



JOINING EFFORTS OF EMPLOYERS AND EDUCATIONAL INSTITUTIONS TO DEVELOP COMPETENT GRADUATES¹

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Abstract

Youth unemployment remains unacceptably high in Europe. Despite increasing numbers of well-educated graduates, employers often report difficulties in recruiting a skilled young workforce. The prevailing view is that educational institutions are slow to respond to the needs of the business community and do not sufficiently incorporate skills development into curricula. The reason for this mismatch might be found in the failure of three stakeholders (employers, students, and education institutions) to mutually understand their needs; they often operate in "parallel universes." Research shows that the young workforce especially lacks a sufficient portfolio of soft skills. This study identifies gaps between competencies developed through education and those required by employers. We research the situation in the Republic of Macedonia and examine students', professors', and employers' perceptions of the importance of soft skills and their development through university education. The results suggest that students are not sufficiently aware of the importance of soft skills compared with professors and employers. Furthermore, university education programs, despite reforms in the last decade, fail to develop the soft skills needed by employers in their graduates. The concluding discussion proposes ways to close the existing gaps, focusing on closer collaboration between education providers and employers in order to improve youth competencies and employability.

Keywords: *Employability, Soft skills, University graduates, Republic of Macedonia*

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1. INTRODUCTION

Many challenges face the young generation around the globe when it comes to work and employment (ILO, 2013), and the situation is even more grim in less-developed transitional countries such as Macedonia. There is an interesting paradox, because employers often complain that they cannot find the right people to fill positions, whereas the young claim that they cannot find jobs. One of the reasons lies in the skills mismatch. Not only is there a mismatch between needed professions and what the educational system supplies, but there is also a skills gap—people do not have the right skills to perform the jobs for which they are qualified (CEDEFOP, 2015). The same report confirms that countries with the highest levels of skill deficits also have lower levels of labor productivity. Skills are therefore a critical asset for prosperity not only for individuals and businesses but also for society as a whole (WEF, 2014).

Keeping up with the right skills development is becoming increasingly difficult in a very dynamic, globalized world. Therefore it is important to start building basic skills early in childhood, and then at higher levels of education when one moves closer to the labor market it is essential that the right competencies are developed to perform well at work. There is a need for lifelong learning because knowledge quickly becomes obsolete. However, the young are again faced with an obstacle. Because the so-called Generation Y is often stereotyped as not being loyal and not making work central, as it was to previous generations (Lyons & Kuron, 2014), employers are more reluctant to invest in their training and development (Jackson, 2009). Therefore even more pressure is put on education providers to ensure that graduates develop the right competencies in school. However, many reports suggest that there is a large skills mismatch or skills deficiency, and that higher education institutions (HEIs) do not know how to respond to industry needs (McKinsey, 2014).

Matching skills and jobs has become a high-priority policy concern for most countries, including the Republic of Macedonia. The Ministry of Education and Science of the Republic of Macedonia (2004) prepared the National Program for the Development of Education from 2005 to 2015. Development of skills was not mentioned directly in the

plan to develop higher education from 2006–2010, but indirectly through improving graduates' employability. Employability from the university perspective was described in the document as "well developed imagination, ability for a systematic and methodical approach to problem solving through application of appropriate knowledge, and ability to manage social processes." It was also mentioned that competencies significant for building a "Knowledge-based Society" should be developed through the training programs. Several reforms followed since 2005; however, the higher education field in Macedonia is still plagued with many inefficiencies and much political interference. It is estimated that Macedonian graduates, similar to their counterparts in many countries, do not develop sufficient and necessary competencies during their formal education.

Because of their broad applicability and effect on employability and job performance, the soft skills of graduates have become increasingly important (Andrews & Higgins, 2008; Jackson, 2009). This paper identifies the soft skills gap between what graduates possess and what employers demand in the case of the Republic of Macedonia. Although we focus on a single-country case, both the methodological approach and results could provide useful insights to those in academia and practitioners regarding possible means to close the gap between existing and needed skills of university graduates. We conducted research within the EU-funded Erasmus+ project "Developing Next Generation Leaders through Applied Know-How" among students and professors of leading Macedonian higher education institutions in economics and engineering to obtain information on their perceptions of the importance and development of competencies within the study program. We also used secondary data from research within the same project among employers and already-employed graduates to assess the gap between soft skills that are demanded by employers and those developed through university education.

The paper is divided into several sections. We start with a literature review on the importance of soft skills for university graduates' employability. This is followed by country- and university-level education descriptions, pointing to reforms and specifics of Macedonian higher education environment. We then describe the research methodology

and present results. We conclude with a discussion and implications, focusing on how employers and educational institutions can support soft skills development of university graduate.

2. THE IMPORTANCE OF SOFT SKILLS FOR UNIVERSITY GRADUATES' EMPLOYABILITY

Employability is often defined at an individual level, and refers to graduates' ability to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community, and the economy (Yorke, 2004, p. 7). A more detailed definition proposes three key elements of employability (Hillage & Pollard, 1998): 1) the ability to gain initial employment; 2) the ability to maintain employment and make transitions between jobs and roles within the same organization to meet new job requirements; and 3) the ability to obtain new employment, if required, by being independent in the labor market and able to manage employment transitions between organizations. Fugate et al. (2003, p. 16) conceptualize employability as a form of work-specific active adaptability that enables workers to identify and realize career opportunities.

At the center of the employability debate are skills needed by graduates to improve their employability (Moreau & Leathwood, 2006). When talking about skills we need to distinguish between hard and soft skills, especially when we think of developing leaders, which is the focus of this project. Hard skills are often referred to as technical skills (such as dealing with data and administrative skills); soft skills are behavioral skills or people skills which are needed to apply technical skills in the workplace. The latter are especially important for entry-level managers (Weber et al., 2009). Robles (2012) emphasized another element of soft skills, i.e., personal qualities and career attributes, such as professionalism and integrity. The importance of soft skills has grown over time, and they are considered an important factor enhancing employability in a knowledge-based society (Brown et al., 2003; Rao, 2014). Zehr (1998) claimed that the shift from an industrial economy to an information society and an office economy requires most employees to have integrity, know how to communicate, and be flexible. Some studies even suggest that 75% of long-term job success depends on people skills,

whereas only 25% is dependent on technical knowledge (Klaus, 2010). In addition, hard skills are linked to a person's skill set and ability to perform a certain type of task or activity, but soft skills are broadly applicable (Parsons, 2008). However, although many educational programs offer excellent opportunities to develop hard skills, not many manage to develop soft skills that are needed in the workplace now and in the future (Wellington, 2005).

