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Chapter I. THEORETICAL AND PEDAGOGICAL PROBLEMS OF MODERN EDUCATION

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PEDAGOGICAL CONDITIONS FOR THE FORMATION OF THE PROFESSIONAL IMAGE OF A FUTURE EDUCATION MANAGER

Abstract. The article presents a theoretical and practical analysis of the problem of forming the professional image of a future education manager. Based on an analysis of national scholarly research, the author reveals the essence of the concept of "management of an educational institution." It is noted that this is a structured activity whose effectiveness and success depend on the professionalism of the head of the education manager. Specific features of managerial activity are identified (orientation of activity toward other people, a specific type of interpersonal interaction, complex structured activity, possession of an image, etc.), and their content is disclosed in the article. The article demonstrates that the effectiveness of pedagogical activity is largely determined by the professional image of the specialist, which influences the success of the educational process, learners' motivation to engage in cognitive activity, and society's attitude toward the teacher. The author substantiates certain features of the managerial activity of an education manager, including the intellectual nature of managerial work, the specifics of managing an educational institution, and the image of the education manager. The article proposes the author's definition of the concept of "pedagogical conditions" and identifies the pedagogical conditions for forming a future education manager in the context of a higher education institution: creating a positive educational environment in a higher education institution; a harmonious combination of external appearance and personal qualities of the education manager; continuous professional training within the framework of competence formation readiness for lifelong learning; creating opportunities for self-education as a factor in shaping personal and professional image; organizing a favorable environmental image; providing opportunities for systematic development and improvement of legal literacy; and the formation of a high level of professional motivation for managerial activity.

Keywords: education manager, pedagogical conditions, formation, image, professional training, managerial activity.

ПЕДАГОГІЧНІ УМОВИ ФОРМУВАННЯ ПРОФЕСІЙНОГО ІМІДЖУ МАЙБУТЬОГО МЕНЕДЖЕРА ОСВІТИ

Анотація. У статті запропоновано теоретико-практичний аналіз проблеми формування професійного іміджу майбутнього менеджера освіти. Авторка, на основі аналізу вітчизняних наукових досліджень, розкриває зміст поняття «управління закладом освіти». Зазначено, що це структурована діяльність, ефективність та успішність якої залежить від професіоналізму керівника - менеджера освіти. Виокремлено специфічні особливості управлінської діяльності (спрямованість діяльності на інших людей, специфічний вид міжособистісної взаємодії, складна структурована діяльність, володіння іміджем тощо), у статті розкрито їх зміст.

У статті показано, що ефективність педагогічної діяльності значною мірою зумовлена іміджем фахівця, що впливає на успішність освітнього процесу, мотивацію здобувачів освіти до здійснення пізнавальної діяльності, ставлення до особи педагога з боку суспільства.

Авторкою обґрунтовано деякі особливості управлінської діяльності менеджера освіти: інтелектуальний характер управлінської діяльності, специфіка управління закладом освіти, імідж менеджера освіти тощо.



У статті запропоновано авторське визначення поняття «педагогічні умови», виокремлено педагогічні умови формування майбутнього менеджера освіти в умовах закладу вищої освіти: створення позитивного освітнього середовища в умовах закладу вищої освіти; гармонійне поєднання зовнішнього вигляду та особистісних якостей менеджера освіти; безперервна професійна підготовка у межах сформованості компетентності - готовність до навчання впродовж життя; створення можливостей для самоосвіти як чинника формування особистісного та професійного іміджу; організація сприятливого середовищного іміджу; надання можливостей для систематичного розвитку та удосконалення правової грамотності; сформованість високого рівня професійної мотивації до здійснення управлінської діяльності.

Ключові слова: менеджер освіти, педагогічні умови, формування, імідж, професійна підготовка, управлінська діяльність.

INTRODUCTION

Formulation of the problem. An educational institution is a complex structured system that requires clear management, which primarily involves meeting the needs of consumers in obtaining educational services. Our study is devoted specifically to the problem of professional training of future education managers.

Management in an educational institution is a system of strategic and operational management of resources, processes, and interactions among all participants in the educational process in order to achieve defined goals. The leading areas of management include the development and implementation of effective strategies aimed at the optimal use of available resources to achieve high-quality indicators of the educational process. I. Bondarenko notes that management in education is a key element in achieving high standards of teaching and upbringing; its essence lies in systematic, strategic, and effective management of resources and processes, which makes it possible to create conditions for the success of all participants in the educational process (Bondarenko, 2024, p. 15).

O. Yarmoliuk emphasizes that one of the main tasks of management in educational institutions is to ensure the effective use of resources (material, human, informational, etc.) in order to provide high-quality educational services to learners. This requires the development of effective financial management strategies, the search for innovations, the implementation of information and digital technologies, the training of appropriately qualified personnel, and the use of modern forms and methods in the teaching and educational process that meet contemporary requirements, among many other factors (Yarmoliuk, 2023, p. 97).

We agree with the position of O. Bohashko and I. Bohashko, who state that an education manager characterized by a leadership management style has more opportunities for effective management of an educational organization than a manager or leader who lacks positional authority. At the same time, it is important and evident to identify the individual psychological characteristics of a leader, thanks to which an education manager skillfully uses the potential of human resources that is inaccessible to a leader who does not possess leadership qualities (Bohashko & Bohashko, 2024).

In this context, we emphasize that the management of an educational institution is a structured activity aimed at meeting the needs of consumers of educational services. The success of management depends on the professionalism of the institution's head in the context of our study, the education manager. In general, a manager is a person who carries out management of a particular area of professional activity (enterprise, institution, educational institution, etc.). We refer to education managers as those individuals who perform managerial functions within any pedagogical system (from the Minister of Education to educators in general lecturers, teachers, caregivers). In order to successfully perform these functions and enhance opportunities for professional development, education managers must continuously expand their own educational space.

PURPOSE OF THE STUDY: to reveal the substantive content of the concepts "education manager" and "pedagogical conditions"; to identify the features of managerial activity of an education manager; to determine the pedagogical conditions for forming the professional image of a future education manager in the process of professional training.

RESEARCH METHODS

The study employed methods of analysis, synthesis, and generalization to examine and systematize the results of scientific research and to identify leading scientific approaches to the study of the stated problem.

RESEARCH RESULTS

O. Marmaza emphasizes that the focus of attention of a modern leader lies on issues of conscious professional growth, preventive preparation for managerial activity, and a responsible attitude toward one's own career. The author notes the necessity of recognizing the expediency of planning managerial activity. This process of forming an individual development trajectory includes such elements as: self-assessment of one's career aspirations and capabilities; determination of long-term personal, professional, and managerial goals; analysis of the environment and identification of career opportunities; development of a plan (project) to achieve career goals; analysis of personal strengths and weaknesses; development of alternative development trajectories; evaluation and selection of the optimal career growth option; implementation and monitoring of the achievement of the career strategy (Marmaza, 2023, p. 157).

The analyzed scientific studies make it possible to identify certain specific features of managerial activity, namely:

- orientation of activity toward other people—participants in the educational process which involves their motivation and organization for performing common tasks;
- a specific type of interpersonal interaction;



- a complex structured activity that includes specific actions, skills, models of managerial activity, and components of managerial culture that are closely interconnected;
- the formation of leadership qualities (clear adherence to a leadership position);
- possession of the image of a highly qualified and competent specialist.

Socio-economic conditions of global development have led to changes in the requirements for professional training of specialists who must possess high professional competence, be able to independently acquire new knowledge, think creatively, find optimal solutions in non-standard situations, and have the ability for innovative activity. Taking into account the requirements of Ukrainian legislation and the Magna Charta Universitatum, as emphasized by N. Bezliudna and N. Dudnyk, the domestic education system faces the problem of high-quality training of competitive, competent education managers of a new level, oriented toward personal self-improvement and professional growth (Bezliudna & Dudnyk, 2020, p. 7).

Based on the results of the theoretical analysis of sources on the declared problem, we highlight certain features of the managerial activity of an education manager.

The intellectual nature of managerial activity in the educational sphere is its defining characteristic. It manifests itself in two aspects: first, as a process of making and implementing managerial decisions, which is impossible without analytical and cognitive activity of the subject of management; second, as the effectiveness of managerial influence, which presupposes the ability of the managed object to comprehend and interpret it. The ultimate goal of managerial activity is to achieve a new quality of the managed process, which requires intellectual and creative effort.

The specificity of managing an educational institution is determined by the need to function in a team format, to coordinate individual actions with the strategic goals of the organization, and to subordinate personal interests to professional tasks. Managerial activity is implemented through interaction among teams of different levels both within the governing body and with teams of educational institutions, social partners, and other groups. Its structure includes human resources, information flows, and technical means, while rationality and effectiveness are ensured through the balanced use of all components.

The content of the managerial activity of an education institution manager includes planning, organization, coordination, and direction of staff activities toward achieving defined goals, as well as personal responsibility for making and implementing managerial decisions. Effective communication serves as a key tool, since the human factor shapes organizational culture, psychological climate, and determines the productivity of the educational process.

The image of an education manager is an integral indicator of professional competence and social legitimacy. It is formed through a combination of managerial knowledge, leadership qualities, communicative openness, and the ability to ensure a positive psychological climate within the team. A well-formed positive image of a leader increases the level of trust, promotes partnership relations, and serves as a factor in the stable development of an educational organization.

It is precisely the image of the education manager that serves as a guarantee of the successful functioning of an educational institution.

I. Chervinska and co-authors consider the phenomenon of image from the perspectives of psychology and pedagogy, emphasizing its multidimensionality as an important object of scientific and practical research. According to the researchers, the professional image of an education manager is a basic concept of managerial activity of an educational institution leader, which is realized through self-presentation as a form of permanent activity aimed at creating a certain impression of oneself as a professional leader (Chervinska et al., 2023, p. 36).

Research shows that the image of a future education manager is shaped by many conditions. We focus on pedagogical ones. It should be noted that scholars propose various approaches to interpreting the concept of "pedagogical conditions." Let us analyze some of them.

In particular, A. Lytvyn considers pedagogical conditions as a complex of specially designed general factors influencing the external and internal circumstances of the educational process and the personal parameters of all its participants (Lytvyn, 2020).

O. Yevdochenko, based on the analysis of publications by domestic researchers, identifies several aspects of the substantive content of the concept "pedagogical conditions" (Yevdochenko, 2023):

1. external and internal influence (focus on factors that indirectly affect the educational process);
2. a set of opportunities that determine the content, methods, and means of organizing the educational process, emphasizing the role of conditions in the formation and implementation of educational programs;
3. components of the educational process that emphasize the role of conditions in building and organizing learning;
4. a set of opportunities and measures (resources and tools used to achieve educational goals);
5. external and internal factors that increase the effectiveness of the educational process.

N. Hrytsak, for a better understanding of the essence of "pedagogical conditions," draws attention to several key points:

- a pedagogical condition is inextricably linked to the pedagogical system and is its integral component;
- the set of methods, means, forms, techniques, as well as informational, technical, and educational resources of the educational environment forms a complex of pedagogical conditions;
- these conditions are not static but dynamically change and develop, adapting to the needs and features of the educational process;
- the choice of pedagogical conditions depends on the specificity of a particular educational structure;



- well-chosen pedagogical conditions become a guarantee of the effective functioning of the pedagogical system as a whole (Hrytsak, 2019).

We propose the following definition of pedagogical conditions. Thus, pedagogical conditions are a purposeful system that takes into account a set of both external and internal factors that positively influence the effectiveness of the educational process, enable the full development of each component of personality, and promote their harmonious development within an integral structure.

In the professional practical training of future education managers, pedagogical conditions are combined with one another, forming a holistic complex. Therefore, effective pedagogical activity of academic staff presupposes understanding and consideration of the entire set of conditions that influence the educational process.

