UDC 37.015.3:37.018.8

Lysenkova Tetiana Mykhailivna Senior teacher at the Department of Pedagogy, Foreign Philology and Translation, Simon Kuznets Kharkiv National University of Economics, Nauky Ave, 9A Kharkiv, Ukraine, tel.: +380953188337, e-mail: te.lysenkova@gmail.com, https://orcid.org/0000-0001-8493-1790

THE USE OF INNOVATIVE LEARNING TECHNOLOGIES FOR SOFT SKILLS DEVELOPMENT

Abstract. The work deals with theoretical and practical aspects of developing soft skills in high and higher education institutions through innovative learning technologies. The study analyzes international experience, with particular emphasis on the approaches of educators in Ukraine and abroad, highlighting the integration of blended learning, project-based learning, role-playing, emotional training, and the use of digital platforms, including VR/AR tools.

It is emphasized that developing soft skills is increasingly crucial in shaping high-quality human capital, contributing to sustainable economic growth, social cohesion, and global competitiveness. For students the ability to communicate effectively, think critically, collaborate, adapt to change, and use digital learning environments responsibly is a personal asset and a societal necessity in the context of nowadays. The analysis of contemporary scientific and pedagogical literature shows that the issue of cultivating soft skills within high and higher education remains relatively new, which explains the limited number of comprehensive studies; nevertheless, it attracts growing scholarly attention due to its interdisciplinary and practical importance.

The findings indicate that while soft skills are universally recognized as crucial for professional success, their integration methods vary depending on cultural and institutional contexts. The reorientation of academic programs at all levels is stressed - from preschool to university - to include more principles, skills, and values related to sustainability, which are currently not considered in most educational systems. The reorientation of educational programs for sustainable development must be focussed continuously at all levels of formal education, including universities and vocational and technical schools. The paper argues for comprehensive institutional support, business partnerships, and cross-cultural adaptation of educational models to foster practical soft skills training in education.

Keywords: soft skills, blended learning, digital technologies, digital learning environment, higher education, international experience.

УДК 37.015.3:37.018.8

Лисенкова Тетяна Михайлівна, старший викладач кафедри педагогіки, іноземної філології та перекладу, Харківський національний економічний університет ім. С. Кузнеця, проспект Науки, 9А м.Харків, Україна, тел.: +380953188337, e-mail: te.lysenkova@gmail.com, https://orcid.org/0000-0001-8493-1790

ВИКОРИСТАННЯ ІННОВАЦІЙНИХ ТЕХНОЛОГІЙ НАВЧАННЯ ДЛЯ РОЗВИТКУ МЯКИХ НАВИЧОК

Анотація. У роботі розглядаються теоретичні та практичні аспекти розвитку м'яких навичок у закладах середньої та вищої освіти за допомогою інноваційних технологій навчання. У дослідженні аналізується міжнародний досвід, при цьому особлива увага приділяється підходам педагогів в Україні та за кордоном, зокрема інтеграції змішаного навчання, проектного навчання, рольових ігор, емоційного тренінгу та використання цифрових платформ, у тому числі інструментів VR/AR.

Підкреслюється, що розвиток м'яких навичок відіграє дедалі важливішу роль у формуванні високоякісного людського капіталу, сприяючи сталому економічному зростанню, соціальній згуртованості та глобальній конкурентоспроможності. Для студентів здатність ефективно спілкуватися, критично мислити, співпрацювати, адаптуватися до змін та відповідально використовувати цифрові навчальні середовища є особистим надбанням і суспільною необхідністю в сучасних умовах. Аналіз сучасної наукової та педагогічної літератури показує, що питання розвитку м'яких навичок у середній та вищій освіті залишається відносно новим, що пояснює обмежену кількість комплексних досліджень; проте воно привертає дедалі більшу увагу науковців завдяки своїй міждисциплінарній та практичній важливості.

Результати дослідження свідчать, що, хоча м'які навички загальновизнані як вирішальні для професійного успіху, методи їх інтеграції різняться залежно від культурного та інституційного контексту. Наголошується на необхідності переорієнтації навчальних програм на всіх рівнях - від дошкільної освіти до вищої - з метою включення більшої кількості принципів, навичок та цінностей, пов'язаних зі сталим розвитком, які наразі не враховуються в більшості освітніх систем. Переорієнтація освітніх програм на сталий розвиток повинна бути постійною на всіх рівнях формальної освіти, включаючи університети та професійно-технічні навчальні заклади. У статті обґрунтовується необхідність всебічної інституційної підтримки, партнерства з бізнесом та міжкультурної адаптації освітніх моделей для сприяння практичному навчанню м'яких навичок в освіті.

Ключові слова: м'які навички, змішане навчання, цифрові технології, цифрове навчальне середовище, вища освіта, міжнародний досвід.

