

PERFORMANCE OF VOCATIONAL EDUCATION IN LATVIA IN DEVELOPING EMPLOYABILITY OF GRADUATES

Anita Lice

University of Latvia, Latvia

Biruta Sloka

University of Latvia, Latvia

Abstract. *As the labour market changes at increasing pace, education systems need to respond. Facilitating employability of graduates and preparing them for lifelong learning and constant changes throughout their careers requires new education methods. In order to assess the current approach to developing employability of graduates in vocational education in Latvia, this article aims at evaluating the attitudes of employers on performance of vocational education in developing employability competencies, as well as investigating the practical education methods applied by vocational education institutions to facilitate employability.*

Total 750 companies participated in this research. A list of 17 employability competencies was rated using a four-point Likert scale. Employers rated the relative performance of vocational education in developing employability competencies. In order to investigate education methods applied to facilitate development of employability competencies, interviews with managers of 12 vocational education institutions were conducted. The research results show that vocational education in Latvia is best at developing computer skills and presentation skills, however it performs worst at developing the ability to take responsibility, ensuring relevant work experience, developing problem-solving skills and appropriate attitude to work. Overall, performance of vocational education received almost as many negative evaluations as positive evaluations. The main education methods to facilitate employability of graduates used by vocational education institutions are practical learning and extra-curricular activities.

Keywords: *competencies, education methods, employability, performance, vocational education.*

Introduction

As the technology evolves, the working environment also changes as it requires continuous improvement of employees and new skills acquisition. According to World Economic Forum (WEF, 2018), 42% in required workforce skills will change over the 2018–2022 period which will require significant proportion of employees to be upskilled. Education system needs to respond to

these changes both by adapting to the needs of adult learners, as well as by developing education methods in initial education provision in order to facilitate sustainable employability of graduates and preparing them for lifelong learning throughout their careers.

Employability of graduates is especially relevant in vocational education policies. Vocational education has an important role to play by educating younger and older individuals to acquire appropriate skills and work-related competences, increasing worker motivation and satisfaction as well as increasing productivity to achieve economic growth (Cedefop, 2014). In Latvia, ensuring links with the labour market, as well as increasing involvement of vocational education institutions in providing lifelong learning are important elements in vocational secondary education reforms (Ministry of Education and Science, 2014). However, little progress has been achieved so far. Only 59% of vocational secondary education graduates (2017/2018) work or continue education in the chosen field (Ministry of Education and Science, 2018). According to the data of the Public Employment Service of Latvia, most of the registered unemployed in 2018 were those with vocational qualification (36%). Half of them are at least 50 years old (Employment Agency of Latvia, 2018). The number of unemployed young people (of age 15 – 24) with vocational qualification was twice as high as the number of young people with higher education (Employment Agency of Latvia, 2016). Although participation in lifelong learning is important for employability throughout career, people who have completed secondary education level, including vocational education, are significantly less active adult learners comparing to higher education graduates (Central Statistical Bureau, 2018; European Commission, 2015). Moreover, average adult participation in lifelong learning in Latvia is very low: 7.3% of adults of age 25-64, while in EU on average – 10.8%, and, for example, in Finland – 26.4% (European Commission, 2017).

No research had been done so far on how well vocational education in Latvia facilitates employability of graduates to ensure their competitiveness in the labour market in the long term. This article aims at evaluating performance of vocational education in developing employability, as well as investigating the practical education methods applied by vocational education institutions to facilitate employability. The research methods used include both, quantitative and qualitative research methods. The performance of vocational education was assessed by carrying out a nationally representative survey of employers. The methods applied by vocational education institutions to develop employability were investigated through interviews with managers of 12 vocational education institutions.

Literature review

The rapid labour market changes in the context of future skills needs have been studied by many researchers and international organisations (for example, De Grip, van Loo, & Sanders, 2004; Humburg, van der Velden, & Verhagen, 2013; WEF, 2018). Considering ever more rapid changes in technologies, markets and societies, graduates should become more flexible and better prepared for lifelong learning. Lee Harvey even defines individual's employability as lifelong-learning: employability "is about developing attributes, techniques, or experience for life. (...) In essence, the emphasis is on developing critical reflective abilities, with a view to empowering and enhancing the learner." (Harvey, 2005).