Accordingly, the formation of the pedagogical image of a future education manager begins already in the process of professional training within a higher education institution. Various forms of work that students encounter during their studies enable them to acquire the necessary competencies for forming their own image. In particular, project-based work allows students to develop a whole range of important skills and qualities, such as the ability to persuade, communicate effectively, achieve goals, engage in self-education, demonstrate mutual respect, tolerance, and mutual assistance (Dudchak, 2020).

Within the framework of the studied problem, it is also worth mentioning the environmental image. In particular, working in an educational institution with a high ranking can enhance the authority of a leader in the eyes of students, parents, and colleagues. The availability of modern technological tools enables all participants in the educational process to apply acquired knowledge in practical professional activities and, accordingly, make the educator's image more innovative and progressive. It is also worth mentioning pedagogical internship, provided for by Article 23 of the Law of Ukraine "On Complete General Secondary Education" (Law of Ukraine, 2020). In general, an atmosphere of goodwill, cooperation, and mutual support positively influences the image of the educator who works there and the educator's own desire to correspond to this image and engage in self-improvement.

We also consider it appropriate to point out the legal protection of pedagogical staff as an element in forming the pedagogical image of a modern education manager. In our opinion, legal protection guarantees their lawful rights and interests and provides protection against unlawful actions not only by participants in the educational process of a particular educational institution but also by third parties. We propose to implement legal protection by increasing the legal literacy of all participants in the educational process and creating an effective system of legal support for educators at various stages. Such support should be an integral component of the professional activity of both the education manager and the educators of the educational institution, as it is an important condition for forming a positive image, which, in turn, makes managerial activity more effective.

Thus, we conclude that image formation does not occur spontaneously but is a dynamic process that begins at the stage of study in a higher education institution and continues throughout the entire pedagogical career. Therefore, we identify the following pedagogical conditions for forming the professional image of a future education manager:

1. Creation of a positive educational environment in a higher education institution based on the principles of respect for each learner and understanding of their individual needs and characteristics.
2. Harmonious combination of appearance and personal qualities of the education manager.
3. Continuous professional training within the framework of formed competence—readiness for lifelong learning.
4. Creation of opportunities for self-education as a factor in forming personal and professional image.
5. Organization of a favorable environmental image.
6. Providing opportunities for systematic development and improvement of legal literacy.
7. Formation of a high level of professional motivation for carrying out managerial activity.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, the image of an education manager acts as a multifactorial tool that is consciously and purposefully formed as part of professional competence and embodies a combination of internal values and external presentation. Due to its structured nature and adaptability, the image of an education manager contributes to increasing staff trust, enhancing the institution's image, and improving the effectiveness of managerial activity. We see prospects for further scientific research in the development and testing of a system of training tasks for their implementation in the educational process of professional training of future education managers in higher education institutions.

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STAGES OF DEVELOPMENT OF HIGHER PHARMACEUTICAL EDUCATION IN UKRAINE (END OF XX - FIRST QUARTER OF XXI CENTURY)

Abstract. The relevance of this study lies in identifying the patterns and factors of the transformation of higher pharmaceutical education in Ukraine at the turn of the 20th and 21st centuries in the context of European integration, digitalization, and increasing standards of pharmacist training. The author substantiates that the effectiveness of the pharmaceutical education system determines not only the quality of medical care but also the development of national human capital, innovative potential, and the competitiveness of the state's pharmaceutical sector. Defining the stages and main trends of system modernization has important theoretical and practical significance for improving the professional training of future specialists.

The aim of the article is to conduct a comprehensive historical and pedagogical analysis of the stages in the development of higher pharmaceutical education in Ukraine from the late 20th to the first quarter of the 21st century, and to determine the main factors of change in accordance with the criterial approach.

The study applies historical-pedagogical and legal approaches, which involve the analysis of current legislative acts, educational standards, works of leading scholars, and empirical data on the activities of Ukrainian institutions of higher pharmaceutical education. It was established that the development of higher pharmaceutical education in Ukraine was carried out in stages: the stage of national formation (1991–2001), the stage of European integration and expansion of pharmaceutical faculties in medical universities (2002–2015), and the modernization-innovation stage (2016–2024). Each of these periods was characterized by its own regulatory framework, strategic priorities, and educational innovations.

Special attention is paid to the implementation of the competence-based approach, modern pedagogical technologies, simulation and interactive learning, the development of digital educational infrastructure, enhanced practical training, and international cooperation. The article substantiates the influence of regulatory and organizational factors on the formation of the modern model of professional pharmacist training.

The conclusions emphasize that the evolution of higher pharmaceutical education in Ukraine is a dynamic process that combines tradition, innovation, and integration into the European educational space. This ensures the competitiveness of domestic graduates, contributes to the formation of professional culture, and enhances the role of the pharmacist in modern society.

Keywords: higher education, pharmaceutical education, stages of development, higher pharmaceutical education, medical education in Ukraine, modernization, competence-based approach, simulation technologies, digitalization, Bologna Process.

ЕТАПИ РОЗВИТКУ ВИЩОЇ ФАРМАЦЕВТИЧНОЇ ОСВІТИ В УКРАЇНІ (КІНЕЦЬ ХХ – ПЕРША ЧВЕРТЬ ХХІ СТ.)

Анотація. Актуальність дослідження полягає у виявленні закономірностей і чинників трансформації вищої фармацевтичної освіти України на зламі ХХ–ХХІ століть у контексті європейської інтеграції, цифровізації та підвищення стандартів підготовки провізорів. Автор доводить, що від ефективності функціонування системи фармацевтичної освіти залежить не лише якість медичної допомоги, а й розвиток національного людського капіталу, інноваційного потенціалу та конкурентоспроможності фармацевтичної галузі держави. Визначення етапів і основних тенденцій модернізації системи має важливе теоретичне і практичне значення для вдосконалення професійної підготовки майбутніх фахівців.

Мета статті – комплексний історико-педагогічний аналіз етапів розвитку вищої фармацевтичної освіти в Україні впродовж кінця ХХ – першої чверті ХХІ ст., визначення основних чинників змін відповідно до критеріального підходу.

У дослідженні застосовано історико-педагогічний, правовий підходи, що передбачають аналіз чинних законодавчих актів, освітніх стандартів, праць провідних науковців та емпіричних даних щодо діяльності вітчизняних ЗВО фармацевтичного профілю. Встановлено, що розвиток вищої фармацевтичної освіти України здійснювався поетапно:



етап національного становлення (1991–2001 рр.), 2002 – 2015 рр. – етап європейської інтеграції – розширення мережі фармацевтичних факультетів у медичних ЗВО; модернізаційно-інноваційний етап (2016–2024 рр.). Кожен з них характеризувався власною нормативною базою, стратегічними пріоритетами та освітніми інноваціями.

Наголошено, що еволюція вищої фармацевтичної освіти в Україні є динамічним процесом, що поєднує традиції, інновації та інтеграцію до європейського простору. Це забезпечує конкурентоздатність вітчизняних випускників, сприяє формуванню професійної культури та зростанню ролі фармацевта в сучасному суспільстві.

Ключові слова: вища освіта, фармацевтична освіта, етапи розвитку вищої фармацевтичної освіти, медична освіта України, модернізація, компетентнісний підхід, симуляційні технології, цифровізація, Болонський процес.

INTRODUCTION

The problem formulation. The contemporary development of higher education in Ukraine is marked by dynamic transformations, driven by integration processes within the European educational space, reforms in legislative and organizational frameworks, digitalization, and the updating of approaches to professional training. Of particular importance in this context is higher pharmaceutical education, which serves as a strategic link in shaping the country's human capital, ensuring the quality of medical care, and the sustainable development of the national pharmaceutical sector.

At the turn of the 20th and 21st centuries, the system of pharmacist training in Ukraine underwent significant changes: from the establishment of a national education model aimed at overcoming the Soviet legacy to the introduction of modern European standards, modernization of content, technologies, and learning formats. These processes were driven both by internal sectoral needs (quality enhancement, adaptation to labor market requirements) and by external challenges—globalization, increased international cooperation, the transition to a competency-based paradigm, the influence of the Bologna Process, and the development of digital infrastructure.

The relevance of the research is defined by the need for a scientific understanding of the regularities and factors underlying the transformation of pharmaceutical education in the context of European integration, ensuring innovative capacity and competitiveness of Ukrainian professionals, and strengthening the role of humanistic and ethical values in the professional formation of pharmacists. A thorough analysis of developmental stages, regulatory frameworks, didactic innovations, and the experience of leading educational institutions is the foundation for an effective model of pharmaceutical personnel training.

The purpose of the research is to provide a comprehensive historical and pedagogical analysis of the stages of development of higher pharmaceutical education in Ukraine from the late 20th to the first quarter of the 21st century, clarifying the main factors of modernization and identifying didactic-oriented trends in the formation of a modern educational model for future pharmacists.

Analysis of recent research and publications. In recent decades, the issue of developing higher pharmaceutical education in Ukraine has become particularly relevant due to the transformation of the higher education system, the harmonization of national standards with European requirements, the shift to a competence-based model, and the digitalization of educational processes.

V. Slypchuk conducted a comprehensive historical and pedagogical analysis, proposing a well-argued periodization of professional pharmaceutical education in Ukraine, accounting for regulatory changes, organizational innovations, and European integration trends (Slypchuk, 2017). Her dissertation analyzes changes in the organization of the educational process, the impact of the Bologna Process, the development of new standards, and the implementation of modern educational technologies.

Historical and methodological approaches to the study of the transformation of pharmaceutical education, the issue of the relationship between traditions and innovations are revealed in the works of T. Prokopenko, A. Kotvitska, V. Horbanev and others, who studied the evolution of the content and structure of pharmacists' professional training in Ukraine in the context of European trends. The author draws attention to the peculiarities of the formation of national educational policy, the development of a network of educational institutions, the establishment of a system of quality control of training (Prokopenko, Kotvitska, & Gorbanyov, 2015).

Research by I. Boychuk (Boychuk, 2011) supplements these findings with analysis of the establishment of educational centers, changes in the content and forms of professional education, and the continuity of educational processes.

The article by J. Bates et al. (2022) provides a global comparative analysis of needs, challenges, and innovations in pharmaceutical education, focusing on program compliance with international requirements, simulation technologies, digitalization, and the integration of clinical and industrial training.

National analytical reviews (National Pharmaceutical University, 2022) highlight current conditions, educational network innovations, and the role of international projects (Erasmus+, Bologna Process), as well as program accreditation according to Good Pharmacy Practice standards. Ukrainian publications underscore the importance of academic mobility, dual education models, independent quality evaluation, and lifelong learning (Gorbanyov, 2017).

Didactic-oriented studies focus on the introduction of competence-based education, simulation, problem-based and interactive methods, quality of practical training, and assessment of professional competencies for graduates (Mishchenko, Medvedeva, Tolochko).

THE PURPOSE OF THE RESEARCH

In summary, the transformation of pharmaceutical education in Ukraine is a multidimensional process influenced by regulatory, organizational, didactic, and humanistic factors, with key challenges remaining in further European integration, quality assurance, human capital development, and the preservation of national identity and values.



RESEARCH METHODS

A set of complementary research methods was used to ensure a systematic and comprehensive analysis of the problem of developing higher pharmaceutical education in Ukraine at the turn of the 20th and 21st centuries: historical-pedagogical method for the study of the genesis, stages, and features of the formation of the higher pharmaceutical education system, analysis of educational reforms, and the impact of sociopolitical and economic factors on sector development, regulatory and legal analysis for the study of legislative acts, decrees, standards, and concepts that governed the reform and modernization of the pharmaceutical education system; comparative-pedagogical method for comparing Ukrainian approaches and models with European and global practices, identifying common trends and unique development features. Structural-functional analysis for clarifying the organizational structure and roles of key system elements during different stages. Analysis of scientific literature, monographs, dissertations, and empirical studies to generalize the current state of the problem, determine major trends, innovations, and prospects for development. Generalization and systematization methods for formulating conclusions, identifying regularities, and outlining directions for further modernization. The application of these methods provided for an in-depth and multifaceted disclosure of the subject, identifying key stages, factors, and didactic features of the development of pharmaceutical education in Ukraine.

