FUTURITY Education

DOI: https://doi.org/10.57125/FED.2025.03.25.05

How to cite: Volotovska, T., Kushevska, N., Huda, O., Turgenieva, A., & Khrenova, V. (2025). Education of the Future and Development of Critical Thinking Through the Integration of Soft Skills. *Futurity Education*, *5*(1). 71-91. https://doi.org/10.57125/FED.2025.03.25.05

Education of the Future and Development of Critical Thinking Through the Integration of Soft Skills

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Received: November 13, 2024 | **Accepted:** January 29, 2025 | **Available online:** February 18, 2025

Abstract: The current market environment requires education not only to transfer knowledge but also to develop critical thinking. The purpose of this study is to identify the key opportunities, methods, and barriers to further integration of soft skills into the education system as a means of developing critical thinking. A cross-sectional design was used, which involved the simultaneous collection of materials from 2 groups of respondents: teachers (n=32) and experts (n=21). The purposive sampling method was used for inclusion. In total, 77 letters were received with a desire to participate in the study, but 53 people were included who met the clear inclusion criteria. The results indicate that during the survey, respondents noted communication skills, critical thinking, emotional intelligence, and leadership. The article describes a high level of soft skills among modern students. This is facilitated by the most successful methods of developing critical thinking: discussions and debates, game-based learning, and special psychological training. Communication, critical thinking, emotional intelligence, and teamwork are identified as essential skills for career development. Among the problems of soft skills development in the Ukrainian education system, the lack of resources is primarily mentioned. However, the passivity of the administration of educational institutions is also noticeable. The proposed recommendations include the further development of the game approach and the use of professional psychologists (for primary education). For secondary education, the relevance of additional optional exercises for the development of critical thinking and unique work with teachers is emphasised. For the development of soft skills in university education, it is essential to adapt educational programs to the current conditions of the labour market. The conclusions indicate that the amount of information that will need to be worked with suggests the importance of critical thinking as part of soft skills relevant to a professional career.

Keywords: social skills, communication, educational methods, prospects, pedagogical innovations.

Introduction

Future education is a response to the challenges of rapid technological development, globalisation and changing social and professional standards. At the centre of this process is the formation of a personality capable not only of adapting to change but also of actively influencing it. That is why the development of critical thinking, which is one of the key competencies required for a person to function effectively in the modern world, is of particular relevance. Its development is an integral part of educational strategies aimed at forming responsible, creative and independent individuals. Currently, the problem of developing critical thinking through the integration of soft skills is being actively studied around the world (Bauman & Lucy, 2019; Poláková et al., 2023). In particular, modern scientific publications focus on the need to rethink traditional approaches to education. At the same time, contemporary scholars also point to the need to introduce interactive learning that stimulates critical thinking in students (Haipinge & Goosen, 2024). In addition, publications emphasise the role of digital technologies in the development of teamwork and essential skills of analysis, which is particularly relevant in modern learning (Gernal et al., 2024; Hardini et al., 2024). Thus, the results of recent studies have shown that there is a broad interest in the problem of integrating soft skills into the education system. However, there is a critical need to characterise the practical side of social skills development and to find out the opinion of participants in the educational process about the effectiveness of different ways of developing them. Therefore, this topic is not only relevant but also multifaceted, which requires a cross-sectional approach for its detailed study.

Research Problem

Considering the previous considerations of scholars, the integration of soft skills (into curricula opens up new opportunities for improving the educational process. The development of these social skills not only increases professional competence in the future but also forms a harmonious personality capable of critically evaluating information and making informed decisions. At the same time, the problem of integrating soft skills into the development of critical thinking has not yet been sufficiently studied. There is a need for a deeper analysis of the social and technological aspects of this process through cross-cultural research. In this context, it is essential to assess the current state and effectiveness of integrating soft skills into curricula by conducting surveys among teachers and students. Therefore, the chosen research problem of integrating soft skills into the development of critical thinking is essential for several reasons. Rapid technological changes contribute to the formation of new challenges for educational systems. For this reason, there is a need to adapt to the requirements of modern society. Analysing this problem right now will allow us to identify innovative approaches that will contribute to the harmonious development of the individual. On the other hand, the process of integrating soft skills brings significant social benefits. It influences the formation of responsible citizens capable of critical thinking and teamwork. Third, the study of this issue is of great importance to the scientific community. It will not only demonstrate the practical side of the process of forming social skills, identify the main opportunities and challenges on the way to their development, but also open up new horizons for interdisciplinary research. This, in turn, will contribute to the improvement of theoretical models and practical mechanisms that can be used in the future educational process. In general, a detailed study of this issue will bring new knowledge about ways to develop critical thinking through the integration of soft skills. This, in turn, will make it possible to create new innovative educational approaches that will meet the current needs of society and ensure the competitiveness of future generations.

Research Focus

This study will focus on a detailed examination of the prospects for integrating soft skills into the education system as a key element in developing critical thinking and shaping the education of the future. By conducting a cross-sectional survey of teachers and researchers, the study aims to summarise the respondents' opinions and identify promising trends. In addition, the article seeks to analyse the main opportunities for further development of social skills and provide evidence-based recommendations for the introduction of soft skills into curricula. Thus, the findings of the study should contribute to the formation of a new adaptive and innovative educational system that will be based on the main challenges of the future.

Research Aim and Research Questions

The primary purpose of this study is to identify the main promising areas for integrating soft skills into the education system as a means of developing critical thinking and increasing the adaptability of educational processes to the requirements of modern society. To this end, the following research questions have been formulated:

1. How can the development of soft skills influence the formation of the education of the future and the solution to global educational challenges?

2. What are the challenges to integrating soft skills into curricula, taking into account different levels of education?

3. What are the prospects for further integration of soft skills, and what practical advice can be given on how to introduce these skills into the education system better to develop critical thinking?

For this purpose, several hypotheses have been formed, which will need to be confirmed during the experiment and interpretation of the results:

1. Teachers and educational experts are generally optimistic about the introduction of soft skills in the curriculum. Still, most of them face difficulties due to the lack of necessary teaching materials and technical means.

2. The introduction of soft skills in the modern education system can help reduce educational inequalities, as these skills will allow focus on the individual abilities of students, not just academic performance.

