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Do university graduate competences match post-socialist labour market demands? Evidence from Azerbaijan

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Abstract

The recruitment and selection process in companies is becoming more complicated as employers place more emphasis on 'intangible personal qualities' rather than specialised skills. Employers also require graduates to adapt to the workplace on completion of their education. In particular, following the Bologna Declaration in 1999, the expansion of higher education across Europe has resulted in the questioning of the quality of the graduate labour market. To gain further insight into the mismatch between the employability skills of graduates on the one hand and labour market demands on the other, this paper examines the case of Azerbaijan, a country that is slowly entering the global network. The study synthesised and analysed 24 'transferable' soft skills and competences critical for improved graduate employability, resulting in a shortlist of the top five competences as ranked by Azerbaijani employers and graduates. More than 2,500 students from six major universities participated in the study which found that there is a huge discrepancy between the skills needed by students and the job market when compared with what is taught at university. Furthermore, it revealed that the absence of these necessary skills is a major factor preventing students from finding jobs.

Keywords: graduate employability, soft skills, transferrable skills, graduate success, generic skills, school to work transition, higher order skills, quality in higher education

Introduction

It is undeniable that the labour market is increasingly influencing trends in higher education all over the world (Scott, Connell, Thomson, & Willison, 2017; Rutkowski, 2015; Teichler, 1999). States have come to realise the crucial role that education plays in creating a strong and competitive socio-economic foundation (Boden & Nedeva, 2010). Improved skills increase employability as they enable workers to perform their jobs more efficiently, use new technology and innovate (Del Carpio, Kupets, Muller, & Olefir, 2017), allowing firms to move up value chains. Graduate employability is also considered a long-term means of enriching the 'professional well-being and career development' of university students (Kumar, 2007). This multi-faceted issue is becoming a high priority for stakeholders, including government, higher education institutions, students and employers (Aliyev, Valiyev, & Rustamova, 2011). Recent scholars have shortlisted the main stakeholders as students\graduates, employers and universities, while others include government, creating a trifold relationship model between universities, policy makers and the labour market (Bacevic, 2014). The issue can be scrutinized both at micro (students, their families) and macro

(stakeholders–educators, government, labour market) investment levels which suggests increasing interest in the undeniable socio-economic implications and benefits of higher education, something that can also be scrutinized from a cost-benefit (funding vs outcome) and governance perspective (Holmes, 2013; Kinash, McGillivray, & Crane, 2016). As the demand for higher education institutions to develop more mobile, resilient, skilled and knowledgeable students has grown, the UK and mainland European countries have developed a stronger appreciation of the importance of higher education and the inherent skills necessary for the formation of a knowledge-based economy. In particular, following the Bologna Declaration in 1999, the expansion of higher education across Europe has resulted in the quality of the graduate labour market being questioned (Andrews & Higson, 2008; Scott et al., 2017; Harvey et al., 2002). Thus, it is widely acknowledged that it is very important for universities to produce students with the ability to find or create work after they graduate.

Background: Transition from the Soviet System

Until independence, the education system in Azerbaijan primarily followed Soviet-wide structures. However, education has undergone several reforms in the past 28 years that have had significant positive and negative impacts. The Azerbaijani constitution stipulates that every citizen has a right to receive an education. Children can begin primary education at six or seven years of age. The state provides free secondary education. General education consists of three levels: primary school (grades 1-4 for students aged 6-9), middle school or general secondary education (grades 5-9 for students aged 10-14), and upper school (grades 10-11). Starting from the mid-1990s Azerbaijan switched to a three level system in higher education. The first level is a bachelor's degree that requires four years of study at university. Then, students have the option of studying for a masters degree for another two years. Interested students may apply for admission to institutions granting doctoral degrees. After finishing doctoral studies and successfully defending a dissertation, an individual receives a PhD. that is equal to the *Kandidat* degree of the old system. Awardees of PhDs need to defend another dissertation to receive the title of Doctor of Science. Despite switching to the new Western system, remnants of the old system remain. In most Western institutions granting PhDs, there is no additional title such as Doctor of Science. The reforms involved changing the name of *kandidat* to PhD., but the system remained the same due to fierce opposition from the old guard of doctors and *kandidats*.

Table 1: Azerbaijan's Education System

Study level	**Duration**	**Grades**
Pre-school (typically for children between 3 and 6 years old). Pre-Primary education		
General Education		
Primary education	4 years	1-4
General lower secondary education	5 years	5-9
Full secondary education	2 years	10-11
Vocational Education		
Professional or Technical Institutions (former PTU-for manual and basic skills)	3 years	
Secondary specialised education (former *Tekhnikum*)	2 to 4 years	
Higher Education		
Bachelor	4 years	
Master	2 years	
Doctoral	4 years and further	

After achieving independence in 1991, Azerbaijan began to revise many government policies including its obsolete education system. The introduction of private higher education institutions

along with public HEIs, actions to join the European educational platform and the revision of the education system in line with the Bologna Process and its standards, were just some of the most ambitious steps. However, only a small share of private universities were truly competitive. Despite many long-term strategic plans and governmental statements there is still a lack of coordination between higher education and rapidly changing labour market demands (Sadirkhanov, 2009). Currently, there are 51 higher education institutions in Azerbaijan, 39 public and 12 private, located mostly in the capital city, Baku, with its population of about two million (State Statistical Committee, 2020). The total number of students, 167,677, with 153,000 currently enrolled in public universities, and the remaining studying in private universities. Despite state policy initiatives to promote youth employment and skill development in accordance with market demands, real in-the-field implementation still remains insufficient (Valiyev & Babayev, 2021).

Researchers only began to study the labour market situation after 2003 with random (irregular) surveys with the support of the International Labour Organisation (ILO). Reports as well as government statistics showed that despite all the government's efforts the situation with graduate employment remained problematic. Thus, around 11% of all inactive people (238.8 thousand) in the country are graduates of higher education institutions (SSC, 2019). In particular, the majority of inactive graduates have qualifications from fields including health, education and the humanities. Meanwhile, there is a shortage of graduates qualified as financial managers and agricultural experts. For instance, half of the graduates of higher education institutions specialised in education-a sector that provides only 8.6% of employment and rather low salaries. Meanwhile, this group of people is widely seen as lacking vocational skills and may become unemployed.

