

## FORMATION OF THE SOFT SKILLS AMONG STUDENTS OF HIGHER EDUCATION

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**Abstract:** The article examines the modern specifics of the formation of soft skills among students of higher education, taking into account the transformation of approaches to the training of future specialists and the objective changes in the social and economic environment that occur under the influence of globalization and impose new requirements on professional activity. It was determined that soft skills do not have a universal interpretation due to their significant differentiation depending on the field of professional training. A system of soft skills for higher education graduates has been formed, which is the most in-demand in the modern labour market for higher education graduates. It is proposed to consider soft skills as critical competencies of future specialists in the process of their professional training.

**Keywords:** Soft skills, Professional competence, Professional training of specialists, Higher education.

### 1 Introduction

In modern conditions, characterized by transformational processes in the general dynamics of the development of society and the globalization of the system of socio-economic relations, new requirements appear for the personality of the student of higher education. Today, to meet all the requirements posed by technological progress, a modern qualified specialist needs the skills and abilities necessary for effective work in new realities, which include perfect mastery of digital technologies, as well as modern technologies of virtual communications, etc. Thus, the qualified specialist needs something that allows him to function in the conditions of dynamic changes in the external environment and constructively solve the problems of professional activity. Therefore, for modern employee to meet the challenges of contemporary society and the technological complications of professional activity, it is necessary to have a high level of stress resistance to ensure the effective performance of all functions entrusted to them.

As practice shows, the key resource of professional stress resistance in such conditions for modern professionals is soft skills, that is, a system of "soft skills" in managing people and implementing professional competencies. At the same time, soft skills help to successfully interact and communicate with other employees, and they are also necessary for effective professional activity and career growth. Such skills include: communicative aspects; teamwork skills; the ability to effectively apply time management; flexibility; adaptability and ability to change; leadership qualities; personal qualities, etc. In the context of the activities of modern specialists, this list can be supplemented with such necessary qualities as self-organization skills, the ability to effectively work with information, the ability to solve complex professional tasks, flexibility, etc. Therefore, it can be argued that there is no permanent list and perfect classification of soft skills in practice, since different types of skills will be prioritized for different types of professional activities. That is why the study of the principles of the formation of soft skills among future specialists at the stage of obtaining higher education, when they are acquiring basic professional skills and knowledge, is of particular relevance at present.

### 2 Literature Review

The issue of studying the mechanism and principles of soft skills formation in future specialists at the stage of obtaining higher education is not new to modern scientific research. It is worth noting the thorough studies in this direction, which are presented in the works of such scientists as J. Heckman [7], P. Kyllonen

[11], T. Mishustina [12], O. Pavelko [15], S. Vasanthakumari [21], S. Voloshyna [22], and others.

In addition, it is worth noting a number of studies on the professional training of specialists based on the formation of the soft skills system in higher education graduates in the process of practical implementation of professional educational programs by higher education institutions based on the application of modern information and digital technologies as the basic foundation of future professional activity. In particular, an important theoretical substantiation of the soft skills formation system based on the application of the competence approach was carried out in the studies of J. Andrews [1], T. Beridze [3], O. Hlazunova [8], K. Moore [13], N. Semenysheva [16], K. Tang [18], I. Tkachuk [19], I. Yakoviyk [26], A. Zhang [28], and others.

It is also necessary to note the significant practical contribution to the study of the principles of soft skills formation in institutions of higher education, which was revealed in the works of I. Balaniuk [2], Y. Chaliuk [5], O. Ermakov [6], K. Kostetska [10], S. Nakhod [14], A. Tiurina [20], O. Vorobyova [23], L. Zelenska [27], and others.

At the same time, it should be noted that in the conditions of digital transformations of the system of socio-economic relations, there is an objective need to expand research on the specifics of the formation of soft skills among students of higher education in the educational process precisely in the conditions of intensive use of information technologies in the learning process.