Literature Review

Conceptual Foundations of Critical Thinking and Soft Skills

In the modern scientific discourse, scholars have raised important issues of developing soft skills in students. These skills are recognised as personal characteristics that are associated with the ability to interact with the environment successfully. In modern scientific works, the concept of soft skills is related to the way people interact with each other. Therefore, these skills are essential for both everyday life and career development (De Freitas & Almendra, 2021; Novia et al., 2024). The study by De Freitas and Almendra (2021) substantiates that soft skills are an essential set of non-specialised flexible competencies that affect the successful implementation of professional duties. Therefore, given these opinions, the concept of soft skills can be interpreted as an essential universal set of skills that is of paramount importance in any field of activity. At the same time, the works of modern scholars have shown that in the context of rapid change and information overload, the formation of critical thinking is a key task of contemporary education. Research conducted by scientists recognises the importance of critical thinking for the future career development of students. At the same time, Morrell et al. (2020) indicate that the integration of soft skills into the educational process allows students to develop analytical thinking, creativity, and communication skills. From a conceptual point of view, Marcos-Vílchez et al. (2024) define critical thinking (CT) as the ability to analyse, evaluate and apply information to solve complex problems. However, due to its multifaceted nature and the range of perspectives that CT attempts to address, it is a complex and controversial concept. This is demonstrated by the numerous scholarly perspectives, especially in the second half of the 21st century, on the idea and scope of CT (Novia et al., 2024; Singh Ospina et al., 2020), as well as the lack of agreement on its definition and implications. Philosophy, psychology, and education are the three disciplines that have made the most theoretical attempts to define what CT is. As found by Marcos-Vílchez et al. (2024), representatives of each field have historically agreed to combine talents and aptitudes for CT indiscriminately. The Marcos-Vílchez et al. (2024) study, which presents an interpretation of critical thinking according to P. A. Fayon, which gathered 46 experts from the American Philosophical Association, is one of the most accurate explanations. It has been shown that the six core skills - interpretation, analysis, evaluation, inference, explanation, and self-regulation - as well as sixteen sub-skills of critical thinking are present in this convergence zone. At the same time, Berry and Routon (2020) and Gunarathne et al. (2021) found that social skills consist of communication skills, emotional intelligence, leadership, teamwork, and flexibility, which are essential for critical thinking. Accordingly, according to the results of Bullington et al. (2019), communication skills are universal. In particular, the authors determined that by learning how to form communication and cope with stress, an individual can develop in almost any field.

Identified Methods of Integrating Soft Skills into the Development of Critical Thinking

Current scholars have described various methods of integrating soft skills into the development of critical thinking. The most popular topic was the introduction of project-based and problem-based learning (PBL). As shown in the study by Aslan (2021), PBL is essential when implementing online learning. The author showed that there is a direct impact of learning in online classes using a problem-based approach on the development of students' problem-solving, communication and interaction skills. Other studies have shown that PBL methods contribute to the simultaneous development of social skills and critical thinking. In particular, studies by Cannity et al. (2021) and Marcenaro-Gutierrez et al. (2021) found that such approaches help students to work more deeply with the material, critically analyse it, and develop collaboration skills, which are essential for future career development. At the same time, other researchers have drawn attention to different methods of improving communication skills. In particular, Vijayakumar Bharathi and Pande (2024) found that collaborative learning can enhance communication skills and the ability to analyse different points of view. Other researchers have also found that group interaction allows students to discuss alternative approaches to solving problems and thus contributes to the development of critical thinking (Sokhanvar et al., 2021). The study by Novia et al. (2024) also emphasised the importance of collaboration for the further development of students and the formation of sustainable communication skills. Thus, there are different points of view in the scientific literature on practical methods that influence the development of social skills. For this reason, there is a need to analyse these approaches in more detail and, based on a survey of teachers, identify the most effective methods of engaging students and developing their critical thinking and soft skills.

Digital Technologies in Education of the Future

Another important topic that has become popular recently is the use of digital technologies in modern education to develop soft skills. Bhute et al. (2021) proved the importance of the digital transformation of the educational system and pointed out the benefits of distance learning. Modern research has shown that digital platforms, such as Edmodo, Moodle, and Coursera, allow students to practice analytical thinking in a digital environment (Moon & Ke, 2023; Nakagawa et al., 2019). In particular, the study by Moon and Ke (2023) identifies the importance of using modern adaptive platforms for the development of students' 21st-century skills: critical thinking, digital competence, emotional intelligence, communication, etc. At the same time, other studies emphasise that interactive tools allow students to practice critical thinking in a digital environment (Ganguli et al., 2024; Lybeck et al., 2023). However, there are different views in the scientific literature on the effectiveness of digital technologies for the development of social skills. Some researchers emphasise the positive impact of online interaction on the development of communication skills and cooperation (Bobro, 2024; Lybeck et al., 2023; Vasiliou et al., 2023). At the same time, research recognises that to use the potential of digital technologies effectively, teachers need to be digitally harmonious (Kiryakova & Kozhuharova, 2024; Pizzul et al., 2024). However, some scholarly works point to the dual nature of digitalisation and identify some shortcomings in their use (Purnomo et al., 2024; Sato et al., 2021). Some scholars also warn about the risk of a decrease in the quality of interpersonal communication and the lack of practical experience in real-life situations in the digital learning environment (Kiener et al., 2023; Sobolenko et al., 2024). The existence of different points of view further confirms the importance of researching this topic. Despite the achievements of modern scholars in conceptualising critical thinking and identifying the main methods of integrating soft skills, there is a need for a more detailed study of the role of soft skills in shaping critical thinking within the concept of education of the future. Further research should also focus on the empirical evaluation of the effectiveness of specific methods and their adaptation to different educational settings. This study will try to address these gaps and summarise the opinions of experts and teachers on the current state of integration of soft skills in the process of critical thinking in the education of the future.

Materials and Methods

For this study, a cross-sectional approach was used, which involved the simultaneous collection of materials from different groups of respondents. This research approach was chosen for several reasons that relate directly to the specifics of this article. This approach allows for an assessment of the current state and makes it possible to collect data from different participants at the same time. In this case, the study was conducted between October and December 2024. This made it possible to analyse the current state of integration of soft skills into the education system and assess the attitudes of teachers and experts towards this process. On the other hand, this approach allows for a variety of perspectives to be considered. Since this study is intended to survey both teachers and experts, this approach enables comparing the views of different groups of people with varying roles in the education process. Thus, it provides a diverse range of information that allows for a complete understanding of the problem. Two groups of respondents were selected for this study. The first group consisted of teachers and lecturers, and the second group consisted of experts, including academics, employers and education specialists.

Sample and Participants

For this study, a purposive sampling design was used. This approach allowed the selection of participants who possess essential characteristics for the study. Therefore, the sample was formed from individuals (teachers and experts) who have experience and knowledge in the field of education and soft skills development. Different inclusion criteria were developed for these groups. In particular, for teachers, the requirements were related to teaching experience in educational institutions, understanding of the concept of soft skills and experience in implementing these skills in the educational process. For experts, the inclusion criteria included experience in developing academic standards and programmes, working with soft skills integration issues, and studying the specifics of social skills development. Table 1 presents the criteria in detail.

Table 1

Inclusion Criteria for Teachers and Experts

Group	Criteria
Teachers	1. At least 2 years of teaching experience in educational institutions (higher education institutions, secondary schools, vocational schools)
	2. Understanding of the concept of social skills development in the educational process
	3. Experience in implementing soft skills in the curriculum or actively working to develop these skills in their students is required
	4. Providing informative consent to data processing
Experts	1. Educational specialists, methodologists, scientists, and psychologists involved in the process of developing educational standards and programmes are included
	2. Have experience of the opportunities and challenges of integrating social skills into general education or vocational curricula.
	3. Possess knowledge and experience in evaluating the effectiveness of critical thinking development
	4. Providing informative consent to data processing

Source: Authors' development.

Participants were engaged through various channels. Teachers were invited through a mailing list sent to the corporate emails of universities, schools and other educational institutions. In addition,

teachers were also engaged through social media, educational conferences, seminars and pedagogical circles. At the same time, experts were involved through academic organisations and professional associations in the field of education. They were invited to participate through official letters sent in advance. A total of 77 applications for participation in the experiments were received. However, 16 people did not meet the pre-established criteria. In addition, five more refused to provide informative consent to data processing, and three people declined to participate for personal reasons. Thus, a total of 53 respondents took part in the study: 32 teachers and 21 experts. This distribution made it possible to obtain information from both those directly involved in teaching and from specialists responsible for developing educational standards.