The government adopted a strategic roadmap in 2016 to address, among other things, human capital development in order to foster labour productivity, sustainable economic growth, competitiveness in the production sector and the integration of the country into global markets. This issue has become even more problematic when we consider that HE institutions are the key suppliers of the skilled and qualified labour force in Azerbaijan. Every year, graduates face a rapidly changing and very competitive employment sector. To increase the chances of employment, graduates need to have certain non-qualification\nontechnical skills i.e. those skills currently most valued by employers. Some literature also refers to such skills as 'soft' skills. The importance of higher educational institutions nurturing 'high level specialists….taking into account requirements of society and labour market' has become the silver lining of the government's educational and development policy in Azerbaijan (State Statistical Committee of the Republic of Azerbaijan, 2018). Senior government officials emphasised during the OSCE 26th Economic and Environmental Forum in 2018 that fundamental questions which still require answers are what qualities the individuals of tomorrow will need and how to promote growth beyond material improvement. As integration in the global knowledge economy is becoming an increasingly urgent call to all countries around the world, states, including such developing countries as Azerbaijan, are recognising the role of HEIs in boosting innovation, competitiveness and economic development. Nevertheless, the capacity of HEIs to operate as dynamic platforms for such efforts still remains underdeveloped to an extent. In 2013 the Education Development Strategy was approved by the President of the Republic of Azerbaijan. It delineates the importance of reforming the education system to foster a more competitive education ecosystem which is able to keep pace with global practices and integrate advanced technological infrastructure. According to the World Bank report of 2018 there is a need for strategic reforms to increase the relevance of higher education as it feeds into economic competitiveness of the country.

The term 'investment in the education of people' nowadays has gained a much broader definition, linking skills with productivity (OSCE, 2018). Meanwhile, there is a lack of comprehensive research in Azerbaijan scrutinising the quality of higher education output i.e., readily employable graduates. These limited studies emphasise the paradox that while the challenges in graduate employment persist there is a growing demand in the labour market for skilled employees (Sadirkhanov, 2009).

One of the driving factors of unemployment and inactivity among those with higher education is a lack of competitive skills. In this regard, based on the results of the STEP Employer Skill Survey carried out in Azerbaijan in 2013, a serious skill shortage was detected, especially concerning technical, cognitive and socio-behavioural skills, coupled with employers' high expectations (Rutkowski, 2015). Hence, the skills gap refers not only to technical skills but also to higher-order cognitive skills and socio-behavioral skills. By their nature, these results show subjective perceptions of employers. And these perceptions reflect not only the objective conditions, but also, potentially, unrealistic expectations on the part of employers. Nonetheless, the results signalled a skill problem in Azerbaijan, and employers' criticism of the quality and relevance of education could not be easily disregarded (Rutkowski, 2015). That was confirmed by Deputy Minister of Education, Mr. Idris Isayev, who indicated that the biggest challenges to achieving higher employment among young people is the mismatch between education or training on the one hand and the demands of the market on the other. Such a mismatch is the major threat to Azerbaijan's future.

It is noteworthy that the quality of higher education has been a major target of government policy for the last decade in Azerbaijan. The State Strategy of the Azerbaijani Republic on the Development of Education adopted in 2013 clearly states that developing human capital is the cornerstone of stronger global competitiveness for Azerbaijan and successful integration into the world economy. As such, the main purpose of the strategy is to foster the development of human capital, to nurture modern skills and knowledge in individuals, through a combination of practical skills and knowledge, and of competence along and academic knowledge (Republic of Azerbaijan, 2013).

Literature

The concept of graduate employability refers to the job or work that students are able to access within a short period after graduating from university (QS, 2019). According to the International Student Survey 2019 results (QS, 2019), 58% of respondents chose universities with a high employment ranking, 56% prioritised universities which promote access to students' preferred industry, and a further 58% chose universities that enabled them to quickly find a job right after graduating. Thus, employability is a key deciding component in future students' decision-making regarding university choice. The scope of graduate employability also decides where in the ranking the university stands. Although the topics of graduate employability and generic employability skills have been examined closely within the last four decades, the focus has nonetheless been on developed economies such as the UK, Germany, Australia, and the USA (Kinash, McGillivray, & Crane, 2017; Teichler, 1999). Nonetheless, attention has increasingly shifted to Central and Eastern European countries, as well countries in Asia and Middle East (Cai, 2013; Bacevic, 2014; EL-Annan, 2012). Successful school-to-work transition forms the basis of positive economic, social and political changes in society and should be regarded as the most valuable human resource investment on a national level (EL-Annan, 2012).

One region where relatively little study has been carried out on this question is Eastern-European post-Communist countries. An exhaustive study conducted in Poland, Hungary, Lithuania and Slovenia in 2002-2003 analysed the labour market entry of university graduates, concluding that school-to-market transition still remains highly sensitive to labour market conditions and recommended that cooperation between the labour market and higher education policy makers should be fostered (Zamfir, Militaru, Mocanu, & Lungu, 2018). Another post-socialist state, Ukraine, has displayed a somewhat fragile economic performance and lower production compared to peer countries, despite high literacy rates and a significant number of university graduates (Del Carpio et al., 2017). According to a World Bank report in 2011 graduate skill gaps are limiting the performance of companies in Ukraine according to 40% of firms representing four key sectors of the economy (agriculture, food processing, information technology [IT], and renewable energy) (Del Caprio et.al., 2017). Thus, a better skills development strategy has the potential to overcome structural challenges by improving firms' performance and increasing the productivity of the Ukrainian economy (Del Carpio et al., 2017). Such unmet employability skill needs undermine the efficiency and performance

of companies and there is no reason to think that this applies to post-Communist countries any less than to other regions. According to Archer and Davidson (2008), with reference to the International Employer Barometer (IEB), around a third of employers are dissatisfied with the employability skills of graduates. They claim that recent graduates generally lack team-working, communication, and problem-solving skills. 86% of employers consider the acquisition of soft skills to be a relevant factor of employability, as many graduates find it hard to express themselves. Meanwhile, the Council for Industry and Higher Education (CIHE) stresses that higher educational institutions lie at the heart of the services that should help students of all disciplines develop marketable skills i.e. those necessary in a workplace and of instant value to employers (these include soft and hard skills, numeracy and literacy skills) (Archer & Davison, 2008).