### 3 Materials and Methods

Researching the problems of professional identity as a central link to professional realization, it should be noted that its structure is made up of three key components:

- Individual (professional self-identification, or self-concept);
- Instrumental (professional knowledge, skills, abilities);
- Social (conformity to the social order).

The coincidence of these components is defined as professional identity, and the discrepancy is defined as a kind of professional marginalism. Thus, the realization of a professional must be considered not only as self-realization that occurs within the subject and in the interests of the subject, the degree of which is assessed by the subject himself from the position of how suitable this profession is for him, but also as realization directed from the outside, carried out in the form of social professional actions, through which society already assesses how suitable this professional is for it, to what extent he meets its interests and requests [19].

Modern methods of research into the essence of definitions of the term "soft skills" show that currently there is no single and unified concept, but in one way or another, the terms are interconnected with each other. All these definitions are united by a set of activity and communicative approaches in the implementation of communicative and personal competencies related to non-professional skills that increase the effectiveness of the activities of future specialists. Taking into account the processes of integration and the possibilities of soft skills, they can be divided into four typical groups:

1. Basic communication skills. This group includes the ability to persuade, argue, work in a team, negotiate, conduct business correspondence, make presentations, etc.
2. Self-management: to be able to manage emotions, know how to behave in stressful situations, to be able to plan, to be able to use one's time effectively, to control one's emotional state.

3. A group of intellectual thinking skills: it is important to search and analyze information, to think creatively and logically, that is not in purely formal nature, to have design skills, and to make competent decisions.
4. Foresight-management: the specialist possesses such stable skills as task setting, project management, motivation, control, and easy access to feedback [19].

However, the methodology of the Future of Jobs by World Economic Forum is currently considered the most complete, according to which it was possible to compile a list of typical soft skills and divide them into three categories: abilities, basic skills, and cross-functional skills. At the same time, each category has an internal classification:

1. Abilities:

- cognitive;
- physical.

2. Basic skills:

- content skills;
- process skills.

3. Cross-functional skills:

- social skills;
- problem-solving skills;
- system skills;
- resource management skills;
- technical skills [25].

#### 4 Results and Discussion

As practice shows, the main task of a modern higher education is to create a professional personality, ready to quickly adapt to a new social environment and capable of self-realization and career development in conditions of intensive introduction of information and digital technologies into the economic and social system of society. Therefore, the role and responsibility of the higher education institution in matters of the development of general and professional competencies of modern specialists are growing. Accordingly, in the context of the intensification of the introduction of information technologies into social production, the main competitive advantage is the availability of soft skills among employees.

At the same time, it is meant that regardless of professional qualifications, modern specialists should be distinguished by a high coefficient of soft skills, which should ensure career success. In general, the concept of "soft skills" has now become an integral part of the world labour market in the most diverse spheres of economy and society in the conditions of globalization. In addition, in many contexts, soft skills are equated with such terms as "employability skills", "people skills", "non-professional skills", "key skills", "skills for social progress", "life skills", etc. It is appropriate to state that in practice soft skills represent a complex combination of all the listed concepts.

The conclusions of the latest labour market research, which reflect a noticeable trend of employers' significant interest in "soft skills" among potential employees, are of particular interest. Most employers consider them equally important in comparison with professional knowledge and skills [24]. However, educational programs are overloaded with academic disciplines that develop students' "hard skills", i.e., "firm" skills related to knowledge of fundamental and special disciplines, acquisition of practical training, etc. It is hard skills that are easy to measure, they are quite objective. This group includes professional knowledge, skills, and abilities. Soft skills are difficult to measure, and, therefore, their assessment is subjective (honesty, initiative, diligence, learning ability, creative abilities, etc.) [9].

It should be noted that the practical construction of the "knowledge society", the introduction of the paradigm of continuous education, and the quality assurance of higher education lead to the fact that learning and acquiring new competencies have become an integral part of the life of members of society. Therefore, soft skills acquire special importance in the personal development and professional activity of graduates of higher education institutions, namely: sociability, communication skills, cognitive flexibility, adaptability, the ability to work in a team, leadership, the ability to resolve conflicts, creativity, critical thinking, general literacy, organization, initiative, responsibility, perseverance, the ability to take responsibility, the ability to make decisions, the ability to work in critical conditions, stress resistance, self-learning and self-development, self-management, emotional intelligence and emotion management, etc.