Formulation of the problem. In recent decades, more and more attention has been paid to the development of so-called soft skills in graduates of high and higher educational institutions. This primarily applies to those skills that are not directly technical or professional, but are critical for a successful career and performing various tasks in today's market environment. However, there is a significant difference in the understanding and applying the concept of "soft" skills in theory and practice. The problem is that soft skills do not have an unambiguous definition, and

their practical application in professional activities is still insufficiently developed.

While many studies emphasize the importance of effective communication, teamwork, and problem-solving skills, today's environment only increases their relevance. This is especially true for graduates who do not always have a sufficient set of these skills, which complicates their adaptation to the requirements of modern labor.

The relevance of the research topic lies in the need to research and implement strategies for cultivating "soft" skills in high and higher school students through digital learning technologies to train specialists who can effectively apply their knowledge and skills in the modern market environment.

The study is aimed to carry out a theoretical and empirical analysis of the development of soft skills through digital learning environments and to present recommendations for developing soft skills in students.

Analysis of recent research and publications. In modern conditions of globalization, education is undergoing transformations, which increase the need for professional knowledge and soft skills, which play an essential role in successful adaptation to the labor market. For professional growth and career development a specialist needs to combine hard and soft skills.

Many socially essential processes in the contemporary world are accompanied by the aggravation of contradictions and the emergence of new trends due to changes in the parameters of these processes under the influence of the widespread introduction of digital learning environments. Key soft skills include communication, teamwork, adaptability, problem-solving, time management, leadership, and emotional intelligence. Unlike technical skills, inherent in certain professions or industries, soft skills are universal and can be applied in various professional fields. Soft skills are not tied to narrow specialization; instead, they represent general competencies that are essential in any professional field and play a key role in adapting to the dynamic demands of modern society [6, 8, 9].

The issue of the digitalization of education is actively addressed in the works of both domestic and foreign researchers. Many studies emphasize the advantages of using interactive tools to enhance the quality of education, foster learner autonomy, and develop critical thinking and other soft skills [7, 9]. Although digital platforms possess significant potential, researchers highlight certain challenges and emphasize the importance of adapting digital platforms to specific educational contexts [1, 2, 3, 4, 5, 7].

Presenting main material. In modern conditions of war conflicts and global transformations, education is undergoing changes, which increase the need for professional knowledge and soft skills, which play an essential role in successful adaptation to the labor market. For professional growth and career development a specialist needs to combine hard and soft skills. Many socially essential processes in the contemporary world are accompanied by the aggravation of contradictions and the emergence of new trends due to changes in the parameters of these processes under the influence of the widespread introduction of digital learning environments. Key soft skills include communication, teamwork, adaptability, problem-solving, time management, leadership, and emotional intelligence. Unlike technical skills,

inherent in certain professions or industries, soft skills are universal and can be applied in various professional fields.

In the twenty-first century, the rapid digitalization of education, globalization of labor markets, and transition to a knowledge-based economy have further strengthened the importance of soft skills. Employers across Asia and Europe increasingly emphasize communication, critical thinking, problem-solving, intercultural competence, and digital literacy as key components of employability. Digital learning environments, online platforms, collaborative tools, and virtual simulations are now widely regarded as effective means to cultivate these skills, offering students opportunities for interaction, teamwork, and creative problem-solving across cultural and geographical boundaries. Thus, the trajectory to digital collaboration demonstrates that while the contexts have changed, the human need for collective skills, adaptability, and cooperation has remained a constant driver of professional and societal development.

Soft skills are traditionally contrasted with “hard skills.” However, this terminology does not always fully convey the concept's essence. Soft skills have often been criticized as imprecise, since they may suggest that these abilities are secondary or less important than technical competencies. Scholars in different contexts have attempted to replace the term with alternatives such as “flexible skills,” “social skills,” or “success skills,” yet none of these synonyms can be regarded as entirely accurate. The challenge lies in the fact that the word “skill” does not adequately reflect the complexity of what is meant: soft skills are not limited to practical techniques or habits but rather encompass a broad set of knowledge, attitudes, experiences, and behaviors. Unlike technical skills, they are neither automatic nor innate; their development typically involves conscious practice, reflection, interpersonal interaction, and sometimes even verbalizing internal processes.

From this perspective, soft skills are often considered closer to competencies, although this term is not precise. Despite the ongoing debate about terminology, most researchers agree that retaining the English term soft skills is currently the most pragmatic solution, especially as English-language terminology (e.g., curriculum, stakeholder, benchmark) has become widely accepted in global academic and professional discourse. The essence of the concept is usually described through a system of interrelated abilities. For instance, one widely cited classification groups soft skills into five categories: cognitive abilities, social abilities, communication abilities, self-regulation abilities, and positive self-perception abilities [8].

Soft skills have a long history of formation, and their development is ongoing. World Economic Forum Report "The Future of Jobs" indicates the ever-increasing need for these skills in the context of the rapid growth of technology.

In general, developing and implementing soft skills is an urgent task for the educational system, which requires digital approaches and interdisciplinary research, particularly regarding their role in training specialists who can adapt to the modern requirements of the labor market.