Table 2

Data of the Participants

Category	Teachers (n=32)	Experts (n=21)
Age		
20-30 years	18,75%	9,52%
31-40 years	37,50%	33,33%
41-50 years	25,00%	42,86%
51-60 years	12,50%	14,29%
60+ years	6,25%	0%
Educational level		
Bachelor	12,50%	9,52%
Master	43,13%	52,86%
PhD	38,13%	38,10%
Doctor of Science	6,25%	9,52%
Type of educational institution where respondents work		
Higher education institution, scientific institution	68,75%	66,67%
Secondary school	25,00%	23,81%
Vocational and technical institution	6,25%	9,52%
Main field		
Humanities	46,88%	47,62%
Natural sciences	21,88%	19,05%
Technical sciences	18,75%	8, 52%
Social and behavioral sciences	12,50%	24,81%

Source: Author's development.

All participants were informed about the purpose, objectives, methods and hypotheses of the study. All data was collected anonymously and confidentially, and each respondent had the opportunity to withdraw from the study without negative consequences voluntarily.

Instruments and Procedures

The data was collected through a structured survey that was administered to both teachers and education experts. The primary data collection tool was a questionnaire designed to assess the different opinions of respondents on the integration of soft skills in the education system and their impact on the development of critical thinking skills. The questionnaire consisted of both closed and open-ended questions, providing both quantitative and qualitative data. The main sections of the questionnaire

consisted of identifying demographic information and questions related to the participants' education, professional experience and age, as indicated in the demographic table. The questionnaire was also aimed at analysing the perception and understanding of the effectiveness of soft skills. A separate section of the questionnaire was devoted to identifying promising areas for the broader introduction of soft skills in education. Table 3 shows the main questions answered by the participants.

Table 3

Survey Template

Section	Questions
Basic data	1. Enter your age 2. Indicate your educational level: bachelor's degree, master's degree, PhD, doctorate. 3. Indicate the type of educational institution: University, research institution, secondary school, vocational school, etc. 4. Indicate the field of study: social sciences, humanities, natural sciences, technical sciences
Definition of soft skills	5. What soft skills are essential for the development of pupils and students? Leadership Communication skills Critical thinking Creativity Emotional intelligence Teamwork Other 6. How would you rate the development of social skills among students? Very high level High level Medium level Low level Very low level 7. Is the process of integrating soft skills into the learning process necessary? 8. What methods of soft skills development are effective?
Identifying the main barriers?	What are the challenges to the future of education?
Opportunities and prospects	9. What soft skills are essential for the career development of graduates? 10. What are the next steps for the integration of soft skills? 11. What actions are needed to integrate soft skills into curricula at different levels?

Source: Authors' development

The questionnaire was distributed via email to a selected group of teachers and education experts. The survey was accompanied by an informed consent form explaining the purpose of the study and the confidentiality of responses. Participants were given 2-3 weeks to complete the survey, with reminders sent midway through the survey period. Respondents were encouraged to complete the survey independently without the influence of other participants. At the end of the survey period, the responses were collected and securely stored. All data is kept anonymous to ensure confidentiality.

Data Analysis

The quantitative data obtained from the closed-ended questions were analysed using descriptive statistics. The use of descriptive statistics allowed us to summarise the main characteristics of the data and provide a clear overview of the sample responses. It made it possible to find the main % correlations

between the answers. Excel software was used for data processing. This data processing tool was chosen for its broad functionality, ease of data processing and data visualisation.

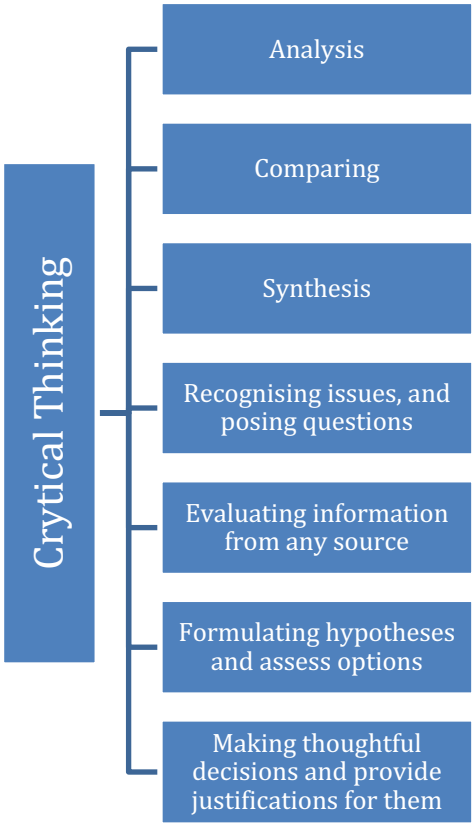
At the same time, the open-ended responses were analysed using thematic analysis, which allowed us to extract significant ideas. First, all the data was prepared: it was recorded and organised in an Excel database. After that, coding was carried out to categorise the primary data. First, open coding was conducted: recurring themes were identified in the responses ("Soft skills prepare students for work", "Insufficient teacher training", "Insufficient technical knowledge", "Insufficient awareness of the value of social skills", etc.) Next, axial coding was performed, and the relationship between the codes was established. This made it possible to group them into broader categories ("Opportunities for soft skills development", "problems in the curriculum", "technical barriers", and "Teacher training needs"). After that, general themes were developed: identification of key soft skills, opportunities, current challenges and recommendations. To ensure reliability, the agreement between the coders was compared by several researchers. The results were then compared with the data presented in the scientific literature.

Results

The ability to act autonomously, make quick decisions, realise one's creative potential, be mobile, and flexibly adapt to rapidly developing and changing living conditions are the primary requirements of modern society for a graduate of an educational institution. More and more standards are being put forward to qualified professionals to build their competitiveness in the contemporary environment of the 21st century. Employers and professional researchers agree that a specialist's professional knowledge should be highly valued, as well as their ability to respond quickly to market demands, engage in continuous self-education, communicate effectively, take responsibility for the results of their actions, speak in public, and have leadership qualities that contribute to professional development. A person with a broad education who can quickly adapt to new situations is a modern professional. The modern labour market requires a thorough development that would guarantee the competitiveness of a specialist at the beginning of their professional career. The answer to this problem can be found in ensuring that students acquire universal soft skills, which they can then use for professional advancement and career start-up. Soft skills are crucial in life and at work.

Figure 1

The Structure of Critical Thinking



Source: Authors' development.

Teaching critical thinking is particularly important in times of significant social change. Since hasty decisions can have unfavourable consequences, it is necessary to develop and teach critical thinking skills. The collected expert opinions on the prospects of future education and practical approaches to integrating soft skills into the learning process to develop critical thinking include a relatively wide range of possibilities (see Table 4).

Table 4

Which Soft Skills Are Most Important for Students' Development?

Soft Skills	Number of votes of experts and teachers (max 53)	Individual opinions
Communication skills	20	Expert 3: The importance of communication is the basis of effective interaction, which allows learners not only to discuss ideas but also to build solid contacts. Expert 8: Communication is the way to resolve conflicts and work in a multicultural team. This is extremely important in today's environment, including the conditions for professional success.
Critical thinking skills	15	Expert 10: Critical thinking is an essential part of innovation, including adaptation to change. At the same time, criticality allows students to find innovative solutions to problems.

