naturally contribute to the information and media literacy, while using new media and ICT as a learning platform.

Research in the field is open to develop and involve new research methods, while it could also get inspired by the variety of evaluation methods and tools already available.

8. References


Abstract: Educational units constitute a considerably separate category of organisations due to the complexity they present compared to all other organizations. The fact that they belong to this particular category of organisations in general presupposes the urgent necessity to operate and even be administrated as effectively as possible so as to be in the position to achieve further advances of development. Programming is regarded as the first step in the process of administration. Strategic programming concerns the long-term planning, which focuses on the general orientation of the organisation and the designation of the long-term goals, taking into account the environment and the conditions in which the organisation operates. One of the most important phases concerning this kind of planning is the SWOT Analysis. This analysis is of crucial importance for the institutes of Vocational Training (IEKs) in Greece since, unlike other school units, they appear to be decentralised to a great extent from the higher authority of the Ministry of National Education and Religious Affairs. Consequently, they are given the opportunity to exploit the advantages of strategic planning as they seem to be in the privileged position to handle matters of either human or material resource management independently. The state Institute of Vocational Training (IEK) in Epanomi is one of those institutes that are located outside the city of Thessaloniki. This fact creates responsibilities on behalf of the directors demanding their appropriate targeted steps that will lead to its further growth and development. The proper exploitation of the potentials of SWOT Analysis may offer opportunities towards the direction of a rather higher educational level provision.

Key words: strategic planning, SWOT Analysis, educational units, vocational education and training.

1. Introduction

Educational units constitute a considerably separate category of organisations due to the complexity they present compared to all other organisations. The fact that they belong to this particular category of organisations in general presupposes the urgent necessity to operate and even be administrated as effectively as possible so as to be in the position to achieve further advances of development. The process of their administration includes four certain separate phases, which are: programming-planning, organisation, leadership and controlling that are all common in every kind of organisation despite the category in which these organisations belong to. The difficulty of the principles that mark these phases is due to their adjustment to the facts and the peculiarities of the educational organisations, without however trying to marginalise all those special characteristics that are considered to be parts of the Greek educational system.

2. The phase of programming-planning

The first phase in the managerial process is planning. As Koutouzis (1999) claims, programming is considered to be the effort to control the future at the level of administrating operation. Moreover, as Saïtis (2005) has pointed out, programming refers to the general context of a process or the sum of actions and training, execution and adjustment means of alternative programs of actions in an organisation.

As far as the action of an educational unit is concerned, it refers to the function of setting goals and objectives for the procedures according to which the educational, pedagogical and administrative activities of a school unit will be accomplished within a predefined time (Petridou 2005).

The importance of programming-planning that concerns the level of educational units

The operation of programming is of crucial importance for an educational unit. It designates the route that particular kind of unit will pursue in the future, as it plays the role of a compass by determining the boundaries of the goals and by preparing the organisation to follow a certain direction (Athanassoulà-Reppa et al., 1999). We can allege that eventually these goals express the mission of every organisation and what is prepared is actually the steps of the co-ordination that will lead to its effective operation through the achievement of its goals. A positive step towards this direction is considered to be the importance that is given to the harmonic co-operation of the organisation's members, surely without claddings of actions or waste of time in order the best possible outcome to be accomplished (Saitis, 2005).

The function of programming, however, demands increased caution since, according to Everard and Morris (1996), the goals of an organisation do not always seem to be in perfect harmony.
with one another. Generally speaking, the importance of programming refers to the potential that on one hand is provided so as the mission of the educational unit to be recognised, the educational act to be classified and the objectives to be defined, taking nevertheless into account its possibilities and weaknesses; on the other hand, programming is essential in order an orientation towards the approximation of goals to be kept (Xirotiri-Koufidou 2000).

**Strategic planning**

Programming in educational units, as it systematically happens in all kinds of organisations, normally takes two possible forms. It may be either functional or strategic depending on the managing level that is implemented and the time horizon of those that are set in terms of its duration (Athanassoula-Reppa et al. 1999). Concerning the strategic planning, it constitutes a long-term planning, which does not focus on the separate operations of the organisation but on its total function (Koutouzis 1999).

The necessity of that specific kind of planning is summed up in the quote “If you don’t know where you are going, you will end up somewhere else” (Raynor 2004, 37). Consequently, it is generally thought that strategic planning concerns the long-term planning, which focuses on the general orientation of the organisation and the designation of the long-term goals, taking into account the environment and the conditions in which the organisation operates.

Many organizations plan their strategy without going through a formal strategic planning process. For example, an ice hockey team starts its season with a basic strategy of how their organization will win as many games as possible and they do this without going through a formal strategic planning process. The team management considers the competitive environment and what the personnel's strengths and weaknesses are and then decide on a strategy concerning how they think they can maximize the team's chances for success (Linn, 2008). According to what has already been mentioned, there may be times when a full-blown strategic planning process is needed. For example, if it is required by those who oversee one’s institution, then one should go through the process to mollify those in charge. In addition, having everybody go through the process may be what is needed to get the whole staff committed to putting their effort towards the same goal.

**Strategic school planning**

School planning has developed significantly over the last ten years with the universal acceptance of school development planning formats and approaches. However, the move to school-based management and greater autonomy has increased the need for schools to take on a wider planning role and responsibility. Referring to the educational units, strategic planning is the process of matching the school’s activities to the current and emerging environment, bearing in mind what can feasibly be achieved with the resource base which can be generated (Davies & Ellison, 1998).

Felder (2002) distinguishes between three aspects of strategy:

- Strategy itself, which involves a strategic aim and a means to reach it.
- Strategic planning: a plan to put strategy into practice.
- Strategic management: implementing strategy.

The process of strategic planning can be seen to encompass three stages as articulated by Johnson and Scholes (1997) and thus to link into development planning:

- Strategic analysis.
- Strategic choice.
- Strategic implementation.

Planning in schools over the last two decades has been categorised in a number of ways. At both regional and national level, frameworks for planning have been produced, based on cycles of review, planning and implementation. At institutional level four different types of school plans could be identified (Bell, 2002):

- The rhetorical, which had no credibility within the school.
- The singular, produced by the principal alone.
- The co-operative, produced by a group of staff and focusing on finance and staff development.
- The corporate produced by the staff working together and focusing on an agreed range of the school’s priorities.

The implementation of strategic planning becomes a reality through seven successive steps not only for school units but also for all kinds of organisations. The third one is the seeking of needs and presuppositions both of the external and the internal environment for each of the possible alternatives or the so called ‘SWOT Analysis’. As Raynor confirms (2004), the strategic process involves audits, environmental scanning, Swot analysis, and culture analysis in order to identify future trends.

**SWOT Analysis**

The conditions of operation of an organisation and even its external limitations may render some of the alternative solutions problematic or prohibitive in some cases (Athanassoula-Reppa et al., 1999). This may occur because each alternative solution or proposal presents different presuppositions or consequences. On the contrary, as Koutouzis claims (1999), the conditions of an organisation concern simultaneously not only its internal but also its external environment. Obviously, it would be naïve for anybody to create a strategy for achieving a goal without taking into account the organization's strengths and weaknesses as well as the competitive environment (Linn, 2008).
The situation being like that, strategic management has not changed since its early inception, with SWOT (strengths/weaknesses/opportunities/threats) analysis serving as the fundamental methodology for formulating the firm’s strategy (see Figure 1). The underlying premise in this approach is to match the firm’s distinctive competencies and resources with the market to create a perfect match between the firm and the external environment and therein develop a sustainable competitive advantage (Miles and Snow 1984).

Figure 1: The traditional strategic management process (Sherman, Rowley and Armandi 2007: 166)

Certainly, some of the concepts that various formal strategic planning processes use have value. For example, SWOT Analysis has one considering the organization’s strengths, weaknesses, opportunities, and threats given the basic goals that one wants to attain (Linn, 2008). This specific analysis of the above factors known as SWOT Analysis—a term that comes from the acronyms of the words Strengths, Weaknesses, Opportunities, and Threats— is regarded as an integral part of the strategic planning procedure, irrespective of its kind (Athanassoula-Reppa et al. 1999). The strong and the weak points of an organization constitute factors of its internal environment while the opportunities and the threats are considered to be parts of its external environment. To be more specific, elements of the internal environment are the school administration, the place, the human resources, the audiovisual teaching means and the school number of students-teachers. On the contrary, factors that represent the external school environment are the general social, political, economic, cultural and technological forces and influences that are imposed in it (Saitis 2007).

The attractions of SWOT Analysis are that this technique is familiar and easily understandable by users and it provides a good structuring device for sorting out ideas about the future and an organisation’s ability to exploit that future. The reason why it has become so widely known is because of its inherent attractions, which are (Percy and Giles 1989):
- The technique is simple enough in concept to be immediately and readily accessible to managers—no computer or management expert is needed.
- The model can be used without extensive corporate or market information systems—but is flexible enough to incorporate these where appropriate.
- SWOT analysis provides us with a device to structure the awkward mixture of quantitative and qualitative information, of familiar and unfamiliar facts, of known and half-known understandings that marks strategic marketing planning.

In its most simplistic form, a SWOT analysis leads to one of four major conclusions (Sherman, Rowley and Armandi 2007):
- Strengths outweigh weaknesses, opportunities outweigh threats—supports a growth strategy.
- Strengths outweigh weaknesses, threats outweigh opportunities—supports a maintenance strategy.
- Weaknesses outweigh strengths, opportunities outweigh threats—supports a harvest strategy.
• Weaknesses outweigh strengths, threats outweigh opportunities – supports a retrenchment strategy.

The basic results of a SWOT analysis can then be included in the organisation’s or firm’s profile and compared to the organisation’s or firm’s characteristics. This profile can then be compared to determine how well the firm is internally aligned as well as aligned with its SWOT analysis (Sherman, Rowley and Aramendi 2006).