So, it can be argued that soft skills are necessary for any type of professional activity; therefore, they need to be actively formed in students at the stage of education in general secondary schools, and intensively developed in institutions of professional pre-higher and higher education. At the same time, institutions of higher education should have their own policy regarding the development of these skills in their students and teachers through a system of professional development and advanced training, which also determines cooperation with employers and graduates, and affects the reputational capital of higher education institutions. Positive practice is the formation of soft skills when studying specific disciplines, but it is not limited to this, because it can also take place within general and specialized disciplines [17].

In this aspect, it should be noted that, given the significant relevance of the development of student's professional and personal competencies, in order to achieve competitiveness in the labour market, it is important to find out whether the developed system of the educational process allows students to form soft skills, increase competitiveness, and especially to achieve high rates of graduate employment. In this context, the opinion of the students themselves, graduates, as well as employers regarding the effectiveness of the acquired competencies in the context of the formed soft skills become important.

In addition, taking into account the objective difficulties with adaptation to the first workplace for graduates, it is necessary to develop recommendations for professional growth, where a special place should be given to the further development of soft skills, which depend on professional and personal success, and the content of educational programs should be updated through separate educational components regarding the formation of relevant professional and life competencies [14].

In order to determine the system of key soft skills for future specialists and build a classification, it is not enough to focus only on today's requirements of the labour market. It is necessary to take into account the experience of developed countries and focus on the needs of the future. For this, the researchers studied the world experience of developing 21st-century skills in educational programs. A number of studies aimed at finding out which competencies the professional community is focused on were considered. This study was conducted by the Centre for Education at the Brookings Institution, which aims to support countries in improving the assessment, teaching, and learning of soft skills by increasing the level of assessment literacy among regional and national stakeholders in the field of education [4]. According to this study, the documents on education standards often refer to such competencies as creativity, communication, critical thinking, and problem-solving (Fig. 1).

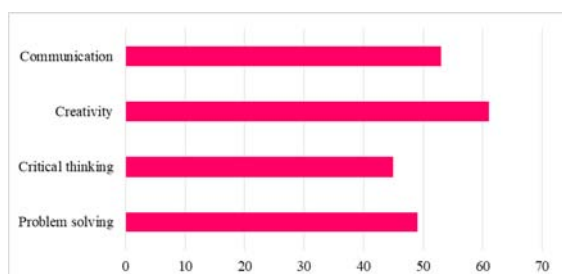


Figure 1. Competencies of the 21st century, which are most in demand according to a study by the Brookings Institute (November 2018)

Source: [4]

As one can see, these competencies are based on imagination, generating ideas, building arguments, establishing a lack of information and the ability to search for it, formulating one's own ideas and developing the ideas of others, evaluating one's own proposals and judgments, accepting the group's goal and evaluating the overall results. Thus, it can be argued that the most important soft skills for future specialists in modern conditions are the following: critical thinking and the ability to make decisions, creativity, sociability, and the ability to work in a team.

Namely these skills allow solving complex professional tasks. They are classified as higher-order competencies. Undoubtedly, these are groups of skills, the structure of which includes a set of other smaller skills. Accordingly, the development of the second group of soft skills among students of higher education institutions should be aimed at ensuring the adaptability of future specialists to any changes in the environment in which they will have to work.

So, we come to the conclusion that the issue of competence formation and, accordingly, the transformation of education systems are considered at the current stage in almost all countries, therefore, in this sense, we can say that this aspect can play the role of a unifying trend of building a single educational space. From that, the level of economic development of countries, including the global economic space, which is directly related to the development of human capital, will depend on how the issue of competence formation will be resolved, and how it will be related to the modernization of production.