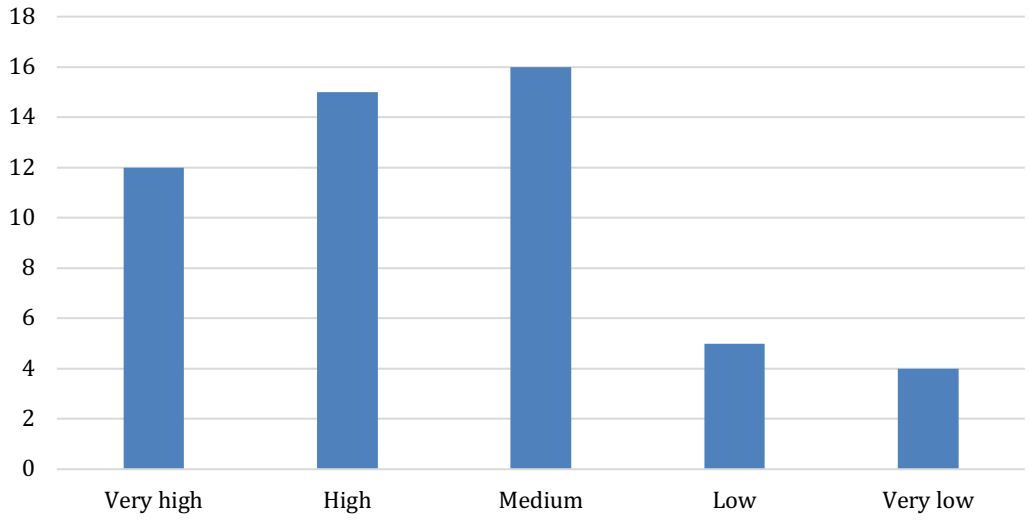
Emotional intelligence	10	Expert 25: The importance of emotional intelligence allows you to manage your emotions, develop empathy, work better in a team, and stay motivated under stress.
Leadership	8	Expert 4: Leadership empowers learners to take responsibility, collaborate and inspire. Expert 35: For modern learning, leadership is also the ability to support a team and unlock its potential and capabilities.

Source: Authors' development.

Thus, the results of the respondents' answers indicated that the listed Soft Skills are relevant for the development of students, but their priority may vary according to the main context. All skills can be considered interconnected, forming the basis for the comprehensive development of students in the modern dynamic educational process. Respondents also identified the level of development of soft skills (see Figure 2).

Figure 2

How Do You Assess the Level of Soft Skills Development Among Students in Your Educational System?

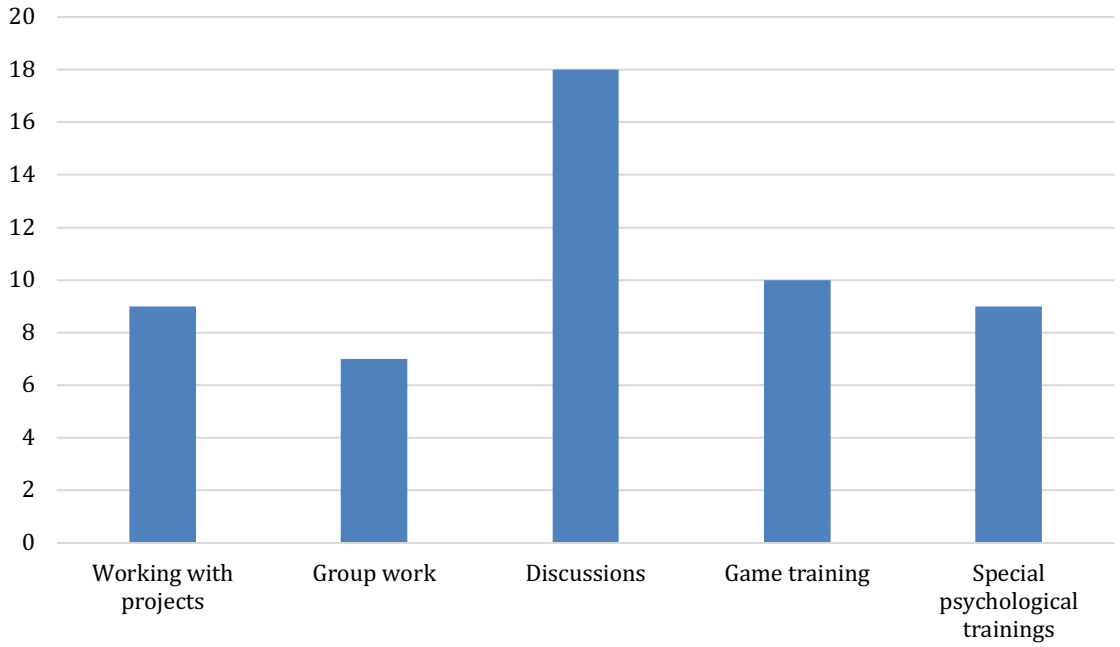


Source: Authors' development.

The results of the survey showed that respondents generally highly evaluate the level of soft skills of students. At the same time, the average indicators dominate all others, which indicates further prospects and the need for development. To further develop soft skills, it was proposed to evaluate methods of further strengthening soft skills in the educational process.

Figure 3

What Methods Do You Consider Adequate for Developing Soft Skills in the Learning Process?

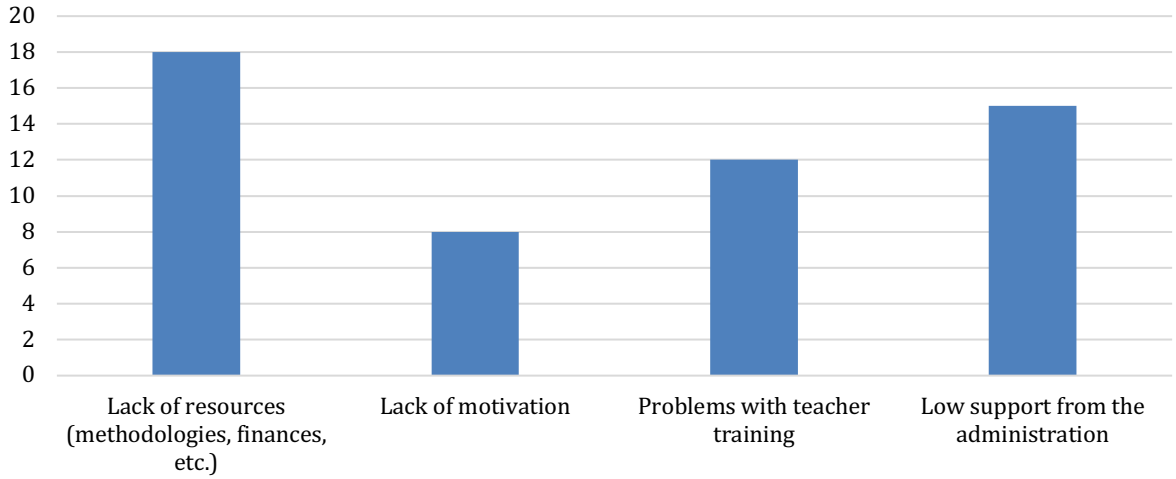


Source: Authors' development.

Having considered the answers of the respondents, it is worth pointing out that discussions and debates are effective methods for developing critical thinking, as the ability to listen, understand the position of opponents, assess the situation and understand the position of other people. At the same time, it is worth highlighting the popularity of game-based learning and special psychological training, which form an essential basis for the further evolution of soft skills among students. However, development also involves overcoming barriers to the integration of soft skills into the educational process (see Figure 4).