3. The establishment of OEEK / IEK in Greece and the potentials of their strategic planning

In 1992 the Law 2009 was published, according to which the Organisation of Vocational Education and Training (OVET; OEEK) and the Institutes of Vocational Training (IVT; IEK) were set up. OEEK was charged with the establishment, organisation and operation of IEKs (Zarifis 2003). The main objective of these institutes was the initial or supplementary training for the improvement of the labour market and its productive process as well as the subsequent entrance of graduate students in it. In that way, IEKs supply students with all the abilities, knowledge and experience that are applicable and considerably necessary for the market in general (Mardas and Valkanos 2002).

The institution of IEKs, however, despite the fact that it constitutes a form of life-long education and training, is not regarded as a separate educational level, since it does not belong to any specific level of the Greek educational system (Saïtis, 2007). On the other hand, however, the control that is exerted from the higher levels of managing hierarchy of the Greek educational system is by far less strict than that exerted to the organisations which belong to the other discreet levels of education, permitting them in that way to display potentials of flexibility, resulting in a substantially higher level of implementation of the strategic planning (Athanassoula-Reppa et al., 1999).

Consequently, the model of SWOT Analysis is of crucial importance for the Institutes of Vocational Training in Greece since, unlike other school units, they appear to be decentralised to a great extent from the higher authority of the Ministry of National Education and Religious Affairs. This fact inevitably leads to the argument that they are given the opportunity to exploit the advantages of strategic planning, as they seem to be in the privileged position to handle matters of either human or material resource management independently.

The SWOT analysis of the state IEK of Epanomi in Thessaloniki

The state institute of vocational training (IEK) in Epanomi is one of those institutes that are located outside the city of Thessaloniki. This fact creates increased responsibilities on behalf of the directors requiring their appropriate targeted steps that will lead to its further growth and development. The proper exploitation of the potentials of SWOT Analysis may offer opportunities towards the direction of a rather higher educational level provision.

Its operation started in 1993 in a building where the Vocational High School of Epanomi operates. For sixteen years this particular IEK offers training mostly to high school graduates. At first, specialties that belonged to the field of informatics and economy-administration were offered. Later on, it was activated in the fields of constructions and mass media production. Nowadays, there are specialties concerning the fields of health-aesthetics-social services and those of engineering-electricity.

In a period of an intense economic recession that a lot of values are in a state of doubt, it is considered interesting enough to examine the perspectives of the IEK of Epanomi for the designation of its future action and direction, taking into account both the strong and the weak points of its internal environment and also the opportunities and the threats of its external one (see Table 1).

The strengths of the IEK of Epanomi

The strongest point that concerns the internal environment of the IEK in Epanomi is related to the existence of the ‘sound and image’ laboratories that it possesses. They were fully equipped in 2001 and during the school year 2001-2002 the first specialties dealing with sound and image were launched. At the end of the year 2007 the new equipment valued at almost three thousand euros was delivered. At the level of quality we could claim that this new equipment, taking for granted the quotes of the technicians who took on its installation, was equivalent to those that well-known music and movie firms afforded. Moving towards this direction, it is important to contemplate that only two state IEKs in Greece –the other one is the IEK of Haidari in Athens- dispose such a high level of equipment. Consequently, it can easily be understood that the IEK of Epanomi is able to offer a great deal of opportunities for high level studies to all those students in Northern Greece interested in specialties related to sound and image. Although these specialties are offered by some private IEKs in Thessaloniki, unfortunately, on the one hand these IEKs do not have equipment of such a high quality level and on the other hand the cost of each semester for a student exceeds by far the amount of the three hundred and sixty seven euros that state students have to pay. Quite indicative towards the status and the domination of IEK of Epanomi is the fact that the certification examinations for the specialties of both sound and image take place twice a year there, including all the IEKs’ graduates, either state or private ones.
Another strong element that marks the IEK of Epanomi is that of the wide area in which it extends. It is the only IEK, including state or private ones, that encases four large municipalities within its boundaries, those of Epanomi, of Mikra, of Thermakos and of Nea Michaniona. Additionally, the next IEK that is closer to it is the one in Thermi at a distance further than ten kilometres. Therefore, the IEK in Epanomi needs to confront and fulfill the needs for education and training of a considerably large number of students, which in fact means that it is expected to support the demands of the inhabitants via the specialties that are offered. The advantage of its easy approach –compared to any other IEK- by all these people who reside in the afore-mentioned municipalities is important and strategic to be utilised as a tool for the attraction of all the candidate students of these regions. The IEK of Epanomi should be considered in any case their first choice in any possible future study process that they may pursue.

The weaknesses of the IEK of Epanomi

The fact that the IEK of Epanomi belongs to the peripheral IEKs –due to its distance from the city of Thessaloniki- constitutes its weakest point as far as its internal environment is concerned. Even though it offers specialties that do not exist in other IEKs in Thessaloniki or in Northern Greece in general, the twenty-kilometre distance from the east end of the city operate quite unappealingly for some candidate students concerning the possibility of choosing this IEK for their future studies. As a result, it is extremely difficult –especially for those students who live or come from the west side of the city- to attend specialties at this IEK. It is likely that some students will get on three buses on their way to the IEK and other three on their way back home. This fact creates negative disposition and attitude towards this IEK on behalf of these students who, even though they are interested in some of the specialties that are offered in Epanomi, do not choose any of them for their studies due to the four-hour trip they have to take only for their transportation. This particular number of hours in combination with the average of five lesson hours a day appears to be a factor which operates against the attraction of students that live downtown or even further. Unfortunately, quite similarly the educators of the IEK in Epanomi face this problematic situation in their attempt to approach this IEK, mostly those who do not travel by car.

Another problem which is regarded as a weak point for the IEK in Epanomi is the fact that most of the transferred civil servants there come from Thessaloniki. These people are very likely to be interested in a transfer at an IEK in the city for the next school year so that they can be closer to the place where they live without having to face the matter of distance. Consequently, a large number of them changes and is replaced by new ones every year, bringing about difficulties to the proper operation of this IEK, especially at the beginning of every school year. Furthermore, the impression created in the mind of some civil servants about their future move to another IEK closer to the place of their interest, makes them express a rather lower level of job commitment without feeling any obligation to show their abilities and work hard in order all the matters that concern that IEK to be arranged properly.

The opportunities of the IEK of Epanomi

There are some opportunities of the external environment of the IEK in Epanomi considering that of the wide housing construction in the region spread in all these municipalities as the most important one. The rapid growth of population leads to a greater demand for new specialties according to the needs that come up in these regions every day. As a result, it is important for the new conditions to be examined and analysed so as to attract students who, after having finished their studies, will be in the advantageous position to staff the small and the middle enterprises not only of these municipalities but also of the other regions that belong to the same prefecture, using their high level of knowledge they acquired during their studies’ period.

Another opportunity for this IEK is the possibility of further exploitation of the ‘music and sound’ laboratories by starting the operation of new specialties such as that of the ‘Electrical Image Operator-Monter’. It is possible that a desirable cooperation with music-image producers can be achieved so as the graduates to be able to find a job after having completed their studies, taking into account that the IEK in Epanomi can offer a high level of education and training because of the fully equipped laboratories that it owns. Music production companies and some local radio and TV stations may build a bridge of communication and cooperation with this IEK, having as their central focus the creation of a high quality provision level of image and sound abilities. Finally, the invitation addressed to other IEKs for cooperation within the wider European area will give it the potential to increase its merit and empower its position.

The threats of the IEK of Epanomi

The largest threat the IEK of Epanomi faces is the fact that it belongs to the peripheral IEKs in the prefecture of Thessaloniki. It is considered to be a less significant one because it is located outside the city. On the contrary, more attention is paid to the operation of the other IEKs inside the city whose demands for new specialties are much easier fulfilled. A larger number of students, educators and administering staff shows factual interest for these IEKs resulting in the more intense level of attention on behalf of the central management of OEEK. Moreover, any possibility for future decrease of interest for training on behalf of the candidate students may lead to the abolition or even amalgamation of some IEKs, placing those outside the city in the zone with the highest level of danger and unsure evolution.

Another important threat is that of transportation inside the city of Thessaloniki, which is expected to get better due to
the imminent completion of the underground construction works. The transportation inside the city will surely become much easier during the next five years, empowering the IEKs that belong to this region and decreasing the impact to a great extent of the peripheral ones. The approach to those IEKs which are situated outside the city will remain a problematic situation for students, educators and staff while the city IEKs will be in the advantageous position to get approached quicker and also more comfortably via an abundance of transportation means. In such a case, the IEKs inside the city will appear to be a much better proposal and convenient solution to all those people who are interested in the technical training field, as the time required to reach them will be significantly reduced.

The IEK in Thermi obviously constitutes an additional form of threat for the one in Epanomi, since it is almost twofold as far as the number of its students and staff is concerned. It is considered as one of the three biggest IEKs in the prefecture of Thessaloniki, imposing a pressure that inevitably turns much of the attention of OEEK on it. It is always a step ahead in the fulfilment of the proposals for new specialties and it is quite usual for its directors to ask for the introduction of specialties that already operate in Epanomi. This matter is regarded in any case harmful for the possibility of attracting students and ‘competing’ new specialties for the IEK in Epanomi. Additionally, we should also take into account the fact that the IEK in Thermi fulfils the needs of plenty of municipalities as well, which seem to have a high level of structuring growth.

Finally, the general problem that nowadays Education in Greece faces is another threat for the IEK in Epanomi. We refer to the increase of the number of the high school students who pass the examinations for entering universities in Greece. The more this particular number of entrants increases, the less is the number of those high school graduates who are interested in the field of technical education and training at IEKs. As a result, no adequate number of candidate students-applicants expresses interest at least for some specialties in the IEK in Epanomi, whereas this specialty is likely to start its operation in another central IEK in the city. This fact leads in the long run to the decrease of the number of specialties in the IEK in Epanomi.

Table 1: The SWOT Analysis of the IEK of Epanomi.

