

# Evaluating Students' Skills for Sustainable Development

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**Abstract.** The article is devoted to the assessment of the student skills for sustainable development. The study was conducted on the basis of the Ural State University of Economics on the platform of the ANO "Russia - country of opportunities". 554 first-year students aged from 17 to 23 years, living in Ekaterinburg and the Sverdlovsk region, took part in the testing. The results are translated into a three-level scale - initial, intermediate and high levels of competencies. The results of the study show that the most developed competencies of first-year students are "client orientation", "partnership" and "emotional intelligence". The most problematic competencies with an initial level are: "leadership", "information analysis" and "passive vocabulary". The test results are compared with the requests of employers, as well as the Federal State Educational Standard in the field of «Economics». Based on the results of the study, some recommendations aimed at improving the process of education in the direction of "Economics" are presented.

## 1 Introduction

Education plays a crucial role in shaping sustainable economic development. It provides individuals with the necessary knowledge, skills, and competencies to participate in and contribute to the economy effectively [1]. Education helps to create a skilled and adaptable workforce. When individuals receive quality education, they acquire a range of skills that are relevant to the needs of the job market. This enables them to secure employment and earn a decent income. Education also equips individuals with the ability to adapt to changes in the economy, such as technological advancements or shifts in industry demands. By continuously updating their skills and knowledge, educated individuals can contribute to the growth and competitiveness of the economy.

The dynamics of transformations in the economy increases the level of labour market requirements for job seekers. Professional skills or hard skills are no longer the only determining criterion for evaluating an employee: supra-professional competencies or soft skills come to the fore. Research confirms that soft skills help to achieve professional goals: up to 85% of success in work depends on them. Soft skills are mostly related to the socio-psychological qualities of a person, personal characteristics. They are quite difficult to measure, because they are laid in childhood and develop throughout life.

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The modern competence-based approach in education, focused on free development, independence and creative initiative, aims to make high school students more socially adapted, developing independent decision-making skills and entrepreneurship. To achieve sustainable economic development, several competencies need to be developed. These include: entrepreneurial skill [2], financial literacy [3], ICT and digital skills [4], leadership, collaboration and networking, lifelong learning, employability skills [5] and may others.

The purpose of the study is to assess the competencies and skills of first-year students majoring in Economics within the framework of the concept of sustainable development. Tasks:

- to evaluate students skills for sustainable development (first-year students - yesterday's school graduates were tested);
- to analyse the results and compare them with the requirements of the labour market and employers;
- to offer recommendations for improving the educational tracks of first-year students studying at the university in economic specialties.

Among the first publications devoted to issues of competencies for sustainable development, it is necessary to note the works of M.Barth [6], A.Wiek [7], G. Cebrián [8]. Among Russian scientists we can mention the works of V. Litvinenko, I. Naumov, I. Bowbrick, Z. Zaitseva [9], A.Pesha [10]. Over the past ten years, the number of studies on this issue has been steadily growing. Soft skills and supra-professional competencies form the basis of the professional success of the graduate, the realization of career potential.

The question of the relationship between the concept of "supra-professional competencies" and the concept of soft skills remains debatable. This study is not aimed at the formation of doctrinal concepts, therefore, supra-professional competencies are considered as scientific synonyms for the concepts of soft skills, as well as "soft" or "flexible" skills. The requirements for the formation of competencies of students studying in the direction of "Economics" are defined in the Federal State Educational Standard of Higher Education.

Supra-professional competencies are considered within the framework of the concept proposed by A.A. Pesha as "a wide set of skills and behaviors, features of interpersonal relationships and personality qualities that allow a person to quickly navigate and adapt to the tasks and challenges of the environment, establish relationships and establish contacts, show high work efficiency and achieve goals and objectives"[10]. As noted by A.V. Pesha, "The key difference in the study of supra-professional competencies from existing approaches to the study of non-technical competencies is that the models of supra-professional competencies will differ not only depending on the level of the position held by the employee, but also on the field of activity" [10]. The supra-professional competencies of economists have their own characteristics and differ, for example, from the competencies that are formed during the training of lawyers, teachers or engineers. A relatively small number of publications are devoted to the study of the supra-professional competencies of students studying in economic specialties. In our opinion, there is a direct relationship between the formation of sustainable development competencies of future economists and economic development.

## 2 Materials and Methods

The study was conducted empirically on the basis of the Competence Center of the Ural State University of Economics, Yekaterinburg. In October 2022, a project for testing 1st-year students was launched on the platform of the autonomous non-profit organization "Russia - the Country of Opportunities", created in 2018 on the initiative of Russian President Vladimir Putin. This open information space for learning and experience

exchange for a wide target audience unites more than 120 universities and more than 500 secondary professional educational organizations throughout the Russian Federation.

One of the key tasks of the testing project was the formation of individual competence profiles of first-year students and the development of personal recommendations for the formation of educational tracks for the duration of study at the Ural State University of Economics. 554 first-year students aged from 17 to 23 years old, living in the city of Ekaterinburg and the Sverdlovsk region, took part in the testing. The total time of passing the test was 3 hours and 30 minutes.