A Eurofound (2014) report on the transition from education to work identified two gaps of skills: basic skills (e.g., literacy, numeracy, and language skills) and soft skills (such as teamwork and communication). A report by SHRM (2015) identified the most common skills that US college graduates in 2015 were lacking as professionalism/work ethic, writing in English, and relationship-building skills. Andrews and Higin (2008) summarized findings of several studies on soft skills which improve graduates' employability, and they identified the following competencies: professionalism, reliability, the ability to cope with uncertainty, the ability to work under pressure, the ability to plan and think strategically, the capability to communicate and interact with others (either in teams or through networking), good written and verbal communication skills, information- and communication-technology skills, creativity and self-confidence, good self-management and time-management skills, and a willingness to learn and accept responsibility.

Taylor (2005) identified both attributes and skills needed by employers. The list of attributes includes loyalty, positive self-esteem, commitment, a sense of humor, honesty and integrity, a balanced attitude to work and home life, enthusiasm, an ability to deal with pressure, reliability, motivation, personal presentation, adaptability, and common sense. The list of skills includes communication that contributes to productive and harmonious relations across employees and customers, teamwork that contributes to productive working relationships and outcomes, problem-solving skills that contribute to productive outcomes, self-management skills that contribute to employee satisfaction and growth, planning and organizing skills that contribute to long- and short-term strategic planning, technology skills that contribute to effective execution of tasks, learning skills that contribute to ongoing improvement and expansion

of employee and company operations and outcomes, and initiative and entrepreneurial skills that contribute to innovative outcomes. Obviously, the skills are mostly soft skills, and the attributes themselves fall into the soft skills category.

Similar conclusions regarding entry-level soft skills were reached by the International Youth Foundation (2013), which conducted research among employers in the service industry and pointed to the following soft skills: communication skills (listening, verbal, and written), planning and organizational skills, teamwork, interpersonal skills, critical thinking and problem solving, investigation and research skills, creative thinking, decision-making skills, multicultural sensitivity and awareness, professionalism (includes grooming and self-respect), honesty and integrity, positive attitude, motivation and ability to learn, dependability and responsibility, adaptability and flexibility, ability to take constructive feedback, hard work, and ethics.

Robles (2012) also examined the needs of employers. Executives in the US identified the following soft skills expected from graduates:

- communication: oral, speaking capability, written, presenting, listening;
- courtesy: manners, etiquette, business etiquette, gracious, says please and thank you, respectful;
- flexibility: adaptability, willing to change, lifelong learner, accepts new things, adjusts, teachable;
- integrity: honest, ethical, high morals, has personal values, does what is right;
- interpersonal skills: nice, personable, sense of humor, friendly, nurturing, empathetic, has self-control, patient, sociability, warmth, social skills;
- positive attitude: optimistic, enthusiastic, encouraging, happy, confident;
- professionalism: business-like, well-dressed, appearance, poised;
- responsibility: accountable, reliable, gets the job done, resourceful, self-disciplined, wants to do well, conscientious, common sense;
- teamwork: cooperative, gets along with others, agreeable, supportive, helpful, collaborative; and
- work ethic: hard working, willing to work, loyal, initiative, self-motivated, on time, good attendance.

Looking more into the future, Adecco and Zukunftsinstitute (2010) emphasized the need for creativity and innovation as the main characteristics of the workplace of the future. Farčnik et al. (2015) forecasted competencies needed in Slovenian enterprises among the aforementioned soft skills add digital skills due to technological changes and business trends.

Universities are becoming more and more aware of the need to develop soft skills in their graduates, and thus in addition to teaching critical subject-specific knowledge and skills, they also have incorporated into the curricula transferable knowledge, skills, and attitudes (Harvey et al., 2002; Shah et al., 2004; Cox & King, 2006). Although the importance of soft skills has long been on the agenda of business education through international accreditation standards (e.g., AACSB and EQUIS), there are still questions regarding the effectiveness of implementation (Schulz, 2008). On the other hand, higher education institutions in the engineering field lag behind (Kumar & Hsiao, 2007), despite some notable efforts by engineering schools (e.g., Mohan et al., 2009; Gider et al., 2012).

3. UNIVERSITY-LEVEL EDUCATION IN THE REPUBLIC OF MACEDONIA

The Republic of Macedonia is one of the successor states of the former Republic of Yugoslavia, from which it declared independence in 1991. Macedonia has taken the route toward the development of a parliamentary democracy with a modern and open market economy. The switch from a socialist to a capitalist economy was very complex, the transition period lasted very long, and the process of privatization was very painful and not very successful if we take into consideration the great number of people who lost their jobs during this process. In spite of the country's economic, political, and security challenges during the transition period, Macedonia carried out many reforms and radical developmental changes in the direction toward adjusting and adapting to EU standards. These reforms were acknowledged by the World Bank in 2009, when Macedonia was ranked as fourth-best reformatory state out of 178 counties, recognizing that the country has undertaken considerable eco-

conomic reform since independence (World Bank, 2009). Nevertheless, Macedonia is still a developing country facing many problems. The economy continues to be fragile and vulnerable, and considerably smaller than that of most of the former Yugoslav states. The national GDP (purchasing power parity) is US\$22.57 billion and the GDP real growth rate is 3.5%. Furthermore, GDP per capita is US\$10,800 and the Human Development Index is 0.701 (UNDP, 2015).

Macedonia has approximately 2 million inhabitants; more than one-quarter live in Skopje, the capital of the Republic of Macedonia. The labor force in the Republic of Macedonia consists of 955,000 adults, of which 26.1% are unemployed and 73.9% are employed, with an average net salary of approximately €360 per month. The rate of unemployment has remained consistently high; it was more than 30% in 2008, the highest in Europe, and recently it was 26.1% (SSORM, 2015).

Along with the changes caused by the political and economic transformation of the country after its independence, Macedonian higher education institutions were faced with new and different challenges, and acquired a new and far more important role than ever before. These changes were necessary in order for the higher education system of the Republic of Macedonia to take its role in the process of securing the fundamental stability of the national economy, boosting economic growth, strengthening public and private sector competitiveness, creating an efficient legislative, and enforcing high standards and values (The Ministry of Education and Science, 2006, p. 17).