<table>
<thead>
<tr>
<th>Internal Environment</th>
<th>Strong Points</th>
<th>Weak Points</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The existence of the fully equipped 'sound and image' laboratories • The wide area in which it extends</td>
<td>• It belongs to the peripheral IEKs in the prefecture of Thessaloniki • Most of the transferred civil servants there come from the city of Thessaloniki</td>
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<table>
<thead>
<tr>
<th>External Environment</th>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td></td>
<td>• Wide housing construction in the region spread in all these municipalities around this IEK • The possibility of further exploitation of the 'music and sound' laboratories</td>
<td>• The future expression of less interest for IEKs that belong to the peripheral ones in the prefecture of Thessaloniki • Transportation inside the city of Thessaloniki is expected to get better after the imminent completion of the subway construction works • The IEK of Thermi • The increase of the number of the high school students who become university students in Greece</td>
</tr>
</tbody>
</table>

4. Conclusions

As has already been mentioned, strategic planning occurs in the upper levels of hierarchy in an organisation. Unfortunately, things are quite different in Greece concerning the educational units. Greek state schools do not seem to be in the position to conform their own strategy. Thus, they cannot implement strategic goals, for instance, the change in curricula, the gradual decrease of the proportion between a teacher and students, the introduction of the new technologies or maybe of innovative forms in education. These long-term strategic plans are decided in the upper levels of the Greek system’s managerial hierarchy, whereas schools are just required to implement them through a series of administrative processes (Athanassoulα-Reppa et al. 1999).

Therefore, the centralisation that marks the Greek educational system affects straightforwardly the process of programming in schools, while at the same time it provokes consequences to these organisations that supply students with training or further education. However, as far as organisations of vocational training and life-long education are concerned, these limitations appear to be of a minor extent, leaving major possibilities for the
substantial implementation of strategic planning with fewer commitments from the central administration and a frame of autonomy and independence concerning their operation and management and even the strategic goals of the unit in general (Athanassoula-Reppa et al. 1999). The directors of these organisations present increased potentials in the field of strategic planning concerning mostly the matter of organizing both the human and the remainder resources of an organisation, the motivation and coaching - guidance of the staff and also the other procedures of control (Koutouzis 1999).

Inevitably, strong centralized leadership must make a commitment to change. At the same time, a degree of autonomy is necessary for local institutions because quality is as much a result of characteristics unique to each institution as it is a result of centralized policies and procedures (Herschbach 1997). The distinguishing potential that marks the IEKs in terms with which they are capable of offering specialties in accordance with the local or not market needs and on the base of their technological-material substratum and standards constitutes an essential fact that in any case places them in a powerful position against the schools which belong to the first or the second level of the educational system in Greece. What's more, their flexibility and participation not only in matters of economic administration – such as the educators' payroll, the operation expenses and the educational material purchase- but also in matters dealing with human resource management –such as that of hiring teaching staff according to the teaching needs of the existing specialties-increases to a great extent their level of autonomy and freedom, without them being subjected to the extreme pressure of the Greek central authority.

The IEK of Epanomi, in particular, appears to have a significant consignment for the future, as it presents strong points that concern its equipment and place, despite the fact that there exists some difficulty on the students' part in approaching it, which is certainly a discouraging factor both for them but also for the educators and the staff. However, the opportunity of the wide housing structure of the regions which surround this IEK and even the one of the further exploitation of the modern laboratories of 'sound and image' are thought to be exceptionally important factors for their perspective development. There are, on the other hand, some significant threats, which undermine its development and are related to the possible decrease of the future students' expressing interest for vocational training. Furthermore, the visible threat that comes from the completion of the subway works, which is expected during the next five years, will reduce the required time to reach the IEKs inside the city, resulting in the inevitable undermining of the demand for studies in the peripheral IEKs. Finally, the IEK of Thermi constitutes another instance of an imminent threat but the most essential one of all is thought to be the dramatic decrease in the number of candidate students that are interested in the field of vocational training at IEKs, due to the massive entrance in the upper grade of the Greek educational system.

5. Literature


sholikon monadon. Ekdosis Panepistimiou Macedonias, Thessaloniki.


Section 6
Abstracts from
All Contributions
TRANSITION FROM HIGHER EDUCATION TO THE LABOUR MARKET AND EARLY CAREER

Ogata, Naoyuki / Hiroshima University
Competence-Based Approach Reconsidered

Abstract and purpose: Purpose and framework of analysis: The purpose of this research is to consider the role of university education appropriate for the knowledge society by critically reconsidering the existing competence-based approach. Two issues are examined based on the REFLEX survey. Firstly, the rights and wrongs of evaluating university education from the viewpoint of the gap between competence required in the workplace and competence acquired by individual are examined. Secondly, the pros and cons of judging university education from the viewpoint of competence "generally required by companies" are discussed through "happy worker approach".

Elías, Peter and Purcell, Kate / Institute for Employment Research, University of Warwick
Occupational Change and the Expansion of Higher Education in the UK: the Impact on Graduate Earnings

Abstract and purpose: Using data from the UK Labour Force Surveys, we show that the UK labour market has, until 2009 at least, undergone a remarkable degree of occupational restructuring which has maintained a strong demand for highly qualified young people, particularly those with a degree. This has taken place against a background of demographic change which has seen the population of 26 to 35 year olds declining in the UK over the past 14 years.

By examining occupational change through the use of a classification of occupations designed specifically for this purpose, we reveal the extent of growth in a wide variety of occupational areas for young people in this 26 to 35 year age range – the age range where we now observe those who benefited from the rapid expansion in the output of higher education in the UK in the late 1990s. Consistent with the view that the demand for graduates has risen in line with the increased supply, we show that graduates have continued to move into the upper end of the income distribution. This appears to be the case even for the most recent graduates we observe in the labour market – those aged 21 to 25 years in 2007/08. This analysis contrasts sharply with those who claim to have found evidence of 'overeducation' in the UK labour market.

Purcell, Kate & Elías, Peter / University of Warwick
Evidence from UK longitudinal studies on the impact of higher education expansion on equality of opportunity

Abstract and purpose: This paper draws on three main sources: national longitudinal survey and interview data from two cohorts of UK HE graduates who obtained their degrees in 1995 and 1999, and an on-going longitudinal survey tracking 2006 higher education applicants, most of now coming to the end of their third year of study.

The graduate survey data were collected at 3-4 years and 7 years of 1995 and 1999 graduates from 38 UK higher education institutions and a qualitative sub-sample interview follow-up of targeted members of the 1995 sample were also conducted seven and again ten years after graduation. The 2006 HE applicant survey is an independent online census survey, funded by the educational charity HECSU (the Higher Education Careers Services Unit) with the assistance of the national universities application service through which applicants for virtually all full-time courses of undergraduate study must apply (UCAS). At the first sweep over 121,000 students who had gained and accepted places responded, so it has facilitated a robust and detailed analysis of the relationship between variables – subject studied, gender, socio-economic, ethnic, regional and educational backgrounds and career choices and experiences.

Drawing on these data and considering the relevance of Amartya Sen and Martha Nussbaum’s work on the relevance of the development and facilitation of capabilities to understand the persistence of social inequality, we examine the relationship between the expansion of UK HE in the late 20th and early 21st centuries, widening access to higher education and the extent to which it has led to greater equality of opportunity for disadvantaged groups, including, in particular, exploration of the impact on gender inequalities. The paper presents findings that throw light the dynamics of the complexities and heterogeneity of the UK higher education population, the range of subjects studied, the skills and knowledge developed and the career implications and outcomes of these.
Jindal-Snape, Divya & Naulty, Michael / University of Dundee
Effectiveness of Competencies during Transition from Higher Education to Employment: A Case Study of Community Learning and Development (CLD) qualifying training in Scotland

Abstract and purpose: This paper presents the case study of a qualifying programme in Community Learning and Development that uses competences and competencies approach to prepare its students for transition to employment. It also gives insights into the competencies and competences debate. The results suggest that most participants felt that the competency approach was appropriate for professional development and as a preparation for transition to work. However, the current array of competences should be refreshed in light of developments to take into account the growing diversity of CLD practice. Also, participants emphasised that it was important to focus on soft skills (competencies) which indicate the process rather than the outcome driven hard skills (competences) alone, and that more work needs to be done to make them more explicit in the curriculum.

Fachelli Oliva, Sandra Isabel / Universitat Autònoma de Barcelona
Intergenerational mobility in the transition from education to labour market and early career: the case of the university graduates in Catalonia

Abstract and purpose: The Agency for Catalonia University System Quality (AQU) has charged an analysis of the labour insertion of the university graduates students 4 years after having left the university. The survey that was carried out in 2008, pick up information of 12,258 graduated in the academic year 2003/2004 at 7 Catalanian universities. The aspects that are approached are linked with the development of the academic activities, the early labour market’s insertion of graduated in their professional development as well as the origin of their parents related with the occupational position and also the maximum study level.

Vega, María / University Complutense of Madrid
Detailed Reasons and Thorough Analysis Demonstrating why Teachers of English, German, French, and Spanish as Foreign Languages Fail so Dramatically in their Work to Teach any of these Languages

Abstract and purpose: The overall aim of the Paper is to explain in detail, some obvious facts, which in my opinion have not received enough attention in relation to the great failures occurring in the Spanish Educational System, which allows that students whose level of the Foreign Language is low, often, very low, especially concerning their oral skills, or/and insufficiently trained in Foreign Language Teaching become official teachers of French, Italian, English, and German (this is the chronological order in which these languages have been taught from the mid-fifties to presentday).

First, I will thoroughly describe what has been happening since the aforementioned date to 2009 in relation to prepare future teachers of Foreign Languages. The reasons which produced the awkward situations presented in the Paper; the process followed by the different kinds of schools in Spain, which is abysmal; and finally, the consequences that the methods and procedures followed by our Educational System provoked in: a) the learners; b) the teachers themselves; and c) in our society.