Similarly, the Flash Eurobarometer Survey was conducted among all 27 EU member states, along with Norway, Iceland, Croatia and Turkey upon the request of the Directorate-General for Education and Culture (Gallup Organisation, 2010). This survey verified the importance of various skills and abilities in the successful employment of graduates, as well as employers' satisfaction with such skills. According to the survey, although skills such as teamwork (67 %) or computer literacy (88 %), as well as communication skills were considered to be important during recruitment, almost half of the recruiters reported a lack of graduates with the necessary level of such skills and capabilities. The 2016 report by the Organization on Economic Cooperation and Development (OECD), 'Survey of Adult Skills', also emphasises the growing importance of information-processing and other cognitive and interpersonal skills in today's technologically equipped society, and links skill proficiency to the labour market and social outcomes. The Survey of Adult Skills is a product of the OECD's Programme for International Assessment of Adult Competencies (PIAAC). The purpose of this international survey is to measure the key cognitive and workplace skills needed for individuals to participate in society and for economies to prosper. This survey is conducted in more than 40 countries including, among OECD member states, Slovenia, Turkey, Estonia, Greece, Hungary, Latvia, Lithuania and, among non-OECD states, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Serbia and Moldova. The World Bank (2011) confirms that moderate-income cluster countries aspiring towards more advanced status must focus on the role of HEIs as a source of skills supply, enhanced innovation and research capacity. In early 2000 the European Training Foundation (ETF) launched 'The Black Sea Labour Market Reviews' project (a series of country reports and cross-country comparisons) to conduct a comparative analysis of challenges and trends in the labor market and employability across Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine. According to Bardak et al. the report findings emphasised that underinvestment adversely affected the quality of education across the board, consequently labour market demands are not met by the skill and knowledge supply provided (2011).

In focusing on Azerbaijan, this paper draws attention to one post-Soviet country that, for a short period of time (2004-2014), benefited from a uniquely high income of oil revenues and, as a consequence, experienced a skills mismatch of a particularly severe kind. Azerbaijan is a country of 10 million people located in the South Caucasus. Its population has been steadily increasing in recent years. The country became independent in 1991 after the collapse of the Soviet Union. Azerbaijan is considered a middle-income country with a GDP per capita of $USD 4,739 in 2018 (World Bank, 2021). The Human Development Index in 2017 was 0.754 which put the country in a relatively high human development category – 80th among 189 countries (UNDP, 2020). The country's economy has undergone dramatic changes, integrating into the global economy and, as a result its labour market has been shaped by the demands of the modern world. Despite the efforts of global integration and the de-industrialisation of the economy, foreign investment has been concentrated mainly in the oil sector, creating limited employment opportunities for non-oil areas of the economy. The extraction sector accounts for merely 0.8% of the total employment in the country which still underperforms in affecting overall youth employment. Recruiters express serious concerns with the lack of graduates from higher education institutions equipped with appropriate cognitive and socio-behavioral skills (Valiyev, 2020). Over the last few years oil output has declined, something which has been accompanied by a significant drop in oil prices. However, during this

period consumption and government spending remained elevated. The labour market has also faced significant distortions and challenges. An important question that arises is how the education sector has reacted to these changes. Are education institutions in Azerbaijan able to supply the necessary skills and competences to students to get desired jobs? In order to answer these questions, this study examined the perceptions of two main stakeholders - students and employers. The perception of current graduates was analysed using two different approaches – the weight given to various shortlisted soft skills by the students and the level of the same skills being taught at their respective universities (as evaluated by students). Any deviation between the weight given to a specific skill and the level of integration of the skill into the university's curriculum serves as evidence of a skill gap. The research questions which underpin this study are:

- What mismatch, if any, exists between the (soft) skills that employers see as important and expect to observe during graduate employment and those demonstrated by university graduates?
- Which skills do students believe will help increase their employment prospects?

Taken together, we can thus discover from these measures if there is a major mismatch between 'employability skills' as perceived by those stakeholders (Handel, 2003).

Data collection and methodology

Soft skills terminology

There is a diverse range of definitions of 'soft' or 'non-academic' skills in the scholarly literature. For the purposes of this paper, we have synthesised those definitions to create a useable baseline measurement. The International Employer Barometer (IEB) study for the Council of Industry and Higher Education has discovered that the majority of employers perceive social skills and personality type as more important than the degree qualification of potential employees, with only 60% rating 'good degree qualification' as 'important' (Gallup Organsiation, 2010). According to the survey findings, the labour market seeks 'soft' skills such as communication and team working in new graduates among the most critical capacities (Archer & Davison, 2008). The IEB findings are especially noteworthy considering the findings of the Institute of Directors (IoD) in 2007 delineating the 'top ten' skills and qualities IoD members rated as 'must haves' for graduates: honesty and integrity; basic literacy skills; basic oral communication skills; reliability; being hardworking and having a good work ethic; numeracy skills; a positive, 'can do' attitude; punctuality; the ability to meet deadlines; and team-working and co-operation skills. Moreover, a 15 year long research study by economists in OECD countries has validated the importance of personality traits—such as conscientiousness, persistence, work motivation, extraversion, emotional resilience, ability to work with others, and willingness to bear risk—in determining labour market and other educational outcomes over an individual's lifetime (Pierre et al., 2014). These skills, often defined in the literature as 'transferable' or 'soft' skills, have been given various definitions in ranging from analytical and critical thinking, problem-solving abilities, interpersonal skills, teamwork, leadership skills, recognition of lifelong learning (Jonbekova, 2015), communication skills, self management skills, planning, organisational skills, and enterprise and initiative skills (EL-Annan, 2012). Some scholars define employability skills as skills which are necessary to gain employment and progress in a workplace (Yorke, 2004, as cited by Cai, 2013). On the other hand, Del Carpio et al., referring to Borghans and colleagues (2008), divide cognitive skills into basic academic capacities (such as literacy) and more complex skills (such as critical thinking and problem-solving) (Del Carpio et al., 2017). Brown and Scase bring out the role of innovation, experimentation and creativity skills sought out by employers in the recruitment of graduates. Some literature even includes courtesy and friendliness, caring and empathy, loyalty and integrity as critical soft skills (Pierre et al., 2014; Schomburg & Teichler, 2006).

For the purpose of this paper, 24 'transferable' soft skills and competences critical for improved graduate employability have been synthesised from the literature (see Table 2 below) and the top 5 are as ranked by employers and graduates.

Table 2: Shortlisted 'Transferrable' Skills Surveyed

1. Basic knowledge of profession	14. Initiative and entrepreneurial skills
2. Oral communication in native language	15. Analytical skills
3. Writing in native language	16. Applying theoretical knowledge in practice
4. Knowledge of second language	17. Research
5. MS Office skills	18. Information management (searching and locating information from various sources)
6. Planning and time management	19. Self-evaluation\self-analysis
7. Creativity	20. Ability to work in a multinational and diverse team
8. Problem-solving	21. Innovation
9. Decision-making	22. Self-confidence
10. Teamwork	23. Computer\IT skills
11. Adaptability (flexibility, resilience)	24. Interpersonal skills
12. Leadership	
13. Ability to work autonomously	

The list of skills in Table 2 is compiled based on several criteria. The first was to attempt to equally include the soft and hard skills into the list of competences covering a wide range of abilities. Next was the inclusion of those skills and competences identified in the World Economic Forum's report, The Future of Jobs (World Economic Forum, 2016). Finally, the list had to include the competences and skills that are required in the country to become a successful employee of a company. The list also includes information from a content analysis of local websites designed to help students find a job. Analysis of these websites made it possible to narrow down the skills and competences required by employers.