RESULTS OF THE RESEARCH

The analysis of scientific literature shows that each scientist used their own criteria to distinguish the periods of development of higher pharmaceutical education, which led to the emergence of different options for periodization of medical and pharmaceutical education. These aspects were an important basis for the development of higher pharmaceutical education in Ukraine. They contributed to the impetus and creation of new aspects of pharmacy development in higher education institutions of Ukraine.

The proposed periodization is based on the results of research by leading Ukrainian scientists in the field of pharmaceutical education. In particular, the most thorough periodization of professional training of pharmaceutical specialists in Ukraine was developed by V.L. Slipchuk in her dissertation research «Trends in Professional Training of Pharmaceutical Specialists in Ukraine (XX - Early XXI Century)». The researcher proposed a six-period periodization, which covers the time period from the end of the XVI century to 2017.

1921–1941 - formation of the system of (secondary and higher) pharmaceutical education as a separate branch; 1941–1945 – curtailment of the development of the system of professional training of pharmaceutical specialists, 1945 – first half of the 1960s – restoration and expansion of the system of professional training of pharmaceutical specialists; 1960s – 1991 – modernization and ideologization of professional training of pharmaceutical specialists; 1991 – 2017 – formation of nationally oriented professional training. (Slipchuk, 2017.)

T. Prokopenko, A. Kotvitska, V. Horbanev and others, studying the historical aspects of the formation of pharmaceutical education, analyzed in detail the historical pre-revolutionary (before 1917) stage of development of pharmaceutical education in Ukraine, stating the high level of professional training of pharmacists in the second half of the nineteenth century - early twentieth century, success in the development of pharmaceutical education at Kharkiv University (Prokopenko, Kotvitska, & Gorbanyov. (2015).

The study of S. Riznychok highlights the evolution of the content of pharmaceutical education in the period 1939-1990 (Riznychok, 2013), which allows us to trace the continuity in the development of the educational system. I.D. Boychuk analyzes the prerequisites for the emergence and formation of the pharmacist training system in Ukraine in a monographic study (Boychuk, 2011) He reveals the methodological basis for understanding the current processes in the pharmacy. The historiographical analysis of V. Horbanev provides a holistic picture of the formation and development of pharmaceutical education during different historical periods (Horbanev, 2017).

The periodization we have developed is based on a criteria-based approach and a comprehensive analysis of the regulatory framework governing pharmaceutical education, including higher pharmaceutical education in Ukraine. The boundaries of each stage are characterized by specific documents that reflect the evolution of the educational system in accordance with socio-political transformations and integration processes. Given the lack of research on this issue, we considered it necessary to develop our own periodization of the development of higher pharmaceutical education. A thorough analysis of scientific research, regulatory and legal acts, and historical and educational sources allows us to identify the criteria for periodization. We have identified the following main criteria for our own periodization: legal - involves an analysis of the regulatory and legal framework for the development of higher pharmaceutical education in Ukraine; historical and analytical, the essence of which lies in analyzing the evolution of higher pharmaceutical education in Ukraine under the influence of socio-political, economic, and medical-organizational factors; and didactic-oriented criterion, which involves analyzing the content, operational, activity-based, and other aspects of the development of higher pharmaceutical education during the period under study. In this publication, we will analyze the first two criteria. It is important to note that each historical stage of the period under study was characterized by specific documents that reflected the evolution of the development of higher pharmaceutical education in particular, and the educational system in general, in accordance with socio-political transformations and integration processes. This criteria-based approach made it possible to divide the period under study into specific stages, each of which was characterized by theoretical, legal, and applied didactic-oriented aspects.

The first stage (1991-1999) – formation of the national system of higher pharmaceutical education in Ukraine. The development of higher pharmaceutical education in the first stage was characterized by a clear focus on legislative and legal aspects. This reflected the gradual transformation of the educational system from the post-Soviet model to a European-oriented structure for the development of higher pharmaceutical education in Ukraine. The legal criterion is



linked to the beginning of the formation of the national system of medical pharmaceutical education on May 23, 1991, when the Law of Ukraine «On Education» No. 1060-XII was adopted, which laid down the fundamental principles of the state's independent education policy and created the legal basis for the transition from the centralized Soviet model of education to a nationally oriented education system. The law established the basic principles for organizing the educational process, including the right of educational institutions to independently determine the content of education within the framework of state standards. Its most characteristic aspects were the change in the regulatory framework and the creation of a unified approach to the development of higher pharmaceutical education. The development of pharmaceutical education at this stage was governed by the Concept of Multi-Stage Continuous Education, approved by the Ministry of Health of Ukraine in February 1991. (Ministry of Health of Ukraine. (1991).

According to V. Slipchuk, a key milestone in the development of national pharmaceutical education was the Resolution of the Cabinet of Ministers of Ukraine No. 571 of October 8, 1992, «On the Establishment of the Ukrainian Pharmaceutical Academy,» which established the first national pharmaceutical university on the basis of the Kharkiv Pharmaceutical Institute. We agree with V. Slipchuk that this decision «marked the beginning of a qualitatively new stage in the development of pharmaceutical education, focused on national needs and international standards»[6]. As for the historical and analytical criteria for assessing this stage, the development of higher pharmaceutical education during the period under review was characterized by radical socio-political changes after Ukraine gained independence, which contributed to the formation of a new educational policy, particularly in the pharmaceutical sector. The rejection of the Soviet centralized education system led to a transition to a nationally oriented model of education. Ukraine's transition to independence required the development of an autonomous education system capable of training personnel for the needs of healthcare in accordance with the new conditions of the state's development.

The impetus for the development of higher pharmaceutical education was the creation of the European Association of Faculties of Pharmacy (EAFP) in 1992. With the aim of coordinating and unifying approaches to pharmaceutical education, it brought together pharmaceutical education institutions in Ukraine and European countries. (European Association of Faculties of Pharmacy, 2025.)

The documentary chronology of higher pharmaceutical education in Ukraine was based on an analysis of regulatory and legal acts that defined the key milestones in the development of the industry and provided the legal basis for systemic changes in pharmaceutical education. The Regulations on the Organization of the Educational Process (1993) and the state program «Ukrainian Education in the 21st Century» (1992) were also important, as they defined the regulatory framework for the autonomization and qualitative renewal of the education sector in accordance with the Order of the Ministry of Education dated June 2, 1993, No. 161 «Regulations on the Organization of the Educational Process in Higher Education Institutions» (Ministry of Education of Ukraine, 1993)

At this stage, the development of pharmaceutical education progressed through the expansion of pharmaceutical specialties. According to the Order of the Ministry of Education and Science of Ukraine dated July 24, 2003, «On the approval of the list of areas of specialist training in higher education institutions», the field of training 1102 «Pharmacy» was expanded with new specialties: «Technology of Pharmaceutical Preparations».

A significant impetus to the development of pharmaceutical education was provided by the Concept for the Development of the Pharmaceutical Sector of the Health Care System (Ministry of Health of Ukraine, 2007) and subsequent documents on the development of pharmaceutical education in Ukraine.

From a historical-analytical criterion, the second, conventionally defined stage marked Ukraine's active integration into the European educational space. The signing of the Bologna Declaration by Ukraine on May 19–20, 2005, in Bergen, Norway [8][9], launched systematic reforms aimed at harmonizing the Ukrainian educational system with European standards. Preparatory work for European integration processes began earlier: Order of the Ministry of Education and Science of Ukraine No. 49 dated January 23, 2004 approved the «Action Program for the Implementation of the Provisions of the Bologna Declaration in the System of Higher Education and Science of Ukraine for 2004–2005» (Ministry of Education and Science of Ukraine, 2004).

The implementation of the Bologna Process in pharmaceutical education entailed fundamental changes in the organization of the educational process. The credit-module system was introduced, which increased the mobility of students and teachers and enabled the recognition of Ukrainian diplomas in European countries (Ministry of Health of Ukraine, 2007).

As researchers note, «the transition to a credit-module system contributed to the individualization of the educational process and the strengthening of the role of independent student work» ((Ministry of Health of Ukraine, 2008).

The implementation of the Bologna Process in pharmaceutical education entailed profound changes in the organization of the educational process. The credit-module system was introduced, which enhanced the mobility of students and faculty and enabled the recognition of Ukrainian diplomas in European countries (Ministry of Education and Science of Ukraine, 2003). As noted by researchers, «the transition to a credit-module system contributed to the individualization of the educational process and the strengthening of the role of independent student work» (Slipchuk, 2017).

The beginning of the third stage (2016–2024)—modernization and standardization of pharmaceutical education—was marked by the adoption of the Resolution of the Cabinet of Ministers of Ukraine No. 929 of November 30, 2016 «On Approval of Licensing Conditions for Educational Activities in the Field of Pharmacy» (Cabinet of Ministers of Ukraine, 2016). This document increased the requirements for the quality of education and professional activity of pharmacists, setting new licensing standards for educational activities in pharmacy. The lower chronological limit of the current research is defined by the Order of the Ministry of Education and Science of Ukraine No. 1540 of October



29, 2024, and the Concept for the Development of Pharmaceutical Education (2024–2025), which establish new strategic directions for the sector.

This period was one of qualitative changes in both the regulatory framework and practical aspects of pharmacist training. From a legal criterion, this stage saw the adoption of new licensing conditions for educational activities (Cabinet of Ministers of Ukraine, 2016), the introduction of the National Qualifications Framework (2011), the Unified State Qualification Exam (Cabinet of Ministers of Ukraine, 2018), and updates to the legislative base, particularly the Law of Ukraine «On Education» (2017). These documents introduced new licensing conditions and standards, ensuring their harmonization with EU requirements.

From a historical-analytical perspective, the development of higher pharmaceutical education during this period was driven by the need to enhance international cooperation and competitiveness, with a focus on the high quality of education and licensing. Under the influence of globalization and the aspiration to meet international requirements for professional training, pharmaceutical education experienced considerable standardization and strengthened ties with international organizations. The challenges of globalization, the COVID-19 pandemic, and the war in Ukraine accelerated the introduction of digitalization and innovative educational technologies in the training of pharmacists.

Therefore, the identified stages in the development of higher pharmaceutical education in Ukraine demonstrate the evolution of the system in accordance with major social, political, and economic transformations, enabling the tracking of trends and regularities in its further development.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The documentary chronology of the development of higher pharmaceutical education in Ukraine for the period 1991–2022 demonstrates the stepwise transformation of the sector from national reform to European integration and innovative advancement. Each of the defined stages is characterized by specific legal acts reflecting the evolution of the education system in response to sociopolitical changes and international trends.

The analysis of the documentary base attests to the consistency of reforms aimed at improving the quality of pharmacist training and ensuring compliance with European standards. The current stage is marked by increased attention to workforce forecasting, the implementation of innovative learning technologies, and the assurance of academic integrity, laying the foundation for the further development of pharmaceutical education in Ukraine in the face of 21st-century challenges and postwar recovery needs.

Promising directions for further research include the analysis of the development of higher pharmaceutical education in Ukraine according to didactic criteria.

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PEDAGOGICAL STRATEGIES FOR USING CINEMA IN ORGANIZING THE EDUCATIONAL PROCESS: THE EXPERIENCE OF THE USA

Abstract. The article analyzes pedagogical strategies developed by American scholars for using cinematography in organizing the educational process in schools, colleges, and universities in the United States. It examines definitions commonly used in contemporary U.S. scholarly discourse: media education - viewed as a process aimed at developing an individual's ability to analyze, evaluate, create, and interpret media texts of various formats; media literacy - defined as the outcome of effective media education, encompassing the ability to analyze and evaluate media texts; film literacy - interpreted as the ability to understand, interpret, analyze, and create moving images in various socio-cultural contexts; and pedagogical strategy - understood as a regulated psychological construct that supports the effective resolution of personal and professional tasks based on actualized knowledge, skills, and experience.