Although employability is a contentious concept (Sumanasiri, Yajid, & Khatibi, 2015), it has become important in education research and policy making. Employability researchers have developed models that help to explain the factors facilitating employability (for example, Bridgstock, 2009; Dunne & Carre, 1999; Fugate, Kinicki, & Ashforth, 2004; Hillage & Pollard, 1998; Yorke & Knight, 2006). One of the most well-known is the CareerEDGE model which was developed by Pool and Sewell (2007) and operationalised by introducing and exploring its factor structure by Pool, Qualter and Sewell (2014). The model explains the way in which five factors, namely, career development learning, experience, degree subject knowledge, understanding and skills, generic skills, and emotional intelligence can lead towards employability through a complex interaction with self-esteem, self-efficacy and self-confidence. Employer surveys, conducted both, in Latvia and internationally, confirm that students should develop social and emotional, as well as other generic competencies, in addition to academic skills to ensure better employability (Līce, 2017; Project and Quality Management Ltd., 2013; Project and Quality Management Ltd., 2014; WEF, 2018).

Methods used to facilitate graduate employability are analysed in several international comparative reports (for example, European Commission, EACEA, Eurydice, 2015; European Commission, EACEA, Eurydice, 2014) which demonstrate that involving employers in different processes of planning, implementing and evaluating education, as well as integrating skills demanded in the labour market into curriculum are the most common methods for promoting employability across different countries. Success factors of vocational education systems with good employability results have been analysed to help policy makers and practitioners design vocational education system reforms (for example, Bliem, Petanovitsch, & Schmid, 2014; Ecorys, IES, & IRS, 2013). Eichhorst, Rodrigues-Planas, Schmidl and Zimmermann (2015) concluded that the use of apprenticeships combined with institutional

learning tends to be more effective than school-based vocational education in terms of labour market outcomes for young people. It has been, however, empirically proven that the success factors of vocational education systems might change depending on the national context (Van der Velden, Welter, & Wolbers, 2001).

In Latvia, vocational education system is school-based with the main on-the-job training element – work placements, recently also work-based learning. Līce (2018) offer analysis of examples of good practice in organising work placements in Latvia and recommends targeting only motivated companies in the need of qualified workers, as well as establishing multidimensional partnership between employers and vocational education institutions, engaging employers also in the elaboration of education programmes. As it was confirmed by Klāsons and Spuriņš (2015), not all students in Latvia enjoy work placements of good quality.

Methodology

The methods of research included the analysis of scientific publications, a survey of employers (n = 750) and the interviews with the managers (directors or deputy directors) of vocational education institutions (n=12).

A sample for the survey was created by multistage cluster sampling method. The answers to the questionnaire were collected by the research centre SKDS Ltd. First, the companies which were in the database of “SKDS” were contacted, then the companies from the public databases of companies were selected according to the random sampling method. The data were collected in two phases: 1) from 27.03.2017 until 04.04.2017, when 499 internet questionnaires were collected, and 2) from 05.04.2017. – 03.05.2017, when 251 telephone interviews were conducted by 19 interviewers. For telephone interviews, there were 587 cases of non-response: in 87.6% of these cases respondents didn't want to participate in the interview, 7% - didn't have time and 5.5% stopped answering during the interview. The collected data were weighted according to the statistics of the Central Statistical Bureau of Latvia of 2015 on the distribution of companies by industry, size and location of a company to ensure their representativeness. Considering the size of the general population, the margin of error (MOE) at 95% confidence level is +/- 4.0 %.

Considering that the companies might have limited knowledge of vocational education, in addition to the commonly asked questions about the company profile, the questions on whether they have employees with vocational qualifications was included in the questionnaire. The companies that responded positively were considered experts, considering their direct experience with the results of vocational education. To assess the performance of vocational

education, the Likert-type question on employer perception of the extent to which certain employability attributes (skills, competencies, attitudes, experience) could be developed in vocational education in Latvia was included in the questionnaire. The scale was bi-directional with 4 possible answers. An option “difficult to answer” was included as well. The list of 17 items to be assessed was elaborated, based on the list of employability attributes which resulted from operationalisation of the CareerEDGE employability model (Pool, Qualter, & Sewell 2014; Pool & Sewell, 2007). The list of items was adapted to the needs of the target audience of employers and limitations of the questionnaire.

For data analysis of the survey results, descriptive statistics was used: indicators of central tendency or location (arithmetic mean, mode, median) and indicators of variability (range, standard deviation, standard error of mean), relative frequencies, as well as other methods of statistical analysis (Kruskal–Wallis test, or one-way ANOVA; Wilcoxon–Mann–Whitney test; Factor analysis).