Surveys

This study primarily employed data from a survey conducted between October 15th, 2018 and May 15th, 2019. The survey was conducted during a 7-month period in four different time frames. The reason for such a long survey period was to catch the responses of students at various points in their studies. Samples of students in six major universities were chosen (ADA University, the University of Economics, the University of Languages, Azerbaijan Pedagogical University, Azerbaijan Technical University and Baku State University) representing a large portion of the student population in Azerbaijan. The universities were selected based on their student population, quality of education (ranking) as well as specialisations taught at these institutions. Research participants were representatives of social sciences (education, philology), finance\economics and technical areas

(engineering, IT) to provide a broader coverage and more diverse representation. The study included 2515 students.[1]

Self-administered surveys were conducted among students in their third and fourth years, as they seemed better placed to answer the questions having several years of student-life experience behind them and a relatively clear idea and plan for the future. The survey used non-probability sampling, namely purposive sampling. The researchers chose the groups and sections that had classes during the survey days from specific department and schools. This specific type of sampling was selected in order to reach the target sample quickly and without having to consider proportional sampling. With this type of sampling the researchers were able to get the opinions of the target population conveniently, but it is likely that this led, as in comparable studies, to researchers over representing those subgroups in the population that were more readily accessible. The process of respondent selection used a standard methodological approach employed elsewhere. The surveying process followed the standard procedure used in the country: interviewers were introduced to the class; the purposes of the survey were explained in detail during the next 3-5 minutes and the survey was distributed. It was conducted anonymously without students indicating their names. As such no ethics approval was necessary.

Student questionnaires consisted of two parts. The first part asked students to rank a given list of soft skills based on how they saw their role\importance for employability. The second part of the survey asked students to rank the same set of soft skills from their perceived level of teaching of these skills at their respective universities. The questionnaires used by the researchers contained items covering different aspects of the students' education background, their perception, knowledge and competences, as well as students' assumptions about, needs for, and visions of, their future employment. The average expected margin of error varied between departments (technical vs non-technical), but none was greater than 5%. Within a 35-day period researchers conducted self-administered surveys in the groups and covered around 2,500 students. The surveys were distributed in Azerbaijani. The researchers and assistants of the survey process were able to control the absence of interactions between survey participants to eliminate any problems. To measure the level of certain non-technical skills imparted in certain institutions, respondents were asked to rank a set of skills based on the level taught at the HEI they study(ied) on a 5-point scale, where 5 means 'taught at a high level', and 1 means 'not taught at all'. All respondent categories were also asked to choose a shortlist of the most important skills (from the same set) that would (have) help(ed) them in finding jobs.

Interviews

Beyond the surveys, the researchers conducted semi-structured, qualitative\individual interviews with experts ranging from university administrators to representatives of different employment sectors and professional recruiters\headhunters. Interviewees were asked to provide general information about: a) their companies\institutions, and b) their history of recruiting recent graduates and their experience in evaluating the soft skills of graduate employees. The selection of employers was based upon those with experience of graduate recruitment, so that they would be able to comment on labour market expectations of recent graduates in terms of non-technical skills, and be well-placed to identify any skills mismatch or gap. The purpose of the interviews was to identify the level of graduate the population and its match or mismatch with the employment sector's expectations. Interview questions served the purpose of identifying the need for skills emanating from the labour market, and the preference of employers for particular soft skills and non-technical traits. Interviewers used the same skills set and definition as those used in student surveys. One main limitation of this study was the geographical constraint. Researchers mostly focused on the Azerbaijani sections of densely populated universities located in Baku and were

[1] Social Sciences – Baku State University, Azerbaijan Pedagogical Universit, Azerbaijan University of Languages; Finance Business – University of Economics, ADA University; Technical - Azerbaijan Technical University, ADA University.

forced to leave out regional HEIs. This was partly due to the method of data collection. The researchers used mostly non-random probability sampling among the students of the main universities of Azerbaijan. However, all of these universities are located in Baku and regional universities were not covered. Moreover, many small and medium scale universities were not covered due to limited time and resources. Another limitation could be the failure to separate respondents from each other and limit interactions with them. Moreover, despite the fact that the surveys were anonymous, the impact of factors such as administrative influence (surveys were conducted during the class) could not be ruled out. However, these factors are unlikely to have undermined the reliability of the data substantially and it remains reasonable to generalise the results to the general student population. The interviews were conducted during the times of the surveys since the questionnaires were collected from students within 7-8 months period.

The mixed methods approach of using surveys and interviews was supplemented by observations while working in the institutions.

Analysis and discussion

As seen in Table 3, the gender distribution of respondents varied depending on specialisation (e.g. more female students in pedagogy, and more male students in technical and financial areas). Of the total respondent population, 37% were men and 63% women. In addition, 56.9% were in Year 3 and the remaining 43.1% were Year 4 students. Such distribution is common in the country since certain specialisations are traditionally dominated by either females or males respectively. Thus, the pedagogy, languages and medical schools are usually chosen by females, while economics and technical subjects are dominated by males. Such gender distribution negatively affects the employability of graduates since certain areas could be understaffed by gender, while another is overpopulated. Such a situation was prevalent in Soviet times and continued even after the collapse of that system. It is worth mentioning that certain professional stereotypes about females and males are prevalent in society e.g. the profession of engineer is often considered inappropriate for females, while males are not encouraged to choose the professions of linguist, librarian, translator or teacher.

Table 3: Summary of Respondent Demographics

Name of University	**By Gender**			**Study year**		
	Male	**Female**	**Total**	**Year 3**	**Year 4**	**Total**
Baku State University	12.4%	87.6%	100%	1.3%	98.7%	100%
ADA University	45.6%	54.4%	100%	38.0%	62.0%	100%
Azerbaijan Technical University	80,0%	20.0%	100%	56.1%	43.9%	100%
University of Economics	63.4%	36.6%	100%	62.4%	37.6%	100%
Azerbaijan University of Languages	4.8%	95.2%	100%	49.5%	50.5%	100%
Azerbaijan Pedagogical University	10.3%	89.7%	100%	87.5%	12.5%	100%

Skills

Students participating in the surveys seemed willing to indicate the number and level of skills and competences that they had received in university, as well as their perception of what they need to get jobs in the market. The results, shown in Table 4, below indicate that a significant majority of students emphasised the importance of foreign language (72%) and computer skills (52%). The

distribution of answers shows that, on average, almost half of respondents have a high appreciation of social skills such as 'interpersonal skills' (almost 30%) and 'self-confidence' (almost 40%). These values differ slightly between universities and genders. Nevertheless, a notable contrast can be observed in the answers of respondents with regards to the importance of certain skills (as perceived by students themselves) for their employability prospects and the extent to which those skills are imparted at their universities.