Thus, it is possible to form a system of key soft skills, which are currently of particular relevance in the process of training future specialists during their professional education while studying in higher education institutions (Table 1).

Table 1: Soft skills system of students in higher education

Help to solve complex tasks	Help to adapt to a changing environment
Critical and structured thinking	Adaptability
Ability to solve problems	Curiosity
Creativity	Initiativeness
Sociability	Purposefulness
Ability to work in a team	Emotional intelligence
	Leadership
	Motivation
	Positive thinking
	Self-management
	Ability to learn
	Stress resistance
	Responsibility
	Conflict management
	Social and cultural awareness

Source: developed by the author based on [13].

Thus, it can be argued that, in the modern sense, soft skills for students in higher education represent a set of social skills of an individual, which can be classified into interpersonal (such as the interaction of leadership qualities), organizational skills, and

communication skills, which in general affect the successful performance of professional duties of specialists in any field of activity.

## 5 Conclusion

So, we conclude that the main soft skills, which, along with professional competencies, determine the professional self-realization of students of higher education are: the ability to work in a team, leadership qualities, creativity, organizational skills, communication, emotional intelligence, work with information, system thinking, motivation. Achieving the goal of forming such skills among students is possible through an adequate construction of the educational process in institutions of higher education. In particular, it is necessary to ensure a high level of freedom for teachers in the choice of technologies, methodical and didactic material, organization of educational space, etc. A derivative need from this task is also the provision of a variety of means and methods of teaching scientific and pedagogical workers themselves. In modern conditions, innovative activity in education is becoming increasingly more significant, therefore the analysis and evaluation of new technical means, as well as the creation of the necessary conditions for their further successful application in the context of the development of continuous education in the conditions of e-learning, are important.

In addition, an understanding of soft skills is necessary for practical application as an element of the educational process that complements hard skills - professional skills that are part of job instructions and qualification characteristics of higher education applicants. At the same time, the objective necessity is to ensure the universal character of soft skills, which will be important for the successful professional realization of students.

## Literature:

- Andrews, J., & Higson, H. (2008). Graduate employability, 'soft skills' versus 'hard' business knowledge: A European study. *Higher education in Europe*, 33(4), 411-422.
- Balaniuk, I., Kyrilenko, V., Chaliuk, Yu., Sheiko, Yu., Begun, S., & Diachenko, S. (2021). Cluster analysis of socioeconomic development of rural areas and peasant farms in the system of formation of rural territorial communities: a case study of Volyn region, Ukraine. *Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development"*, 21(3), 177-188.
- Beridze, T., Baranik Z., Dashko, I., Hamova, O. & Tkachenko, S. (2021). Assessment of investment risks of an industrial enterprise. *Financial and Credit Activity Problems of Theory and Practice*, 5(40), 429-436.
- Care, E., Kim, H., Vista, A., & Anderson, K. (2018). Education System Alignment for 21st century skills: Focus on Assessment. *Brookings institution*. <https://files.eric.ed.gov/fulltext/ED592779.pdf>.
- Chaliuk, Y., Dovhanyk, N., Kurbala, N., Komarova, K., & Kovalchuk, N. (2021). The digital economy in a global environment. *AD ALTA: Journal of Interdisciplinary Research*, 11, Special issue XVII, 143-148.
- Ermakov, O.U., Velichko, O.V., Bohach, L., & Nahornyi, V.V. (2018). To question of estimation of production potential of agricultural enterprises. *Financial and credit activity-problems of theory and practice*, 3(26), 162-168.
- Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour economics*, 19(4), 451-464.
- Hlazunova, O., Voloshina, T., & Korolchuk, V. (2019). Development of soft skills in future information technology specialists: methods, means, evaluation indicators. *Open educational e-environment of a modern university*, 93-106.
- Keow Ngang, T. (2011). Soft skills integrated in sustainable higher education. *Journal of Modern Education Review (ISSN 2155-7993)*, 1(2), 99-110.
- Kostetska, K., Gordichuk, Y., MovchaniukA., Vdovenko, N., Nahornyi, V., & Koval, V. (2021). Inclusive development of social entrepreneurship in nature management. *Journal of Geology, Geography and Geoecology*, 30(3), 500-511.