Confident in its aspirations and future within the European Union, the Republic of Macedonia has undertaken a large number of higher education reforms which were meant to assure compatibility with other European education systems and satisfy newly created demands on the labor market as well. Several years prior to its officially joining the Bologna Process in 2003, the Republic of Macedonia undertook certain steps toward a faster adjustment of its education system to European standards, such as obliging universities to implement the European Credit Transfer System (ECTS) and to design their curricula in accordance with Bologna principles. A

private initiative was enabled, and thus many national or foreign private faculties and universities were established as well (Eftimov, 2012).

Respecting the national cultural values and characteristics of the existing higher education system, the implementation of Bologna goals aimed at increasing study efficiency, greater student and teaching staff mobility, greater education process quality, a more active student role in providing quality, and perhaps most importantly, providing a better educational structure for the population and improving employability of graduates in national and European labor markets (The Ministry of Education and Science, 2006, p. 265). More than a decade of continuous reforms is a particularly long period, after which a review and detailed analysis of plans and accomplishments is an anticipated step. Analyses of the Bologna process in the Republic of Macedonia have been made, but most often in the form of studies of precise and specific reform topics, such as the implementation of the ECTS (Pop-Ivanov and Velkovski, 2010), effects of dispersed studies (Popovski, 2010), and academic and student mobility (Pop-Ivanov et al., 2010), or in the form of more-complex analyses, which were conducted years ago, such as the analysis of good educational management capacity (Popovski et al., 2007), the process of linking higher education with the labor market (Center for Research and Policy Making, 2009), and the effects of higher education reforms on student employability and the brain drain phenomenon (Eftimov, 2012).

Macedonian higher education expanded significantly in the last decade. The number of students increased dramatically from 40,246 students in 2000/2001 to 56,687 students in 2013/2014. Over the last several years, more and more young people decided to enroll in university. According to data by the Ministry of Education and Science of the Republic of Macedonia, 96.5% of high school graduates enrolled in university in 2010 (compared to 85% in 2008, 64% in 2007, and 42% in 2006) (Ministry of Education and Science, 2008). Another study confirmed that the majority of youth consider education to be a ticket to a better future. According to Eftimov (2012), 65.4% of undergraduate students stated they plan to continue their studies toward M.Sc and Ph.D degrees. From one point of view, this

trend is definitely positive and should be maintained. The majority of young people enrol in university to upgrade their education level and to improve their employment chances in near future. But from another point of view, a great number of them also use higher education studies as temporary refuge from the chronic unemployment problem. Thus young people postpone employment for some period, hoping for better conditions in the labor market in the near future.

The greater number of students was accompanied by even greater increase in the number of universities—from a few public universities in 2000/2001 to 23 universities in 2015 (5 state universities and 18 private universities), or from 31 HEIs in 2000/2001 to 125 HEIs in 2013/2014 (State Statistical Office, 2015). As result of this expansion, the educational attainment indicator in Macedonia (defined as the percentage of the population aged 30–34 who have successfully completed tertiary studies) increased from 11.6% in 2006 to 28.5% in 2015 (Eurostat, 2016). Unfortunately, funds allocated from the budget for education and research did not follow the growing needs of education. Public expenditure for education decreased from 3.7% of GDP in 2004 to 3.5% of GDP in 2010, and the public expenditure for research and development decreased from 0.2% of GDP in 2003 to 0.1% of GDP in 2010. This was followed also by a serious reduction in student tuition fees, from an average €1,000 per academic year in 1998/99 to an average €200 per academic year in 2014/2015. Meanwhile, the Law on Higher Education, which was adopted in 2008, has been subject to more than 20 amendments to date. We can conclude that Macedonian HEIs face the same challenges as their counterparts from the rest of Europe: increased number of students, reduced financial support from the government, reduced financial and other autonomy of educational institutions, severe competition from foreign and private universities, major legal reforms in higher education, changed focus of academics from teaching to research, and a need for more managerial skills and strategic focus (Eftimov et al. 2016). It is more than obvious that many of these reforms are aimed at increasing the number of students and have been successful, but how have they affected students' employability?

The increasing number of university graduates within the population definitely increased the number of employed people with a university degree, from 13.8% in 2003 to 21.1% in 2011, which was welcomed. However, this trend unfortunately also resulted in an increase of unemployed people with a university degree, from 5.6% in 2003 to 14.1% in 2011, which is an unwanted trend in any society (Eftimov, 2012). Even more alarming, more than half of the 41,878 unemployed persons with a university degree, 23,127, are long-term unemployed, which means they have been looking for employment for more than one year, which stimulates brain drain. Universities are expected to offer solutions to present problems, anticipate future challenges, and develop creative solutions and behaviour models that will enable continuous social development and improve social capital. Universities should help students to acquire new types of knowledge; think in a critical manner; develop entrepreneurial awareness and culture; and develop modern skills, flexibility, and an ability to cope with future changes.

4. RESEARCH METHODOLOGY

This research identifies the soft skills gap between the developed and demanded soft skills for Macedonian graduates. We applied an exploratory research design in order to answer the following research questions:

- 1) What are student perceptions regarding the importance of soft skills for their employability?
- 2) What are student perceptions regarding the development of soft skills through university education?
- 3) Are there differences between students' and professors' perceptions of the importance and development of soft skills?
- 4) Are there differences between students', professors', and employers' perceptions of the importance and development of soft skills?

In order to answer our research questions, we conducted surveys with university students and professor, and then combined these with secondary data from the AIDP research report regarding employers' and young employees' perceptions of soft skills development and their use at work (AIDP, 2016). The basis

for the survey questionnaire was the list of 67 Lominger competencies of leadership architecture (Lombardo and Eichinger, 2007). These competencies are based on Lombardo and Eichinger's research and experience in leadership development and represent a comprehensive set of competencies that are relevant for effective performance of leadership tasks across hierarchical levels, organizational functions, countries, and time. Thus we may regard these competencies as universal for effective leadership as well as for effectively performing other tasks and functions in a business setting. These competencies are grouped into six factors: Strategic Skills, Operating Skills, Courage, Energy and Drive, Organizational Positioning Skills, and Personal and Interpersonal Skills. From the Lominger list of competencies, a few were omitted from our research because they are more relevant for higher levels of leadership and our focus is more on entry-level positions. Instead, we included some competencies linked to digitalization, which is an important trend and is high on the EU agenda as a way to enhance European competitiveness (European Commission, 2014). We included some of the highest-ranked digital competencies from the research conducted in Slovenia (Farčnik et al., 2015) because they reflect the level of digitalization development in the region: using (advanced) office software programs, using the internet, using project management software, cloud computing, digital marketing and sales, and using statistical packages.