The main pedagogical strategies for using cinema in the educational process are characterized: combining media analysis and media production - which includes analyzing the context of film creation, genre features, narrative structure, stereotypes, as well as economic and political aspects of film production; the practical strategy - aimed at deepening students' understanding of films, developing their personal viewpoints and reflection; the retrospective strategy - focused on using historical films as a means of developing historical consciousness and self-identity; the interdisciplinary strategy - integrating films into literature lessons and interdisciplinary projects; and the extracurricular strategy - revealing the potential of cinema in organizing out-of-class activities, including joint film viewing by children and parents.

It is demonstrated that the effectiveness of a particular strategy depends largely on teachers' level of preparation.

Keywords: media education, media literacy, film literacy, USA, pedagogical strategy, cinematography, educational process.

ПЕДАГОГІЧНІ СТРАТЕГІЇ ВИКОРИСТАННЯ КІНЕМАТОГРАФУ В ОРГАНІЗАЦІЇ НАВЧАЛЬНОГО ПРОЦЕСУ: ДОСВІД США

Анотація. У статті здійснено аналіз розроблених американськими вченими педагогічних стратегій використання кінематографу в організації навчального процесу в школах, коледжах, університетах США. Проаналізовано трактування в сучасному науковому дискурсі США низки дефініцій: медіаосвіта – розглядається як процес, спрямований на формування здатності особистості аналізувати, оцінювати, створювати й інтерпретувати медіатексти різних форматів; медіаграмотність – визначається як результат ефективної медіаосвіти, що охоплює здатність до аналізу й оцінки медіатекстів; кінограмотність – тлумачиться як здатність розуміти, інтерпретувати, аналізувати і створювати рухомі зображення в різних соціокультурних



контекстах; педагогічна стратегія – потрактовано як своєрідне регульоване психічне утворення, що сприяє ефективному розв’язанню особистісних і професійних завдань на основі актуалізованих знань, умінь, досвіду.

Схарактеризовано основні педагогічні стратегії використання кінематографу в організації навчального процесу: поєднання аналізу та продукції медіа – передбачає аналіз контексту створення, жанрових особливостей, нарративної структури, виявлення стереотипів, а також розгляд економічних і політичних аспектів виробництва кіно; практична – орієнтує на поглиблене розуміння фільмів і формування в здобувачів освіти власної позиції, розвиток їх рефлексії; ретроспективна – акцентує на використанні історичних фільмів як ефективного засобу формування історичної свідомості й самоідентичності; міждисциплінарна – проєктує використання фільмів на уроках літератури та під час виконання міждисциплінарних проєктів; позашкільна – розкриває потенціал кінематографу в організації позакласної роботи, зокрема, щодо спільного перегляду фільмів дітьми й батьками.

Показано, що ефективність реалізації тієї чи іншої стратегії використання кінематографу в організації освітнього процесу в школі значною мірою залежить від рівня підготовки педагогів.

Ключові слова: медіаосвіта, медіаграмотність, кінограмотність, США, педагогічна стратегія, кінематограф, навчальний процес.

INTRODUCTION

The problem formulation. In modern society, cinematography functions and manifests itself in four main aspects: as a means of mass communication, as a form of art, as a social institution, and as a factor shaping and transforming an individual's worldview and mentality. This multifunctionality is realized through the transmission of various norms and values embedded in the plot of a given film, as well as in the images and behavioral stereotypes it conveys or imposes. During the process of engaging with films, viewers perceive these plots and value-normative guidelines created by the authors, which exert a significant influence on their social and psycho-emotional characteristics.

Various forms of cinematographic content - classified by content type (fictional, documentary, popular-science, animation), by duration (feature-length, short-length), and by genre (comedy, drama, thriller) - have a significant impact on contemporary adolescents, who, according to American sociologists, spend 7–9 hours daily watching videos and consuming digital content (The Common Sense Census, 2021, p. 12). Ukrainian scholars, for their part, also emphasize the significant potential of cinematography as a vital form of art, a source of entertainment, and a powerful factor shaping public consciousness. As a means of mass communication, cinematography embodies not only artistic truth and documentary authenticity but has also become a specific mode of perceiving reality and a distinct form of understanding the world (Melnychuk, 2023, p. 81).

However, the potential of cinematography as one of the most influential types of media remains insufficiently utilized in fostering critical thinking among children and adolescents. Its integration into the educational process of schools and the professional training of future teachers remains fragmentary (Russell & Waters, 2013, pp. 86–87). To address this issue, American specialists have developed various pedagogical strategies for employing films in educational settings. Studying these strategies is of particular scientific and practical interest, as this issue has not been fully conceptualized in Ukrainian pedagogical research.

Analysis of recent research and publications. A review of recent studies on this problem shows that Ukrainian scholars actively study issues related to media education and media literacy (V. Ivanov, T. Ivanova, M. Zhyhalkina, T. Kostriko, T. Korolova, M. Koropatnyk, V. Melnychuk, Yu. Miroshnychenko, H. Onkovych, N. Prykhodkina, etc.). However, the role of cinematography as a factor in developing media literacy among children, adolescents, and future teachers has not yet become the subject of specialized research. Some aspects are addressed in studies on the role of film in shaping public opinion (T. Fisenko et al.), national identity (I. Babii, T. Konivitska, O. Kuzmenko et al.), and individual socialization (S. Denysiuk, K. Ivchenko), etc.

Given this context, the work of American researchers and practicing educators (S. Waters, R. Hobbs, A. Jensen, D. Kellner, W. Russell, J. Share, etc.) on the theoretical development of film literacy and the use of cinema as a tool for shaping the personalities of school pupils and university students in various educational institutions is particularly significant.

AIM AND TASKS RESEARCH

The aim of this study is to analyze the pedagogical strategies developed by American scholars concerning the use of cinematography in organizing the educational process in schools, colleges, and universities in the USA.

RESEARCH METHODS

The research methods include content analysis and historiographical analysis for the critical examination of scientific literature on the topic; terminological analysis to interpret key definitions; periodization to determine stages in the development of pedagogical strategies for the use of cinematography; and comparative analysis to contrast different scholarly positions and viewpoints.

RESULTS OF THE RESEARCH

Achieving the stated aim requires clarifying the terminological system, which is divided into two components. The first concerns the media field. In the modern U.S. scientific discourse, the general concept of media education is understood as a process aimed at developing an individual's ability to analyze, evaluate, create, and interpret media texts in various formats. The related concept of media literacy is defined as “the ability to access, analyze, evaluate, create, and act using all forms of communication” (Core Principles of Media Literacy Education, 2025, p. 2; Hobbs & Jensen, 2009).

The third concept, central to this study, is film literacy. It is regarded as a component of media literacy and refers to the ability to understand, interpret, analyze, and create moving images within diverse sociocultural contexts. According to Hobbs (2013), if literacy is understood as the process of decoding, interpreting, and creating messages, then engaging with a film



or television program is fundamentally equivalent to reading a printed text. Thus, film literacy encompasses not only the consumption but also the production of audiovisual content, which is essential for developing learners' critical thinking.

The scientific approaches of American scholars to media education and film literacy evolved from protectionist models, which aimed to safeguard youth from the negative influence of mass media, to critical models oriented toward developing analytical and creative skills. As noted by R. Hobbs and A. Jensen, the core principles of media literacy emphasize an inquiry-based approach, the development of critical thinking, and the stimulation of proactive activity (Hobbs & Jensen, 2009, p. 3). This means that media education and film literacy should not only protect individuals from manipulation but also develop their ability to independently analyze, interpret, and create media products, forming a responsible attitude toward information and their own participation in the media space.

The second component of the terminological system concerns the concept of pedagogical strategy, which, relying on the contributions of Ukrainian and foreign researchers (Bila, 2016; Lersch, 2014; Lilik, 2020), we interpret in the context of our study as a regulated mental formation that promotes the effective resolution of personal and professional tasks on the basis of actualized knowledge, skills, and experience. According to I. Bila, while a strategy can be formally described as a decision-making plan, psychologically it is connected with a range of subjective states that involve selecting certain orientations and ways of transforming a specific object, as well as distributing specific actions that contribute to achieving intended results (Bila, 2016).

We also take into account the observation of O. Lilik, according to whom a specific strategy is a situational and local phenomenon, although the attitudes, knowledge, skills, and abilities of the subject that define it are outlined in advance and may be applied at different stages and in various combinations to solve particular tasks. This allows considering strategic organization as a fundamental principle of professional and pedagogical activity (Lilik, 2020, pp. 51–52).

These approaches correlate with the pedagogical strategies developed by American scholars for the use of films in the educational process, which reflect both theoretical ideas and practical experience regarding the integration of cinematography in education.

In the pedagogical theory and educational practice of the USA, cinematography is viewed as a multifunctional tool for developing media literacy, critical thinking, and creative skills among school pupils and students of colleges and universities (Hobbs, 2009, p. 2; Lipiner, 2011, p. 375; Metzger, 2007, p. 68; Russell & Waters, 2013, p. 80; Walker, 2022, p. 154).

One of the key pedagogical strategies for using cinematography in school practice is the combination of media analysis and media production. According to its proponent R. Hobbs, working with film involves analyzing the context of its creation, genre characteristics, narrative structure, identifying stereotypes, as well as examining the economic and political aspects of film production. The scholar emphasizes that "film analysis must include examining not only the content but also the mode of information delivery, which allows for the development of critical thinking and the skills of decoding media texts" (Hobbs, 2009, pp. 3–4).

A related practical strategy focuses on deepening students' understanding of films and forming their personal positions and reflection skills. The main means of achieving these goals are exercises to be performed before, during, and after viewing films (Hobbs, 2009, p. 5). This makes it possible to structure the work with film material, ensure its step-by-step analysis, and stimulate classroom discussions. At the same time, scholars emphasize the need to engage students in independent media production: creating their own scripts, short films, multimedia presentations, as well as reviewing them individually and discussing them collectively, which promotes the development of creative abilities and media competence (Lipiner, 2011, p. 376; Walker, 2022, p. 160). Exercises that combine film analysis and production enable students not only to critically perceive but also to actively influence the media space (Walker, 2022, p. 162).

A special role in the developing media literacy is occupied by the retrospective strategy, which emphasizes the use of historical films as an effective means of shaping historical consciousness and identity. The model proposed by S. Metzger provides for the development of five key competencies: knowledge of the film's content; analysis of its narrative; historical and cultural contextualization; historical empathy; and "recognition of presentism" (the tendency to evaluate past events from the standpoint of the present) (Metzger, 2007, p. 68). Proponents of this pedagogical strategy argue that using historical films in the educational process enables students to compare the events depicted in them with documentary sources, encourages them to articulate their own thoughts and reflections, and participate in debates about the accuracy and interpretation of historical facts by screenwriters and directors. This develops the ability to analyze sources and to think critically, and contributes to forming an individual historical position (Metzger, 2007, pp. 70–71).

An interdisciplinary strategy also has its particular features, involving the use of films in literature lessons and interdisciplinary projects. According to scholars, comparing film adaptations with literary works and analyzing artistic methods used to create specific plots or film episodes deepens understanding of the text, contributes to forming a comprehensive vision of an artistic work, and develops visual literacy (Lipiner, 2011, p. 377; Walker, 2022, p. 163). Their use for discussing ethical issues helps form an emotional connection with the material and enables involvement in discussions, developing empathy and moral reflection (Lipiner, 2011, p. 378). The interdisciplinary approach, combining literature, history, art, and social sciences, broadens opportunities for developing media literacy (Walker, 2022, p. 165).

Another, extracurricular strategy reveals the potential of cinematography in organizing out-of-school activities, particularly in the context of joint film viewing by children and parents. American scholars point out that the practice of discussing films within the family forms shared values and a critical attitude toward media, develops analytical skills, and enhances the level of media literacy among students and their parents. Comparing different viewpoints develops learners' ability to argue and fosters tolerant attitudes toward various opinions and alternative perspectives. Such practices promote



the formation of a culture of responsible media consumption, which is important for the sustainable development of media literacy (Walker, 2022, p. 159).