11. Kyllonen, P. C. (2013). Soft skills for the workplace. *Change: The Magazine of Higher Learning*, 45(6), 16-23.
12. Mishustina, T., Kravchenko, A., Poprotsky, O., Myhovich, T., Artemchuk, L., & Vasylenko, O. (2022). Fair Competition for Business in the Field of Information and Communication Technologies in the Era of "Postcontemporary Society" Economy. *Postmodern Openings*, 13(2), 321-333.
13. Moore, K. A., & Pearson, B. J. (2017). Soft skills in an online class. *Horttechnology*, 27(5), 583-585.
14. Nakhod, S. A. (2018). Significance of "Soft skills" for the professional formation of future specialists in socio-economic professions. *Scientific journal of the National Pedagogical University named after M. P. Drahomanov. Series 5: Pedagogical sciences: realities and prospects*, (63), 131-135.
15. Pavelko, O., Lazaryshyna, I., Dukhnovska, L., Sharova, S., Oliinyk, T. & Donenko, I. (2021). Construction Development and Its Impact on the Construction Enterprises Financial Results. *Estudios de Economía Aplicada*, 39(3).
16. Semenysheva, N., Khorunzhak, N., Lazaryshyna, I., Yurchenko, O., Ostapenko, Yu. (2021). Accounting Institute: on the Genesis and Impact of Management Revolutions. *Independent Journal of Management & Production*, 12(3), 243-261.
17. Shakir, R. (2009). Soft skills at the Malaysian institutes of higher learning. *Asia Pacific Education Review*, 10(3), 309-315.
18. Tang, K. N. (2020). The importance of soft skills acquisition by teachers in higher education institutions. *Kasetsart Journal of Social Sciences*, 41(1), 22-27.
19. Tkachuk, I. I., & Sosnovenko, N. V. (2019). Development of "Soft Skills" among college students. *Professional education*, 3(84), 16-18.
20. Tiurina, A., Nahomyi, V., Ruban, O., Tymoshenko, M., Vedenieiev, V., & Terentieva, N. (2022). Problems and Prospects of Human Capital Development in Post-Industrial Society. *Postmodern Openings*, 13(3), 412-424.
21. Vasanthakumari, S. (2019). Soft skills and its application in work place. *World Journal of Advanced Research and Reviews*, 3(2), 066-072.
22. Voloshyna, S., Provolotska, O., Lazaryshyna, I., Niezviestna, O. & Skliar, N. (2019). Analytical assessment of the jewellery market in Ukraine. *Economic Annals-XXI*, 176(3-4).
23. Vorobyova, O., Horokhova, M., Ilichuk, L., Tverezovska, N., Drachuk, O., & Artemchuk, L. (2022). ISO Standards as a Quality Assurance Mechanism in Higher Education. *Revista Romaneasca Pentru Educatie Multidimensionala*, 14(2), 73-88.
24. Wilks, D., & Hemsworth, K. (2012). Soft skills as key competencies in hospitality higher education: Matching demand and supply. *Tourism & Management Studies*, 7, 131-139.
25. World Economic Forum. (2016). The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution. *Global Challenge Insight Report*.
26. Yakoviyk, I., Chyzhov, D., Karpachova, N., Hlushchenko, S., & Chaliuk, Yu. (2020). National security policy in Ukraine: a change in the system of power relations of the modern world. *Revista San Gregorio*, 42, 224-235.
27. Zelenska, L. (2021). Formation of soft skills in future teachers in the process of teaching the educational discipline "coaching technologies in education". *Theory and practice of social systems management*, (4), 59-68.
28. Zhang, A. (2012). Peer assessment of soft skills and hard skills. *Journal of Information Technology Education: Research*, 11(1), 155-168.

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