Second, I will make an introspection into what factors interweave making the pedagogical work of teaching a Foreign Language SUCCEED or FAIL; and as a natural and obvious consequence, why we still encounter (I have belonged for 20 years to the Pre-university Foreign Language Evaluating Committee) tremendously low levels of competence, proficiency and use of each of the four previously alluded to languages.

Robert, Peter / TARKI
Country Patterns of Labour Market Entry and Early Career

Abstract and purpose: The paper intends to find similarities and differences among 18 countries of the REFLEX and HEGESCO projects with respect to the labour market entry and early career process. Based on how close to each other or how far from each other these countries are, they will be grouped into clusters and the country types will be characterized by the typical features of labour market entry and early career of the graduates. The following features are considered in the analysis in order to develop a general typology of the 18 countries: easiness and fastness of labour market entry; match between qualification and current occupation; mobility out of first employment and unemployment experiences.
Following the existing literature, two mechanisms for grouping the 18 countries can serve as basis for conceptual predictions: the connection between the educational system and the labour market as well as the employment protection legislation. These approaches have been applied and tested earlier for broader circles of labour market entrants. The paper discusses these issues for the graduate labour market. Methodologically, the statistical procedure of cluster analysis will be used. The main challenge is to link the empirical findings to the conceptual predictions.

Choosing the best cluster solutions is affected by the number of cases (18 nations) and by consideration for interpretations. The paper provides confirmation of the OLM – ILM distinction as well as to the relevance of the stronger or weaker EPL for the specific graduate labour market. Based on the typology derived from indicators on labour market entry and early career, the analysis reveals graduates’ situation to be the most flexible and vulnerable in Spain and Turkey, while labour market entry and early career seem to be the most favourable for graduates in Norway, Finland, the Netherlands and Estonia.

Inta Jaunzeme / University of Latvia

Graduates’ Early Career During Rapid Economical Growth in Latvia

Abstract and purpose: Changing business environment, development of information technologies and globalization create new conditions for graduates’ transition from education to labour market and their early career. The aims of the paper are to analyse the university graduates’ career pathway and to evaluate whether their chosen career corresponds to their qualification. Thesis report the main findings of a sample survey of early careers of university graduates between 2003/2006 during Latvia’s rapid economical growth.

The analysis is based on interviews, focus group discussions and data from the national sample survey “Professional Activities of Graduates of Higher and Vocational Education Institutions after Graduation” (N=2491), which was carried out from 2005 to 2007. Another survey was carried out among the graduates of the University of Latvia with the goal of investigating the influence of the economical crisis on graduates’ early career plans (N=2141) in 2009.

Results showed that previous job experience, level of education and student support activities were elements that promoted successful transition from the education system to labour market and successful employment, which matched the acquired qualification. Current economical crisis will increase competition among graduates; therefore educational institutions will be required to improve student support in order to enhance employability of the graduates.

Shevchuk, Viktor, Joanna Zyra & Zyra, Leszek / Cracow University of Technology

Comparative Analysis of Employers’ Competence Expectations and the Competence Taught in Poland (on the Example of Technological Universities

Abstract and purpose: Based on the Poland’s HEGESCO survey, it is established that about 80% of technical university graduates work in line with their study programmes. Assuming a 3 to 5 year period for acquiring professionalism in a job place, it suggests that universities should cooperate closely with employers in order to meet the adopted development objectives in a given industry. Although technical university graduates are characterized by higher income (by 20% on the average), which would suggest that the demand for engineering and technical competences exceeds the supply, no increase in employers’ activities to attract the best graduates has been observed. Still the best way to get a job is individual effort to initiate contacts with a prospective employer, social networks and the Internet.

Pukelis, Kestutis & Pleicikiene, Nora / Vytautas Magnus University

Matching of General Competencies with Labour Market Needs: Important Factor of Quality of Study Programmes

Abstract and purpose: Employment of graduates is reflected as one of the most important factors for the quality of tertiary education. Relevant learning outcomes of curriculum are the link relating higher education with the labour market needs. The aim of paper is to analyse the issue of how curriculum of Lithuanian higher education institutions provide graduates with generic competencies. The mismatch of generic competencies of Lithuanian graduates (N=1021) with the labour market needs was researched under the Erasmus programme project “Higher Education as a Generator of Strategic Competencies” (HEGESCO, No.133838-LP1-2007-SI-ERASMUS-EMHE) in 2008.

To Lithuanian graduates opinion, their mismatch of generic competencies is evident in competencies defined in the categories of functional flexibility and mobilisation of human resources. Over-developed competencies are considered to be in
international orientation of graduates. The task for higher education institutions is to offer innovative curriculum designed for the needs of labour market. This research provided with the data necessary for improvement of quality of study programmes in Lithuanian higher education institutions.

Drášar, Pavel B. / ECTN, c/o ICT Prague

Quality Labels and Employability in Chemistry

Abstract and purpose: Research on employability of chemistry bachelor graduates in Europe showed this "new" category as fully employable in some European countries and unemployable in others. Quality labels as EuroBachelor, EuroMaster, and European Chemist could play very important role in employability of young people on shared open European job market. Research results and label description will be presented and discussed.
HIGHER EDUCATION AND THE SUPPLY OF COMPETENCIES

Podmen`k, Darka / Institute for strategic and developmental analyses - IRSA, Ljubljana, Slovenia
Investments in occupational career as the influencing factor in finding a proper job

Abstract and purpose: Currently the share of highly educated first time job seekers is on the rise across the EU and in individual study fields such as humanities, art, social sciences, there are too many overqualified people on the labour market. A share of university graduates are joining the hordes of the unemployed (approximately 10%, varies throughout the different EU countries), and part of them are unable of finding work suitable to their education (approximately 30%). In certain aspects the Slovene youth labour market more and more resembles the labour markets in other EU countries. In this paper we mainly focus on adjustments made to the market demands and the response of the young graduated job seekers and their investments in extracurricular knowledge and skills, necessary to match a proper job.

Sagmeister, Gunhild / Klagenfurt University
Life in balance - reality for higher education graduates?

Abstract and purpose: The main question of this paper is the importance of life-balance for university graduates and how they are able to realize their expectations in different working situations. The main challenges for employees are changing working conditions and the requirement of being flexible and mobile, just in a time period where family time should be available, if there is/was not a decision against family/children before. The statistical data show that this effect is noticeable, especially for more highly educated women.

The progressive dissolution of the separation between work and life very often results in a requirement of individual problem solving – employers expect best working results at all times.

Further questions are: Is this only a female problem? What are the differences between large and small enterprises, different sectors, global or local players? Are self-employed graduates in a better position to balance their life?

The purpose of the presentation is to show the different expectations of graduates regarding work-life-balance on the one hand and the differences in realizing them in diverse working situations, comparing two countries: Austria and Italy. The main methodological basis is factor analysis.

Brennan, John & Little, Brenda / Centre for Higher Education Research and Information, the Open University
Graduate competences and relationships with the labour market: the UK case

Abstract and purpose: The paper compares the early employment experiences of graduates from the shorter UK bachelors degree with those from the somewhat longer masters programmes to be found in continental Europe. The UK graduates appear to be less prepared for entry to employment and to find their degrees to be less appropriate to that employment. However, many of the differences between UK and other European graduates in the labour market have largely disappeared five years after graduation. And there are many similarities in the perceptions of graduates from different countries about the competences required by employers. The paper sets these differences and similarities within the context of the different higher education and labour market traditions of the UK and the rest of Europe and raises questions about the consequences of greater labour mobility across Europe and the Bologna harmonisation of qualification structures.

Saginova, Olga / Plekhanov Graduate School
Enhancing students' satisfaction with their university experience during HE transition to a two-level system

Abstract and purpose: Transition of HE to a two-level system creates additional challenges for a university: marketing its programs, ensuring graduates employability after each level, ensuring degrees recognition by the labour market, teaching students with different educational backgrounds in one group, etc. The paper analyses these challenges and their impact on students' satisfaction with their university experience based on a series of research projects carried out between 2007 and 2009.
The paper provides some ideas on satisfaction enhancement through course content, teaching methods and study process administration.

Wincencial, Leszek / University of Warsaw
Graduates' characteristics and labour market entry - Polish experience

Abstract and purpose: I this study I concentrate on graduates characteristics and labour market entry chances. The research question is to what extent labour market entry success is affected by graduates' characteristics and how different groups of graduates differ in chances of finding a job. The study of chances of young people in entering the labour market is important for a number of reasons. It is important from the point of view of education policy and its success in matching labour demand with labour supply. It is also important from the point of view of the human capital formation and long run macroeconomic performance of the economy. Successful entry into labour market reduces the problem of human capital depreciation and results in more flexibility in the labour market. The analysis reveals that demographic variables, marital status, age, level of education, various measures of human capital as well as social capital characteristics play important role in determining the chance of finding first job for a graduate. Groups of graduates with higher chances are: men, graduates with tertiary education, graduates living in larger cities, with high levels of various measures of human and social capital characteristics. There are also interesting regional disparities as well as important role of a business cycle.

Ulusoy, Hatice / University of Cumhuriyet
Oztürk Nezaket / University Akdeniz
Baccalaureate and Masters' Degree Nursing Students' Levels of Critical Thinking and Factors Influencing Critical Thinking

Abstract and purpose: Although the importance of critical thinking skills in nursing is increasingly being recognized worldwide, there are only a limited number of research reports on this subject in nursing in Turkey. The aim of this descriptive study was to determine the level of critical thinking and the factors that affect level of critical thinking of nursing students. All the students, registered to a nursing school, were invited but in total 312 baccalaureates and 22 master's degree students accepted to participate. The response rate was 84.7 %. The research data were collected with two tools, a “Personal Information Form” and the “California Critical Thinking Disposition Inventory”. The students' CCTDI total mean score was X=230.36. It was determined that as age, grade point average on transcript and class increased the levels of critical thinking were increased. In addition those who had lived in a city or metropolitan city prior to coming to university and those with nursing experience were found to have higher levels of critical thinking than the others (p<0.05). The students' CCTDI total mean score was found to be low. Based on the findings obtained in the research it is recommended that students' critical thinking skills should be enhanced during their nursing education.