Soft skills are not tied to narrow specialization; instead, they represent general competencies that are essential in any professional field and play a key role in

adapting to the dynamic demands of modern society. This shift underscores the importance of continuous learning and the need to regularly update professional competencies acquired in higher education, with soft skills serving as a vital foundation for adaptability, lifelong learning, and sustainable employability.

Researchers from The Boston Consulting Group have developed a target competency model 2025, which includes key universal skills needed to achieve efficiency in the 21st century, the age of information technology. Research from Harvard and Stanford universities has shown that only 15% of career success is determined by professional skills, while the remaining 85% depends on soft skills.

Scholars define soft skills as a social characteristic encompassing a specialist's knowledge, abilities, skills, and motivational components, directed toward successful interaction with others, effective time management, persuasion, negotiation, leadership, and emotional intelligence. These skills contribute to the adequate performance of professional tasks and align with the requirements of specific positions, the strategic goals of organizations, and the overall potential of employees for productive activity within a particular team and workplace environment.

UNESCO's framework on transversal competencies identifies six key domains: critical and innovative thinking, interpersonal skills, intrapersonal skills, global citizenship, media and information literacy, and others. These competencies are essential for personal development, employability, and active social participation, transcending disciplinary boundaries and cultural contexts.

In China, the national curriculum reform emphasizes the development of core competencies, including communication skills, problem-solving abilities, and resilience. Studies have shown that these competencies are crucial for students' success in both academic and professional settings, highlighting the global trend towards integrating soft skills into educational frameworks. Collectively, these international perspectives demonstrate that the cultivation of soft skills is not confined to any single field of knowledge but is recognized as a universal educational challenge that requires targeted strategies, innovative learning environments, and reliable mechanisms for evaluation.

In the scientific literature, soft skills are increasingly emphasized as essential for ensuring the successful professional preparation of future specialists across various fields. The diversity of terminological approaches, ranging from soft skills to “universal competencies” or “transversal skills,” reflects multiple interpretations of the concept. However, all these approaches share standard features, notably interdisciplinarity and a high level of meta-professionalism, which go beyond specific technical knowledge and contribute to the holistic development of a specialist. The introduction of the concept of education for sustainable development also requires the development of these universal skills in the pedagogical practice of educational institutions.

Soft skills cover a range of competencies, from effective communication to problem-solving and teamwork skills. They are universal and go beyond professional specialization, which makes them critical for ensuring the sustainable development of specialists. This requires constantly updating teaching methods and approaches to integrate these skills into the educational process. Education for sustainable

development is integral to forming "soft skills». It covers all aspects of the educational process and the organization of the work of academic institutions, such as schools, colleges, universities, and other educational institutions. This approach has grown out of environmental and development education and has already become part of educational systems, especially in higher education.

Education for Sustainable Development is designed to help students develop skills, knowledge, and attitudes that enable them to make informed decisions for the benefit of themselves and others, both now and in the future, and to put them into practice. The key components of effective education for sustainable development encompass the curriculum, teaching methods, and students' personal experiences. The two terms are often used simultaneously and interchangeably: education for sustainability, and sustainable development. "Sustainable development" is the most common of these terms because it is universally recognized internationally. Education is a key element for ensuring sustainable development.

Education and sustainable development are closely linked. According to UNESCO, there are four main areas of work with sustainable development: improving basic education, reorienting existing educational programs to sustainable development needs, and raising public awareness and education. What is important is precisely the reorientation of academic programs at all levels - from preschool to university - to include more principles, skills, and values related to sustainability, which are currently not considered in most educational systems. Not only is the amount of education necessary, but also its relevance to modern needs.

Equally important, sustainable development requires a conscious population that understands the goals of a sustainable society and has the appropriate knowledge and skills to contribute to these goals. As the number of democratic governments increases, there is a growing need for an educated community that supports educational initiatives and government programs to implement sustainable development measures. In today's information world, people are constantly confronted with media such as television, radio, print and digital publications, billboards, and Internet advertising. Therefore, citizens must be media literate, able to critically analyze advertisers' messages, and become educated consumers who can see when corporations emphasize their environmental responsibility while hiding less environmentally conscious aspects of their activities.

In a period of global changes and challenges, higher education institutions are responsible for preparing people who are not only ready to work in a team but are also responsible citizens. The main goal of higher education is the formation of human capital, endowed with the necessary skills and ideas that allow current and future generations to live with dignity, provide equal access to natural resources, and protect the biodiversity of ecosystems on which our lives depend. Creating a sustainable society becomes a shared responsibility for educators who educate future leaders and graduates who will apply these skills in professional and personal activities.