The effectiveness of implementing particular strategies for using cinematography in organizing the educational process in schools largely depends on the level of teacher training. The experience of the USA demonstrates the importance of establishing specialized courses, seminars, and online platforms that prepare future teachers in colleges and universities for this work in schools (Russell & Waters, 2013, p. 86; Hobbs, 2009, p. 7). One of the effective forms of such activity is training sessions, which combine the formation of theoretical knowledge with practical exercises. This increases the confidence, readiness, and creativity of future specialists in using cinematography as an instrument for optimizing teaching and upbringing in school (Russell & Waters, 2013, p. 87; Walker, 2022, p. 161). The quality of the educational process is also enhanced by the development of skills in critical analysis and the creation of one's own educational materials, such as videos and multimedia products (Hobbs, 2009, p. 8; Walker, 2022, p. 162).

Implementing such approaches helps minimize the risks associated with passive film viewing, when students perceive cinematography as entertainment rather than as a means of developing critical thinking. To avoid this, active methods and tools should be introduced: individual analysis; discussion; creative writing assignments; comparison of what is seen in the film with documentary sources (Metzger, 2007, p. 72; Hobbs, 2009, p. 9; Walker, 2022, p. 164). In this context, American scholars emphasize: "a film is only a tool, not an end in itself" (Metzger, 2007, p. 73), so the effectiveness of its use depends on a pedagogical strategy that involves engaging students in active interaction with the media text (Hobbs, 2009, p. 10). Therefore, only the combination of analysis, production, and reflection ensures the formation of genuine media literacy (Hobbs, 2009, p. 11).

The results of scientific studies show that the systematic integration of film literacy into the training of future teachers remains limited due to the barriers of standardized testing, which is conducted and assessed in a pre-established and/or "standard" way; the lack of developed educational programs; the rapid changes in the media landscape; and concerns about infringement of copyright when using films for educational purposes. To overcome these difficulties and challenges, it is necessary to develop modern curricula, ensure access to high-quality methodological materials, and create conditions for the exchange of experience among educators (Russell & Waters, 2013, pp. 86–88; Yates, 2004, pp. 8–10).

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, the pedagogical strategies developed by American scholars for using films in the educational process are characterized by a diversity of approaches that include critical analysis, independent scriptwriting, interdisciplinarity, and the involvement of families in forming children's film literacy. Despite their differences, they contribute to the development of critical thinking, creative skills, historical and visual literacy, as well as to forming a responsible attitude toward media. The effectiveness of such strategies depends on the level of teacher preparation, avoidance of passive content consumption, and the creative activity of students. American scholars see the main prospects for addressing these and other challenges in creating appropriate educational and methodological resources and integrating films into interdisciplinary educational projects.

Future research should focus on analyzing the educational and methodological materials developed by American specialists for improving the film literacy of school pupils and students of colleges and universities, as well as in studying and comparing the accumulated experience of forming media and film literacy among students in various foreign countries.

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INDEPENDENT WORK AS A PATH TO PROFESSIONAL SUCCESS OF FUTURE LAWYERS IN WORKING WITH MIGRANTS

Abstract. The article reveals the importance of independent work in preparing future lawyers for professional activity, in particular, for working with migrants. The concept of "independence" is defined, the essence of the concepts of "white-collar", "blue-collar", "unskilled workers" is revealed, as well as the impact of martial law on migration processes in Ukraine and the reasons that prompted higher education teachers to develop modern methods and forms of organizing independent work for future lawyers. Changes in Ukrainian labor and educational migration, which are taking place today in the conditions of martial law in the state, focus the attention of teachers on the independent work of students, the ability to consolidate and deepen theoretical and practical knowledge under the skillful guidance of the teacher.

Independent work is an important component of all independent student activity. The author draws attention to such types of independent work as: essays, term papers, tests, master's papers, which are performed by students independently, receiving advice from teachers on their implementation.

Due to the migration of Ukrainians abroad in search of safety and work, and due to internal displacement of people, there has been a need for retraining, taking into account the domestic market of the host country or the location of internally displaced persons in Ukraine. The current conditions make it necessary to support migrant students and those who have decided to change their qualifications, to provide them with the necessary educational services. That is why educational programs of selected specialties, selective disciplines of curricula should be attractive to migrants. In online learning, independent work of education seekers should prevail.

The article provides an example of topics for essays, indicative problem questions for mastering one of the topics, an example of a structured essay plan, and an example of interdisciplinary educational components.

Keywords: migrants, self-employment, professional success, professional mobility, future lawyers.

САМОСТІЙНА РОБОТА ЯК ШЛЯХ ДО ПРОФЕСІЙНОЇ УСПІШНОСТІ МАЙБУТНІХ ЮРИСТІВ У РОБОТІ З МІГРАНТАМИ

Анотація. У статті розкривається значення самостійної роботи в підготовці майбутніх юристів до професійної діяльності, зокрема, до роботи з мігрантами. Дається визначення поняття «самостійність», розкривається сутність понять «білі комірці», «сині комірці», «некваліфіковані робітники» та вплив воєнного стану на міграційні процеси в Україні й причини, що спонукали педагогів вищої школи до розробки сучасних методів і форм організації самостійної роботи майбутніх юристів. Зміни в українській трудовій та освітній міграції, що відбуваються сьогодні за умов воєнного стану держави, зосереджують увагу викладачів на самостійній роботі студентів, умінні закріплювати та поглиблювати теоретичні й практичні знання за вмілого керівництва з боку викладача.

Самостійна робота є важливим складником усієї самостійної діяльності студента. Звернено увагу на такі види самостійної роботи, як: реферати, курсові, контрольні, магістерські роботи, які виконують студенти самостійно, отримуючи від викладачів консультації щодо їх виконання.

У зв'язку з міграцією українців за кордон у пошуках безпеки та роботи, у зв'язку з внутрішнім переміщенням осіб виникла потреба в перекваліфікації, урахування внутрішній ринок країни перебування чи місцезнаходження внутрішньо переміщених осіб в Україні. Умови, що склалися, викликають необхідність у підтримці студентів-мігрантів і тих людей, що вирішили змінити кваліфікацію, у наданні їм необхідних освітніх послуг. Саме тому освітні програми



обраних спеціальностей, вибіркові дисципліни навчальних планів мають бути привабливими для мігрантів. У навчанні в онлайн-режимі має переважати самостійна робота здобувачів освіти.

У статті наводиться приклад тем для рефератів, орієнтовні проблемні питання засвоєння однієї з тем, приклад структурованого плану реферату, а також приклад міждисциплінарних освітніх компонент.

Ключові слова: мігранти, самостійна робота, професійна успішність, професійна мобільність, майбутні юристи.

INTRODUCTION

The problem formulation. Independent work is one of the key components of the educational process in higher education institutions. It not only fosters students' ability to acquire knowledge autonomously but also contributes to the development of creative individuals capable of engaging in innovative activities. The ongoing migration processes in Ukraine prompt educators, particularly in higher education, to develop modern methods and approaches for organizing independent work among future legal professionals.

Modern requirements for graduates of higher education institutions involve the preparation of highly qualified professionals, which is impossible without organizing independent work in the education of future lawyers. This is an integral part of their successful work with migrants.

The independent work of future lawyers involves consolidating and deepening students' theoretical and practical knowledge during the study of professional subjects.

The issue of students' independent work has been addressed by scholars such as L. Onuchak, I. Shymko, N. Shishkina (pedagogical conditions for organizing students' independent extracurricular activities), L. Pukhovs'ka (introducing elective courses and subjects into curricula), A. Alexyuk, P. Oliynyk (organization of self-education and the ability to independently solve problems), A. Isayenko (preparing students for leading independent work), V. Kazakov, S. Yashanov (developing students' independence), and others.

AIM OF THE RESEARCH

The aim of the article is to reveal the peculiarities of organizing students' independent work in their professional preparation for working with migrants.

Analysis of recent research and publications. According to V. Kozakov, the goal of a student's independent work is to develop such a personality trait as independence, i.e., the ability to organize and carry out one's activities without external guidance or assistance (Kozakov, 1990).

Independence of future lawyers is understood as the ability to independently acquire knowledge and apply it to solve tasks related to working with migrants.

According to N. Sydoruchuk, the interested attitude of learners grows into their self-educational activity, which is one of the mechanisms for preparing future professionals.

The implementation of students' independent work is possible thanks to its careful planning and competent guidance from the instructor, which is an essential part of the student's entire independent activity.

Independent work performs several important functions, such as:

- Educational, which involves working with primary sources (mastering the material);
- Cognitive, which implies acquiring new knowledge;
- Corrective, which involves understanding the latest theories, concepts, categories, and approaches to defining the essence of well-known concepts, scientific developments, etc.;
- Stimulating, which involves organizing the student's independent work in such a way that they derive satisfaction from the results of their cognitive activity;
- Educational, aimed at shaping qualities such as willpower, responsibility, and determination;
- Developmental, aimed at developing creativity, independence, and research skills in the student (Onuchak, 2002).

V. Uzhyk considers the following types of independent work:

- Classroom, homework (location of execution);
- Short-term (simple), long-term (complex);
- Independent tasks during discussions and observation of linguistic material, working with books, grammatical analysis, working with diagrams and tables (content and methodology) (Uzhyk, 1980).

In methodological literature, various types and forms of independent work in higher education institutions are described. Thus, L. Onuchak, M. Matsiuk, N. Sydoruchuk, M. Sychova, focusing on the nature underlying the work, analyzed four main types of organizing independent work carried out in higher educational institutions, namely:

- Work by example – finding ready-made answers in primary sources, creating tables, highlighting key points, etc., during the solving of tasks and exercises;
- Reconstructive-variative work, which involves analyzing sources, compiling, clarifying, and selecting the most essential information;
- Heuristic type of independent work (solving educational and problem-based tasks), which allows students to gain experience in search activity;
- Research independent work (individual, collective) (Onuchak, 2002; Sydoruchuk, 2001; Sychova, 2000).

Types of independent work such as essays, term papers, assignments, and master's theses are carried out by students independently, with consultations from instructors regarding their completion. The aim of any type of independent work is to consolidate students' theoretical and practical knowledge or deepen it. From the list of topics offered to students on



working with migrants, the student selects the one that is either more understandable or more interesting to them. In the first case, they consolidate their knowledge, while in the second case, they expand it.

As is known, all migrants are divided into three categories: "white-collar," "blue-collar," and "unskilled workers." Wikipedia provides the following definition of these concepts: "White-collar" migrants are those engaged in intellectual labor, meaning they perform non-physical work, such as managers, professionals, specialists, administrators, secretaries, and clerks. In other words, they work in offices rather than in factories or other places requiring physical strength. "Blue-collar" migrants are workers engaged in physical labor, primarily in large enterprises. "Unskilled workers" migrants are those performing work that does not require specialized education or professional training. These could be workers in construction, agriculture, service industries, or manufacturing. Student migrants are foreign students who come to another country for education at higher education institutions. They are part of international migration, which involves the movement of people across borders for various reasons.

According to the results of regression analysis by H. Vakhitova and T. Kupe, it was concluded that education does not have a clear and lasting impact on most migration decisions of Ukrainians (Vakhitova & Kupe, 2013). However, today, during martial law, migration in Ukraine (labor, educational) has significantly changed. Many Ukrainians have left the country in search of safety and employment, particularly women with children under 16 years old. Many Ukrainians have received the status of internally displaced persons (IDPs), which has also posed challenges for them in finding work at their new places of residence. As a result, internally displaced persons and migrants have faced a need for retraining, taking into account the domestic labor market of the host country or the location of internally displaced persons within Ukraine.