Zadel, Aleksander, Skrt, Iris, Cerinšek, Gregor & Poglaiaen, Manca / KCUL (Career Centre of the University of Ljubljana)
Mission, objectives and activities of the of Slovene University career centres

Abstract and purpose: Three main Slovene Universities (University of Ljubljana, University of Primorska and University of Maribor) have established and developed a joint consortium of University career centres. The unified system of university career centres enables the effective transfer of information, the exchange of knowledge, competences and best practices.

The article presents briefly the consortium which was established by the three universities in the field of lifelong career guidance. It describes the proposal of consortium for a joint concept of university career centres and, in more detail, one of the tools the centres plan to develop together, the so-called “Competence Portfolio”.

Papadimitriou, Antigoni & Mardas, Dimitris
Developing synergetic relationships with the market: The design, implementation, and evaluation of an internship program for students in a Department of Economics from a Greek public university

Abstract and purpose: Internship programs function as a bridge of the “classroom” to “action”. The participation of students and market stakeholders in such programs creates a “win-win” synergy, in order to create interactive relationships, which
introduce new concepts as vehicles for thought and a more systematic way of approaching relational issues between students and market stakeholders. The aim of this paper is to present the design, implementation, and the evaluation of a Synergetic Internship Program (SIP) for students in a Department of Economics (2005-2007). The evaluation process consisted of the opinion of more than 200 participants students, market stakeholders (110 employers), and 15 faculty professors and staff participated in this project. Data collected by using questionnaires with qualitative and quantitative criteria. This paper used mixed methodological analysis. SIP was also developed to function as a research tool of specialized knowledge in the labor market. Evidence from students, faculty and employers gave us a positive picture. Our program run well and students perceived that gain extra knowledge to close the gap between theory and praxis. The style of supervision (faculty-students-employers) that we followed during the entire SIP placement demonstrated that was beneficial in order to deal with individual problems.

Ana Julia Bozo de Carmona, María Cristina Parra Sandóval & Alicia Inciarte González / Universidad del Zulia
Higher Education and the Development of Complex Competencies: New Paths

Abstract and purpose: Professional formation in Venezuela follows to a large extent a discipline-centered higher education (HE) model that is divorced from reality. This condition hinders the development of complex professional competencies and the performance assessment necessary to overcome developing problems through integral formation processes. This paper aims to disclose two emerging modes of academic formation within some Venezuelan public universities which seek to subvert this educational deficiency. First, the inclusion in curricula of a project innovatively designed to join together contextual problems, formation, and research; and second, National Formation Programs that address priority fields of development while bearing an interdisciplinary, contextualized, and cooperative approach. Both innovations embody the development of complex professional competencies and demand permanent performance assessment throughout formation processes.

The project conceived as such liaison represents firstly a triggering axis of integration between formative research, community problems and efforts towards their resolution. Secondly, it is also a proposal-oriented strategy which translates into an organized manifestation of tasks and practices that include learning, reflecting, and performing (in formal and non-formal contexts) while it leads to social transformation. The project covers from beginning to end of the formation process, fulfilling work phases that comprise academic and popular knowledge. Besides academic actors, community members interact as well in a dialogue that fosters experience and learning. Such interaction allows the continued monitoring of complex competence development which is made visible when formation is in close contact with reality.

National Formation Programs lead to Higher Education (HE) degrees, certificates, or graduation that are responsive to key factors for national development; they are designed and executed in collaboration with official HE institutions throughout the country; they have a common and flexible curricular structure -given that it adapts itself to the changing demands of specific environments and the potentialities of each institution. National Formation Programs facilitate the mobility of students and professors as well as the production, distribution, and mutual use of educational resources.

The applied methodology focused on case studies which feature four national universities that are representative of the national HE model. The research developed qualitative techniques (content analysis, and interviews) that lead to the theorization of an efficient model that enabled the recognition of several innovative modes in education.

Juraj Švec, Tibor Šagát & Jan Štencl / Slovak Medical University
Postsecondary Professional Education, the Bologna Process and the Market Needs in Sectoral Professions

Abstract and purpose: The higher education qualification framework based on the Bologna three cycle studies has some limitations in the s.c. regulated professions. In more than 800 professions covered by EU legislation additional postsecondary professional qualification is needed. In general, EU Directives distinguish between seven sectoral professions (medicine, dentistry, nursing, midwifery, veterinary surgery, pharmacy, architecture), transitional professions (where length of experience rather than formal qualification is the factor of importance) and a general system of other regulated professions (free decision on recognition).

The postsecondary professional education in sectoral professions is provided by universities or university-related higher education institutions in form of specialization studies with theoretical and practical part and given length of duration. The studies are terminated by a state examination. The graduates are provided with diploma, certification, and other evidences of formal qualification. Although these documents providing graduates with the right to exercise their profession Europawide are
mutually recognized by State authorities in all EU Member States, three basic questions are still open when the definition of specialisation studies in sectoral professions is concerned, namely:

- do specialisation studies in sectoral professions belong to the framework of formal higher education?
- how can sectoral Directives and the qualification framework in sectoral professions be aligned under the construction in the Bologna process?
- how far is the labour market and workforce mobility influenced by existing confusions especially in the case of health care professionals.

The need of an exact definition of postsecondary specialisation studies in sectoral professions in regard to European and national legislation and their integration into the framework of the Bologna process in relation of health care staff mobility is discussed.
DEVELOPMENT OF COMPETENCIES AT WORK

Pinnington, Ashly / The British University In Dubai
Sommerlad, Hilary / Leeds Metropolitan University

Competence Development and Participation in Transient Knowledge Communities

Abstract and purpose: Organisations and communities that have a high turnover of people flowing inwards and outwards, it is proposed, can be seen as transient knowledge communities or sub-groups. In these social contexts, the collective stock of embodied knowledge is continually changing, which raises issues for politicians, employers, employees and consumers in relation to how individuals’ competencies should be developed and how collective knowledge can best be maintained.

In this paper we consider the careers of a group of junior knowledge workers working in a large law firm. We conceptualise their professional competence and competence development through an existential ontological conceptualisation using a qualitative interpretive research methodology. We report the findings from interviews with lawyers in the Planning and Environment area of specialisation concentrating on employees’ perspectives.

Our interpretation of these research studies is that competence development requires successful identification of viable and relatively enduring expertise. Moreover, competent performance in current work practices and high performance is likely to include frequent maintenance and search for comparatively unique occupational or task-based niches. Such niches for competence and development are resource rich environments possessing, for varying periods of time, internal and external labour market value.

We conclude that policy makers, practitioners, and academic researchers all have roles to play in assisting people to reflect on their existing expertise, assess current work practices, and develop and pursue strategies for career and competence development.

Grotkowska, Gabriela / University of Warsaw

Graduates’ qualifications and quality of jobs

Abstract and purpose: Recent studies on labour market performance in Poland document growing differences in jobs’ characteristics between young people (labour market entrants) and older workers. The aim of this working paper is to assess the impact of graduates’ qualifications (in terms of education level, field of education, additional skills and qualifications, school’s characteristics, in-school work experience etc.) on a quality of undertaken jobs. The quality of posts is characterised by the relative wage level, employment status, time of work, work conditions, career prospects etc. After a LFS-based brief discussion of differences in employment characteristics between younger and older cohorts, the 2007 Graduates’ Survey data is used to construct a synthetic job quality index. Then a regression analysis is carried out in order to find determinants of job quality and assess for a role of education-related characteristics: education level, participation in education activity after graduation and benefiting from school-based activities aimed at building future professional career have resulted to be of major importance.

Tijdens, Kea / AIAS, University of Amsterdam

Measuring occupations in worldwide web-surveys

Abstract and purpose: This paper summarizes the design principles underlying the WISCO Database of Occupations for the measurement of occupations in multi-country web-surveys by means of self-identification. It is discussed why the Database has been designed, and its source list, search tree and translations. The Database holds almost 1,600 occupational titles. Using a wide variety of sources, the list of occupational titles has been compiled as part of the FP6 funded EurOccupations project. It is explained how the Database deals with issues such as skill levels, corporate hierarchies, job ladders, managerial and supervisory occupations, craft versus manufacturing occupations, composite occupations and the methods used for translations. Finally, the paper sketches briefly how the database is used in the worldwide WageIndicator web-survey. For more information see: www.eurooccupations.org or www.wageindicator.org,
Hall, Matthew, Higson, Helen & Bullivant, Nicola / Aston Business School, Aston University

The role of the undergraduate work placement in developing employment competencies: Results from a 5 year study of employers

Abstract and purpose: There is increasing research interest into the nature of competences required to secure a graduate job. This paper examines the role of the undergraduate work placement in developing such employment competences. In order to do this we draw upon a framework of generic competences developed in a previous project by one of the authors, together with data on how these competences are valued by graduates and employers. We also draw upon a survey of employers and students who have participated in an Aston Business School work placement. The work placement year is an integral feature of Aston’s undergraduate business programme and gives up to 600 students a year the experience of working with well known companies. For the past five years we have conducted a survey of these companies to assess their experience of employing our undergraduates on work placements and to examine the skills and competencies developed by students in the learning process. In this paper we compare data from both pieces of research to examine how competences developed during the undergraduate work placement contribute to the enhancement of graduate employment.

Tan, Oon Seng / Nanyang Technological University

Developing Capacity for New Competencies: Use of Problem-based Innovation in Singapore

Abstract and purpose: The onset of a flu pandemic, unprecedented scale of environmental disasters, terrorism and complex political and social-economic problems all point to the need for education and the world of work to prepare citizens for a rapidly changing and sophisticated world. The ability to learn when plunged into an unfamiliar situation and to adapt positively to rapidly changing demands is a reality for every worker today. People not only need to learn to confront problems as a matter of necessity but also to develop a positive mindset of observation and taking on “problems” as a matter of inquisitiveness to improve and invent processes and products.