The main soft skills that are especially valued in the labor market, according to this survey, are:

- active listening is the ability to listen carefully to the interlocutor and ask questions that help to understand the other's opinion better.
- negotiation skills;
- ability to convince colleagues and partners;
- non-verbal communication skills - the use of facial expressions, gestures, and posture to reinforce words, which makes communication more expressive;
- ability to speak and present in public;
- storytelling – the ability to tell in a structured and engaging way;
- writing skills – the ability to conduct business correspondence, draw up reports, etc.;
- critical thinking;
- empathy, that is, the ability to understand the emotions of others, is also one of the key soft skills of a modern employee.
- emotional intelligence, a positive outlook, a desire to learn, creativity in problem solving, and self-development also become essential characteristics for a successful career.

Entrepreneur Elon Musk emphasizes the importance of soft skills, noting that "…interacting with other people is an important part of working on joint projects, and the ability to communicate effectively is one of the main challenges". From his point of view, the following are essential:

- communication skills;
- involvement in teamwork;
- adaptability and flexibility;
- observation, ability to listen and analyze;
- productivity and efficiency.

According to Musk, in the face of rapid technological change, these skills should be a priority for every employee, especially in high-tech industries.

Employers value goal setting, critical thinking, and recovering quickly from stressful situations. SpaceX notes that the basis of innovation is the desire to understand the deep processes taking place in systems and the ability to look for ways to improve their efficiency. Critical thinking is considered one of the most essential skills for employers.

The experience of different countries, including Ukraine, in developing soft skills in students is of considerable interest for analysis and adaptation of their educational systems:

- U.S. experience

Higher education institutions in the United States of America are considered among the most digitalized in soft skills development among students. American universities integrate the development of these skills into curricula through an interdisciplinary approach, student clubs, and practical projects. In the United States, special emphasis is placed on developing leadership, communication, and critical thinking. Universities aim to develop intellectual and emotional competencies in students, allowing them to adapt successfully to various professional challenges.

The American higher education system also attaches great importance to the practical component of learning. Practicums, internships, and cooperative educational

programs create opportunities for students to apply their knowledge in real-world settings, while developing soft skills and problem-solving skills to better adapt to changes in the labor market.

- European experience

In European countries, such as Germany, Sweden, and the Netherlands, implementing integrative learning that combines academic knowledge with the development of collaboration, leadership, and critical thinking skills is the standard. Universities actively involve students in international exchange programs such as Erasmus+, which allows students not only to gain experience of studying abroad but also to gain experience of intercultural communication skills.

For example, in Germany, special emphasis is placed on the dual education system, which combines theoretical and practical training at enterprises. This allows students to develop not only technical competencies but also soft skills, in particular, effective communication and teamwork skills.

- Asian experience

In Asian countries such as Japan, South Korea, and China, soft skills development has been approached as a strategic component of higher education, each country implementing systems with distinctive characteristics shaped by cultural traditions, economic priorities, and national education policies.

In Japan, soft skills development is deeply integrated into formal education and broader cultural practice. Japanese universities emphasize cultivating teamwork skills, responsibility, perseverance, and self-discipline, which reflect the country's collective-oriented culture. Higher education institutions actively involve students in collaborative projects, case studies, and problem-based learning activities to foster cooperation, conflict resolution, and group decision-making. Beyond the classroom, extracurricular clubs and voluntary work significantly nurture interpersonal communication, adaptability, and leadership abilities. This holistic approach reflects Japan's broader societal emphasis on harmony, mutual respect, and lifelong learning.

South Korea treats soft skills development as essential to its national strategy to produce a highly qualified workforce capable of driving innovation in high-tech industries. Korean universities incorporate practical seminars, workshops, and simulations that allow students to develop leadership, communication, and creative problem-solving skills. Many institutions have introduced industry-academia cooperation programs, where students work on real-world projects under the guidance of both academic mentors and industry experts. Moreover, the Korean education system actively embraces digital learning technologies, incorporating online platforms, simulations, and AI-assisted training modules to teach soft skills such as intercultural communication, teamwork, and adaptability. This integration reflects South Korea's commitment to aligning higher education with the demands of a rapidly evolving economy.

In China, the development of soft skills has been given increasing importance as part of the country's broader educational reform agenda. National policy documents, including the Education Modernization 2035 plan, emphasize the cultivation of "core competencies" that encompass communication, critical thinking, creativity, collaboration, and self-management. Chinese universities adopt innovative

pedagogical approaches, such as problem-based, project-based, and experiential learning, to embed soft skills development.

Foreign experience developing soft skills in students shows that these skills are necessary for successful professional realization in a rapidly changing labor market. Integrating soft skills into curricula through projects, internships, and international exchanges is essential to modern education in many countries worldwide. Ukraine can take these practices as an example of introducing practical soft skills development methods among its students.

The issue of introducing digital teaching technologies in higher education institutions has acquired new aspects in modern scientific literature with the beginning of the COVID-19 pandemic and later of the war. During quarantine restrictions, digital technologies became decisive, since the educational process could be carried out exclusively thanks to technological means. Such conditions have led to a significant increase in scientific research devoted to introducing digital technologies in higher education.