Figure 4

What Are the Barriers to Integrating Soft Skills into the Educational Process?

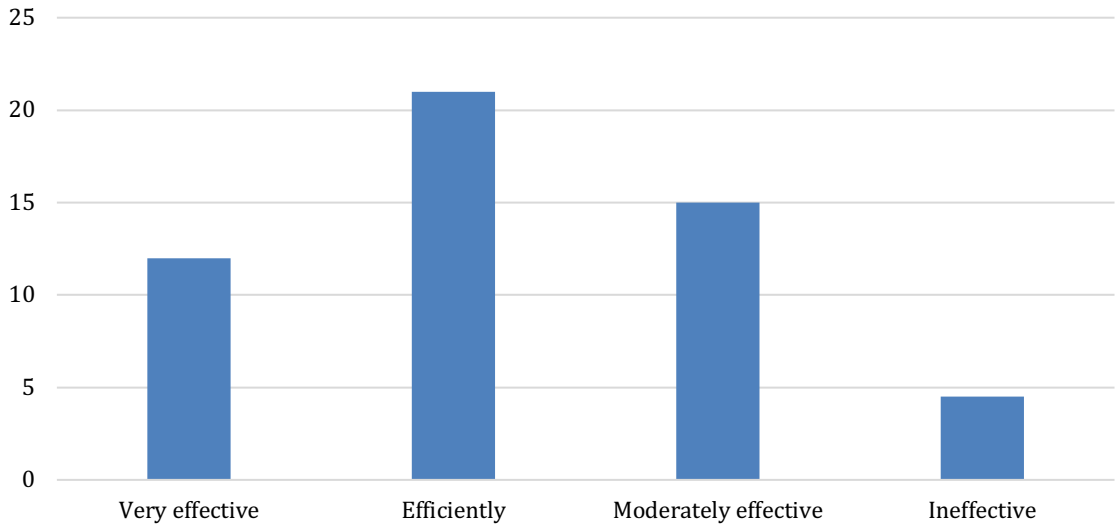


Source: Authors' development.

Respondents identified the lack of resources (both financial and methodological) as the main problem. There is also a tangible challenge associated with the passive position of the administration, which is in no hurry to respond to the challenges of our time. Although these challenges are interrelated (as the administration is also responsible for the state of finances, equipment and teaching materials), respondents highlighted the problem of proper teacher training and low motivation among students. Respondents also assessed the level of effectiveness of teaching critical thinking through the integration of soft skills (see Figure 5).

Figure 5

How Would You Rate the Effectiveness of Teaching Critical Thinking Through the Integration of Soft Skills?



Source: Authors' development.

The respondents indicated that the integration of soft skills, in general, contributes to the development of critical thinking in students. Most respondents stated this effectiveness. Only four respondents mentioned ineffectiveness, which is a relatively low figure. All other respondents acknowledged the importance of soft skills to some extent. They also identified possible benefits in the further development of soft skills (see Table 5).

Table 5

What Are the Main Advantages of Developing Soft Skills in the Context of Future Education?

Benefits	Number of votes of experts and teachers (max 53)	Individual opinions
Improved adaptability	21	Expert 50: Soft skills are one of the most critical needs in times of dynamic transformation and technological progress. They allow students to quickly adapt to new conditions, which is essential in the future.
Increased competitiveness in the labour market	18	Expert 28: The development of soft skills will lead to further opportunities for students to be in demand in the modern labour market, which requires communication, collaboration, and leadership skills.
Development of teamwork skills	14	Expert 10: The ability to work in a team is one of the key conditions for achieving common goals and overcoming complex problems in the modern world.

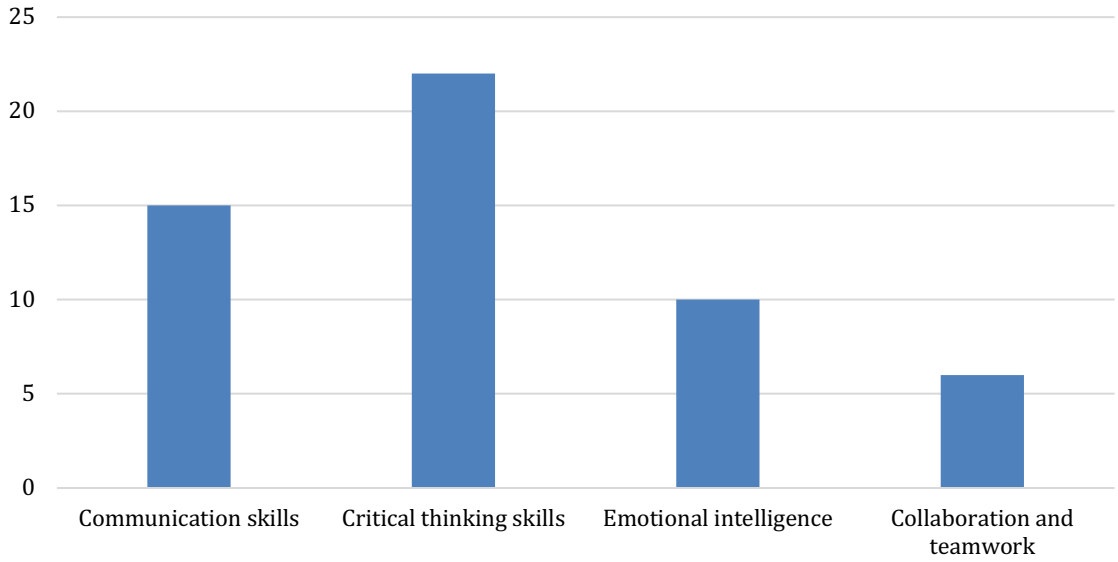
	Expert 49: Teamwork will develop students' skills of collective decision-making, empathy and cooperation.

Source: Authors' development.

Respondents identified improved adaptability as an essential benefit of developing soft skills. In the context of education of the future, they also identified an increase in competitiveness in the labour market, which is essential for the professional choice of the future. It is worth noting that the prospects for developing teamwork, which is necessary for establishing internal contacts within the team, were also mentioned. When creating the topic of future employment, there was a need to identify the skills that are important for a successful career for graduates (see Figure 6).

Figure 6

What Soft Skills Are Essential for a Successful Career for Graduates?



Source: Authors' development.

When choosing the most necessary soft skills for career growth, respondents pointed to communication skills, critical thinking, emotional intelligence, cooperation and teamwork. They gave priority to critical thinking, which indicates the importance of developing this aspect in the future. At the same time, communication skills were also mentioned, which are undoubtedly relevant for students. Emotional intelligence was ranked third in the survey, ahead of teamwork (perhaps because this skill is partly related to the communication component). Given these results, respondents were asked to identify the following ways to integrate soft skills into the learning process (see Table 6).

Table 6

What Steps Do You Think Are Necessary to Integrate Soft Skills into the Curriculum at Different Levels of Education (Primary, Secondary, and Higher)?