New competencies especially those pertaining to problem-solving acumen is developed through experience, immersion and intelligent observation. Problem solving in real world contexts involves multiple perspectives and multiple ways of knowing and multi-disciplinary learning. Knowledge in this new economy is also increasingly characterized by the creative integration of information and learning from diverse disciplines. The pace of change in the 21st century calls for the increasing ability to cope with change and to adapt. The problems confronting the world and individuals will come with increasing rapidity, complexity and diversity. Corollaries include (i) problems of increasing quantity and difficulty, (ii) newer problems and shorter time frame for solutions, (iii) more global (larger-scale) problems requiring integrated solutions.

Education needs to address the challenge of preparing the young to function in changing and new environments. It is often too easy to get locked into paradigms and perspectives. I think one of the most important things today is the ability to gain different perspectives, develop multi-viewpoints, be aware of different worldviews and paradigms and different ways of reasoning and thinking so that we can highly flexible in our thinking in new environments. Education is about equipping people with the cognitive and socio-emotional skills to be highly adaptable in fast-changing environments. In science and technology, it is now well recognized that multi-disciplinary pursuits are essential for the advancement of knowledge and applications. Examples can be seen in areas such as biotechnology, telecommunications, material science, nanotechnology, and supercomputers. In industries and businesses, innovative advances are made often without the benefit of traditional paradigms of learning. The real world thrives on both evolutionary and revolutionary innovations. What is often lacking in education today is the effective use of inquiry and problem-based learning approaches.

In Singapore one of the most important things in education and training is to innovate learning so that people develop the ability to gain different perspectives, develop multi-viewpoints, be aware of different worldviews and paradigms and different ways of reasoning and thinking so that they can highly flexible in their thinking in new environments.

(PBL) is an active-learning and learner-centered approach where unstructured problems are used as the starting point and anchor for the inquiry and learning process. By attempting to solve the problem, learners are engaged in a structured process of conducting research, integrating theory and practice, followed by the application of their knowledge and skills into developing a viable solution to the problem. In recent years, PBL has gained new momentum as a result of several developments such as (i) increasing demand for bridging the gap between theory and practice, (ii) information accessibility and knowledge explosion, (iii) new possibilities in the use of multidisciplinary problems, (iv) emphasis on real-world competencies, and (v) developments in learning, psychology, and pedagogy.
In this presentation, the author who won the prestigious “The Enterprise Challenge (TEC) Innovator Award” from the Prime Minister’s Office will share on how his ideas, concepts and implementation models of a problem-based curriculum that has innovated curricula in polytechnic education, teacher education and development of future schools in Singapore.

Yaeda, Jun / University of Tsukuba
Divya Jindal-Snape / University of Dundee
**Transition from postsecondary school to work place for students with disabilities in Japan**

**Abstract and purpose:** While more than 95% of Japanese college graduate students obtained employment in 2008, it is not the case for students with disabilities. One of the reasons is that only 3% of them obtained postsecondary education and then 63% went to welfare facilities. Once they transfer themselves to those welfare facilities, 98% stay there and do not get employed.

Japanese government has been struggling to reduce the institutionalization rate and increase the employment rate, using supported employment technique. So far, with the help of job coaches and a recent "exempted subsidiary small company" system, it seems successful in terms of reaching to the mandatory employment rate of 1.8% for private companies hiring more than 56 employees without disabilities. However, their wage is not at all satisfactory. The minimum wage requirement is 703 Japanese yen per hour, which is about U.S. $6, and many workers with disabilities do not work full time. Their monthly wage is not enough to live independently in an apartment. Instead of living independently in the community, they tend to live with their parents. For those with disabilities, obtaining postsecondary education is one of the surest ways to get a decent work and earn well above minimum wage...

Vilma, Tuutiene / Siauliai University
**The development of career competencies in the University**

**Abstract and purpose:** The purpose of the presentation is to discuss social and economical transformations of society and their influence the formation of modern approach to the career managing and to present case study how the University could deal with those challenges by implementing Service Learning following the lead of the EU funded project KOOPERIA of Siauliai University.

The presentation is divided in two parts. The first part contains the discussion on conceptions of career and career competences and their importance in the contemporary labor market, the significance of creating possibilities to develop career competencies in different stages of preparation for the labor market. The increasing market influence that gives universities impetus to render a range of more diverse intellectual services has been recently observed in higher education. So the creating possibilities to develop career management competencies are the way for University to correspond to new challenges.

The second part reveals the case study on possibilities for career competence development in the Siauliai University by the implementing of Service Learning. The results and outcomes of the EU funded project, leading by Career centre are presenting. By implementing this method University create wide scale of opportunities for students to develop their career management competencies.

Slwa, Anna / Wroclaw University of Economics
**Functions of In-Company Language Courses**

**Abstract and purpose:** In-company language courses are an instrument used by firms for more purposes than simply improving the skills of employees. They can be a component of the social package, administered at the discretion of employees themselves, in preference over season tickets to the gym or a series of spa treatments. They can be a means of retaining good employees, who agree to remain in the company for a specified period of time in return for such investment. They could be an internal marketing tool included in company mission – the company that cares for its employee’s lifelong learning will easily be seen a Socially Responsible Corporation. Language courses benefit both parties as they tend to be relatively cheaper than professional training.
Foote, Kenneth E. / Department Of Geography, University Of Colorado At Boulder, Boulder, USA
Solem, Michael N. / Association Of American Geographers, Washington, De, USA
Monk, Janice J. / School Of Geographical Sciences And Urban Planning, University Of Arizona, USA

**Development of geographic competencies for careers in higher education, business, government, and non-profit organizations**

**Abstract and purpose:** This paper focuses on the projects and strategies developed by the Association of American Geographers since 2002 to build and sustain a disciplinary infrastructure for enhancing academic practice and supporting new professionals. We provide an outline of this broader, discipline-wide effort, but our focus is mainly on the development of practical resources for graduate curricula and professional development programs. Our point is to illustrate how similar resources might be created in other disciplines.

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Netteland, Grete / Sogn og Fjordane University College

**E-Learning for Change: Competence Development in Work Organizations**

**Abstract and purpose:** The literature on workplace e-learning recommends in general a standardized implementation process, where the same type of implementation approach is used in all parts of the company. My findings contradict the previous research. This presentation suggests that large, multilevel organizations with different types of work and learning traditions need to adopt a differentiated implementation process that takes the unique characteristics of organizational units into account. Based on a case study of a large-scale, enterprise-wide, and standardized implementation of e-learning in a large telecommunications company that was carried out as part of my doctoral research, I explore the bottlenecks associated with different work contexts.

By addressing how the standardized implementation model was adjusted in the different parts of the company and aligned with various work types, external challenges and internal learning traditions, the paper focuses on how e-learning should be introduced to support necessary competence development and organizational change. The presentation also underlines the importance of an implementation coordinator capable of pushing e-learning and adapting it to local needs.

Using the Theory of Development of Production’s five typologies of work as a conceptual framework for the analysis, the paper focuses on how the critical problems that were identified during the four year study of this implementation can be related to the large span in work and learning in the various units of the company. The findings provide new insight into the importance of contextual knowledge when implementing e-learning in a corporate setting. By exploring the problems not only from the current workplace e-learning tradition, but also inspired by the Theory of the development of production, the paper aims to make a contribution to the literature on e-learning implementations in large and multifaceted organizations.

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Leoní, Riccardo / University of Bergamo

**Informal Learning and Development of Key Competencies in Workplaces**

**Abstract and purpose:** Nobel Prize-winning economist J. J. Heckman has tackled repeatedly the economics of learning and training over the past few years (Heckman, 2000; Heckman, Lochner and Taber, 1998; Heckman, Lochner and Todd, 2003). In reviewing the international literature, both theoretical and empirical, he came to the conclusion that: (i) training is a dynamic process; (ii) skill begets skill, which is tantamount to recognizing a form of path dependence in the construction of competencies, and most of all, (iii) ‘much learning takes places outside of schools: post-school learning is an important source of skill formation that accounts for as much as one third to one half of all skill formation in a modern economy (this estimate is made in Heckman, Lochner e Taber, 1998)’ (Heckman, 2000, p.5).

The objective of this paper is to investigate the role played by the organizational design of workplaces in improving (out of school) the level of the skills acted out or expressed by workers. Special attention will be paid to the so-called transversal (or key) skills, which are considered in the debate on life-long learning as applicable to all workplaces, regardless of industry and company size...
Cernigoj-Sadar, Nevenka / University of Ljubljana
Societal and Organisational Contexts of Women’s Careers

Abstract and Purpose: Globalisation, demographic and labour market changes and the development of new technologies have completely changed the structure and functioning of organisations as well as the workforce expectations. New career conceptualisation is based on continuous organizational changes and changes in private life that means also multiple commitments related to various roles and as a consequence creation of multiple careers. Careers unfold in multilayered context and over the life course (Moen and Sweet, 2004). In spite of growing intensification of work, for young generations the endeavours for balancing work and private life are as important as meaningful work and development of employability. The role of individual and the organisation in managing professional careers are of equal importance. In the paper we shall explore the impact of child birth upon work careers of women and the role of organisations in developing women’s career regarding the options for balancing work and family life. The analysis is based on recent comparative qualitative and quantitative studies about young parents in Slovenia (Cernigoj Sadar and Kersnik 2004, Kanjuo Mrčela and Cernigoj Sadar 2007). Special attention is paid to family friendly measures introduced in 32 organisations in Slovenia to ease work and out of work life balancing. These measures are evaluated in terms of their long-term impacts upon the women’s positions in organisations and the work conditions for developing parents’/women’s careers.