Innovative digital educational technologies have become integral to the modern educational system. Their goal is to improve the quality of the learning process, facilitate access to knowledge, and create conditions for developing key competencies such as critical thinking, communication skills, and the ability to learn independently. Digital educational technologies are understood as new teaching models and methods tested in experimental activities and have shown high efficiency in the educational process. These may include interactive technologies, virtual and augmented reality technologies, distance learning, and blockchain technologies [41].

Interactive learning technologies are widely studied in the pedagogical literature [7]. However, there is still no single definition of this concept. In the Ukrainian Pedagogical Dictionary, interactive technologies are defined as learning based on the active interaction of the student with the learning environment, which allows him to gain new experience. Interactive learning technologies are methods that not only enable students to assimilate knowledge but also help develop critical thinking skills, problem-solving, and communication skills. The educational process is organized so that students work in conditions of active interaction with the teacher and fellow students, which stimulates them to independently search for solutions and make decisions based on the analysis of real professional situations.

Modern educational technologies actively use virtual (VR) and augmented reality (AR) to create interactive learning environments. Virtual reality allows you to simulate different situations where students can test their knowledge and skills in real or created situations. VR technology creates three-dimensional objects using computer graphics, animation, and programming, allowing you to immerse yourself in the learning process so much that the student ignores external stimuli and entirely focuses on interacting with the virtual environment [7]. This makes the learning process more engaging and productive, as students can "relive" the situation several times to consolidate knowledge.

Augmented reality (AR) increases the real world with virtual elements - texts, graphics, videos, or other interactive elements. AR allows students to interact with the learning material in real time, which makes the learning process more dynamic

and engaging. For example, when studying biology, students can interact with a three-dimensional human body model, studying its structure and functioning in real time.

Distance learning is one of the most popular forms of organizing the educational process in modern conditions. This form of study allows students to independently choose the time and place of study, using the Internet to access study materials. E- learning technologies provide flexibility in the learning process, the ability to combine learning with other activities, and resource savings, such as transportation costs. Among the advantages of distance learning, one can also note the possibility of teaching many students simultaneously.

Blockchain technologies are also gaining popularity in education, providing reliable data storage for student performance, qualifying papers, and other essential documents. Blockchain is a decentralized data storage system that provides secure and transparent maintenance of information registers. This allows you to abandon paper documents and store all information digitally, significantly increasing security and ease of use.

The development of soft skills is an essential element of modern education around the world. Each country uses its own approaches to introducing digital methods into curricula to form soft skills in students.

USA puts much emphasis on integrative approaches, namely: use of project-based learning (Project-Based Learning), where students work in teams on real-world tasks; implementation of leadership programs at universities such as Harvard and Stanford aimed at developing emotional intelligence and critical thinking; interactive platforms such as Zoom, Slack, and Google Workspace are actively integrated into the learning process, providing students with access to online assignments and group projects; participation in student clubs is encouraged, which help develop communication, leadership and teamwork skills.

In Germany, the dual training system plays a central role, combining theoretical classes at universities or vocational schools with practical training directly at enterprises. During these practical sessions, interactive methods such as case studies are frequently employed to analyze real-world situations and enhance problem- solving abilities. Digital platforms, including Moodle and Microsoft Teams, are actively used to organize training, support collaboration, and create virtual teams. At the same time, significant attention is devoted to developing intercultural skills through participation in international exchange programs such as Erasmus+. In Japan, traditions are successfully integrated with modern technologies to foster comprehensive skill development. Implementing the Kaizen method contributes to the continuous improvement of personal and professional skills, emphasizing discipline and self-reflection. Role-playing games are widely used to simulate business situations and to teach ethical behavior in corporate contexts. Advanced technologies such as virtual reality (VR) and augmented reality (AR) are applied to simulate complex production processes and train virtual teams in safe and controlled environments. Moreover, a strong emphasis is placed on group work, which develops communication abilities, strengthens teamwork, and promotes collaborative problem-solving.

In Ukraine, blended learning is actively used, combining traditional face-to-face classes with modern online tools. Interactive methods such as training, role-playing games, and brainstorming are widely implemented to increase student engagement. On-premises platforms like Google Class, Moodle, etc, are applied to design interactive assignments and quizzes that enhance the learning process. Additionally, students are encouraged to participate in startups and competitions, stimulating creativity, entrepreneurial thinking, and practical skills.

The globally recognised digital tools for the development of soft skills are online collaboration tools, namely:

- Google Workspace (Google Docs, Sheets, Meet): promotes teamwork and communication skills when collaborating on assignments (during a group project to write a term paper, students use Google Docs to edit text at the same time, which ensures transparency of each participant's work and facilitates coordination).
- Microsoft Teams: The integration of video conferencing, chats, and file sharing allows students to interact in real-time and efficiently distribute responsibilities (during the project management discipline, students create group tasks in Teams, hold regular video meetings, and use Planner to track progress).
- Trello and Asana: Project management tools that help students organize teamwork, schedule tasks, and track their progress (students in the Faculty of Marketing use Trello to plan an advertising campaign, assigning roles and deadlines for tasks).