The structure of the test contained ten basic diagnostic tools for cognitive abilities and personal potential: five basic and five additional. The base of the methodology is the "competence constructor", the assessment was made according to indicators, a scale of t-points was used, where 200 is the minimum, 500 is the average, and 800 is theoretically the maximum t-score. The results were translated into a three-level scale - initial, intermediate and high levels of competencies.

A number of difficulties during testing were associated with the instability of the platform and the inconvenient interface of its mobile version. After testing, the results in the format of individual reports had to be expected for up to 6 weeks (instead of 1-2 days announced by the developers). In general, the testing was successful and the majority of respondents were evaluated for all basic (428 people) and all additional (390 people) competencies.

When interpreting the test results, some discrepancy was taken into account in the composition of the competencies provided for by the Federal State Educational Standard in the field of Economics and the methodological tools of the ANO platform "Russia – the Country of Opportunities". The data of the comparative analysis of sets of competencies are presented in Table 1.

**Table 1.** Comparative characteristics of competencies

Platform "Russia – the country of Opportunities"	Federal State Educational Standard in the field of Economics
1. Self-development	1. System thinking
2. Planning and organization	2. Interdisciplinary knowledge
3. Result orientation	3. Problem-solving skills
4. Communication skills	4. Stakeholder engagement and collaboration
5. Information analysis	5. Ethical awareness and responsibility
6. Emotional intelligence	6. Leadership and advocacy:
7. Following the rules	7. Communication skills
8. Stress resistance	8. Monitoring and evaluation
9. Partnership/cooperation	9. Adaptability and resilience
10. Passive vocabulary	10. Cultural sensitivity and inclusiveness
11. Leadership	
12. Client orientation	

The presented data show that a number of competencies do have common features. The Federal State Educational Standard formulates universal competencies more precisely in relation to the field of professional activity "Economics". However, in the FSES, some competencies are formed excessively, which is determined not so much by the demands of the labor market as by general legislative requirements (for example, in terms of the formation of inclusive competence).

### 3 Results and Discussion

Slightly less than half of the respondents demonstrated an average level of competence, the rest were evenly distributed at the extremes of low and high levels. The most developed competence of the first-year students turned out to be "client-oriented": 45% of respondents recorded a high level of this skill (190 respondents). The second place was shared by the competencies "partnership" and "emotional intelligence" - 23.8% of respondents (112 people) each. The most problematic competencies with an initial level of manifestation were: "leadership" (41% - 177 people), "information analysis" and "passive vocabulary" (24% - 106 and 97 people each).

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**Table 2.** Ranking of competencies at the intermediate level

	Competencies at the intermediate level, %	
	Boys	Girls
Self-development	73,7	85,4
Planning and organization	69,4	72,0
Result orientation	68,9	64,0
Communicativeness	67,8	75,6
Information analysis	66,0	75,0
Emotional Intelligence	63,9	61,3
Following the rules	63,1	65,5
Stress resistance	62,3	65,1
Partnership/cooperation	61,9	56,3
Passive vocabulary	49,0	53,0
Leadership	48,0	50,0
Client orientation	46,6	39,5

The competence "self-development" became the leader of the rating, which is not surprising in the light of the dominant concept of "lifelong learning". The second place was taken by "planning and organization" and "communication skills", and the third, respectively, "result orientation" and "information analysis".

To compare the results obtained with the requirements of the labor market, let us turn to a study conducted in June 2021 by the Department of Evaluation and Methodology of the ANO "Russia – the Country of Opportunities", which was devoted to the study of the requirements imposed on young professionals by employers. The competencies "client orientation" and "result orientation" were among the important ones: since high-quality satisfaction of customer needs increases profits. The results are shown in the table 3.

**Table 3.** Key competencies requested by employers [11]

Competencies	Key competencies requested by employers
Partnership /cooperation	94
Result orientation	94
Planning and organization	92
Self-development	92
Communication literacy	91
Client orientation	89
Decision-making	86

It is interesting that "leadership" turned out to be an unclaimed competence among employers: when selecting candidates for initial positions in the company, the leadership qualities of young specialists are rather a disadvantage than an advantage. Leadership qualities become very important at the next stage of their career path, after they show and develop their professional skills and apply for entry into the personnel reserve of the company. At the initial stage, it is much more important for young professionals to communicate and self-organization, in other words, the competence of "partnership/cooperation", "result orientation" and "planning and organization". In our opinion, the formation of leadership potential is an important task, its implementation can be included in the preparation for master's degree programs or for graduate students.

Another important methodological aspect is related to the essential division of competencies into professional (hard skills) and supra-professional (soft skills). For students of economic specialties, competencies related to analysis and decision-making should rather be classified as professional (hard skills). At the same time, both employers and the platform of the ANO "Russia - the Country of opportunities" single out client orientation among the key competencies, but it is not represented in the Federal State Educational Standard in the direction of "Economics".

## 4 Conclusion

We can conclude about the prospects for further methodological research on the ratio of professional and supra-professional competencies, correction of standards for training students of economic specialties, taking into account the demands of the labor market and the needs of employers. Some Universities go forward and often prefer to introduce a separate Sustainable Development course [12].

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