



Appropriateness of Education and Employment

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Abstract. Education programmes are designed to equip young populations with the qualifications required to assume responsible roles in specific professions and in society generally. In this paper, the focus of the analysis is on the significance of a number of higher education programme characteristics in allocating Belarusian young higher education graduates across the labour market and how these graduates perform in their jobs. Graduate performance is analysed in terms of the match between graduates' qualifications and employment requirements in Belarus. The findings provide relevant information for supporting the educational reform of Belarusian universities and increasing the employability of its graduates.

Keywords: *Belarus, higher education, graduates, employment, FOSTERC.*

Introduction

The role of higher education (HE) in preparing graduates for the labor market has always been central in society. In the move towards a knowledge society, students have become the most important stakeholders in any education system (EC, 2013), which means it is important that institutions meet or even exceed the expectations of their students. Students want a good quality product and service from their HE institution along with value for money (Yi, 1990; Collini, 2012; Sarrico et al., 2010). Some approaches to enhancing quality, therefore, put the student first and design procedures and courses that match both learners' needs and the relevant context (Mills and Paul, 1993; Hartman and Schmidt, 1995; Machado et al., 2011; Rodman

et al., 2013). In this sense, the importance of students as stakeholders suggests an urgent need to achieve a better understanding of how learning environments influence students' satisfaction (Hartman and Schmidt, 1995; Vila et al., 2007). The aim of this paper is to contribute to the literature on HE students' perceptions of the nature and impact of the academic environment on their learning outcomes and to provide insights about how improve student learning and successful career.

In the following section, we provide a description of the Belarusian HE. Next, we present data, the findings and discussions of the implications for future policy and research in the design of HE degree programs.

Higher Education in Belarus

The Belarusian system of HE includes educational, research and governing institutions that use unified official standards and rules in the processes of teaching, management, assessment and research. HE is under the supervision of the Ministry of Education, which is responsible for the accreditation and licensing of higher education institutions (HEIs) and developing and applying the State Educational Standards. HE is provided by public (state) and private (non-state) accredited HEIs. Education in public HEIs is free of charge for students with best results in the entrance competition, others with lower performance as well as private HEIs students pay tuition fees. The share of tuition fee paying students in the country is in around 60%.

HE system of Belarus is still under transformation. The first reforms introduced two-cycles system in 1994: the HE architecture included a traditional (Soviet) one-cycle 5–6 years of studies leading to Diploma of Specialist and as parallel, a 4-year long bachelor degree program and a 1–2-year master degree. During the period from 1994 till 2007, different models of the two-level system functioned simultaneously. However, in the next legal regulations adopted in 2007, 2008 and 2011 the term “bachelor” was excluded from description of structure of HE degrees in Belarus.

Since the implementation of the Bologna process in 2015, the Bologna model system of HE is underway and again comprises a 4–4.5 year long Bachelor programs as a first cycle, 1–2 years Master programs as a second cycle, and long terms 5–6 years integrated Specialist programs depending on the field of study. Such shift to Bologna model is being codified in the draft of Education Code in 2017 which is still pending the approval by the Parliament of Republic of Belarus (Final Report. The BFUG Advisory Group #2 for support of Belarus Roadmap (2017)).

However, the architecture of higher education is still more traditional and still far from Bologna 3-cycles system: the majority of students pursue 1 cycle programs and then enter the labour market. Still situation with Master level education is quite uncertain. Even if the Master degree gives some specific opportunities for better employability in academic and research areas, the rest of labour market basically

does not recognize the second level, there are no positions in the labour market to be occupied specifically by Master degree holders.