Educational level	Specialist's recommendations
Primary education	Expert 27: Application of interactive methods of innovative learning, including educational games and the use of group project opportunities, which would develop basic skills of cooperation and communication in the children's environment. Expert 44: Using the services of professional psychologists to further develop emotional intelligence among children, which would allow

	students to more actively develop an understanding of their own emotions for more effective interaction with others.
Secondary education	Expert 6: Additional optional critical thinking exercises will lead to improved teamwork, which is necessary for students to adapt to the challenges of today. Expert 40: It is essential to motivate teachers further to attend professional development training and to focus on the importance of lifelong learning.
Higher education	Expert 18: Curriculum design should be adapted to the needs of the modern labour market, including leadership training, communication and critical thinking classes. Expert 29: For the development of education in the future, it is crucial to establish partnerships with business structures, which will make it possible to use practical courses (including internships) for the future development of soft skills.

Source: Authors' development.

Respondents believe that such steps will help to create competitive specialists and develop specialists in the future. Considering the peculiarities of the development of future education will allow us to use the benefits of digitalisation in planning further emphasis on the development of soft skills.

Discussion

Modern requirements for the level of education of students include many aspects that need to be considered. The active use of innovative capabilities of digital technologies indicates the importance of obtaining an appropriate level of soft skills and learning critical thinking as an element of counteracting the masses of information that is not always true. The primary purpose of the proposed article is to identify the main promising areas of integration of soft skills into the education system as a means of developing critical thinking and increasing the adaptability of educational processes to the requirements of modern society. Achieving this goal requires consideration of issues related to the extent to which the development of soft skills can influence the formation of the education of the future and the solution of global educational challenges, the identification of challenges to the integration of soft skills into curricula (taking into account different levels of education), the characterisation of the prospects for further integration of soft skills, and the formation of practical advice on how to better introduce these skills into the education system to develop critical thinking. Research hypotheses to be confirmed: 1. Teachers and educational experts generally positively evaluate the introduction of soft skills into curricula, but most of them face difficulties due to the lack of necessary teaching materials and technical means. 2. The introduction of soft skills in the modern education system can help reduce educational inequalities, as these skills will allow focus on individual student abilities, not just academic performance.

The results demonstrate that soft skills are highly relevant in the professional careers of students. The respondents identified communication skills, critical thinking, emotional intelligence, and leadership as highly relevant to the development of students, but their priority may vary according to the main context. In addition, the survey results showed that, in general, the level of soft skills among students is high. Discussions and debates were identified as the most successful methods of developing critical thinking, as the ability to listen, understand the position of opponents, assess the situation and understand the position of other people. At the same time, it is worth highlighting the popularity of game-based learning and special psychological training, which form an essential basis for the further evolution of soft skills among students. Respondents identified improved adaptability as a critical advantage of soft skills development. In the context of education of the future, they also identified an increase in competitiveness in the labour market, which is relevant for the professional choice of the

future. Communication skills, critical thinking, emotional intelligence, cooperation, and teamwork were identified as career development skills. The respondents gave priority to critical thinking, which indicates the importance of developing this aspect in the future. The findings confirm the conclusions of other researchers who point to the need to integrate soft skills into the modern educational environment, as they allow for training professionals adapted to modern requirements (Cronin et al., 2020). As for the most successful methods of developing critical thinking in such circumstances, the views of scholars may differ (Krap et al., 2024; Rebele & St. Pierre, 2019). In particular, they note the importance of special classes (training) to acquire the necessary understanding of the basics of critical thinking, fact-checking, digital literacy, etc. Other researchers prefer game-based learning, which can play a key role at certain stages of students' development (in particular, at an early age) (Widad & Abdellah, 2022). Without denying such proposals, it should be acknowledged that the Ukrainian respondents primarily used their own experience of developing critical thinking as part of the education of the future.

The results presented here identify the problems of soft skills development in the Ukrainian education system. Respondents identified the lack of resources (both financial and methodological) as the main problem. There is also a tangible challenge associated with the passive position of the administration, which is in no hurry to respond to the challenges of our time. Although these challenges are interrelated, the respondents highlighted the problem of proper teacher training and low motivation among students. These results confirm the views of other researchers that the integration of soft skills, although a progressive process, is not without its difficulties and shortcomings (Conesa et al., 2023). Although some scholars emphasise the need for a motivational characteristic, it should be recognised that such views will require empirical confirmation (Glasserman-Morales et al., 2024; Vermylen et al., 2019). The proposed assessments of other specialists and the results of the study allow us to confirm the hypothesis that teachers and educational experts generally positively assess the introduction of soft skills into curricula. Still, most of them face difficulties due to the lack of necessary methodological materials and technical means. The survey revealed that experts and teachers are ready to offer specific recommendations for different levels of education. For example, for primary education, it is proposed to use a game-based approach and resort to the special services of professional psychologists who would monitor the further development of emotional intelligence among children. For secondary education, it is proposed to conduct additional optional exercises to develop critical thinking, for which it is also important to motivate teachers to attend additional professional development training. For higher education, there is a need, according to the respondents, to develop curricula that would be adapted to the current labour market conditions. In addition, it is crucial to establish partnerships with businesses to develop soft skills. These results are in line with the proposals of other researchers who point to the importance of gradually developing soft skills and critical thinking from early school age (Escolà-Gascón & Gallifa, 2022). Some researchers suggest taking into account the possibilities of digitalisation to incorporate essential mechanisms of thinking into curricula (Lyu & Liu, 2021; Zahn et al., 2024). It is difficult to agree with this proposal, as the gradual development of soft skills and critical thinking will already include interaction with digital information. No additional emphasis is needed on this aspect, as it is already included in training and curricula. While Singh Dubey and Tiwari (2020) highlighted the gap between the level of soft skills of graduates and the requirements of the labour market, our study indicates that the problem is not only the quality of education but also the general lack of a standardised approach to assessing soft skills. Shorey et al. (2020) focused on virtual reality, while our study considers a broader range of tools (online courses, case studies, simulation games) and their combination for effective soft skills development. It is worth supporting the initiative of scientists who point out the importance of considering business requirements, as the professional component of training should not suffer due to additional soft skills development classes (Li et al., 2022). There is a need to integrate the development of critical thinking and soft skills into the curriculum more broadly

so that their evolution also goes hand in hand with the acquisition of hard skills. The responses received allowed us to partially support the hypothesis that the introduction of soft skills in the modern education system will reduce educational inequalities, as these skills will allow us to focus on the individual abilities of students.

The methodology used in this study has certain limitations that need to be taken into account. First, the experts and teachers were guided by their own experience in answering the questions. As a result, the answers received may have a strong subjective bias. Although this does not affect the results, it is essential to take this possible subjectivity into account when interpreting the results.

Conclusions and Implications

In modern conditions, educational systems need to take into account the development of the specifics of soft skills, which are assessed in professional environments as an essential element of building the education of the future. Given the volume of information with which there will be a need to work, an important direction is the development of critical thinking, which will allow checking the veracity of information, its sources, etc. Therefore, soft skills are highly relevant in the professional careers of education seekers: communication skills, critical thinking, emotional intelligence, and leadership. It has been determined that in general the level of soft skills among education seekers is high. Discussions and debates are indicated as the most successful methods of developing critical thinking since the ability to listen and understand the position of opponents makes it possible to assess the situation and understand the position of other people. At the same time, it is worth highlighting the popularity of game learning and special psychological trainings. Communication skills, critical thinking, emotional intelligence, and teamwork are important for career growth. The respondents gave priority to critical thinking, which indicates the importance of developing this aspect in the future.