For the student survey, each of the competencies was assessed in terms of its importance and development through formal education by using a five-point Likert scale (from 1 = not at all to 5 = to a great extent). For students, we also gathered some demographic data and data pertaining to career preferences and working experience by offering multiple choices with only one possible answer. We asked ten questions regarding motivation to study, satisfaction, acquiring knowledge and developing competencies, and recognizing employer needs and the need for additional training when students start working (again using a five-point Likert scale). The student survey was administered over two weeks (from February 15, 2016 to March 3, 2016), using the Google Docs free software to create, launch, and technically support the survey. Testing of the functionality of the online questionnaire and the clarity of the questions was performed on a

small group of students before launching the online surveys. An email that included a link to the survey with a short explanation of its purpose was sent to students in their final year of study or recently graduated (within the last three years) students from the leading economics and engineering schools in Macedonia within Ss. Cyril and Methodius University (i.e., Faculty of Economics-Skopje, Faculty of Mechanical Engineering-Skopje, Faculty of Computer Science and Engineering, Faculty of Electrical Engineering and Information Technology, Faculty of Natural Sciences and Mathematics, Faculty of Technology and Metallurgy, Faculty of Civil Engineering, Faculty of Architecture, and Faculty of Pharmacy).

Our initial target was to collect 700 responses from both business/economics and engineering fields of study. However, we managed to gather 1,343 student responses. The main student motivation to engage in the survey was the opportunity to receive free training courses as an output of the project. All criteria for proper and proportional representation of different gender students were met, along with the criteria for different educational profiles, students with different ways of financing their studies, and students with various grade point averages, all of which approximate the actual percentage of these students within the Macedonian educational system. Our sample consisted of 1,343 students; approximately half were from the field of economics (658) and half were from engineering (685). The sample was well balanced with regard to gender (45.9% male and 54.1% female students) and the vast majority of students in the sample were in the undergraduate program (92.9%). To analyse the data we performed descriptive statistics analysis and independent sample t-tests to analyse differences between economics and engineering students.

The aim of the professor survey was to gain insights into how academia understands employer demands for graduate competencies and how it responds to changing employer competency demands. In addition, we wanted to gather professors' opinions regarding the importance and development of competencies. In the period from February 22 to March 1, 2016, an online survey was conducted among 10 university professors teaching at different schools within Ss. Cyril and Methodius University (five from economics and five from engineer-

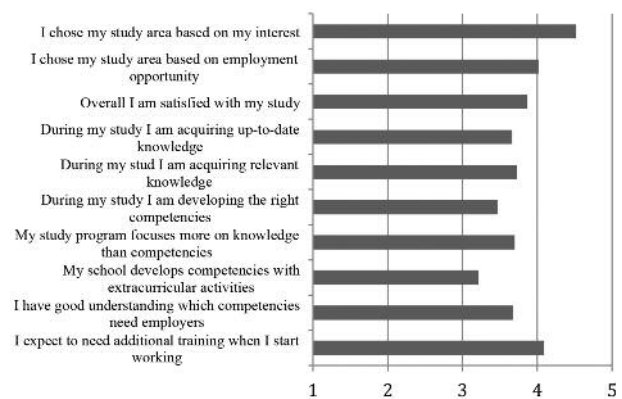
ing). The survey was a combination of 12 open questions asking about employer demands regarding the competencies of their graduates, the response to employer demands by the school, and proposals for competency development, along with the same evaluation of the importance and development of competencies from the amended Lominger list which was used for students. Six of the professors were assistant professors and four were full professors. Two of the respondents began employment at the university between 1980 and 1990, three between 1990 and 2000, and five between 2000 and 2010. We performed a qualitative analysis of professors' responses and descriptive statistics for the Lominger competencies.

For employers, the AIDPI in association with the Macedonian HR Association (MHRA) conducted a survey among two groups, namely managers and new employees. The survey was conducted from February 20 to March 10, 2016 in ten large and medium-sized Macedonian companies from different industries: construction, transport, machinery production, metallurgy, tobacco, electronics, automotive, banking, and finance. The managers were mostly HR managers and line managers (10); seven were female and three were male, and all of them had at least a university degree. The new employees' survey was conducted among 20 young employees (21 to 30 years old); 13 were women and seven were men, and they were mostly newly employed (less than 2 years), with at least a university degree. They were working in different sectors and positions, but $\frac{3}{4}$ of them worked within their degreed profession. Their career preferences were mostly focused on becoming experts in their professional areas; only 5% of them hoped to acquire a managerial position. The questionnaire for employers and employees was different from the one for students and professors. Because of time constraints, they did not evaluate each competency in terms of importance and development, but rather listed the most important items from each group of competencies. The questionnaire also contained some open and closed questions regarding the training and development practices in the companies. For the purpose of this study we used results concerning needed and developed competencies.

5. RESULTS

In order to understand the context of competency development, we first analysed questions related to the education experiences of students. Students choose their area of study based more on their interest than on consideration of employment opportunities, and students were rather satisfied with their overall study experience (Figure 1). Students evaluated acquired knowledge (both how current it was and its relevance) higher than development of competencies. Approximately half of the students agreed that they were developing the right competencies during their study program (17% of students strongly agreed and 33% agreed). In addition, 60% of students agreed that their study program focuses more on knowledge than on competencies, and approximately 40% agreed that their school develops competencies through extracurricular activities. Interestingly, students were quite confident that they understand which competencies are needed by employers (only 12% disagreed with the statement), but even stronger was their belief that they will need additional training when they start working (75% agreed with the statement).