The most suitable and effective digital platforms for the development of communication skills are:

- Zoom and Webex: Allow students to practice public speaking, discussion, and negotiation skills during online classes or conferences (students conduct a scientific seminar via Zoom where each participant presents their ideas and answers questions from listeners).
- Slack: a platform for corporate communication that stimulates the development of professional correspondence, prompt discussion of ideas, and feedback (using Slack as part of an internship allows students to get used to a professional communication style in a corporate environment).

The most convenient digital tools for the development of critical thinking and creativity as major soft skills are:

- Miro and Padlet: digital whiteboards for creating mind maps, brainstorming, and visualizing ideas (during a creative thinking course, students create a joint project in Miro, where they visualize ideas for a digital product).
- Canva: An online graphic content creation platform that develops creativity and presentation skills (design students create infographics to present their ideas while defending their thesis).
- Kahoot! and Quizizz: tools for creating interactive quizzes and quizzes that stimulate active thinking and information analysis (students develop a quiz for classmates in Kahoot! to test understanding of key course topics).

The most popular digital platforms for leadership development and self-management are:

- LinkedIn Learning and Coursera: courses aimed at developing leadership skills, time management, effective communication, and emotional intelligence (the student takes a course on team management on Coursera, applying the knowledge gained while coordinating a group project at the university).

-Trello: A task scheduling tool that helps organize personal time and teamwork (students use Trello to prepare for exams by creating a calendar of tasks and marking completed items).

The practical tools for the development of emotional intelligence (EI) are:

- Headspace and Calm: meditation and mindfulness apps that help students control emotions and reduce stress (during the exam session, students practice meditation with Headspace to maintain emotional resilience).

- Mentimeter: a platform for collecting feedback that stimulates emotional reflection and the development of practical communication skills (during the lesson, the teacher uses Mentimeter to interview students about their learning difficulties anonymously).

Based on the considerations mentioned above, we can assume that the advantages of using digital tools and environments for the development of soft skills are:

- Interactivity and involvement since modern digital platform makes learning more dynamic and engaging, stimulating the active participation of students.
- Flexibility and individualization because students can learn at their own pace, choosing individual skill development trajectories.
- Availability, because most digital tools are available online and often have free versions for educational purposes.
- Real-life tasks, since using digital tools simulates work situations that students will encounter professionally.

-Monitor and evaluate results because most platforms provide opportunities to analyze student progress through analytics and reports.

Besides the advantages mentioned above, universities and other educational establishments can face considerable challenges regarding effectively implementing the digital tools described above. Among these challenges, the following ones can have a crucial impact:

- Technical barriers include limited access to modern devices and internet connections.
- Insufficient digital competence: There is a low level of digital skills among teachers and students.
- overload of digital platforms: too many digital tools can be demotivational and overwhelming for students.

Thus, the analysis of international experiences in developing soft skills in higher education demonstrates that, despite differences in cultural and educational traditions, most countries recognize the crucial role of these competencies in preparing competitive specialists for the future labor market. The United States emphasizes project-based learning and leadership through student clubs. Germany effectively applies its dual education system to integrate theory and practice with

modern digital platforms. Japan combines centuries-old traditions such as Kaizen with cutting-edge VR/AR technologies to foster continuous improvement and teamwork. At the same time, China focuses on holistic personal development by embedding soft skills into interdisciplinary learning, innovation-oriented practices, and digital solutions. Ukraine, in turn, is actively searching for innovative approaches, combining blended learning, interactive methods, and the engagement of students in startups and competitions to cultivate entrepreneurial and creative abilities. Together, these practices illustrate a global trend towards integrating soft skills into formal education as a fundamental component of professional training. They show that while the strategies differ, the common goal is to develop knowledgeable graduates who are adaptable, communicative, collaborative, and ready to meet the challenges of a rapidly changing, technology-driven world.

The study also reveals the multifaceted advantages of digital learning environments in the context of soft skills development. They ensure interactivity and engagement by transforming learning into a dynamic process; they provide flexibility and individualization by allowing students to learn at their own pace and pursue personal skill trajectories; they increase accessibility through online platforms available globally; and they simulate real professional tasks, thus preparing students for workplace realities. Equally significant is their ability to offer monitoring and evaluation opportunities through built-in analytics and feedback systems. However, technical barriers, insufficient digital literacy among teachers and students, and the risk of platform overload underscore the need for careful implementation strategies and institutional support.

The formation of soft skills requires a systematic approach, which includes both separate training courses and the integration of elements of soft skills development into existing professional disciplines:

1. Introduction of individual disciplines:

Courses in communication, emotional intelligence, creativity, time management, and leadership should become mandatory or selective. Introducing certain disciplines allows you to purposefully form specific skills through lectures, training, and practical tasks. Universities in Poland, such as the University of Warsaw, are introducing courses on "Communication Effectiveness" and "Critical thinking", which are mandatory for students of all specialties.