Data

In this paper, we have had the opportunity of using a major representative survey comparing the opinion of graduates from eight public universities from Belarus, the FOSTERC survey (FOSTERC 2016–2019). FOSTERC (Fostering Competencies Development in Belarusian Higher Education) project is a structural project in the frames of the Erasmus+ Programme running from October 2016 to 2019. The aim of FOSTERC is to strengthen the use of innovative approaches to teaching and learning in the Belarusian HE Institutions for the improvement of graduates' learning outcomes in terms of competencies (knowledge, skills and attitudes). The FOSTERC survey was carried out during the academic year 2017–2018 and the questionnaire was carried out by means of on-line information tool. Graduates were selected by means of random stratified sampling according to the field of study. A representative sample of 5.443 graduates holding a first-cycle higher education degree were surveyed three years after graduation; i.e., those who graduated during the academic year 2014–2015.

The representation of the graduates was as follow: Belarus State Economic University (BSEU) – 16.83%; Belarusian State Pedagogical University (BSPU) – 7.24%; Grodno State Agrarian University (GSAU) – 11.12%; Belarusian State University (BSU) – 10.16%; Brest State University (BRSU) – 9.41%; Francisk Skorina Gomel State University (GSU) – 14.35%; Polotsk State University (PSU) – 8.95%; and Yanka Kupala State University of Grodno (YKSUG) – 21.95%, of different regions of the country.

Appropriateness of education and employment

The questionnaire presented to the Belarusian graduates covers the main features of the university educational experiences and the main characteristics of the works that they performed at the time of the survey. One of the indicators of the labour market situation is the match between the degree achieved in HE and the present job. The questionnaire applies a subjective manner to measure both the vertical as well as the horizontal match.

The vertical match is measured by asking the respondent to compare the level of education required by the employer according to their knowledge for their job. By that, the indicator allows to measure if graduates are *over-educated*, *well matched* or *under-educated*. Graduates were asked “what is the most appropriate level of education for the job you are working in, in comparison to your own level of education?” We define the graduate as over-educated if his/her level of education is higher than

is required for the job. Similarly, a graduate is considered under-educated if his/her level of education is below what is required for the job. Table 1 shows that 25.3 per cent of graduates came to the conclusion that their employment and work required a higher level of study. Regarding gender differences, it seems that male graduates are employed in jobs where the level of education required is lower than the level of higher education (over-educated) compared with female graduates (2.4 points of difference). By field of study, those graduated in Computer Technologies perceived the highest mismatch between education and employment in terms of level of education, only 48.4% quoted being well-matched.

Table 1

Appropriateness of the degree qualification for employment and work (percentages)

| | Under-educated <i>(a higher level of HE)</i> | Well-matched <i>(the same level of HE)</i> | Over-educated <i>(a lower level of HE)</i> |
|-------------------------------|--|--|--|
| Total | 25.3 | 61.2 | 13.5 |
| Gender | | | |
| Female | 25.5 | 61.7 | 12.8 |
| Male | 24.8 | 60.0 | 15.2 |
| Field of Study | | | |
| Pedagogical Sciences | 23.7 | 67.2 | 9.1 |
| Humanities | 26.5 | 58.2 | 15.3 |
| Social Science | 31.6 | 55.0 | 13.4 |
| Economics & Business Ad | 27.4 | 54.4 | 18.2 |
| Law | 34.0 | 57.5 | 8.5 |
| Tech. Sciences & Architecture | 20.4 | 71.6 | 8.0 |
| Medical Sciences | 21.6 | 66.7 | 11.7 |
| Nat. Sciences & Math | 18.5 | 68.5 | 13.0 |
| Art, Design, Music | 25.0 | 61.1 | 13.9 |
| Computer Technologies | 29.5 | 48.4 | 22.1 |

Source: Own elaboration, FOSTERC data.

The *horizontal match* is measured by asking the respondent to compare the field of study that best prepares for their current job and the field of study they graduated from. By that, the indicator allows to measure if graduates are working inside their own educational domain or outside. Graduates were asked “what is the most appropriate field of study for this work?” (exclusively my own field; my own or a related field; a completely different field or no particular field). Table 2 shows that 14.7 per cent of graduates perceived a mismatch between education and employment in terms of another field of study being more useful. This were most frequently quoted by those who graduated in Humanities, Economics and Business Administration and Social Science. In turn, 93.1 per cent of those who graduated in Computer Technologies

stated that their field of study was the only one possible or by far the best one for their area of work.