Figure 1: Students' attitudes toward study experiences and needed competencies

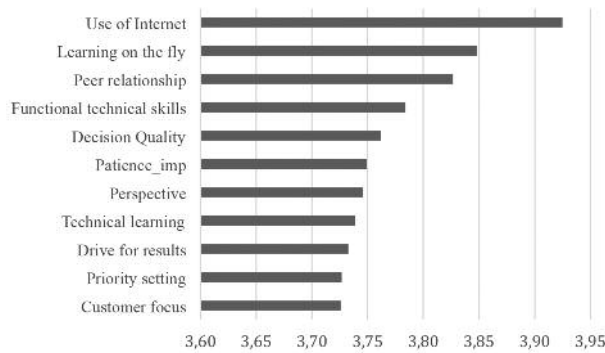


Scale: 1 = strongly disagree to 5 = strongly agree

To analyze the importance of competencies as perceived by students, we first present the list of top competencies as perceived by students with regard to their importance when they start working (Figure 2). Use of the internet, with the highest score, is not surprising because these students are technology

savvy and use the internet extensively. The second-highest score was for the learning on the fly, which indicates their awareness that they will need additional training when they start working. Perseverance may seem surprising in third place, but this rating can be explained by the current crises and situation in the labor market, which is not favorable to youth, as well as the rather dynamic and volatile business environment. Students also placed high importance on functional technical skills, decision quality, peer relationships, planning, time management, self-development, problem solving, and customer focus.

Figure 2: Students' perceptions of the most important competencies when they will start working

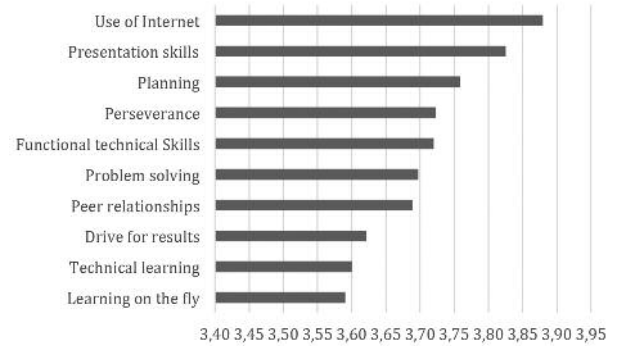


Scale: 1 = not at all important to 5 = very important

The least important competencies in the eyes of the students (scores lower than 3) were politically savvy, compassion, humor, and dealing with paradox. It is interesting that two of the digital competencies were also among the lowest ten with regard to importance, i.e., cloud computing and digital marketing and sales.

In order to identify the skills gap, it is important to analyze how well competencies are developed during formal education, i.e., through the study program. Figure 3 shows that the most developed competencies were use of the internet and presentation skills, followed by planning, perseverance, functional/technical skills, problem solving, and peer relationships. However, scores were not especially high, meaning that on average students assessed their competencies to be somewhat developed. The list of least developed competencies is very similar to the list of least important competencies.

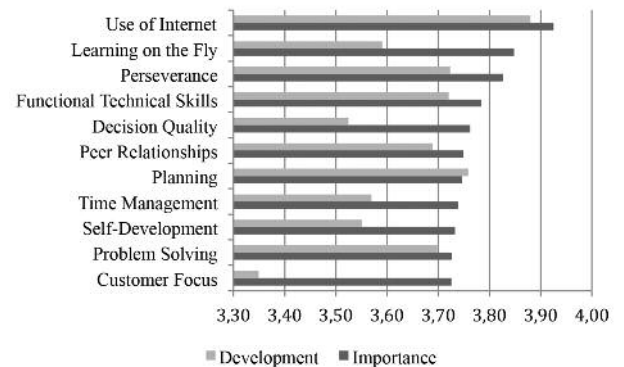
Figure 3: Students' perceptions of the most developed competencies through the study program



Scale: 1 = not at all to 5 = to a great extent

An interesting skills gap is seen when comparing scores for importance and development of competencies (Figure 4). Learning on the fly, decision quality, time management, self-development, and especially customer focus all have rather large differences between the importance and development scores.

Figure 4: Perceived importance and development of competencies by students for 10 most important competencies



Scale: 1 = not at all to 5 = to a great extent

Competencies with the largest difference between importance and development were work/life balance (difference 0.67), composure (0.56), sizing up people (0.45), customer focus (0.38) and motivating others (0.37). These competencies also indicate a potential skills gap when students start working. Almost no differences (0.05 or less) were found for building effective teams, use of the internet, organizational agility, process man-

agement, problem solving, listening, priority setting, managing and measuring work, and written communication. However, other than use of the internet and problem solving, all of these competencies had rather low scores of importance (less than 3.55). There were also some competencies for which development scores were higher than the importance scores, the difference being the highest for presentation skills (0.20), whereas drive for results, action oriented, and planning were scored 0.06 or lower.

Furthermore, to answer our third research question, we compared the evaluations of competency importance by professors and students (Table 1). Overall, professors evaluated the importance of competencies much higher than did students (all scores higher than 4). Some of the most important competencies were the same, but there also were many differences. Creativity, career ambition, composure, priority setting, drive for results, and innovation management were given high scores by professors. Similar observations can be made for results regarding development (Table 2). The scores by professors were higher, but not as much as for importance.

Table 1: Perceived importance of competencies by professors and students

Skill	Mean Importance Professors	Skill	Mean Importance Students
Use of Internet	4.70	Use of Internet	3.92
Problem Solving	4.50	Learning on the Fly	3.85
Personal Disclosure	4.40	Perseverance	3.83
Career Ambition	4.30	Functional Technical Skills	3.78
Creativity	4.30	Decision Quality	3.76
Composure	4.20	Peer Relationships	3.75
Customer Focus	4.20	Planning	3.75
Priority Setting	4.10	Time Management	3.74
Drive for Results	4.10	Self-Development	3.73
Innovation Management	4.10	Problem Solving	3.73

Table 2: Perceived development of competencies by professors and students

Skill	Mean Development Professors	Skill	Mean Development Students
Advanced use of MS Office	4.20	Use of Internet	3.88
Presentation Skills	4.10	Presentation Skills	3.83
Use of Internet	4.10	Planning	3.76
Functional Technical Skills	3.90	Perseverance	3.72
Use of Project Management Software	3.80	Functional Technical Skills	3.72
Customer Focus	3.80	Problem Solving	3.70
Planning	3.80	Peer Relationships	3.69
Listening	3.70	Drive for Results	3.62
Peer Relationships	3.70	Technical Learning	3.60
Composure	3.60	Learning on the Fly	3.59

Our final research question explored the differences between young employees and employers on one side and students on the other side. Here the comparison was slightly more complex because we had to compare results from two different surveys, and no direct comparison of scores was possible because managers and young employees only chose the important competencies but did not evaluate them on the scale from 1 to 5. Among competencies needed by employers, the following were most frequently mentioned: decision quality, using project management software, motivating others, delegation, directing others, using advanced software programs, using the internet, using statistical packages, listening, integrity and trust, developing direct reports, strategic ability, and timely decision making. Comparing this list to the previously described research on students' and professors' perception of competency importance shows that there is not much similarity between the lists—only decision quality and use of the internet are on all three lists. Integrity and trust is only on the employer list, and it also seems that employers place more importance on digital skills. These differences may be the result

of the different methodology used in assessing the importance—students and professors assessed the importance of all competencies, whereas employers just chose the most important ones from the list. However, the differences also may partially reflect different views.