RESULTS OF THE RESEARCH

In this context, one of the tasks for higher and pre-higher education institutions is to support both student migrants and those who have decided to change their qualifications by providing them with the necessary educational services. Ukrainian children, having received education abroad, are trying to find work there. However, not all of them plan to return to Ukraine after the war. Therefore, the task of higher education in Ukraine is to create educational programs and develop attractive educational components that would encourage students to pursue education (possibly even in parallel) at Ukrainian higher education institutions. After the war, the return of Ukrainians should become a priority task for the government. Based on the demand from future applicants, higher education institutions constantly update their educational programs and diversify the elective disciplines offered.

After studying the basic educational components such as "International Human Rights Law," "International Migration Law," "National Legislation in the Field of Migration and Citizenship," and "Legal Status of Foreigners and Stateless Persons" regarding work with migrants, instructors can offer students optional topics for writing essays, such as: "Brain Drain" or "Talent Circulation": The Migration of White-Collar Workers in the 21st Century; "Educational Migration as a Prerequisite for Forming New Flows of White-Collar Workers"; "The Impact of Academic Mobility on the Professional Trajectories of Future Educators and Other Specialists"; "Social-Pedagogical Support for Migrants-'White-Collar Workers' and Their Families in Host Countries"; "The Role of Universities in Preparing Specialists Capable of Professional Mobility in the Context of Globalization"; "Adaptation of Migrant Children-'White-Collar Workers' in Schools: Challenges for Educators"; "Intercultural Competence as a Key Condition for Successful Professional Activity of Migrants"; "Educational Strategies of Countries for Retaining Qualified Personnel: What Can Ukraine Learn?"; "The Problem of 'Brain Drain' in the Education Sector: The Outflow of Scientific and Pedagogical Personnel Abroad"; "Digital Forms of Education as an Alternative to the Migration of 'White-Collar Workers'"; "Professional Self-Realization of Migrant Educators: Barriers Ways to Overcome Them" and others.

As the experience of working with students has shown, the topic "The Role of Universities in Preparing Specialists Capable of Professional Mobility in the Context of Globalization" is of particular interest to them. To facilitate a better understanding of this topic, the instructor can offer students the following guiding problem questions:

- What competencies are required by a modern specialist for professional mobility in the context of globalization?
- How do universities shape students' readiness for academic and labor migration?
- Are modern educational programs sufficiently focused on developing intercultural and communicative competence?
- What role do international educational programs (e.g., Erasmus+, dual degrees, internships) play in preparing mobile professionals?
- How does the digitalization of education affect the mobility of "white-collar workers" and future educators in particular?
- Does university education contribute to the development of flexible thinking and the ability to work in a multicultural environment?
- How can universities balance preparing specialists for the national labor market while also orienting them toward global opportunities?
- Which educational practices (project-based learning, dual education, international internships) are most effective in fostering professional mobility?
- How does university cooperation with business and international corporations influence the formation of mobile talent?
- Is there a risk that preparing students for global mobility may exacerbate "brain drain" from the country?



Additionally, students may be asked to write an essay on the topic "The Role of Universities in Preparing Specialists Capable of Professional Mobility in the Context of Globalization." This essay will allow students to deepen their knowledge regarding international exchange programs, dual diplomas, and internships for students at foreign educational institutions. Below is an example of a structured outline for such an essay:

Introduction

- The relevance of the issue of professional mobility in the context of globalization.
- The concepts of "professional mobility" and "globalization of the educational space."
- The aim and objectives of the research.

1. Theoretical Foundations of Professional Mobility

- 1.1. The Essence and Types of Professional Mobility
- 1.2. Key Competencies Required for a Mobile Specialist ("Soft Skills," Intercultural Competence, Digital Literacy, etc.)
- 1.3. The Impact of Globalization Processes on the Requirements for Specialist Training

2. The Role of Universities in Shaping Readiness for Mobility

- 2.1. Educational Programs Aimed at Developing Flexibility and Adaptability in Future Specialists
- 2.2. Academic Mobility: International Exchange Programs, Dual Degrees, Internships
- 2.3. Teaching Foreign Languages and Intercultural Communication as Components of Preparing Mobile Specialists
- 2.4. The Use of Digital Technologies and Distance Learning in Shaping Global Competencies

3. Practical Aspects and Challenges

- 3.1. Collaboration Between Universities, Employers, and International Corporations
- 3.2. Dual Education and Project-Based Learning as Tools for Enhancing Graduate Mobility
- 3.3. Issues and Risks: "Brain Drain," Disbalance Between National and Global Needs
- 3.4. Examples of Successful Practices from Ukrainian and International Universities

Conclusion

- Summarizing the results of the research.
- Identifying key directions for enhancing the role of universities in ensuring the professional mobility of graduates.
- Perspectives for further research.

During the consultation on writing essays, the instructor provides students with a selection of literary sources that can be used for writing each specific essay.

Interdisciplinary educational components that could be offered to students include: "Socio-Legal Aspects of Migrant Integration", "Intercultural Communication for Lawyers", "Ethics of Human Rights Work in the Migration Sector", and others.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Therefore, well-organized and instructor-guided independent work for future lawyers in higher education, during the study of compulsory and elective professional courses, will contribute to a stronger and more conscious understanding of the material. This kind of work in higher education institutions will help them later implement their independent activities without external assistance, allowing them to feel successful in their chosen profession as lawyers, particularly in working with migrants.

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TRAINING AS A FORM OF ACTIVE LEARNING IN VOCATIONAL EDUCATION INSTITUTIONS: THEORY AND ICT PRACTICE

Abstract. The article highlights the theoretical foundations and practical aspects of implementing ICT-supported training in vocational education institutions.

Based on the analysis of scientific and methodological literature, the essence of training is clarified as a multidimensional educational phenomenon that integrates cognition, reflection, interpersonal interaction, and practice-oriented experience acquisition. The functions of training (educational, socialising, motivational and value-based, corrective and developmental,



practice-oriented) are identified, alongside examples of exercises that ensure their implementation in vocational education settings.

On the basis of generalised pedagogical practices, the leading types of training are defined, including communicative, production-oriented, technical and technological, managerial and project-based, entrepreneurial, inclusive-oriented, and stress-resilience training. The feasibility of integrating training technologies with ICT is substantiated, as it ensures variability of the learning environment, modelling of production situations, personalised learning trajectories, and step-by-step development of professional actions through the use of digital platforms and simulators (Moodle, Google Classroom, Zoom, Teams, VR/AR tools).

The results of a pilot study conducted at the Ivano-Frankivsk Vocational College of Vasyl Stefanyk Carpathian National University with Software Engineering students indicate positive dynamics in the development of professional confidence, operational-technological skills, learning motivation, and communication activity (average growth rate – 22%).

The findings prove the effectiveness of ICT-supported training as a mechanism for implementing a competency-based approach and outline prospects for further research aimed at expanding empirical evidence and methodological support for educators.

Keywords: training; training technologies; active learning; vocational education; competency-based approach; ICT practice; digitalisation; workplace situations; professional competencies; simulators.

ТРЕНІНГ ЯК ФОРМА АКТИВНОГО НАВЧАННЯ В ЗАКЛАДАХ ПРОФЕСІЙНОЇ ОСВІТИ: ТЕОРІЯ ТА ІКТ-ПРАКТИКА

Анотація. У статті висвітлено теоретичні й практичні засади використання тренінгу з ІКТ-підтримкою в закладах професійної освіти.

На основі аналізу науково-методичної літератури уточнено сутність тренінгу як багатовимірного освітнього феномена, що поєднує пізнання, рефлексію, міжособистісну взаємодію та практико орієнтоване опанування досвіду. Розкрито функції тренінгу (навчальна, соціалізуюча, мотиваційно-ціннісна, корекційно-розвивальна, практико орієнтована) та наведено приклади вправ, що забезпечують їхню реалізацію за умов професійної освіти.

На основі узагальнення педагогічних практик визначено провідні типи тренінгів: комунікативні, виробничо-практичні, техніко-технологічні, управлінсько-проектні, підприємницькі, інклюзивно-орієнтовані й стресостійкісно-адаптаційні. Обґрунтовано доцільність інтеграції тренінгових технологій з ІКТ, що забезпечує варіативність освітнього середовища, моделювання виробничих ситуацій, персоналізацію навчання та поетапне відпрацювання професійних дій із використанням цифрових платформ і симуляторів (Moodle, Google Classroom, Zoom, Teams, VR/AR-засоби).

Представлено результати пілотного дослідження, проведеного на базі Івано-Франківського фахового коледжу КНУ імені Василя Стефаника зі здобувачами спеціальності «Інженерія програмного забезпечення», що засвідчили позитивну динаміку сформованості професійної впевненості, операційно-технологічних умінь, навчальної мотивації та комунікаційної активності (середній приріст показників – 22 %).

Зроблено висновок про результативність тренінгу з ІКТ-практикою як механізму реалізації компетентнісного підходу й перспективність подальших досліджень у напрямі розширення емпіричної бази й методичного супроводу педагогів.

Ключові слова: тренінг; тренінгові технології; активне навчання; професійна освіта; компетентнісний підхід; ІКТ-практика; цифровізація; виробничі ситуації; професійні компетентності; симулятори.

INTRODUCTION

The problem formulation. Modern vocational education is currently undergoing substantial transformation influenced by processes of digitalisation, the implementation of the competency-based approach, increased competition in the labour market, and the growing demand for flexible (soft) skills and a culture of lifelong learning. In this context, traditional, predominantly information-reproductive instructional formats (lectures, frontal teacher-centred delivery, top-down instruction) are proving insufficient for fostering learners' capacity for autonomous action, effective communication, teamwork, and decision-making in conditions of uncertainty.

An effective pedagogical response to these challenges is the integration of training as a form of active learning grounded in interaction, experiential engagement, reflection, and practical applicability. Within vocational education institutions, training technologies enable not merely the transmission of educational content but its experiential internalisation through the modelling of authentic production, interpersonal, and problem-based scenarios. Such an approach strengthens the connection between educational processes and real professional contexts, thereby contributing to the formation of practice-oriented competencies required by contemporary labour markets.

Analysis of recent research and publications. he review of scientific and methodological literature demonstrates that, at the present stage, the issues of professional training of vocational education teachers have been addressed in the works of V. Andrushchenko, V. Bekh, H. Bilavych, I. Zyazyun, V. Kremen, N. Nychkalo, L. Prokopiv, V. Radkevych and others. The implementation of training as an educational technology has been examined in the studies of O. Banit, O. Karpenko, S. Sysoieva, V. Stynska, Ya Topolnyk, O. Shamraliuk and other scholars. Despite the existing academic contributions, the problem of defining training as a form of active learning in vocational education institutions remains insufficiently investigated, particularly with regard to the correlation between its theoretical foundations and ICT-supported practice. This gap substantiates the choice of the research topic and confirms its relevance in the context of current educational policy priorities and the demands of the contemporary labour market.

THE AIM OF THE STUDY – is to determine the theoretical foundations and substantiate the practical possibilities of implementing ICT-supported training as a form of active learning in vocational education institutions.



RESEARCH METHODS

A set of research methods was applied in the course of the study, including analysis, synthesis, and generalisation to examine scientific and methodological literature on the issues of professional training and the implementation of training technologies; comparative analysis to contrast traditional and training-based forms of organising learning in vocational education institutions; a systemic-structural approach to identify the content-related characteristics of training as a form of active learning; modelling to substantiate the possibilities of integrating ICT tools into the training environment; pedagogical observation and the analysis of educational experience to determine the effectiveness of training in practical instructional settings.

RESULTS OF THE RESEARCH

Our analysis shows that training (from the English to train – to teach or develop skills) is defined as a multidimensional educational phenomenon integrating cognition, reflection, interpersonal interaction, and practice-oriented experience acquisition (Shamraliuk, 2023). In contemporary pedagogical theory, training is understood as an educational space for self-awareness, a partnership-based format of subject–subject interaction, a tool for activity-based content acquisition, and a mechanism of professionalisation that supports the development and transformation of practical skills (Stynska & Karpenko, 2021).