2. Integration of soft skills into existing disciplines. Modules that develop critical thinking, teamwork, and creativity can be included in practical classes in professional disciplines.

Soft skills are integrated into professional subjects through role-playing games, case methods, and interactive learning formats in the Czech Republic, Slovakia, and Hungary. Compared to Ukraine, these countries have higher institutional support for this approach, particularly through funding and business partnerships.

For Ukraine, it is necessary to expand the practice of individual disciplines and integrated modules for developing soft skills, involving employers and international partners in creating modern educational content.

3. Digital technologies such as virtual reality (VR) and augmented reality (AR). This creates new opportunities for learning by simulating real-world work

situations and providing an interactive environment for the practical development of soft skills; for example, VR enables the creation of scenarios that require students to make decisions, collaborate as a team, and manage stress in engineering programs at German universities, VR simulations are used to model emergencies that train students to coordinate team actions quickly. At the same time, in project management courses, VR can replicate crisis conditions to enhance leadership and adaptability skills. In Ukraine, VR and AR technologies are used sporadically due to financial constraints. Pilot projects, such as those at the Kyiv National University of Civil Engineering and Architecture, demonstrate the high potential of these technologies for learning.

4. The introduction of emotional training methods plays a crucial role in developing emotional intelligence, which is essential for effective communication, conflict management, and resilience to stress; such methods include meditative practices and self-regulation techniques for example, in the United States, "Mindfulness-Based Stress Reduction" is a mandatory component of medical education and the development of empathy through active listening and reflection training, as practiced in Canadian universities to prepare future teachers. In contrast, these methods are applied primarily in corporate training in Ukraine, highlighting the need for a comprehensive methodological framework for large-scale implementation.

5. Involvement in international exchange and intercultural cooperation programs. International exchange programs create a platform for forming intercultural competencies, critical thinking, and communication skills. Students adapt to working in a multicultural environment and develop a global mindset. For instance, the Erasmus+ program actively involves Ukrainian students in joint projects with European universities.

6. Introduction of a soft skills assessment system: digital portfolios (platforms to track students' achievements, receive feedback, and self-assessment). Such interactive platforms for mutual assessment: students evaluate each other's work, which contributes to developing critical thinking. Practical soft skills assessment requires a special system that includes a portfolio, self-assessment, and peer-to-peer evaluation. It is recommended that electronic platforms be created where students can receive feedback from teachers and colleagues about their personal and professional skills. For this purpose, we can use digital platforms to compile electronic portfolios containing records of achievements, video reports on completed tasks, and feedback from mentors and project managers.

Thus, the practical introduction of digital technologies in developing soft skills is a strategic task of the higher education system of Ukraine. Compared to neighboring countries, Ukraine has significant potential, but needs systemic support at the state level, expansion of international cooperation, and investment in technological infrastructure. VR, AR, emotional training, and global exchanges will allow you to train highly qualified specialists with key soft skills for successful professional activities.

Integrating soft skills into curricula helps students develop independence, creativity, and teamwork, which are integral to success in today's job market. The practical implementation of digital methodologies, such as project-based and

interactive learning, contributes to developing leadership qualities, flexibility, and intercultural communication. With such technologies, students can gain the hands-on experience to overcome professional challenges in a fast-paced world.

Conclusions. First, the analysis of theoretical foundations and international experience demonstrates that soft skills are no longer optional but a core component of professional competence. Employers worldwide, including in Ukraine, Europe, China, and North America, consider communication, teamwork, adaptability, leadership, and critical thinking as crucial as technical expertise, often prioritizing them in hiring decisions. Thus, modern education systems must view soft skills as structural elements of curricula rather than as supplementary outcomes.

Second, the comparative study of innovative educational practices highlights that blended learning is the most effective and universal model for integrating soft skills into higher education. Combining face-to-face learning with digital platforms provides flexibility, personalization, and opportunities for active student participation. Project-based learning, case studies, role-playing, mentoring, and emotional training contribute to developing self-regulation, collaboration, and problem-solving abilities. At the same time, advanced technologies, including VR/AR simulations, e-portfolios, and interactive platforms, expand experiential and reflective learning possibilities.

Third, the country-specific analysis reveals both commonalities and distinctions. In Western countries there is a strong emphasis on project-based learning, intercultural exchanges, and business partnerships that ensure practice-oriented training. In Ukraine, innovative approaches such as blended learning, interactive assignments, and student involvement in start-ups are actively introduced, but institutional support and systematic collaboration with employers remain insufficient. Finally, the generalization of the findings indicates that developing soft skills requires a holistic educational ecosystem that unites pedagogical methods, digital technologies, institutional support, and active participation of external stakeholders. Successful strategies are characterized by systemic integration of soft skills across disciplines, wide use of interactive and practice-oriented methods, reliance on digital platforms and simulation tools, and strong cooperation between universities, employers, and policymakers.