Table 2

Relations between field of study and area of work as perceived by graduates (percentages)

| | Exclusively my own field | A related field | Other field |
|----------------------------------|---------------------------------|------------------------|--------------------|
| Total | 53.1 | 32.2 | 14.7 |
| Gender | | | |
| Female | 52.7 | 32.3 | 15.1 |
| Male | 54.0 | 32.1 | 13.9 |
| Field of Study | | | |
| Pedagogical Sciences | 66.4 | 30.4 | 13.2 |
| Humanities | 45.3 | 35.3 | 19.4 |
| Social Science | 47.1 | 36.5 | 16.4 |
| Economics and Business Admin. | 40.3 | 41.1 | 18.6 |
| Law | 58.1 | 31.4 | 10.5 |
| Technical Sciences, Architecture | 60.8 | 29.0 | 10.2 |
| Medical Sciences | 64.7 | 23.5 | 11.8 |
| Natural Sciences and Mathematics | 58.3 | 30.0 | 11.7 |
| Art, Design, Music | 47.2 | 41.7 | 11.1 |
| Computer Technologies | 54.7 | 38.4 | 6.8 |

Source: Own elaboration, FOSTERC data.

Table 3

Traits of the workplace (on a scale from 1 “a very low extent” to 5 “a very high extent”)

| Traits of the workplace | Mean |
|--|-------------|
| Use of your knowledge and skills | 3.28 |
| Your work demand more knowledge and skills | 3.75 |
| Responsible of setting goals for the organization | 3.06 |
| Responsible of setting goals for yourself | 4.14 |
| Responsible of deciding work strategies for the organization | 2.85 |
| Responsible of deciding how you do your own job | 4.25 |
| Responsible of assessing the quality of the work of others in the organization | 3.16 |
| Responsible of assessing the quality of your own work | 4.05 |

Source: Own elaboration, FOSTERC data.

The indicators with respect to vertical and horizontal match are strongly related to the topic of the knowledge and skills used in current work and the level of responsibilities demanded. Table 3 shows that, on average, graduates stated that they made use of the knowledge and skills they acquired in their course of study in their work tasks. Regarding responsibilities, those related to deciding how to do your own job, setting your own goals and assessing the quality of your own work were perceived by graduates as the most demanded in the work.

Conclusions

The findings in this paper should contribute to a better understanding of the role of the Belarusian Higher Education in allocating graduates across the labour market. This result indicates that Higher Education Institutions should support students' preparation for entering the workforce by focusing on the relevance of the practical knowledge, and achieving an appropriate balance between theoretical and practical-oriented learning in Belarusian Higher Education.

Furthermore, Belarusian higher education institutions should support students' preparation for entering the workforce by focusing on the development of those competencies which better fit the current demand of the labour market. In this sense, our study shows that in Belarus there are significant mismatches between the labour market demands and the level of competencies of recent graduates.

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Švietimo ir užimtumo atitiktis

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Santrauka

Švietimo programos yra kuriamos siekiant suteikti jauniems žmonėms kvalifikaciją, reikalingą profesinei veiklai bei atsakingam veikimui visuomenėje. Šiame straipsnyje yra analizuojamos Baltarusijos aukštojo mokslo programos, atskleidžiant studijų programų svarbą rengiant Baltarusijos aukštojo mokslo absolventus darbo rinkai. Straipsnyje daug dėmesio skiriama aukštųjų mokyklų absolventų į(si)traukimo į darbo rinką klausimams. Absolventų užimtumas darbo rinkoje analizuojamas, atsižvelgiant į absolventų kvalifikacijos atitiktį užimtumo reikalavimams Baltarusijoje. Analizės rezultatai suteikia reikiamos informacijos, reikalingos įgyvendinant Baltarusijos aukštojo mokslo reformą ir sprendžiant absolventų į(si)darbinimo klausimus.

Esminiai žodžiai: Baltarusija, aukštasis mokslas, absolventai, į(si)darbinimas, FOSTERC.

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