Table 4: Importance of Employability Skills as Perceived by Respondents

Skill name	Response percentage
Foreign language	72.1 %
Knowledge of profession	67,1 %
Computer literacy	52,3%
Self-confidence	38,6%
Spoken native language proficiency	33,4 %
Interpersonal skills	26,6%

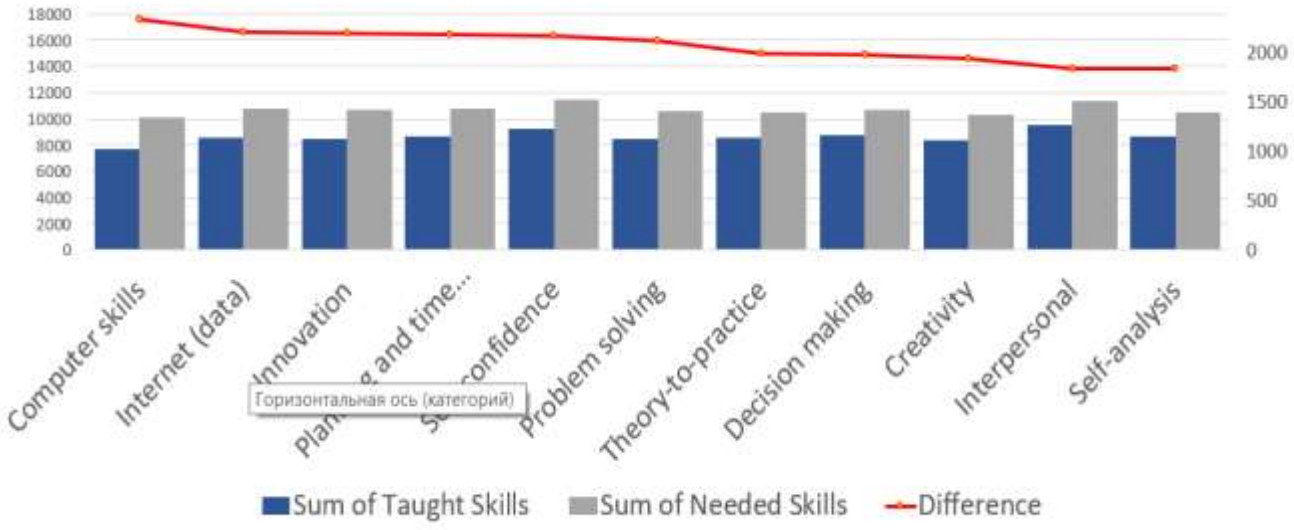

Figure 1: Students' Perception of Soft Skills: Taught vs Needed

Figure 1 is based on responses by the surveyed students to two main questions: 1. What is the level of teaching of the set of skills at your university? and 2. How important are specific soft skills for your future employability opportunities? The level of importance given by students to certain shortlisted skills (Likert scale) is demonstrated on the grey bar, while the perception of the level of teaching of the same skills they receive in their respective higher education institutions is depicted on the blue bar. Overall they assessed the entire set of 20+ skills, and the graph demonstrates those skills where there was the greatest difference between importance of\need for the skill and the level at which it is taught at the university. The numbers on the vertical axis show the number of students who responded to this question. For example, for computer skills 1400 students indicated it as highly important for employability but practiced on a weak level at their universities. The same was true of Interpersonal skills.

An obvious discrepancy is easily visible between the importance given by students to certain skills ('Needed skills') and the level at which those skills are currently practiced at students' respective HEIs. Special attention should be paid to such critical cognitive and socio-emotional skills as self-confidence, problem-solving, application of theory in practice, decision-making and self-analysis. In addition, tangible yet non-technical skills such as computer skills (researchers assumed these referred to basic Office programs e.g. Outlook), internet (data search, collection and processing), and innovation also show the highest discrepancies. The lack of the aforementioned skills in fresh graduates was also verified by interviewees and identified as one of the significant causes of unemployment of inexperienced students.

Furthermore, Figure 2 below is a visual representation of the third part of the survey, where students were asked to shortlist the five top skills they believe have the biggest impact on their employment opportunities. The answers showed that according to the majority of students' perceptions, knowledge of a second language (mostly English) and professional knowledge would help them to find jobs more quickly and move through organisational structures more smoothly. In addition, transferrable skills such as self-confidence, computer skills, interpersonal skills and creativity were also noted by all respondents, which is another argument corroborating the findings of the first and second parts of the research.

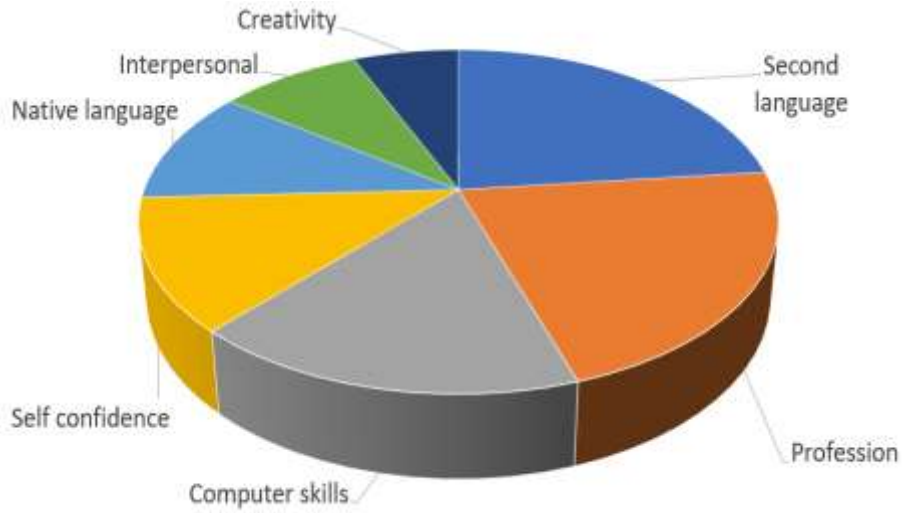

Figure 2. List of Skills Stated by Students

Meanwhile, it is obvious from the analysis of answers that the overwhelming majority of respondents realised the importance of soft skills in their future careers and professional life and have a clear insight into when such skills are not being imparted adequately in their respective HEIs. Some students, in their comments, added other soft skills that they believed would increase their opportunities for successful employment such as stress\pressure management, planning, self-confidence, time management, and task prioritisation. Another significant category evaluated by respondents as important for employability was creativity and teamwork with 19% and 18%, respectively. 17 % of students also responded with innovativeness\innovation.