Finally, it is worth mentioning that a comparison of managers’ and young employees’ perceptions of the importance and development of competencies shows that young employees feel extraordinarily confident that they possess the required soft skills grouped in all the studied work activities: execution, setting and achieving of goals, and teamwork. On the other hand, managers identified many areas for improvement when they evaluated the skills of young employees.

6. DISCUSSION AND RECOMMENDATIONS

Several conclusions can be drawn from the results of our survey. First, it seems that rather low scores regarding the importance of competencies from students compared with those from professors and employers may indicate that they are not sufficiently aware of how important these skills are for their employability and career success. Students’ assessment of perceived importance ranged only from 2.6 to 3.9 on a five-point scale, which is rather low (almost 0.5 lower on many dimensions than professors’ scores). It is somewhat surprising that digital competencies were not recognized as being very important (other than use of the internet, these competencies were scored below 3.5). Comparing students’ evaluation of importance with the Lominger leadership architecture proposal of key competencies for individual contributors and managers (Table 3) shows that students actually captured five of the competencies for individual contributors and four for managers, but these four are lower on the list. We can depict the first gap as all three energy-factor competencies that are important according to Lominger: action oriented, perseverance, and drive for results. Students recognized only the importance of perseverance (3.83) and drive for results (3.72); action oriented, which is at the top of the Lominger list, scored only 3.40. Rather low as well was the student score for integrity and trust, only 3.52.

Table 3: Lominger key competencies for individual contributors and managers compared to students assessment of the importance of key competencies

Individual contributors		Managers	
Lominger	Students	Lominger	Students
Action oriented	No	Action oriented	No
Decision quality	Yes	Comfort around higher management	No
Functional/technical skills	Yes	Customer focus	Yes
Intellectual horsepower	n.a.	Functional/technical skills	Yes
Learning on the fly	Yes	Integrity and trust	No
Perseverance	Yes	Intellectual horsepower	n.a.
Problem solving	Yes	Organizing	No
Process management	No	Perseverance	Yes
Drive for results	No	Problem solving	Yes
Standing alone	No	Drive for results	No
Technical learning	No	Standing alone	No

Source: Based on Lombardo, M.M. & Eichinger, R.W. (2007). The Leadership Machine: Architecture to develop leaders for any future, p. 28.

Our results seem to confirm the importance of soft skills for graduates/young employees from the employer perspective (reflected in professors’ perceptions of importance) and also suggest that most soft skills are not sufficiently developed through formal education. When students assessed how well their competencies were developed during the study program, only use of the internet and presentation skills received a score higher than 3.75 (Figure 2). This result is not surprising, because professors indicated that project work and presentations have been incorporated into the curricula, so these two competencies seem to be frequently used to fulfill study requirements. Obviously, the use of the internet is also a competency developed in the young generation from early childhood, so university-level education plays a less important role in its development.

On the other hand, of the competencies identified as important by employers (such as motivating others, delegation, directing others, developing direct reports, listening, integrity and trust, strategic ability, timely decision making, decision quality, using project management software, using advanced software programs, using the internet, and using statistical packages), only a few received scores above 3.5 in terms of students' perceptions of how these are developed through the university education (e.g., use of the internet, decision quality, and timely decision making). Professors' assessment of competency development was overall higher than that by students, especially with regard to digital and communication skills, but interpersonal skills were evaluated by professors as less developed.

The results from AIDP (2016) suggest that employers currently require a diverse portfolio of competencies and soft skills in addition to a good command of the professional body of knowledge. Employers do not want to invest in long training and development processes; instead, they require graduates with practical experience and rapid adaptation ability. New trends in business, technology, and society have brought a new set of competency requirements. In response, higher education institutions have already incorporated changes into the design and delivery of the study programs with reference to the changing needs of employers. The professors' survey showed that competencies are intended to be developed through an integration of theoretical and practical knowledge, greater interaction and in-class activity, and practical exercises. Although an increased effort of the teaching staff in increasing graduates' competencies can be confirmed based on the professors' responses, student assessments of how much competencies are developed suggest that efforts have not materialized in competency development.

This conclusion is similar to Boyatzis and Saatcioglu (2008), who concluded that competency development programs in higher education institutions are not yet effective enough to prepare graduates for work, especially in engineering schools (Kumar & Hsiao, 2007). It seems that despite changing the overall approach to teaching and learning, there is a need for additional competency development outside of the formal study programs. Schools may offer

a different portfolio of activities for competency development, such as training and mandatory apprenticeships, seminars and workshops, extra-curricular activities, conferences, etc. Some schools have established career centers to assure constant support of students' competency development. New teaching methods, an obligatory student apprenticeship, closer collaboration between academia and the business community, and active curriculum development and adaptation are proposed for better graduate competency development.

Although students are rather confident that they know what employers expect from them, the results suggest that they may not be so well acquainted with employers' needs, and thus more effort needs to be put into informing students of the requirements. This could also motivate students to engage in training activities to reduce the gaps in needed and developed competencies. We identified potential areas for training with the purpose of better preparing students for the transition to work. There is evidence of a lack of skills in all six factors of Lominger competencies, but most critical to develop seem to be energy and drive, courage, and personal and interpersonal skills.

We suggest several ways to improve the situation concerning the required employees' soft skills when linking employers and higher education institutions. Firstly, cooperation between universities and employers should be strengthened in identifying key soft skills needed in graduates, which are constantly changing due to technology development and other socio-economic change. In addition, students need to be informed early in the study process about employer demands, which should increase their awareness and motivation to develop these skills. Accordingly, teaching content and methods could be adapted to develop these critical competencies, including close cooperation between universities and employers regarding apprenticeships, action-oriented learning (e.g., real cases), guest speakers from practice, graduate placement, etc. (Harvey et al., 2002). In this way, graduates could enhance their "personal capital," which was defined by Brown and Hesketh (2004) as the sum of various personal qualities that employers value, and thus could increase their employability.