Key characteristics determining the effectiveness of training include its group format, which facilitates socialisation and professional communication; its activity-based nature, implemented through interactive methods (simulation, discussions, case analysis); practical orientation towards modelling workplace situations; reflexivity, which ensures analysis and consolidation of experience; and a psychologically safe environment grounded in confidentiality, respect, and the right to make mistakes (Shamraliuk, 2023). These features reinforce the potential of training as a form of active learning in vocational education.

Training, as an organisational-didactic format of instruction, is especially significant in vocational education due to its ability to combine practice-oriented competence acquisition, socialisation, and the development of professional behavioural patterns. Summarising research and pedagogical experience makes it possible to distinguish key training functions that ensure a holistic cycle of competence formation (Shamraliuk, 2023; Stynska & Karpenko, 2021) (Table 1).

Table 1

Functions of training, their characteristics, expected learning outcomes, and tools for implementation

Training Function	Brief Description	Expected Outcomes	Example Exercises
Educational	Development of knowledge, skills, and abilities through action; mastering algorithms of professional performance	Algorithmic thinking; readiness to follow standards; technical literacy	Emergency Scenario: 60 Seconds; Production Algorithm; Quality Control; Partner Instruction; Technological Route; Three-Stage Task; Error Point
Socialising	Acquisition of social roles, norms of professional communication, and teamwork skills	Team-building; culture of professional communication; responsibility in interaction	Team on the Bridge; Production Meeting; Responsibility Point; Blind Navigator; Group Resource; Synchronisation; Client–Employee
Motivational & Value-Based	Awareness of the significance of the future profession; formation of professional identity and internal motivation	Stable professional motivation; formation of the “I am a professional” self-concept	My Professional Path: Five Years Ahead; Goal Map; Professional Identity; I Am a Specialist; Growth Position; Value of the Profession
Corrective & Developmental	Overcoming ineffective behavioural patterns; development of self-regulation and stress resistance	Assertiveness; emotional management; constructive responses to challenging situations	I-Message; Stop Pause; Triangle of Responsibility; Emotional Thermometer; Rewriting Reactions; Crisis Response
Practice-Oriented	Transfer of learning experience to real conditions of future professional activity	Readiness to act in workplace situations; ability to apply technologies and protocols	Workplace Simulation; Micro-Instruction; Technological Audit; Product Evaluation; Practical Problem; Action Protocol

The identified functions of training form the conceptual and operational framework for its implementation and determine the main vectors of pedagogical influence on learners. The system of exercises presented above operationalises these functions and ensures a full cycle of competence development – from the initial acquisition of content to the consolidation of professional actions and behavioural strategies in simulated workplace environments.

Although scholars propose various training classifications, the synthesis of vocational education practices allows identifying the most relevant formats for comprehensive professional development. These include communicative, production-oriented, technical-technological, managerial and project-based, entrepreneurial, inclusive-oriented, and stress-resilience training. Each of these formats targets specific aspects of professional formation and collectively supports learners’ readiness for future employment (Topolnyk, 2020; Banit, 2021; Danylchuk, 2025).



Thus, training in vocational education may be viewed as a systemic technology that integrates educational, socialising, motivational, corrective, and practice-oriented components, contributing to the holistic formation of professional competence.

In the context of the digitalisation of vocational education, the effectiveness of training technologies increases significantly when integrated with ICT tools that enable a flexible, open and practice-oriented learning environment. ICT-supported practice expands the functional potential of training and enables the modelling of authentic workplace situations through digital resources. The use of interactive platforms (Zoom, Microsoft Teams, Moodle, Google Classroom), specialised simulators and virtual training tools provides learners with experience in managing processes that closely mirror contemporary production environments.

Digital simulators of technological operations, automated design environments, video laboratories, VR/AR applications and virtual workspace platforms offer opportunities for step-by-step practice in a safe setting, reducing the risks associated with workplace errors. Such tools require the consistent organisation of the training process: from reproductive tasks and algorithmic actions to creative modelling of professional scenarios in which learners make decisions, analyse consequences and relate them to qualification requirements (Lazarenko et al., 2022).

The introduction of ICT into training also transforms the functional role of the educator: from a transmitter of knowledge to a facilitator and moderator of digital interaction, a consultant, and a navigator of personalised learning trajectories. During training, the educator coordinates group dynamics, structures stages of activity and organises feedback through analytical instruments such as electronic gradebooks, LMS analytics, surveys and self-assessment chatbots (OECD, 2021). This contributes to greater transparency of assessment, strengthens reflective learning, and supports the development of self-regulation and responsibility for learning outcomes (Table 2).

Table 2***Pedagogical model of ICT-supported training in vocational education institutions***

Model Component	Pedagogical Description	ICT Tools and Instruments	Expected Outcomes for Learners
Purpose	Development of professional competences through active, practice-oriented learning	—	Awareness of the significance of digital interaction as an integral element of the profession
Content	Modelling workplace situations, mastering algorithms of professional actions, reflective processing of experience	Video laboratories, digital simulators, VR/AR simulations, professional online platforms	Acquisition of content aligned with real professional practice
Forms and Methods	Group and individual training sessions, situational and role-based tasks, case method, workplace scenarios	Zoom/Teams, interactive boards (Miro, Jamboard), simulation software	Development of multi-profile competences (communication, technical-technological, managerial)
Process (Stages)	1) motivation; 2) interaction; 3) reflection; 4) application of knowledge	Online simulators, LMS Moodle/Google Classroom, self-assessment chatbots	Ability to plan work, monitor progress, and evaluate learning outcomes
Role of the Educator	Facilitator, moderator, consultant, digital navigator	LMS analytics, testing platforms, electronic gradebooks	Transparency of assessment, targeted feedback, personalised support
Expected Integrated Outcomes	Comprehensive competence development	—	Professional readiness, digital literacy, ability for self-directed learning and collaboration

This model provided the conceptual and methodological foundation for the subsequent pilot implementation of ICT-supported training in vocational education institutions.

To verify the theoretical provisions, a pilot implementation of selected ICT-practice elements within a training-based learning format was conducted in vocational education settings. The pilot study took place at the Ivano-Frankivsk Vocational College of Vasyl Stefanyk Carpathian National University and involved students of the Software Engineering programme. The implementation employed interactive platforms (Moodle, Google Classroom), online communication tools (Zoom, Teams), digital production simulators and virtual learning resources for modelling professional situations. Training sessions were organised as short modules (45–90 minutes) that included practical tasks, group interaction and reflective activities.

The analysis of the pilot results revealed a noticeable increase in professional confidence, improvement in operational and technological task performance, strengthened learning motivation and higher levels of communication activity. These findings confirm that integrating training with ICT practice is an effective mechanism for implementing the competency-based approach, enabling synchronous development of professional, communicative, digital and socio-behavioural competences, and responding to current labour market demands and digital economy trends (Table 3).



Table 3

Dynamics of learners’ professional development indicators after implementing ICT practices within the training format (pilot study)

Indicator	Before Implementation, %	After Implementation, %	Growth
Professional confidence	41	63	+22 %
Operational-technological skills	48	70	+22 %
Learning motivation	52	74	+22 %
Communication activity	46	68	+22 %

The data presented in Table 3 demonstrate a positive dynamic across all indicators. The average growth rate of 22 % confirms the effectiveness of ICT-supported training as a tool for developing professional, communicative, technological and motivational components of learners’ competence.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The study substantiated training as an effective form of active learning in vocational education institutions and identified its potential when combined with ICT-supported practice. It was established that the integration of digital tools (interactive learning platforms, simulators, online communication instruments, VR/AR technologies) enhances the practical dimension of learning, enables the modelling of professional situations, and creates conditions for the individualisation of learners’ educational trajectories.

The results of the pilot implementation confirmed a positive dynamic in indicators of learners’ professional development (average growth – 22%), demonstrating the effectiveness of combining training and ICT in developing professional, communicative, and digital competences. These findings justify the further introduction of ICT-supported training programmes as a tool for implementing the competency-based approach in vocational training.

Future research should focus on expanding the empirical evidence base, clarifying criteria and indicators for evaluating the effectiveness of ICT-supported training sessions, and developing evidence-based methodological recommendations and technological guidelines for educators in vocational education institutions.

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PEDAGOGICAL APPROACHES TO TRAINING SPECIALISTS IN FIELD-SPECIFIC TRANSLATION IN U.S. HIGHER EDUCATION

Abstract. The relevance of the proposed study is foregrounded by processes of globalization, the growth of migration flows, and the increasing linguistic and cultural diversity within healthcare systems, which brings to the forefront the issue of ensuring high-quality medical communication. Language barriers between patients and healthcare professionals can lead to diagnostic errors, treatment complications, and threats to patient safety. In this context, the professional training of medical and pharmaceutical interpreters capable of providing accurate, ethically sound, and culturally sensitive transmission of medical information becomes particularly important. Of significant interest in this regard is the experience of higher education institutions in the United States, where the training of such interpreters has an institutionalized and systematic character.

The purpose of the study is to analyse the pedagogical approaches used in U.S. higher education institutions to train specialists in medical and pharmaceutical translation and interpretation, and to identify possibilities for applying this experience to improve domestic educational practice.

The study employs a complex of methods, including analysis and synthesis of scholarly sources to generalize theoretical approaches to interpreter training; comparative pedagogical analysis of educational programs at various universities; content analysis of regulatory and legal documents (CLAS Standards, Section 1557 of the Affordable Care Act, documents of the NCIH, CCHI, and NBCMI); structural and functional analysis of the content, forms, and methods of instruction; and an interpretative-analytical method to assess the potential for adapting U.S. experience in Ukraine.

The results of the study indicate that the training of medical and pharmaceutical interpreters in the United States is characterized by its comprehensive nature, competency-based orientation, focus on national certification, active use of clinical situation simulations, role-playing, and technologies of remote and telemedical interpreting. Educational programs integrate linguistic, medical, ethical, and intercultural training and are implemented in close cooperation with healthcare institutions.

It is concluded that the U.S. experience in training medical and pharmaceutical interpreters can serve as an effective model for the development and modernization of relevant programs in higher education institutions in Ukraine, with the aim of improving the quality of medical communication and patient safety in a multilingual environment.

Keywords: specialized translation, translator training, medical education, pharmaceutical education, the United States, pedagogical approaches, professional competence, intercultural communication.

ПЕДАГОГІЧНІ ПІДХОДИ ДО ПІДГОТОВКИ ФАХІВЦІВ ІЗ ГАЛУЗЕВОГО ПЕРЕКЛАДУ У ВИЩІЙ ОСВІТІ США

Анотація. Актуальність пропонованого дослідження зумовлена процесами глобалізації, зростанням міграційних потоків та посиленням мовного й культурного різноманіття в системах охорони здоров'я, що актуалізує проблему забезпечення якісної медичної комунікації. Мовні бар'єри між пацієнтами та медичними працівниками можуть призводити до діагностичних помилок, ускладнень лікування та загроз безпеці пацієнтів. У цьому контексті особливої ваги набуває професійна підготовка перекладачів медичного й фармацевтичного спрямування, здатних забезпечувати точну, етично виважену та культурно чутливу передачу медичної інформації. Значний інтерес у цьому аспекті становить досвід закладів вищої освіти США, де підготовка таких перекладачів має інституціоналізований і системний характер.



Метою дослідження є аналіз педагогічних підходів, що застосовуються у закладах вищої освіти США для підготовки фахівців з медичного й фармацевтичного перекладу, та визначення можливостей використання цього досвіду для вдосконалення вітчизняної освітньої практики.

У дослідженні використано комплекс методів: аналіз і синтез наукових джерел для узагальнення теоретичних підходів до підготовки перекладачів; порівняльно-педагогічний аналіз освітніх програм різних університетів; контент-аналіз нормативно-правових документів (CLAS Standards, Section 1557 ACA, документи NCIHC, CCHI, NBCMI); структурно-функціональний аналіз змісту, форм і методів навчання; інтерпретаційно-аналітичний метод для оцінки потенціалу адаптації американського досвіду в Україні.