The characteristics of the problems of developing soft skills in the Ukrainian education system indicated that the main problem is the lack of resources (both financial and methodological). There is also a tangible challenge associated with the passive position of the administration, which is in no hurry to respond to the challenges of modernity. Although these challenges are interconnected, the problem of proper training of teachers and low motivation of students was singled out.

The main recommendations for further development were the use of a game approach and the services of professional psychologists (for primary education). For secondary education, it was proposed to conduct additional optional exercises to develop critical thinking, as well as motivate teachers to learn how to teach soft skills independently. For higher education, it was recommended to form curricula that would be adapted to modern labour market conditions. Additionally, the importance of establishing partnership contacts with business structures was indicated, which would allow the integration of practical experience in using soft skills into teaching.

Suggestions for Future Research

This study not only complemented existing research and emphasised the need for a more systematic approach to the introduction of soft skills in the education system and the expanded use of various methods of technology integration but also offered some recommendation solutions that should be considered in future studies. Future studies should pay more attention to the issue of standardisation of soft skills assessment. For this reason, it is necessary to develop unified approaches to measuring and assessing the level of soft skills development among students. Another vital direction could be to expand the context of the study. Future studies should cover specific areas of modern professional activity. This will help to identify the most effective methods of integrating social skills into curricula.

Given that hypothesis 2 of the study was partially supported, namely that the introduction of soft skills in the modern education system has an impact on reducing educational inequalities, it is worthwhile to devote further research to analysing how these skills will allow us to focus on individual student abilities, not just academic performance. Therefore, it is worth surveying students and experts to find out the personal attitude of students to the concept of soft skills. At the same time, future research should focus on the long-term impact of soft skills. This topic will require more contextual study. It is necessary to assess how the development of these skills during study affects the career growth and professional success of graduates. Such a study would require more time to implement but has a strong scientific novelty.

Acknowledgements

None.

Conflict of Interest

None.

Funding

The Authors received no funding for this research.

References

Aslan, A. (2021). Problem-based learning in live online classes: Learning achievement, problem-solving skill, communication skill, and interaction. *Computers & Education, 171*, Article 104237. https://doi.org/10.1016/j.compedu.2021.104237

Bauman, A., & Lucy, C. (2019). Enhancing entrepreneurial education: Developing competencies for success. *The International Journal of Management Education, 17*(1), Article 100293. https://doi.org/10.1016/j.ijme.2019.03.005

Berry, R., & Routon, W. (2020). Soft skill change perceptions of accounting majors: Current practitioner views versus their own reality. *Journal of Accounting Education, 53*, Article 100691. https://doi.org/10.1016/j.jaccedu.2020.100691

Bhute, V. J., Inguva, P., Shah, U., & Brechtelsbauer, C. (2021). Transforming traditional teaching laboratories for effective remote delivery—A review. *Education for Chemical Engineers, 35*, 96–104. https://doi.org/10.1016/j.ece.2021.01.008

Bobro, N. (2024). Digital technologies in the context of economic systems development. *International Journal of Economics and Business Administration, 12*(2), 64–70. https://doi.org/10.35808/ijeba/842

Bullington, J., Söderlund, M., Bos Sparén, E., Kneck, Å., Omérov, P., & Cronqvist, A. (2019). Communication skills in nursing: A phenomenologically-based communication training approach. *Nurse Education in Practice, 39*, 136–141. https://doi.org/10.1016/j.nepr.2019.08.011

Cannity, K. M., Banerjee, S. C., Hichenberg, S., Leon-Nastasi, A. D., Howell, F., Coyle, N., Zaider, T., & Parker, P. A. (2021). Acceptability and efficacy of a communication skills training for nursing students: Building empathy and discussing complex situations. *Nurse Education in Practice, 50*, Article 102928. https://doi.org/10.1016/j.nepr.2020.102928

Conesa, J., Alsina, M. G., Busquets, J. M. B., Zúñiga, B. G., Argüelles, M. J. M., Monjo, T., Mor, E., & Gil, M. D. C. C. (2023). A vision about lifelong learning and its barriers. *International Journal of Grid and Utility Computing, 14*(1), 62–71. https://doi.org/10.1504/ijguc.2023.129706

Cronin, L., Marchant, D., Johnson, L., Huntley, E., Kosteli, M. C., Varga, J., & Ellison, P. (2020). Life skills development in physical education: A self-determination theory-based investigation across the school term. *Psychology of Sport and Exercise, 49*, Article 101711. https://doi.org/10.1016/j.psychsport.2020.101711

De Freitas, A. P. N., & Almendra, R. A. (2021). Soft skills in design education, identification, classification and relations: Proposal of a concept map. In H. Grierson, E. Bohemia, L. Buck, A. L. Bang, M. Terkildsen, & P. McElheron (Eds.), *Continuity and Adaptability in Design and Engineering Education*. Institution of Engineering Designers, The Design Society. https://doi.org/10.35199/epde.2021.11

Escolà-Gascón, Á., & Gallifa, J. (2022). How to measure soft skills in the educational context: Psychometric properties of the SKILLS-in-ONE questionnaire. *Studies in Educational Evaluation, 74*, Article 101155. https://doi.org/10.1016/j.stueduc.2022.101155

Ganguli, S. (2024). How can higher education contribute to the 21st century employability skills through use of collaborative learning design in business. In A. M. A. Musleh Al-Sartawi, A. A. Al-Qudah, & F. Shihadeh (Eds.), *Artificial Intelligence-Augmented Digital Twins* (Vol. 503, pp. 57–67). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-43490-7_5

Gernal, L., Tantry, A., Gilani, S. A. M., & Peel, R. (2024). The impact of online learning and soft skills on college student satisfaction and course feedback. In R. El Khoury (Ed.), *Technology-Driven Business Innovation* (Vol. 223, pp. 515–528). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-51997-0_44

Glasserman-Morales, L. D., Alcantar-Nieblas, C., & Sisto, M. I. (2024). Demographic and school factors associated with digital competences in higher education students. *Contemporary Educational Technology, 16*(2), Article ep498. https://doi.org/10.30935/cedtech/14288

Gunarathne, N., Senaratne, S., & Herath, R. (2021). Addressing the expectation–performance gap of soft skills in management education: An integrated skill-development approach for accounting students. *The International Journal of Management Education, 19*(3), Article 100564. https://doi.org/10.1016/j.ijme.2021.100564

Haipinge, E. & Goosen, L. (2024). Exploring educators' pedagogical capabilities to develop university students' 21st century skills: Navigating within a digital learning environment. In C. Bosch, L. Goosen, & J. Chetty (Eds.), *Navigating Computer Science Education in the 21st Century* (pp. 1–20). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-1066-3.ch001

Hardini, M. G., Khaizure, T., & Godwin, G. (2024). Exploring the effectiveness of e-learning in fostering innovation and creative entrepreneurship in higher education. *Startupreneur Business Digital (SABDA Journal), 3*(1), 34–42. https://doi.org/10.33050/sabda.v3i1.441

Kiener, F., Eggenberger, C., & Backes-Gellner, U. (2024). The role of occupational skill sets in the digital transformation: How IT progress shapes returns to specialization and social skills. *Journal of Business Economics*, *94*(1), 75–111. https://doi.org/10.1007/s11573-023-01153-9

Kiryakova, G., & Kozhuharova, D. (2024). The digital competences necessary for the successful pedagogical practice of teachers in the digital age. *Education Sciences, 14*(5), Article 507. https://doi.org/10.3390/educsci14050507