Graduate employability has become a critical benchmark for measuring performance at both an individual and an institutional level in higher education (Harvey, 2001), and thus Macedonian universities should start using these criteria to evaluate their effectiveness. Based on the surveys of young employees and employers, critical factors can be determined and solutions could be proposed by involving all stakeholders. Employers can be formally assigned to schools' advisory boards and involved in program evaluation as well as design. This would increase schools' capabilities to respond to employer needs and help them develop relevant competencies in graduates.

Another possibility is a formal training program for graduates and young employees focused on soft skills development. The design of such a program is

also the key objective of the Erasmus+ project on Developing Next Generation Leaders through Applied Know-How. The research presented in this paper forms the basis for curriculum development, and the program is supposed to be implemented at a later stage of the project. In the design process and delivery of the program, universities, professional associations, and consulting companies are joined in order to assure relevance of the content and an overall high quality of the program. Because this is an example of joint efforts of universities and employers whose young employees will attend the program, further research into competency development through the program should be conducted to assess the validity of such initiatives and to propose recommendations regarding the content and delivery of such formal training programs.

EXTENDED SUMMARY / IZVLEČEK

Brezposelnost mladih je v Evropi zelo visoka, vendar kljub naraščajočemu številu dobro izobraženih, delodajalci pogosto poročajo o težavah pri pridobivanju usposobljenih mladih kandidatov za zaposlitev. Prevladujoče mnenje je, da se izobraževalne institucije prepočasi odzivajo na potrebe poslovne skupnosti in v svoje programe ne vključujejo dovolj razvijanja uporabnih veščin. Razlog bi lahko bil tudi v pomanjkanju razumevanja o potrebnih veščinah pri treh glavnih deležnikih (delodajalcih, študentih in izobraževalnih institucijah), ki pogosto delujejo v "vzporednih svetovih". Raziskave kažejo, da mladim posebej primanjkuje mehke veščine. Zato je namen naše raziskave ugotoviti vrzeli v kompetencah, ki jih mladi razvijajo tekom univerzitetnega študija, in potrebami delodajalcev. Raziskali smo stanje v Republiki Makedoniji s pomočjo raziskave med študenti, univerzitetnimi profesorji in delodajalci glede njihovega razumevanja pomembnosti in razvitosti kompetenc v času študija. Rezultati kažejo, da se študenti ne zavedajo prav dobro, kaj od njih zahtevajo bodoči delodajalci. Prav tako univerzitetni študijski programi kljub številnim spremembam v zadnjih desetih letih ne razvijajo dovolj kompetenc, ki jih od diplomantov zahtevajo delodajalci. Na koncu prispevka zato ponudimo predloge, kako bi lahko zmanjšali ugotovljene vrzeli, predvsem s tesnejšim sodelovanjem med izobraževalnimi institucijami in delodajalci.

REFERENCES

- Adecco & Zukunftsinstitute (2010). *Future Jobs: How We Will Work in the Europe of the Future*. Glattbrugg: Adecco management & consulting S. A.
- AIPD (2016). *Erasmus + Project: Developing Next Generation Leaders, O1: Collection of Materials and Data, Analysis of Industry Training Capacity Needs, Assessment of Youth Workers, VET Learners, and Apprentices in Participating Countries*. Milano: AIDP.
- Andrews, J., & Higson, H. (2008). Graduate Employability, 'Soft Skills' Versus 'Hard' Business Knowledge: A European Study. *Higher Education in Europe*, 33(4), 411-422.
- Boyatzis, R.E., & Saatcioglu, A. (2008). A 20-year view of trying to develop emotional, social and cognitive intelligence competencies in graduate management education. *Journal of Management Development*, 27(1), 92 – 108.

- Brown, P., & Hesketh, A. (2004). *The Mismanagement of Talent*. Oxford: Oxford University Press.
- Brown, P., Hesketh, A., & Williams, S. (2003) Employability in a knowledge-driven economy. *Journal of Education and Work* 16(2), 107–126.
- CEDEFOP (2015). *Matching skills and jobs in Europe Insights from Cedefop's European skills and jobs survey*. Thessaloniki: CEDEFOP.
- Center for Research and Policy Making (2009). *Quality in Tertiary Education - How to Improve It?* Skopje: CRPM. Retrieved on June 8, 2012 from <http://www.crpm.org.mk/wp-content/uploads/2012/03/EducationENG.pdf>
- Cox, S., & King, D. (2006). Skill sets: An approach to embed employability in course design. *Education and Training*, 48(4), 262–274.
- Deloitte (2016). The 2016 Deloitte Millennial Survey: Winning over the next generation of leaders. Retrieved on March 16, 2016 from <http://deloitte.com/Millennial-Survey>.
- Dziewanowska, K., Pearce, A. & Zupan, N. (2016). Generation Y's expectations regarding their future employment relationships pose a challenge for their employers. *Journal of Human Resource Management*, 19(1), 1-12.
- Eftimov, L. (2012). Student Employability and Brain Drain in the Republic of Macedonia. *Journal of International scientific Publication: Economy & Business*, 6(4), 132-144.
- Eftimov, L., Trpeski, P., Gockov, G., & Vasileva, V. (2016). Designing A Balanced Scorecard as Strategic Management System for Higher Education Institutions: A Case Study in Macedonia, *International Journal for Economic Theory and Practice and Social Issue Ekonomika*, 62(2), 29-48.
- Eurofound (2014). *Mapping youth transitions in Europe*. Luxembourg: Publications Office of the European Union.
- European Commission (2014). *The EU explained: Digital agenda for Europe*. Brussels: European Commission.
- Eurostat (2016). *Tertiary educational attainment by sex, age group 30-34*. Retrieved on May 15, 2016 from http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_41.
- Farčnik, D., Kaše, R., Mihelič, K. K., Ograjenšek, I., Pahor, M., Redek, T., Sotensek, Š., & Zupan, N. (2015). *Model dolgoročnejšega napovedovanja kompetenc v elektronski in elektroindustriji*. Ljubljana: Ekonomska fakulteta.
- Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2003). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, 65(1), 14-38.
- Gider, F., Likar, B., Kern, T. & Miklavčič, D. (2012). Implementation of a multidisciplinary professional skills course at an electrical engineering school. *IEEE Transactions on Education*, 55(3), 332–340.
- Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, 7(2), 97–109.
- Harvey, L., Locke, W., & Morey, A. (2002). *Enhancing employability, recognising diversity. Making links between higher education and the world of work*. London: Universities UK.
- Hillage, J., & Pollard, E. (1998). *Employability: Developing a framework for policy analysis*. London: Department for Education and Employment.
- Iles, P. (2001). Employee resourcing. In J. Storey (ed.): *Human Resource Management: A Critical Text*, 2nd edition (pp. 133-164). London: Routledge.
- ILO (2013). *Global Employment Trends for Youth: Generation at Risk*. Geneva: ILO.
- International Youth Foundation (2013). *Getting Youth in the Door: Defining Soft Skills Requirements for Entry-level Service Sector Jobs*. Retrieved on March 12, 2016 from http://www.iyfn.org/sites/default/files/library/Getting_Youth_In_The_Door_Soft_Skills_Report.pdf.
- Jackson, D. (2009). An international profile of industry-relevant competencies and skill gaps in modern graduates. *International Journal of Management Education* 8(3), 29-41.
- Klaus, P. (2010). Communication breakdown. *California Job Journal*, 28, 1-9.
- Kumar, S., & Hsiao, J. (2007). Engineers Learn “Soft Skills the Hard Way”: Planting a Seed of Leadership in Engineering Classes. *Leadership and Management in Engineering*, 7(1), 18-23.
- Lombardo, M.M. & Eichinger, R.W. (2007) *The Leadership Machine: architecture to develop leaders for any future*. Minneapolis: Lominger.
- Lyons, S., & Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organisational Behaviour*, 35(S1), S139-S157.
- McKinsey (2014). Education to employment: Getting Europe's youth into work. Retrieved on March 8, 2016 from <http://www.mckinsey.com/industries/social-sector/our-insights/converting-education-to-employment-in-europe>.
- Mohan, A., Merle, D., Jackson, C., & Nair, S.S. (2009). Professional skills in the engineering curriculum. *IEEE Transactions on Education*, 53(4), 562–571.
- Moreau, M.-P., & Carole Leathwood, C. (2006). Graduates' employment and the discourse of employability: a critical analysis. *Journal of Education and Work*, 19(4), 305-324.