Lans, Thomas & Mulder, Martin / Wageningen University, Education- and Competence Studies
Competence, empirical insights from a small-business perspective

Abstract and Purpose: During the last decade the issue of competence has been received with enthusiasm as well critical stance among researchers and practitioners. The ongoing debate has resulted in new notions of competence which can be seen as the continuous search for more comprehensive conceptualisations of competence in order to contrast them clearly with the disintegrative and reductionist models of competence popular in the nineteen eighties. One strategy in this regard is to adopt a multi-method orientation to competence. Multi-method approaches are differentiated from classical competence approaches in the sense that they not only incorporate general worker attributes but also develop a more fine-grained analysis of actual work activities, work context and related organizational goals and strategies. This paper summarizes the findings of three empirical studies in which a multi-method approach to competence was used to study entrepreneurial competence in small firms. The results show that even though competencies are partly idiosyncratic, situated, constructs, it is possible to formulate stepping stones for competence (i.e. competence domains). Furthermore, a more fine-grained analysis of a specific task and associated situations can assist researchers as well as practitioners with disentangling the complex relationships between competence and (small-business) performance.

Lekoko, Rebecca & Busang, Christopher / Department of Adult Education, University of Botswana
Debunking the Isolation Of School-Work Connect: UB Learning and Teaching Policy as Frame for Debate

Abstract and Purpose: Higher institutions of learning no longer measure successes of their teaching and learning in statistics or percentages only. They are now compelled to use measures such as the absorptive rate of graduates into the labour market and multi-skilling as a window to a number of life opportunities including self-employment. To achieve this connection of schoolwork, some basic principles apply. The University of Botswana (UB) learning and teaching policy and its six strategic priority areas are presented as ideal principles. These principles are not a panacea for connecting school to work but are presented as a framework for discussing the possibilities of making this connection effective. The institution is committed to the merits arising from an alignment between the learning and teaching policy and the strategic direction pursued in the institution’s 2009-2016 Strategy for Excellence. Guiding activities to realize the much needed convergence between policy frameworks and action relate to the challenge of what operational strategies and where possible, set of standards, can ensure institutional effectiveness and quality. Questions such as ‘In which ways can the institution put in place curricula that integrate learning in classrooms with learning through experiences in workplaces and communities?’ are to be asked.

Biesalski, Ernst & Sailer, Jana / EnBW AG, Karlsruhe, Germany
ENBW Trainee Programme and Skill Management

Abstract: The article describes the integration of skill management into the EnBW trainee programme in the context of Germany’s third largest utility company.
QUALIFICATIONS SYSTEMS AND METHODOLOGIES

Van Loo, Jasper / Cedefop
Supporting skill measurement through innovative skill mismatch research

Abstract and purpose: Skill mismatch has become a growing concern for policy-makers as it is increasingly recognised that up-to-date skills addressing labour market needs are crucial for European economies and that skill mismatch imposes real economic and social costs. In response to EU Member States' needs, the European Commission launched the 'new skills for new jobs' initiative, which supports the capacities for proactive action and anticipation to be better prepared for future challenges. Research on aspects of skill mismatch and its implications has increased during the last decades, but there is not yet a common understanding and agreement on what future research is most promising from a policy viewpoint. This paper attempts to provide some guidance by outlining five policy-relevant research priorities for future research on skill mismatch.

Francesca Sgobbi / DIMI, University of Brescia
Fátima Suleman / ISCTE, Lisbon
A methodological contribution to the measurement of skill (mis)match

Abstract and purpose: Researchers have long expressed their discontent with the existing measures of skill mismatch, such as levels of performance, years of education or educational qualifications. This paper argues that traditional measures cannot fully capture the essence of an inherently multi-dimensional concept such as skill mismatch. An empirical job-based methodology is proposed, which classifies the types of skill (mis)match based on performance provided in core skills and supplementary skills. The proposed methodology is tested on a sample of 600 Portuguese retail bankers. The results support the job-specific nature of skills and the significant impact of skill mismatch on earnings.

Ogawa, Keiichi / Graduate School of International Cooperation Studies, Kobe University
Tansel, Aysit / Middle East Technical University
School to Work Transition in Turkish Labor Market

Abstract and purpose: This study considers subjective evaluation of the school to work transition in the Turkish labor market using a special module of the 1997 Household Labor Force Survey. We use vocational high school and university graduates' self-assessment of their education in two dimensions. They are asked to assess the extent to which their education is related to their current job and enhanced their productivity in their job. The analysis is carried out for men and women separately. Further, the analysis is extended to the graduates of various types of vocational high schools.

Komljanc, Natalija / The National Education Institute Slovenia
Innovative modernization of Curriculum in Slovenia

Abstract and purpose: Knowledge is the primary source for social progress. Progress has driven a shift from manual work to “thinking” jobs. Classical curriculum for lifelong education is lagging behind. Still dominant educational paradigm focused on what students know should be improved by focusing on their competences. We need to restructure the school curriculum to reflect forms of learning which develop creative ability. The innovative way of modernizing schooling starts from “bottom up” and is getting closer with the one from “top down”. The fusion of both ways of modernization does not bring only school practice closer to the legislation and theory but to the economy as well, namely when school solutions turn out as worthy innovations for everyday life. The innovative projects in Slovenian schools show a strong tendency to replace classical curriculum by innovative one. The needs and contents of modernization show that each project team creates a more efficient pedagogical communication. Thus, we find that more and more practitioners are aware of three pedagogical challenges: open and flexible curriculum, innovative forms of bringing a student and a teacher closer with the social learning group and innovative learning and teaching where school develops prior knowledge by planning a personal curriculum.
Gellert, Franz Josef / Hanze University of Applied Sciences Groningen, International Business School, Groningen, The Netherlands
Schalk, René / Tilburg University, Faculty of Social and Behavioral Sciences, Human Resource Studies, The Netherlands

Nomadic Work-Challenging Students

Abstract and purpose: In the context of the recent financial crises, the concept and the definition of nomadic work has to be redefined. Many workers are being laid off and new organizational redesigns have taken place or are in the planning phase. Nomadic work with its variety of applications can be seen both from employers’ and (prospect) employees’ point of view as an opportunity to reduce the tension between employers’ needs/offers and employees’ needs/offers. It is vital for organizations to get well educated students who can deal with nomadic work.

Studies were conducted in several countries (Germany, the Netherlands, Uganda, UK and Israel) by using multiple methods. Questionnaires and interviews were distributed to managers, workers, and students to explore preferences for nomad work and experiences with nomad work. Responses were obtained from 175 students, 145 organizations and 171 “nomad workers”.

Results indicate that students prefer autonomy in their work above nomadic work. A preference for nomadic work determines their choice for the kind of organization they want to be employed with. Findings also revealed that Work-Life Balance (WLB) management was a major concern of nomad workers although many of them reported having a good balance of nomadic work and family requests. Country-specific differences with respect to nomadic work(ers) as well as practical implications for organizations and students are discussed in the paper.

Stamm-Riemer, Ida / Hochschul-Informations-System GmbH, Hannover, Germany

Accreditation of prior learning for higher education - general findings of the German Initiative ANKOM

Abstract and purpose: When it comes to permeability between vocational education and training (VET) and higher education (HE) and especially to accreditation of VET for HE programmes, the question of equivalence of learning outcomes of VET and HE is raised. To date, there has been no systematic analysis providing evidence that there is an equivalence of learning outcomes of VET and HE (or to be correct: there is none). This is now undertaken by the German federal initiative on “Accreditation of Prior (Certificated) Learning from VET for HE” (ANKOM), finished after almost four years at the end of June 2009. However, the results of the ANKOM initiative by analysing the pilot projects and their accreditation models have shown that there is considerable effort involved to make permeability within the educational system real when applying quality-assured recognition procedures. The article describes the general findings of the initiative regarding the evaluation of the accreditation models developed.

Suleman, Fatima & Suleman, Abdul / ISCTE - Lisbon University Institute

Rating and ranking: a fuzzy approach to individual bundle of competence

Abstract and purpose: As competences-based research incorporates the multidimensional nature of skill, we usually have to tackle a large amount of data. In this context, different clustering methods are used to reduce the data in a manageable way. This paper focuses an application of fuzzy sets theory to competence assessment procedure. This approach deals simultaneously with case clustering and individual heterogeneity. Our empirical research analyzes the bundle of competences of a sample of non-managerial retail clerks of the banking industry in Portugal. By assumption, the population under study can be decomposed into a fuzzy partition of typical competence profiles. Each clerk is then represented by a set of grade of membership (GoM) scores that rate his or her similarity to each typical profile. Both profiles and GoM scores are estimated from a dedicated survey data. The results achieved unveil a hierarchical partition of competences though the individual bundles of competences are almost homogeneous. This particular bundle configuration potentially allows GoM scores to be used to rank clerks by competences. The ranking is provided by a utility function derived from an original theorem.

Ulicna, Daniela / GHK Consulting

Quality assurance a means to respond to the expectations of education and training users

Abstract and purpose: Qualifications frameworks are intended, amongst other things, to promote better understanding of qualifications and consequently to facilitate recognition of qualifications across the different sub-systems of education and training (e.g. Initial VET, HE, continuing VET). The more general objective is to facilitate learners’ progression and eliminate
dead-ends in their learning paths. The way frameworks operate with regard to this aspect is that they make explicit how qualifications relate to each other in terms of level.

To translate this 'relationship' between qualifications located in the framework to real possibilities for learners to progress vertically (to another level) or horizontally (using credit transfer) requires that the stakeholders competent for deciding on access to programmes and/or credit transfer (exemption from parts of qualifications or programmes) trust the way the other qualifications have been designed and awarded. This means that they have to consider that the qualifications (and the learning outcomes) the learner has already achieved are: 1) really at the level as corresponding to the framework 2) relevant to the labour market or the field of study. It also means that the award of qualification to the learner, following the assessment, validation and recognition, has been done in a valid and reliable manner and hence the learner has achieved at least the minimum standard expected...