The interviews with VET managers were semi-structured, face-to-face, in-depth interviews. The interviews covered all types, subordinations of vocational education institutions, as well as all regions in Latvia in a balanced way. The interviewees were invited to comment the methods applied in their vocational education institutions to develop each of 17 employability attributes.

Research results

A Kruskal-Wallis test and a Wilcoxon–Mann-Whitney test were conducted to determine, whether there are significant differences in evaluations between companies which employ employees with vocational education (“experts in vocational education”), and which do not. Both tests confirmed that there is no statistically significant difference between evaluations of both groups. Therefore, evaluations of all respondents were considered in further analysis.

The main statistical indicators of evaluations of employers’ survey are included in Table 1.

Table 1 Descriptive Statistics of Employer Evaluations of Performance of Vocational Education in 2017

	Empoyability Attribute	Median	Mean	SE of Mean	Mode	SD	Range	Min	Max	NA
1	Attitude to work	3	2.26	0.03	2	0.77	3	1	4	234
2	Ability to work independently	2	2.48	0.03	3	0.73	3	1	4	224
3	Work motivation	2.5	2.32	0.03	3	0.77	3	1	4	224

4	Responsibility for own decisions	3	2.17	0.03	2	0.73	3	1	4	220
5	Problem solving skills	2	2.27	0.03	3	0.72	3	1	4	212
6	Easily adapt to new situations	2	2.38	0.03	3	0.68	3	1	4	206
7	Work in a team	2	2.61	0.03	3	0.70	3	1	4	210
8	Communication skills	3	2.56	0.03	2	0.66	3	1	4	224
9	Target orientation	2	2.40	0.03	3	0.72	3	1	4	256
10	Planning and organizing skills	3	2.32	0.03	2	0.70	3	1	4	245
11	Computer skills	3	3.19	0.03	3	0.58	3	1	4	234
12	Create new ideas	3	2.44	0.03	2	0.73	3	1	4	249
13	Relevant work experience	3	2.22	0.03	2	0.74	3	1	4	232
14	Mathematical skills	2	2.54	0.03	3	0.72	3	1	4	225
15	Clarity for career goals	3	2.44	0.03	2	0.76	3	1	4	216
16	Presentation skills	2	2.75	0.02	3	0.66	3	1	4	171
17	Achievements in education (academic skills)	3	2.63	0.03	2	0.67	3	1	4	239

Source: Authors' calculations based on employer survey conducted in 2017, evaluation scale 1-4, where 1-2 – negative evaluations; 3-4 – positive evaluations. Option – “difficult to answer” (NA) was included, n=750

As there are rather many evaluated aspects and all of them are important as it is indicated by scientific publications and by employers in Latvia evaluations, a factor analysis was applied to find complex factors. Only one component was extracted in the factor analysis using varimax rotation and extraction method Principal Component Analysis. It means that the analysed employability attributes cannot be divided into groups.

Relative frequencies of all positive and negative evaluations by employers of Latvia are included in Figure 1.

Data of Table 1 and Figure 1 show that evaluations on the extent to which vocational education develops employability attributes are mediocre. There are almost as many negative evaluations in total (48.28%) as positive evaluations (51.72%). The mode for all attributes was either 2 (for 8 items) or 3 (for 9 items); the median evaluations were between 2 and 3, the arithmetic mean – between 2.17 and 3.19. The variability of evaluations (characterised by indicators of variability or dispersion: standard error (SE) of mean and standard deviation (SD)) by the respondents were quite similar for all attributes.

“Computer skills” received significantly more positive evaluations (92%) than other employability attributes. Other employability attributes which received more positive than negative evaluations, were: “presentation skills”, “ability to work in a team”, “achievements in education”, “mathematical skills”, “good communication skills” and “ability to work independently”. The employability attributes which received most negative evaluations were: “ability

to take responsibility for own decisions”; “relevant work experience”, “problem-solving skills” and “attitude to work”.