Krap, A., Bataiev, S., Bobro, N., Kozub, V., & Hlevatska, N. (2024). Examination of digital advancements: Their influence on contemporary corporate management methods and approaches. *Multidisciplinary Reviews, 7*, Article 2024spe026. https://doi.org/10.31893/multirev.2024spe026

Li, Z., Zhou, M., & Lam, K. K. L. (2022). Dance in Zoom: Using video conferencing tools to develop students' 4C skills and self-efficacy during COVID-19. *Thinking Skills and Creativity, 46*, Article 101102. https://doi.org/10.1016/j.tsc.2022.101102

Lybeck, R., Koiranen, I., & Koivula, A. (2024). From digital divide to digital capital: The role of education and digital skills in social media participation. *Universal Access in the Information Society*, *23*(4), 1657–1669. https://doi.org/10.1007/s10209-022-00961-0

Lyu, W., & Liu, J. (2021). Soft skills, hard skills: What matters most? Evidence from job postings. *Applied Energy, 300,* Article 117307. https://doi.org/10.1016/j.apenergy.2021.117307

Marcos-Vílchez, J. M., Sánchez-Martín, M., & Muñiz-Velázquez, J. A. (2024). Effectiveness of training actions aimed at improving critical thinking in the face of disinformation: A systematic review protocol. *Thinking Skills and Creativity, 51*, Article 101474. https://doi.org/10.1016/j.tsc.2024.101474

Marcenaro-Gutierrez, O. D., Lopez-Agudo, L. A., & Henriques, C. O. (2021). Are soft skills conditioned by conflicting factors? A multiobjective programming approach to explore the trade-offs. *Economic Analysis and Policy, 72,* 18–40. https://doi.org/10.1016/j.eap.2021.07.008

Morrell, B. L. M., Eukel, H. N., & Santurri, L. E. (2020). Soft skills and implications for future professional practice: Qualitative findings of a nursing education escape room. *Nurse Education Today, 93,* Article 104462. https://doi.org/10.1016/j.nedt.2020.104462

Moon, J., & Ke, F. (2024). Effects of adaptive prompts in virtual reality-based social skills training for children with autism. *Journal of Autism and Developmental Disorders*, *54*(8), 2826–2846. https://doi.org/10.1007/s10803-023-06021-7

Nakagawa, S., Fischkoff, K., Berlin, A., Arnell, T. D., & Blinderman, C. D. (2019). Communication skills training for general surgery residents. *Journal of Surgical Education, 76(5),* 1223–1230. https://doi.org/10.1016/j.jsurg.2019.04.001

Novia, F., Nurdianti, D., & Purwanto, M. B. (2024). English learning and innovation skills in 21st: Implementation of critical thinking, creativity, communication, and collaboration. *Asian Journal of Applied Education (AJAE), 3(2),* 113–124. https://doi.org/10.55927/ajae.v3i2.8318

Pizzul, D., Sala, E., Caliandro, A., Zaccaria, D., & Carlo, S. (2024). Evaluating the impact of a peer-education digital literacy course on older adults' digital skills and wellbeing: A mixed-methods study protocol. *Frontiers in Sociology, 9.* https://doi.org/10.3389/fsoc.2024.1432607

Poláková, M., Suleimanová, J. H., Madzík, P., Copuš, L., Molnárová, I., & Polednová, J. (2023). Soft skills and their importance in the labour market under the conditions of Industry 5.0. *Heliyon*, *9*(8), Article e18670. https://doi.org/10.1016/j.heliyon.2023.e18670

Purnomo, E. N., Imron, A., Wiyono, B. B., Sobri, A. Y., & Dami, Z. A. (2024). Transformation of digital-based school culture: Implications of change management on virtual learning environment integration. *Cogent Education, 11*(1), Article 2303562. https://doi.org/10.1080/2331186x.2024.2303562

Rebele, J. E., & St. Pierre, E. K. (2019). A commentary on learning objectives for accounting education programs: The importance of soft skills and technical knowledge. *Journal of Accounting Education, 48,* 71–79. https://doi.org/10.1016/j.jaccedu.2019.07.002

Sato, S., Kang, T.-A., Daigo, E., Matsuoka, H., & Harada, M. (2021). Graduate employability and higher education's contributions to human resource development in sport business before and after COVID-19. *Journal of Hospitality, Leisure, Sport & Tourism Education, 28,* Article 100306. https://doi.org/10.1016/j.jhlste.2021.100306

Singh Ospina, N., Toloza, F. J. K., Barrera, F., Bylund, C. L., Erwin, P. J., & Montori, V. (2020). Educational programs to teach shared decision making to medical trainees: A systematic review. *Patient Education and Counseling, 103(6),* 1082–1094. https://doi.org/10.1016/j.pec.2019.12.016

Shorey, S., Ang, E., Ng, E. D., Yap, J., Lau, L. S. T., & Chui, C. K. (2020). Communication skills training using virtual reality: A descriptive qualitative study. *Nurse Education Today, 94,* Article 104592. https://doi.org/10.1016/j.nedt.2020.104592

Singh Dubey, R., & Tiwari, V. (2020). Operationalisation of soft skill attributes and determining the existing gap in novice ICT professionals. *International Journal of Information Management, 50,* 375–386. https://doi.org/10.1016/j.ijinfomgt.2019.09.006

Sobolenko, L., Davydiuk, A., Kornieva, V., Lopatynska, I., & Bazyl, O. (2024). Optimisation of learning and development of cognitive skills through the use of integrated technologies of virtual reality and artificial intelligence among students. *E-Learning Innovations Journal, 2(2),* 102–118. https://doi.org/10.57125/elij.2024.09.25.06

Sokhanvar, Z., Salehi, K., & Sokhanvar, F. (2021). Advantages of authentic assessment for improving the learning experience and employability skills of higher education students: A systematic literature review. *Studies in Educational Evaluation, 70,* Article 101030. https://doi.org/10.1016/j.stueduc.2021.101030

Vasiliou, V. S., Philia, I., Drosatou, C., Mitsi, E., & Tsakonas, I. (2024). LeadinCare: A qualitative informed digital training platform development to increase physicians' soft communication skills after COVID-19. *Psychology, Health & Medicine*, *29*(1), 39–54. https://doi.org/10.1080/13548506.2023.2206144

Vermylen, J. H., Wood, G. J., Cohen, E. R., Barsuk, J. H., McGaghie, W. C., & Wayne, D. B. (2019). Development of a simulation-based mastery learning curriculum for breaking bad news. *Journal of Pain and Symptom Management, 57(3),* 682–687. https://doi.org/10.1016/j.jpainsymman.2018.11.012

Vijayakumar Bharathi, S., & Pande, M. B. (2024). Does constructivism learning approach lead to developing creative thinking skills? The mediating role of online collaborative learning environments. *Journal of Computers in Education.* https://doi.org/10.1007/s40692-024-00321-2

Widad, A., & Abdellah, G. (2022). Strategies used to teach soft skills in undergraduate nursing education: A scoping review. *Journal of Professional Nursing, 42,* 209–218. https://doi.org/10.1016/j.profnurs.2022.07.010

Zahn, E.-M., Schöbel, S., Saqr, M., & Söllner, M. (2024). Mapping soft skills and further research directions for higher education: A bibliometric approach with structural topic modelling. *Studies in Higher Education*. https://doi.org/10.1080/03075079.2024.2361831