It is notable that in addition to the first sections of the survey in the open-ended part ('comments') a majority of students indicated that knowledge of various foreign languages (English and other) was important in selecting fresh graduates for starting positions at various companies. Recognition of the role of foreign language knowledge is natural, considering the growing number of international companies operating in the country. Overall the results of the survey depict a positive indication that students are knowledgeable about the expectations of the labour market in terms of the demand for soft skills in entry-level positions. They are also aware of gaps in the quality and level of soft skill teaching in their respective HEI.

Labour market

The majority of interviewees claimed that the skill levels of university graduates do not correspond to the current demands of their company\institution. They are forced to put their new recruits through a training and orientation process prior to full-time employment. Combined with limited opportunities for practical experience within the framework of university education (Sadirkhanov, 2009), a lack of soft skill projects, trainings and activities in higher education further exacerbates the chance of finding a job.

> *Sometimes, they (graduates) are lacking even basic interview skills, which causes them to fail the recruitment process at the very early stages (despite how knowledgeable they are)* (Interviewee N1).

All respondents representing the labour market noted that although there is a constant and acute need for graduate employees it is difficult most of the time to allocate a suitable candidate with the necessary level of professional knowledge and personality from hundreds of possible candidates. The interviewees believed that a strong university education is highly important for effective employment, and recognised from experience in practice the drawbacks related to a lack of soft skills in making the transition period smoother.

> *Sometimes we meet a graduate with very high GPA or excellent knowledge of the profession. However, the same candidate may suffer through the job adaptation period due to a lack of communication, time management and teamwork skills* (Interviewee N2).

That picture coincides with reports from other countries too. A number of other reports of individual employers (e.g. Mincer, 1991) showed that employers were facing challenges in finding employees who had the required skills set despite the universities' major role being to build marketable skills in graduates. Studies reported that recruiters faced problems filling vacancies with the right people (Cappelli, 2015). Among the valued skills, communication skills, the ability to question facts and analytical and problem solving skills were highest in the ranking. The inability to find the right candidates for vacancies is called *a skill gap* (Cappelli, 2015, p.252). Cappelli (2015) introduced this term to emphasise the role of education in enhancing students' employability skills prior to employment, regardless of the further development of employees that would take place internally in a workplace. Moreover, another economic term introduced by Cappelli, namely *skills shortage* (2015, p. 252), denotes a job-related skill deficiency in graduates. These skills are those that differ from organisation to organisation and refer to a lack of relevant field-related knowledge and skills by graduates. As in previous studies, the skills most appreciated in our survey were soft skills (communication), thinking skills (analysis, critical thinking, problem solving), the ability of candidates to offer innovative approaches to work (Cappelli, 2015), and finally discovery-based skills, such as critical thinking and reasoning among others (Susman, 2015). A lack of these skills in candidates is called *skill problems* (Cappelli, 2015, p. 253), which may lead to job mismatches. Employers identify mismatches as the primary source of business inefficiency and the cause of productivity scarcity.

Representatives of the government institutions in Azerbaijan also believe in the importance of imparting certain soft skills and competences as part of university education. They emphasised that such skills play a critical role not only in finding jobs but also for a successful transition into work and for professional growth.

> *The objective of the entire education system, in particular of higher education in Azerbaijan is to produce competent and skilled professionals who are able to work in a multicultural, diverse and dynamic environment, locally and globally* (Interviewee N3).

Another point emphasised by employees was the 'ability to think outside of the box' which also can significantly facilitate the successful employment and career growth of fresh graduates. As mentioned by one of interviewees, the employers expect certain personality traits and qualities from graduates, thinking that if a graduate has completed a university degree, it means they know

how to acquire and apply knowledge. However, the same interviewees mentioned a lack of such acumen in the students they interview and subsequently employ. Finally, all of the interviewees confirmed that such soft skills as interpersonal skills, time management, teamwork, foreign language and computer skills etc. often have an even stronger impact on the final decision of employers than the mere possession of a university diploma.

A 2017 report by the American Chamber of Commerce in Azerbaijan (AmCham) with the support of the Ministry of Education (including a recruitment survey among companies and enterprises operating mainly in banking and the oil\gas sectors as the country's most developed sectors) indicates that the vast majority (almost 70 %) of respondents found it challenging to find suitable candidates for graduate recruitment. In particular, graduates from public universities, lacked non-technical skills as communication skills (58 %), teamwork skills (42 %), presentation skills and others. A commonly held view was that students lacking the aforementioned skills fall behind their peers. Another challenge discovered during interactions with HEIs in this study was facilitating students' understanding of the importance of such soft skills. It is noteworthy that currently Azerbaijan is not participating in this international survey. The mismatch between education and employability remains one of the most serious challenges for countries like Azerbaijan. A recent program adopted by the government stated that the number of youths not in education, employment and training (NEET) is around 23% (Valiyev, 2019). In keeping with the Sustainable Development Goals (SDG) the government plans to reduce it to 15%. In order to get to this goal there are many challenges for the government. The quality of education remains a problem in many State Universities. Teaching methods and textbooks do not meet modern standards. Faculty and students believe that there is not enough modern academic literature in Azerbaijani, which creates problems for students who only speak the native language. Among major issues facing education is the mismatch between specialisations at universities and labour market demands. Despite attempts to modernise and diversify the education system, the field still remains highly state-controlled even to the extent that the exact number of places at each higher education institutions, i.e. the student quotas, is approved by the Cabinet of Ministers of the Republic of Azerbaijan on an annual basis. The process of identifying this list and forecasting for each specialisation (if there is any) is opaque. Industry is completely disengaged from this process. Interviewed recruiters noted that, as a result of this mismatch, there is 'an army of teachers and economists' with no job prospects ahead of them, negatively affecting the progress on SDG 8. A recent survey conducted by a youth agency shows that 60% of 8,921 surveyed youths work in areas that are not relevant to their university degree (NAYORA, 2018). Moreover, as a result of centralisation, universities fail to produce specialists required by the market. The recent IMF Article IV Consultation Statement also echoed this problem noting that continued skill mismatches emphasise how critical it has become to prioritise and optimise public spending on education (IMF, 2019).