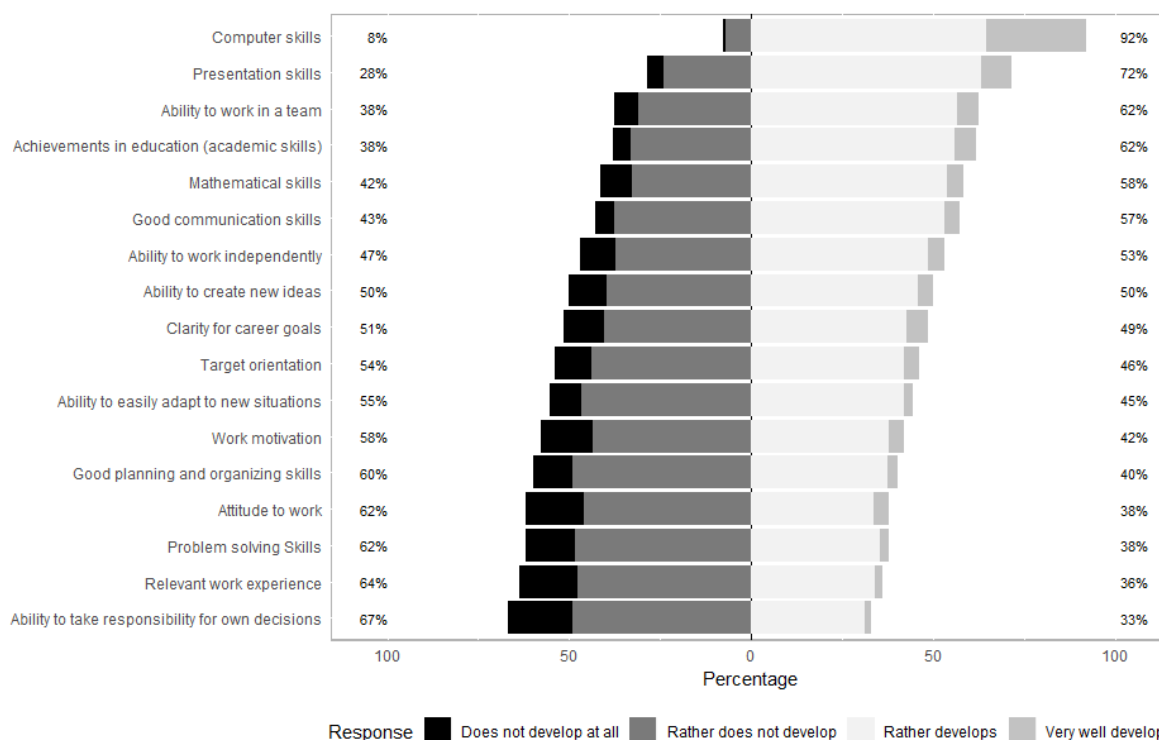


Figure 1 Distribution of Evaluations by Employers in Latvia of Performance of Vocational Education in Developing Employability Attributes in 2017 (n = 750)

Results of interviews with VET managers showed that the most common methods applied by vocational education institutions to facilitate development of employability attributes are: practical learning and extra-curricular activities. They were mentioned most frequently in relation to majority of employability attributes. International mobility was also frequently mentioned, but not as much as those.

Practical learning may include practical lessons at school, work placements and work-based learning at the company. Sometimes students can go also abroad for work placements. Practical learning may not just ensure relevant work experience, but also improve communication skills, ability to work in a team and independently, as well as facilitate development of motivation to study and work, appropriate attitude to work, sense of responsibility and ability to adapt. Although there were vocational education institutions with certain processes in place to ensure the quality of work placements, several admitted that the work placements may also be of poor quality whereas it depends on the interest of employers.

Vocational education institutions offer a wide range of free extra-curriculum activities: workshops, artistic collectives, chorus, dancing, self-

government of students, organisation of conferences, balls and other events, etc. According to the managers of vocational education institutions, all students have an opportunity to get involved in extra-curriculum activities, but the real involvement depends on their motivation and free time. Vocational education institutions also actively offer international mobility opportunities. Some vocational education managers estimated that there are much more extra-curriculum activities and opportunities for international mobility at vocational education institutions in Latvia than in general secondary schools. Some estimated that around 20-50% of students take part in these activities. Extra-curriculum activities are successful at facilitating development of social competencies, for example, co-operation and communication, planning and organising skills, as well as ability to create new ideas and to adapt to different situations.

Conclusions and recommendations

As the labour market changes at increasing pace, it is important to evaluate, how efficient education systems and methods they apply in teaching and learning process are in facilitating employability of graduates.