We propose to integrate the development of soft skills into the teaching of all subjects through cooperative learning methods, group discussions and interactive projects; to use the case method for analyzing real situations from various professional fields; to develop educational games that stimulate the development of creativity, communication and adaptability; to develop long-term projects that simulate real work situations to practice soft skills; to involve business representatives for joint evaluation of the results of students' projects.

In conclusion, the paper proves that the future competitiveness of higher education institutions depends on their ability to create conditions where students not only acquire professional knowledge but also develop personal qualities essential for life and career in the 21st century. The synergy of traditional pedagogy, innovative technologies, and international best practices ensures the formation of adaptable,

creative, resilient graduates capable of leadership in a rapidly changing global environment.

Література

1. Abuhassna, H., Al-Rahmi, W.M., Yahya, N. et al. Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. Int J. Educ Tecnol High Educ 17, 38(2020) https://doi.org/10.1186/s41239-020-00216-z
2. Ajit,G. (2021). A systematic review of augmented reality in STEM education. Studies of Applied Economics, 39(1)
https://doi.org/10.25115/eea.v39il.4280
3. Karimov, N. (2018). Digital didactics and creative potential development in higher education. Journal of Educational Innovations, 12(3), 44-50.
4. World Bank. (2020). Bridging the digital divide in education: A global overview. World Bank Education Report. Retrieved from https://www.worldbank.org/education
5. Yüksel, İ. (2022). The Effect of Moodle-Integrated Learning Platform on ELT Pre-Service Teachers' General Pedagogical Knowledge. International Journal of Technology in Education, 5(2), 235-248.
6. Samoliuk, N. M. (2021). Soft and hard skills in the labor market: Essence and components. Bulletin of the National University of Water and Environmental Engineering, 4(96). https://doi.org/ 10.31713/ve4202122 [in English]
7. Lazarenko T.V. (2026). The Use of Digital Educational Platforms for the Development of Creative Abilities in Future Educators. Актуальні питання у сучасній науці - Current issues in modern science, 3(45) 1783-1803. DOI: https://doi.org/10.52058/2786-6300-2026-3(45)-1784-1803[in English].
8. Sipii, V., Deschenko, O., Honcharova, N., Hrytsenko, A., & Hrytsiuk, O. (2024). Analysis of the prospects for the development of soft skills in future education: Trends and risks. Conhecimento & Diversidade, 16(44), 107–128. https://doi.org/10.18316/rcd.v16i44.12035 [in English]
9. Kubátová, J., Müller, M., Kosina, D., Kročil, O., Slavíčková, P. (2025). Soft Skills for the Twenty-First Century: Delphi Research. In: Soft Skills for the 21st Century. SpringerBriefs in Business. Springer, Cham. https://doi.org/10.1007/978-3-031-89557-9_5 [in English]

References

1. Abuhassna, H., Al-Rahmi, W.M., Yahya, N. *et al.* Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. *Int J. Educ Tecnol High Educ 17, 38(2020) https://doi.org/10.1186/s41239-020-00216-z*
2. Ajit,G. (2021). A systematic review of augmented reality in STEM education. Studies of Applied Economics, 39(1) https://doi.org/10.25115/eea.v39il.4280
3. Karimov, N. (2018). Digital didactics and creative potential development in higher education. Journal of Educational Innovations, 12(3), 44-50.
4. World Bank. (2020). Bridging the digital divide in education: A global overview. World Bank Education Report. Retrieved from https://www.worldbank.org/education
5. Yüksel, İ. (2022). The Effect of Moodle-Integrated Learning Platform on ELT Pre-Service Teachers' General Pedagogical Knowledge. International Journal of Technology in Education, 5(2), 235-248.
6. Samoliuk, N. M. (2021). Soft and hard skills in the labor market: Essence and components. Bulletin of the National University of Water and Environmental Engineering, 4(96). https://doi.org/ 10.31713/ve4202122 [in English]

7.Lazarenko T.V. (2026). The Use of Digital Educational Platforms for the Development of Creative Abilities in Future Educators. *Актуальні питання у сучасній науці - Current issues in modern science,* 3(45) 1783-1803. DOI: https://doi.org/10.52058/2786-6300-2026-3(45)-1784-1803

8.Sipii, V., Deschenko, O., Honcharova, N., Hrytsenko, A., & Hrytsiuk, O. (2024). Analysis of the prospects for the development of soft skills in future education: Trends and risks. Conhecimento & Diversidade, 16(44), 107–128. https://doi.org/10.18316/rcd.v16i44.12035 [in English]

9.Kubátová, J., Müller, M., Kosina, D., Kročil, O., Slavíčková, P. (2025). Soft Skills for the Twenty-First Century: Delphi Research. In: Soft Skills for the 21st Century. SpringerBriefs in Business. Springer, Cham. https://doi.org/10.1007/978-3-031-89557-9_5 [in English]