The lack of skills is also exacerbated by the fact that out of a workforce of 4.8 million, around 2.8 million – or 60% – have only a secondary education, which does not provide the necessary skills to master many kinds of job. Moreover, around 355,000 people or 8% have only a basic education. Meanwhile, the proportion of people with a vocational education is around 5.3%. People with secondary specialised education make up around 15%. People with a higher education total 769,900, making up around 16.5%. The biggest problem here is that around 1.4 million people with secondary or basic education are young people aged 15–34 years. This indicates that in a decade or so a large proportion of the population will be without real skills or competences. The number of people with a vocational education is very low. Lifelong learning will thus play a significant role in overcoming this problem. One of the reasons behind the lack of skills among graduates is the low quality of education in Azerbaijan, which does not equip graduates with the required skills.

It is unclear whether universities in Azerbaijan consider such questions as 'What kind of specialists are needed in the labour market?' or 'Is there a need for syllabus adjustment in higher education institutions to produce competitive graduates?' If these questions are not being considered, then they clearly should be. In terms of why the quality of education remains low, there could be several explanations. Most of the investments and expenses in education are directed toward material

goods, such as the construction of new schools and equipment. However, this equipment does not enhance the quality of education. There are many anecdotal examples of new computers with high speed internet being purchased for schools, only for pupils to be forbidden from using these resources. Low salaries for teachers and faculties make them disinterested in the quality of education. The deterioration of the education system at university level also affects schools. Graduates of universities that train teachers use outdated resources and materials. In addition, after graduating from university, future teachers trained in Baku prefer to stay in Baku and teach there rather than go to the regions. Widespread corruption leads to a situation in which these future teachers need to pay 'fees' in order to be assigned to Baku schools. Thus, teachers are assigned to schools based on their ability to pay the 'fee', not for their qualifications. Many qualified graduates remain unemployed or switch to other jobs. Problems with the low quality of education and mismatches in the labour market have caused various ministries to establish their own universities for educating future employees. Thus, the Ministry of Emergencies, Tourism, Border Service, National Security, Customs, State Oil Company, Ministry of Foreign Affairs, Ministry of Internal Affairs, have opened their own academies and universities. The skills received at these institutions allow graduates to get jobs in the respective ministries. However, the highly narrowed specialisation of the graduates does not allow students to change their profile or place of work and decreases workforce mobility.

Conclusion

According to the 2013 State Strategy on Education Development (Repubic of Azerbaijan, 2013), the role of education is not only limited to imparting the necessary skills and competences required by the economy, but also includes preparing future citizens capable of successfully integrating into life and society and supporting life-long learning. The Strategy clearly notes the need to closely align educational curricula with the socio-economic development priorities of the state, to identify and integrate into education those skills and competences which best serve the purposes of the economic development of the country.

Yet recent global events related to the COVID 19 pandemic as well as a continued slump in oil prices in world markets, affected many countries of Central Eurasia. Many of them had already begun to experience signs of recession as early as 2020. However, the pandemic forced quarantine and economic downturn has sent many of these countries into a potentially long-term economic and social crisis. Azerbaijan has not only been hit by reduced economic activity and the implications of quarantine and lockdown, but has also suffered from volatility in the oil market. The economy of the country depends heavily on oil and gas resources and record drops in prices have left the government in an extremely difficult situation. Since the 2015 economic crisis the government has initiated certain reforms but these have not been enough to cope with the current crisis. This is the deepest and most severe crisis that the country has experienced since 1993 and is likely to be felt, more than anywhere else, in the labour market. The crisis will force many small businesses to shut down. Against a backdrop of funding cuts, the government will also be likely to stop hiring recent graduates and may even lay off many governmental employees. This will also have implications for the education sector. In post-COVID Azerbaijan traditional areas of employment will suffer hardship while new types of jobs requiring different skills and competences will emerge. Universities will face an increase in drop-outs due to the economic crisis and the limited resources of the population to invest in education. Moreover, universities will be challenged by the need to introduce a new set of skills and competences and to change their curricula (Elder et.al, 2015). Higher Education Institutions will continue to lose their advantage to independent online platforms such as *Coursera* and others that offer more skill-based courses than are available in the universities. In the end the market will also react with dramatic changes in requirements. At some point employers may stop hiring based on bachelors or masters diplomas and may require more internationally recognised certificates in project management, accounting, financial management, engineering etc. Moreover, humanities and social sciences will be hit hard since the demand for these disciplines has been driven mostly by a government sector that will suspend further hiring. In these conditions Azerbaijani universities will

need to transform dramatically within a very short period of time. A revolution that will change education worldwide has already started. If universities in post socialist situations are able to adapt to these changes fast, then they will emerge from this crisis as winners. Otherwise, these institutions will continue to be slowly downgraded losing prestige, competitiveness and their share of the labour market.

References

Aliyev, G., Valiyev, A., & Rustamova, S. (2011). *Social protection and social inclusion in Azerbaijan.* Directorate-General for Employment, Social Affairs and Inclusion, European Commission.

Andrews, J., & Higson, H. (2008). *Graduate employability, 'soft skills' versus 'hard' business knowledge: A European study.* Higher Education in Europe.

Archer, W., & Davison, J. (2008). *Graduate employability: What do employers think and want?* London: Council for Industry and Higher Education (Great Britain) (CIHE). Retrieved from http://hdl.voced.edu.au/10707/97377

Azərbaycan Respublikasında Təhsilin Inkişafı üzrə Dövlət Strategiyası. Azərbaycan Prezidentinin Rəsmi internet səhifəsi - SƏNƏDLƏR Sərəncamlar. (n.d.). Retrieved November 24, 2021, from https://president.az/articles/9779.

Bacevic, J. (2014). (Education for) work sets you free: 'Employability' and higher education in former Yugoslavia and its successor states. *European Journal of Higher Education, 4*(3), 281–296.

Bardak, U., Sabadie, J. A., Fetsi, A., & Zaman, C. (2011). *Labour markets and employability: Trends and challenges in Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine*. European Training Foundation. Retrieved from: http://www. etf. europa. eu/web. nsf/pages/Labour_markets_&_employability_eastern_partners_EN.Briefing

Boden, R., & Nedeva, M. (2010). Employing discourse: Universities and graduate 'employability'. *Journal of Education Policy, 25*(1*)*, 37–54.

Brown, P., & Scase, R. (1994). *Higher education and corporate realities: Class, culture and the decline of graduate careers.* London: Routledge.

Cai, Y. (2013). Graduate employability: A conceptual framework for understanding employers' perceptions. *Higher Education, 65*(4), 457–469.