According to employers, vocational education in Latvia is best at developing skills and competencies which are considered to be more traditional for education curriculum: computer skills, presentation skills, ability to work in a team, as well as academic skills. In contrast, vocational education rather does not develop competencies and attitudes which are linked to person's self-management and emotional intelligence, for example, ability to take responsibility, attitude to work, planning and organizing skills, work motivation, ability to adapt to new situations (which includes ability to learn), target orientation, which are very important for employability in the context of changing labour market.

The main methods applied by vocational education institutions to develop employability are practical learning activities and extra-curriculum activities in which students participate on voluntary basis. It should be noted, however, that the positive effect of these activities does not reach all students. Not all of work placements are of good quality as there are vocational institutions without procedures in place to ensure quality of work placements and it depends solely on the interest of employers. This might serve as a reason for low evaluation by employers on ensuring "relevant work experience" in vocational education – 64% of all evaluations were negative.

When it comes to involvement in extra-curriculum activities, only around 20-50% of most motivated students who can afford to spend time on these activities, free from studies and work. Therefore, extra-curriculum activities

offered by vocational education institutions might benefit just the students who are motivated and comparatively more well-off.

To improve employability of vocational education graduates, attention should be paid to facilitating employability for all students within the mandatory curriculum of vocational education, including by offering specific support to disadvantaged students. Vocational education institutions should implement measures to ensure quality of all work-placements, as well as diversify teaching and learning methods to facilitate not just academic skills, but also development of social, self-management and emotional competencies, including motivation, attitude to work, sense of responsibility and adaptability.

References

- Bennett, N., Dunne, E., & Carré, C. (1999). Patterns of Core and Generic Skill Provision in Higher Education. *Higher Education*, 37, 1, 71–93. Retrieved from <https://www.jstor.org/stable/3448047> (04/05/2018)
- Bridgstock, R. (2009). The graduate attributes we've overlooked: enhancing graduate employability through career management skills. *Higher Education Research & Development*, 28, 1, 31-44, DOI: 10.1080/07294360802444347
- Cedefop. (2014a). *Attractiveness of initial vocational education and training: identifying what matters*. Report. Luxembourg: Publications Office of the European Union. DOI: <https://doi.org/10.2801/74821>
- Central Statistical Bureau. (2018). *Apsekojuma "Pieaugušo izglītība" rezultāti* [Results of the survey "Adult Education"]. Retrieved from: <https://www.csb.gov.lv/lv/statistika/statistikas-temas/socialie-procesi/izglitiba/meklet-tema/303-apsekojuma-pieauguso-izglitiba-rezultati-2018>
- de Grip, A., van Loo, J., & Sanders, J. (2004). The Industry Employability Index: taking account of supply and demand characteristics. *International Labour Review*, 143, 3, 211–233. DOI: <https://doi.org/10.1111/j.1564-913X.2004.tb00269.x>
- Eichhorst, W., Rodrigues-Planas, N., Schmidl, R., & Zimmermann, K.F. (2015). A road map to vocational education and training in industrialized countries. *ILR Review*, 68, 2, 314–337. DOI: <https://doi.org/10.1177/0019793914564963>
- Employment Agency of Latvia. (2016). *Pārskats par bezdarba situāciju valstī (septembris)*. [Overview of the unemployment situation in the country (September)]. Retrieved from http://nva.gov.lv/docs/31_581c96f2665210.29571259.pdf
- Employment Agency of Latvia. (2018). *Pārskats par bezdarba situāciju valstī (septembris)*. [Overview of the unemployment situation in the country (September)]. Retrieved from: http://nva.gov.lv/docs/31_5be59fae91ad94.07192545.pdf
- European Commission, EACEA, Eurydice. (2014). *Modernisation of Higher Education in Europe: Access, Retention and Employability 2014. Eurydice Report*. Luxembourg: Publications Office of the European Union. DOI: <https://doi.org/10.1111/j.2150-1092.2001.tb00265.x>
- European Commission, EACEA, Eurydice. (2015). *The European Higher Education Area in 2015: Bologna Process Implementation Report*. Luxembourg: Publications Office of the European Union. DOI: <https://doi.org/10.2797/128576>
- European Commission. (2015). *Education and Training Monitor 2015*. Luxembourg.