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Nino Javakhishvili / Tbilisi State University

**Learning Outcomes Based Approach in Higher Education System of Georgia**

**Abstract and purpose:** Higher education system of Georgia has been in the process of extensive reforms since 2005, for that time two major innovations, directly related to each other, were carried out:

- The new Higher Education law was adopted by Georgia's Parliament in 2004. The components of the law are mainly driven by western European and USA achievements and experience in the field (www.mes.gov.ge).
- Georgia joined the Bologna process in May 2005, expressing its desire to become a member of the European community and be able to exchange students as well as specialists within the united European space.

Institutional accreditation decreased number of universities from about 250 to 60. Out of the current universities, 20 are public and 34 -, private 71% of these institutions are located in Tbilisi, capital of Georgia. There are three cycles of education - 240 ECTS for bachelor, 120 ECTS for master and 180 ECTS for PhD levels. Major nationwide achievement is eradication of corruption (Glonti, 2001; Kachkachishvili 2001; Rositashvili, 2004; Hotdge, 2005) prospering in Soviet Union times as for entering higher education institutions, as during study at these institutions. In general, level of research and teaching is constantly improving and all Georgian universities aim at getting closer to the European space of education; although the process often goes on with deviations, difficulties and problems (Machabeli, 2007; Glonti, 2007; Maisuradze, 2007; Glonti, Chitashvili, 2006).

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Jozwik, Krzysztof / Technical University of Lodz

**Qualification and Competences - What Could and Should be Created at University**

**Abstract and purpose:** How should a study programme be designed? In what way should a graduate be prepared to meet growing demands of the job market and employers? Is it possible to prepare graduates in such a way that they could immediately start working on highly responsible tasks in their job? These and many more questions should determine the approach that people in charge of drafting study programs and setting higher education methods take.

A thorough analysis of requirements set for graduates should make one raise doubts about the possibility of meeting them during the first-cycle study programs. It appears that, at the current level of development, meeting the needs of the job market would be possible only if universities were capable of providing tailor-made education for each particular student, customized to a given employer’s requirements.

Preparation of graduates in compliance with the demands of employers should be based on a radically different operational philosophy. There appear to be three levels of qualifications and competencies which graduates should be equipped with. The first one covers the ability to learn and to think in a constructive manner. The second level comprises general qualifications and competencies associated with widely recognized knowledge domains. The third level should focus on qualifications and competencies corresponding to the field of study (narrowed scope of knowledge defined as a discipline of science).
The proposed paper shows the way in which graduates’ learning outcomes and study programs are formulated within the framework of the above-mentioned three levels at which qualifications and competencies as well as methods of programme delivery, the main one being project based learning.

Young, Michael / Institute of Education, University of London
Learning Outcomes and Educations Reform: Some Lessons from the UK's NVQs
PERMEABILITY BETWEEN VOCATIONAL EDUCATION AND TRAINING & HIGHER EDUCATION

Edwards, John / KSS Deanery, University of London

The Early Professional Development of Beginning Teachers in the UK: What can Students Tell Them?

Abstract and purpose: This paper will consider the implications for, and the potential benefits of, the involvement of students located in state secondary schools in the early professional development of beginning teachers in England and Wales.

Teacher training in the UK has, during the past twenty years, been strictly controlled by government legislation and has produced (in the view of many academics) an instrumental model of professional development which denies the autonomy of beginning professionals to explore their developing practices and evaluate their progress in a reflective manner. This is particularly so for teachers completing their initial training in universities before becoming newly qualified teachers in state secondary schools. The paper offers a case study of student involvement in the early professional development of teachers and claims that this attempt at collaborative professional development promotes elements of school improvement, student attainment, teacher professional development and social justice. The paper concludes with an evaluation of the potential benefits of student – teacher collaboration in the early stages of the professional development of teachers.

Rainer Hensel & Frans Meijers / The Hague University of Professional Development
Rien van der Leeden / Leiden University
Joseph Kessels / Twente University

Personal Growth Needs Concerning Competence Development: Part of the Five Factor Model of Personality or a Separate Characteristics?

Abstract and purpose: According to Staw (2004), a positive attitude towards personal growth is a necessary condition to develop personal qualities. Furnham (2008) argues that personal qualities related to the Five Factor model (FFM) of personality are an essential part of the concept competency. The FFM can be criticized because it does not include scales measuring the need for or attitude towards personal growth (Staw, 2004). Today, personal qualities are considered to be relevant for many aspects of an organization's effectiveness (Mount, Barrick, & Steward, 1998). Therefore, assessing personal growth needs seems to be quite important for organizations for which competences are important for the quality of the work or to be competitive.

Using covariance structure analysis it was shown that relationships between growth needs towards competence development and FFM variables were very weak or absent. In this paper we study the relation between Five Factor (Big Five) model personality variables and personal growth needs towards the development of competences, with personal qualities as developmental goals. Data were obtained for a sample of professionals (N=122) in higher vocational education participating in a Strategic Human resource Development Program. FFM variables were measured by the Dutch version of the Neo PiR, personal growth needs towards competence development was measured by a four item instrument. The reliability of this instrument was satisfactory...

Müller, Karl. / WISDOM

Traditional Difficulties and New Solutions for Cross-border Information Systems of Professions and Professional Qualifications

Abstract and purpose: Working on a European system of professions and vocational trainings one is invariably confronted with three long-term trends which, in conjunction, are not only highly contradictory, but lead to seemingly insurmountable problems. These trends are the path-dependencies of national systems of professions, the process of European integration and, finally, the growing discrepancies between professions and actual work practices.

Turning to the new information platform of “No Borders”, the presentation will focus on a possible solution for the current predicaments by introducing in-depth descriptions of competencies and skills. The paper focuses on the issue of comparability and will elaborate on the comparative advantages of using such a system as a common basis both for different national systems of professions and for a European information platform.
Wallis, John / University of Nottingham
Education, Training and the re-definition of Skill in Current Labour Markets

Abstract and purpose: This paper is based on an assumption that there is a widespread belief that the future successful economies will be largely defined by the degree to which they can be oriented to global competition in the field of knowledge production and application. It is assumed that the as manufacturing is re-located to low wage economies the future of “developed” sites of production will be the retention of the value-added elements of the newly globalised regime of accumulation. Within these conditions it is assumed that human capital will be the key supply side component of economic success and informs public policy in the international arena despite criticism of frequent reductionist usage (see Brown et al 2001).

Cortés Pascual, Alejandra / University of Zaragoza
Generic competencies and values in pre-university students

Abstract and purpose: This study presents part of the results of research carried out with 1427 students in their last year of non-compulsory secondary education in the Region of Aragón (Spain), in order to find out the factors which have a bearing on their choice of university education, hence, improving the career guidance process. Specifically, this presentation will refer to work values and transversal competencies. This is deemed to be an important contribution, as it is an integral part in terms of the variables which influence the academic decision process, given the sample studied and the influence of the educational and proactive intervention field in the labour market.

Sonja Lutovac / University of Maribor
Raimo Kaasila / University of Lapland
Using Narratives as Innovative Tools in Mathematics Course in Finnish Teacher Education

Abstract and purpose: In Finland the goal of elementary teacher program is to produce innovative, reflective and collaborative-oriented teachers who can combine knowledge of educational science with knowledge of subject pedagogy, e.g. mathematical pedagogy. In this paper we are presenting the use of narratives as tools in mathematics education course as one of the innovations in Finnish teacher education. Narratives are increasingly used as a methodological approach in research of educational experience, but also as pedagogical tools for facilitating students’ views. Yet, in Slovenia, use of narratives has been neglected. Here we will describe two ways to reduce negative emotions towards mathematics by handling elementary pre-service teachers’ memories from their years at school. The ways are 1) autobiographical, narrative interview and 2) ‘narrative rehabilitation’. Through Ulla’s mathematical biography we present how she handles her school time experiences and emotions and how the use of narrative rehabilitation during the mathematics education course influenced her views of mathematics. We conclude that emphasis in mathematics courses should not only be on future teachers’ professional knowledge, but also on their personal beliefs and experiences. Therefore, narratives are one possible tool to reach this objective.

Štogrová Jedličková, Petra / Charles University, Prague
The Role of Virtual Worlds in Teaching and Learning

Abstract and purpose: The paper describes current trends in online learning and virtual learning communities. It presents critical overview of current theoretical background and research. Challenges which emerge from pedagogical, social, and technological aspects of the active online learning are presented based on the review of tools, roles and techniques. Presentation summarizes the most important challenges and recommendations.

Valkanos, Efthymios, Ademos Anastasiou & Despina Androutsou / University of Macedonia
The Importance of SWOT Analysis for Educational Units that Belong to the Field of Vocational Education and Training: The case of the State Institute (IEK) of Epanomi in Thessaloniki

Abstract and purpose: Educational units constitute a considerably separate category of organisations due to the complexity they present compared to all other organizations. The fact that they belong to this particular category of organisations in general presupposes the urgent necessity to operate and even be administrated as effectively as
possible so as to be in the position to achieve further advances of development. Programming is regarded as the first step in the process of administration. Strategic programming concerns the long-term planning, which focuses on the general orientation of the organisation and the designation of the long-term goals, taking into account the environment and the conditions in which the organisation operates. One of the most important phases concerning this kind of planning is the SWOT Analysis. This analysis is of crucial importance for the institutes of Vocational Training (IEKs) in Greece since, unlike other school units, they appear to be decentralised to a great extent from the higher authority of the Ministry of National Education and Religious Affairs. Consequently, they are given the opportunity to exploit the advantages of strategic planning as they seem to be in the privileged position to handle matters of either human or material resource management independently. The state Institute of Vocational Training (IEK) in Epanomi is one of those institutes that are located outside the city of Thessaloniki. This fact creates responsibilities on behalf of the directors demanding their appropriate targeted steps that will lead to its further growth and development. The proper exploitation of the potentials of SWOT Analysis may offer opportunities towards the direction of a rather higher educational level provision.