- Pop-Ivanov, L., & Velkovski, G. (2010). *ECTS - Reality or Illusion in Higher Education*. Skopje: Youth Educational Forum. (In Macedonian). Retrieved on June 8, 2012 from <http://soros.org.mk/dokumenti/EKTS-Realnost-ili-iluzija-vo-visokoto-obrazovanie.pdf>.
- Pop-Ivanov, L., Bozinoska, M., & Bozovik, S. (2010). *We Dream to Travel: An Analysis of Academic and Student Mobility*. Skopje: Youth Educational Forum. (In Macedonian). Retrieved on June 8, 2012 from <http://mof.org.mk/publikacii/Studentska%20Mobilnost%2021.01.2011.pdf>.
- Popovski, T.Z. (2010). The quality of higher education in question - the studies dispersion as Macedonian phenomenon. Skopje: Foundation Open society-Macedonia. (In Macedonian). Retrieved on June 6, 2015 from <http://soros.org.mk/dokumenti/disperzirani-studii-za-WEB.pdf>.
- Popovski, T.Z., Velkovski, Z., Gadzoska, L., Rusiti, A., Masnikoska, M., Mucunska-Palevska, V., & Dimitrievska, B. (2007). Analysis of the good governance capacity in education, Report. Skopje: Foundation Open society-Macedonia. (In Macedonian). Retrieved on June 6, 2012 from http://www.gg.org.mk/pdf/analiza_obrazovanie.pdf.
- Rao, M.S. (2014). Enhancing employability in engineering and management students through soft skills. *Industrial and Commercial Training*, 46(1), 42 – 48.
- Robles, Marcel M. (2012). Executive Perception of the Top 10 Soft Skills Needed in Today's Workplace. *Business Communication Quarterly*, 75(4), 453-465.
- Shah, A., Pell, K., & Brooks, P. (2004) Beyond first destinations. *Active learning in higher education*, 5(1), 9–26.
- SHRM (2015). SHRM Research: Workforce readiness and skills shortages. Retrieved on January 2, 2015 <https://www.shrm.org/Research/FutureWorkplace-Trends/Documents/Workforce%20Readiness%20and%20Skills%20Shortages.pdf>.
- SSORM (2015). *Statistical Yearbook of the Republic of Macedonia-2015*. Skopje: State Statistical Office of the Republic of Macedonia. Retrieved on May 25, 2015 <http://www.stat.gov.mk/Publikacii/PDFSG2015/06-Obrazovanie-Education.pdf>.
- Taylor, A. (2005). What employers look for: The skills debate and the fit with youth perceptions. *Journal of Education and Work*, 18(2), 201-218.
- The Ministry of Education and Science of the Republic of Macedonia (2006). *National programme for the development of education in the Republic of Macedonia 2005 – 2015, With accompanying programme documents*. Skopje: The Ministry of Education and Science of the Republic of Macedonia.
- The Ministry of Education and Science of the Republic of Macedonia (2008). *Results of The Government Efforts for Higher Education For More Citizens of Macedonia* (in Macedonian). Skopje: Ministry of Education and Science of the Republic of Macedonia.
- The World Bank (2009). *Doing Business 2010: Reforming through Difficult Times*. Washington: The World Bank.
- UNDP (2015). 2015 Human Development Report, United Nations Development Programme. Retrieved on May 25, 2015 http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf.
- Weber, M.R., Finely, D.A., Crawford, A., & Rivera, D.J. (2009). An exploratory study identifying soft skill competencies in entry-level managers. *Tourism and Hospitality Research*, 9(4), 353-361.
- Wellington, J. K. (2005). The “soft skills” of success: Be it high tech, low tech, or no tech. *Vital Speeches of the Day*, 71(20), 628.
- World Economic Forum (2014). *Matching Skills and Labour Market Needs: Building Social Partnerships for Better Skills and Better Jobs*. Davos: World Economic Forum.
- Yorke, M. (2004). *Employability in higher education: what it is – what it is not, Learning and Employability Guides*. York: LTSN-ESECT.
- Zehr, M. A. (1998). New office economy putting greater demands on schools. *Education Week*, 17(23), 7-15.