Cappelli, P. H. (2015). Skill gaps, skill shortages, and skill mismatches: Evidence and arguments for the United States. *ILR Review, 68*(2), 251–290.

Del Carpio, X., Kupets, O., Muller, N., & Olefir, A. (2017). *Skills for a modern Ukraine.* Washington D.C.: World Bank.

EL-Annan, S. H. (2012). Mismanaging knowledge and education and their effects on employment in Lebanon and the Middle East. *Journal of Education and Vocational Research, 3*(1), 9–16.

Elder, S., Barcucci, V., Gurbuzer, Y., Perardel, Y., & Principi, M. (2015). *Labour market transitions of young women and men in Eastern Europe and Central Asia*. International Labour Office Geneva: Work4Youth Publication Series, 28.

Gallup Organization (2010). *Employers' perception of graduate employability*. Survey conducted by the Gallup Organization, Hungary, for the Directoriate-Geberal for Education and Culture.

Handel, M. J. (2003). Skills mismatch in the labour market. *Annual Review of Sociology*, *29*, 135-165.

Harvey, L., Locke, W., & Morey, A. (2002). *Enhancing employability, recognising diversity: Making links between Higher Education and the World of Work*, London: Universities UK.

Holmes, L. (2013). Competing perspectives on graduate employability: Possession, position or process? *Studies in Higher Education, 38*(4), 538–554.

Institute of Directors (2007) I*nstitute of Directors skills briefing: Graduates' employability skills*. Available at: https://www.iod.com/search-results?search=Graduates%E2%80%99%20employability%20skills

International Monetary Fund Staff Country Reports. *Republic of Azerbaijan*: *2019 Article IV Consultation*. Press release; staff report and statement by the Executive Director for the Republic of Azerbaijan, Country Report No 19/301. Washington, DC: IMF.

Jonbekova, D. (2015). University graduates' skills mismatches in Central Asia: Employers' perspectives from Post-Soviet Tajikistan. *European Education*, *47*(2), 169–184.

Kinash, S., Crane, L., Judd, M.-M., & Knight, C.. (2016). Discrepant stakeholder perspectives on graduate employability strategies. *Higher Education Research & Development*, *35*(5), 951–967. https://doi.org/10.1080/07294360.2016.1139555

Kinash, S., McGillivray, L., & Crane, L. (2017, September). Do university students, alumni, educators and employers link assessment and graduate employability? *Higher Education Research & Development, 37*(2), 301–315.

Kumar, A. (2007). *Personal, academic and career development in higher education - SOARing to success.* Lonndon: Routledge.Retrieved from https://www.routledge.com/Personal-Academic-and-Career-Development-in-Higher-Education-SOARing/Kumar/p/book/9780415423601

Mincer, J. (1991). *Education and unemployment.* NBER Working Paper, No. 3838. MA, USA: National Bureau of Economic Research.

National Assembly of Youth Associations of Azerbaijan (2018), *Report for 2016-2018*, Retrieved from https://issuu.com/nayora/docs/butun_sehifeler

OECD. (2016*). Skills matter: Further results from the survey of adult skills*. Paris: OECD Skills Studies, OECD Publishing.

OSCE (2018). *Consolidated summary*: *Promoting economic progress and security in the OSCE area through innovation, human capital development, and good public and corporate governance.* Vienna: OSCE.

Pierre, G., Sanchez Puerto, M.L., Valerio, A., & Rajadel, T. (2014). *STEP Skills Measurement Surveys: Innovative tools for assessing skills.* Social protection and labor discussion paper no. 1421. , Washington, DC.: World Bank Group.

QS. (2019). *International Student Survey.* Retrieved from http://info.qs.com/rs/335-VIN-535/images/QS_ISS19_UK.pdf

Republic of Azerbaijan (2013). *State strategy of Azerbaijan Republic on development of education.* (2013, October 24). Retrieved from https://president.az/articles/9779

Republic of Azerbaijan (2018). *Youth of Azerbaijan: Statistical Yearbook.* State Statistical Committee of the Republic of Azerbaijan. Retrieved from http://www.stat.gov.az: http://www.stat.gov.az

Republic of Azerbaijan (2021). *Public and private higher education institutions of Azerbaijan Republic*. The State Statistical Committee of the Republic of Azerbaijan. Retrieved from: https://www.stat.gov.az/source/education/

Rutkowski, J. J. (2015). *Demand for skills: Main results of the Azerbaijan STEP Employer Survey.* Washington DC.: World Bank Group.

Sadirkhanov, R. (2009). Employment pattern pressure for pragmatic change in universities: Azerbaijan case study. *Higher Education in Europe, 34*(3), 431–444.

Schomburg, H., & Teichler, U. (2006). *Higher education and graduate employment in Europe: Results from graduate surveys from twelve countries* . Netherlands: Springer.

Scott, F., Connell, P., Thomson, L. A., & Willison, D. (2017). Empowering students by enhancing their employability skills. *Journal of Further and Higher Education, 43*(5), 692–707.

Susman, K. M. (2015). *Discovery-based learning in the life sciences*. John Wiley & Sons.

Teichler, U. (1999). Research on the relationships between higher education and the world of work: Past achievements, problems and new challenges. *Higher Education*, *38,* 169–190.

The World Bank. (2011). *Azerbaijan demographic change: Implications for social policy and poverty.* Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/2802/631550ESW0P11800disclosed0120090110.pdf?sequence=1&isAllowed=y

The World Bank. (2011). *Putting higher education to work: Skills and research for growth in East Asia*. World Bank East Asia and Pacific Regional Report. World Bank Publications.

The World Bank Group. (2018). *Azerbaijan: The role of higher education in innovation*. World Bank.

The World Bank (2021). *GDP per capita, PPP (current international $) - Azerbaijan*. Retrieved October 26, 2021, from https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=AZ

World Economic Forum. (2016). *The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution*. Global Challenge Insight Report.

UNDP (2020). *Human development indicators, Azerbaijan.* Retrieved from: https://countryeconomy.com/hdi

Valiyev, A. (2020). *Attaining SDG 8 in Azerbaijan: The challenges of economic transformation and job creation* (No. 995085493502676). Geneva: International Labour Organization.

Valiyev, A., & Babayev, A. (2021). Azerbaijani youth in transition: Is the state youth policy effective enough? *Journal of Eurasian Studies, 12*(2), 145–154. Retrieved from: https://journals.sagepub.com/doi/10.1177/18793665211046066

Zamfir, A.-M., Militaru, E., Mocanu, C., & Lungu, E.O. (2018). School-to-work transition of higher education graduates in four European countries. *Compare: A Journal of Comparative and International Education, 50*(1), 36–52.