- European Commission. (2017). *Education and Training Monitor 2017*. Luxembourg.
- Fugate, M., Kinicki, A.J., & Ashforth, B.E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, 65, 1, 14–38. DOI: <https://doi.org/10.1016/j.jvb.2003.10.005>
- Harvey, L. (2005). Embedding and integrating employability. *New Directions for Institutional Research*, 2005(128), 13–28. DOI: <https://doi.org/10.1002/ir.160>
- Hillage, J., & Pollard, E. (1998). *Employability: developing a framework for policy analysis*. *Labour Market Trends*, 107(85), 83–84. Retrieved from <https://www.education.gov.uk/publications/eOrderingDownload/RB85.pdf> (27/06/2018)
- Humburg, M., van der Velden, R., & Verhagen, A. (2013). *Final report The Employability of Higher Education Graduates: The Employers' Perspective*. Publications Office of the European Union. DOI: <https://doi.org/10.2766/54258>
- Klāsons, G., & Spuriņš, U. (2015). *Pētījums par prakšu pieejamību un kvalitāti Latvijā. Noslēguma ziņojums*. [Study on availability and quality of work placements in Latvia. Final report]. Riga: Employers' Confederation of Latvia (LDDK). Retrieved from http://www.lddk.lv/wp-content/uploads/2015/06/LDDK_VET4E_Petijums_prakses.pdf
- Līce, A. (2017). Involvement of employers in educating employees as a solution to the problem of skilled workforce shortage in Latvia. In I. Kangro, A. Fernāte, S. Kārklīņa, & S. Kraže (Eds.), *Challenges for high quality of adult education: Inter-national scientific conference proceedings* (pp. 111–123). Riga: Ministry of Education and Science.
- Līce, A. (2018). Learning by Working: Examining Examples of Good Practice in Organising Work placements in Vocational Education. *Learning Strategies and Constructionism in Modern Education Settings*. IGI Global publishing house.
- Ministry of Education and Science (2018). *2018. gada 12. decembra Profesionālās izglītības un nodarbinātības trišpusējās sadarbības apakšpadomes sēdes protokols* [Minutes of Vocational education and employment tripartite sub-council meeting on 12 December 2018] Riga. Retrieved from <http://izm.gov.lv/lv/profesionalas-izglitibas-un-nodarbinatibas-trispusejas-sadarbibas-apakspadome>
- Ministry of Education and Science. (2014a). *Izglītības attīstības pamatnostādnes 2014.-2020.gadam* [Education Development Guidelines for 2014-2020]. Retrieved from: <http://polsis.mk.gov.lv/documents/4781>
- Pool, L.D., Qualter, P., & Sewell, P.J. (2014). Exploring the factor structure of the CareerEDGE employability development profile. *Education + Training*, 56, 4, 303–313. DOI: <https://doi.org/10.1108/ET-01-2013-0009>
- Pool, L.D., & Sewell, P. (2007). The key to employability: developing a practical model of graduate employability. *Education + Training*, 49(4), 277–289. <https://doi.org/10.1108/00400910710754435>
- Project and Quality Management Ltd. (2013). *Nākotnē stratēģiski pieprasītākās prasmes Latvijā* [Strategically most demanded skills in future Latvia]. SIA Projektu un kvalitātes vadība. Retrieved from https://www.em.gov.lv/files/tautsaimniecibas_attistiba/1_Petijums_nakotne_pieprasitak_as_prasmes.pdf (16/05/2018)
- Project and Quality Management Ltd. (2014). *Darba tirgus specifisko reģionālo problēmu identificēšana un pasākumu izstrādāšana reģionālā darba tirgus konkurētspējas stiprināšanai, pētījuma atskaite*. [Identification of specific regional labor market problems and identification of measures for strengthen its competitiveness, the study report]. Retrieved from http://www.nva.gov.lv/docs/28_53abbd7c02ee19.16060069.pdf

- Sumanasiri, E.G.T., Yajid, M.S.A., & Khatibi, A. (2015). Review of literature on Graduate Employability. *Journal of Studies in Education*, 5, 3, 75 - 88. DOI: <https://doi.org/10.5296/jse.v5i3.7983>
- Van der Velden, R., Welter, R., & Wolbers, M. (2001). *The integration of young people into the labour market within the European Union: the role of institutional settings*, Research Centre for Education and the Labour Market Working Paper, No. 7E.
- World Economic Forum (2018). *The Future of Jobs Report. 2018*. Switzerland. Retrieved from: http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf
- Yorke, M., & Knight, P.T. (2006). *Embedding Employability into the Curriculum: Learning & Employability Series 1*. The Higher Education Academy, York. Retrieved from: https://www.heacademy.ac.uk/system/files/id460_embedding_employability_into_the_curriculum_338.pdf