Результати дослідження свідчать, що підготовка медичних і фармацевтичних перекладачів у США характеризується комплексністю, компетентнісною спрямованістю, орієнтацією на національну сертифікацію, активним використанням симуляцій клінічних ситуацій, рольових ігор, технологій дистанційного та телемедичного перекладу. Освітні програми інтегрують лінгвістичну, медичну, етичну й міжкультурну підготовку та реалізуються у тісній співпраці з медичними закладами.

Зроблено висновок, що американський досвід підготовки перекладачів медичного й фармацевтичного спрямування може слугувати ефективною моделлю для розроблення та модернізації відповідних програм у закладах вищої освіти України з метою підвищення якості медичної комунікації та безпеки пацієнтів у багатомовному середовищі.

Ключові слова: галузевий переклад, підготовка перекладачів, медична освіта, фармацевтична освіта, США, педагогічні підходи, професійна компетентність, міжкультурна комунікація.

INTRODUCTION

The problem formulation. In the contemporary world, shaped by globalization and increasing migration flows, the issue of high-quality medical communication has emerged as one of the key prerequisites for ensuring accessible and effective healthcare. Language barriers between patients and healthcare providers often lead to diagnostic errors, treatment complications, and even threats to patients' lives. In this context, the professional training of medical and pharmaceutical interpreters, capable of ensuring the accurate and adequate transmission of medical information while accounting for both linguistic and cultural aspects of communication, becomes particularly significant (National Council on Interpreting in Health Care, n.d.; Think Cultural Health, n.d.).

The higher education system of the United States has a long-standing tradition of developing medical and pharmaceutical interpreting as a distinct field of professional activity (Middlebury Institute of International Studies, n.d.; Think Cultural Health, n.d.). It was there that the foundations were laid for institutional training programs for medical interpreters that combine linguistic, medical, and ethical components. American universities and colleges offer a wide range of educational programs – from certificate courses to master's degrees – that take into account the specific demands placed on interpreters working in hospitals, clinics, and other healthcare settings.

The relevance of this study lies in the need to conceptualize the pedagogical approaches employed in the United States in order to adopt best practices and adapt them to the Ukrainian educational context. Modern medical and pharmaceutical education must respond to the challenges of a multicultural environment, and the experience of American universities in preparing specialists in field-specific interpreting may serve as an important point of reference.

Analysis of recent research and publications. In international – and particularly American – scholarship, the training of specialists in medical and pharmaceutical interpreting is examined through the lens of normative and ethical frameworks, competency-based models, and didactic solutions that reflect the needs of the healthcare system. The fundamental regulatory framework is provided by the National Standards for Culturally and Linguistically Appropriate Services (CLAS) issued by the U.S. Department of Health and Human Services, which establish requirements for language access and cultural competence in healthcare institutions (Bagchi S., & Koren A., 2021, p. 70; Federal Register, n.d.). These standards set guidelines for educational programs that prepare medical and pharmaceutical interpreters for clinical environments (National Council on Interpreting in Health Care, n.d.). They are complemented by the provisions of Section 1557 of the Affordable Care Act (ACA), which directly regulates language access and the qualifications of language services in federally funded healthcare facilities (Federal Register, n.d.).

At the level of professional ethics and practice, the key contributions have been made by the National Council on Interpreting in Health Care (NCIHC), particularly its Code of Ethics and National Standards of Practice for Interpreters in Health Care (National Council on Interpreting in Health Care, n.d.). These documents articulate role boundaries, principles of accuracy, confidentiality, cultural mediation, and patient advocacy, serving as the foundation for curricula and assessment criteria used in training programs (Ponce O. J., Rivas J., & Johnson T., 2022, p. 123)

Competency frameworks in the United States are likewise largely aligned with the knowledge and skill profiles validated by certification bodies such as the Certification Commission for Healthcare Interpreters (CCHI) and the National Board of Certification for Medical Interpreters (NBCMI) (Certification Commission for Healthcare Interpreters, n.d.; National Board of Certification for Medical Interpreters, n.d.). CCHI's published Job Task Analysis and the structure of its CoreCHI/CHI certification examinations delineate requirements related to medical terminology, clinical domains, ethics, communicative risk management, and technological literacy (Certification Commission for Healthcare Interpreters, n.d.). Similarly, NBCMI defines the competencies and formats of its written and oral examinations, which guide the development of instructional modules and formative assessment practices in university-based and professional training programs (National Board of Certification for Medical Interpreters, n.d.).

From a didactic perspective, the literature documents a shift toward competency-based and evidence-informed instruction with an emphasis on clinical scenario simulations, role-play, learning portfolios, and OSCE-style (Objective



Structured Clinical Examination) assessments designed to evaluate linguistic accuracy, role performance, and ethical sensitivity (Smith L., & Martinez R., 2024, p. 45; Think Cultural Health, n.d.). Leading academic centres – such as the Middlebury Institute of International Studies and the University of Arizona’s National Center for Interpretation – offer courses and certificate programs in medical interpreting as well as specialized learning materials incorporating authentic cases (interpreter drills, terminology glossaries, audio scenarios), demonstrating the integration of practice-oriented resources into formal education (Middlebury Institute of International Studies, n.d.; National Council on Interpreting in Health Care, n.d.).

A significant trend is the technologization of interpreter training: programs are increasingly integrating terminology management, the use of CAT tools for medical and pharmaceutical translation, principles of data security (HIPAA), and training in remote/telemedicine interpreting modalities (VRI/OPI) (Think Cultural Health, n.d.). In parallel, professional discourse places growing emphasis on standardization and quality assurance in language services, reflected in ASTM standards for the language industry (including standards for interpreting practice and quality management), which are increasingly used as reference frameworks in designing learning outcomes and internal program policies (ASTM International, n.d.).

A distinct body of scholarship focuses on assessment of learning outcomes, including the development of analytic rubrics that evaluate accuracy of content transfer, control of register and style, management of communicative barriers (from cultural to pragmatic), and ethical decision-making in complex cases (e.g., when cultural explanation or intervention is required to ensure patient safety) (Think Cultural Health, n.d.). These rubrics are typically calibrated to NCIHC/CCHI requirements and CLAS policies, which ensures transparency and external validity of assessment practices (Certification Commission for Healthcare Interpreters, n.d.; Federal Register, n.d.; National Council on Interpreting in Health Care, n.d.).

Finally, the literature identifies several persistent challenges facing U.S. higher education: the limited number of full-fledged degree programs specifically dedicated to medical interpreting (as compared to broader translation/localization or community interpreting programs); an imbalance between the preparation of interpreters and translators; insufficient coverage of “less-commonly-taught” languages beyond Spanish; and the need for systematic research on learning outcomes and on the effects of integrating new technologies – from remote platforms to AI-powered post-editing tools. Addressing these challenges is linked to the expansion of interdisciplinary partnerships among language departments, medical schools, pharmaceutical companies and hospitals, as well as the broader implementation of CLAS policies and certification-body requirements at the level of institutional curriculum design.

In summary, the American body of scholarship converges on the claim that effective preparation of medical interpreters requires: 1) a clearly articulated normative and ethical foundation (CLAS, NCIHC, CCHI/NBCMI); 2) competency-based pedagogy with empirically grounded skill verification in clinically relevant scenarios; 3) technological literacy; and 4) systematic integration with healthcare practice and language-access services.

THE PURPOSE OF THE RESEARCH – was to analyse the pedagogical approaches used in U.S. higher education for training interpreters in the medical field and to identify their potential value for advancing domestic practices in teaching medical interpreting.

RESEARCH METHODS

The study employed a set of complementary research methods. Analysis and synthesis of scholarly sources were used to generalize current theoretical approaches to the training of medical interpreters in the United States. A comparative pedagogical analysis enabled the identification of shared and distinctive characteristics of educational programs across various universities and colleges. Content analysis of regulatory documents (CLAS Standards, Section 1557 of the ACA, NCIHC, CCHI, NBCMI) made it possible to determine the professional and ethical frameworks guiding interpreter preparation. A structural-functional analysis of educational programs was applied to examine their objectives, content, and instructional formats and methods. In addition, an interpretive-analytical method was used to synthesize practical trends and to assess the potential for adapting the U.S. experience to the Ukrainian educational context.

RESULTS OF THE RESEARCH

A program that deserves particular attention is the certification program offered by LaGuardia Community College (New York), which is designed to train specialists capable of working effectively in hospitals, clinics, and other healthcare environments. The program includes 45 hours of instruction and preparation for certification examinations administered by organizations such as the Certification Commission for Healthcare Interpreters (CCHI) and the National Board of Certification for Medical Interpreters (NBCMI), providing students with a comprehensive foundation of knowledge and practical skills (LaGuardia Community College, n.d.).

Another noteworthy example is the program offered by The City College of New York (CCNY). This 102-hour program covers multiple modes of interpreting – consecutive, simultaneous, sight translation, and telephonic interpreting. In addition to developing medical knowledge, the course prepares students for national certification exams and cultivates broader professional competencies such as résumé preparation and interview skills (The City College of New York, n.d.).

In cooperation with Brigham and Women’s Hospital, Bunker Hill Community College (Boston) offers a free ten-week program for speakers of Spanish, Portuguese, Arabic, or Mandarin Chinese. The program includes 60 hours of remote instruction, 40 hours of field placement, and preparation for the national certification examination, making it particularly practice-oriented (Bunker Hill Community College, n.d.).



The San Diego State University Global Campus program offers training in three modes of interpreting: simultaneous, consecutive, and sight translation. Its graduates are prepared to work in a variety of medical settings, providing high-quality language services to patients and demonstrating the integration of practical skills with theoretical preparation (San Diego State University Global Campus, n.d.).

Northwestern College (Iowa) offers a 100% online medical interpreting certificate program for bilingual Spanish/English students. The program spans two semesters and includes 15 credits, preparing students for the national certification exam and providing a solid foundation in professional practice (Northwestern College, n.d.).

Another illustrative example is the University of Georgia (UGA), which offers an interactive medical interpreting certification course for Spanish/English bilinguals. The program combines theoretical knowledge with practical exercises, enabling students to develop confidence in professional environments and enhancing their readiness for work in healthcare settings (University of Georgia, n.d.).

The University of California, San Diego (UCSD) also offers a program that introduces students to the fundamentals of medical interpreting, including cultural mediation, medical terminology, orientation to the U.S. healthcare system, and legal aspects of medical interpretation. This prepares trainees for a broad range of professional tasks (University of California, San Diego, n.d.).

City College of San Francisco (CCSF) trains bilingual and bicultural students to function effectively in medical and community settings through academic coursework, experiential learning, and community engagement, which supports the development of social and cultural competence (San Francisco City College, n.d.).

Programs at the University of Minnesota and the University of Colorado Colorado Springs (UCCS) are distinguished by their flexibility and accessibility. The former offers a free, self-paced online module covering the basics of medical interpreting and telemedicine, while the latter provides a one-month training program for bilingual professionals (University of Colorado Colorado Springs, n.d.). Both programs deliver the foundational knowledge and practical skills necessary for starting a career in medical interpreting (University of Minnesota, n.d.).

An analysis of the programs presented reveals several common features characteristic of medical interpreting training within U.S. higher education. The first one is the comprehensive instructional approach. Programs integrate theoretical knowledge – medical terminology, ethics, and cultural competence – with practical interpreting skills developed through simulated clinical scenarios and the use of contemporary translation technologies. The second peculiarity includes certification-oriented training, i.e., most programs are designed to prepare students for national certification exams such as CMI/CCHI, validating their qualifications and readiness for professional practice. Another feature is technological integration: programs actively incorporate modern translation and interpreting technologies, including artificial intelligence and other tools that enhance accuracy and efficiency. Finally, an interdisciplinary approach implies collaboration among language departments, medical schools, and healthcare institutions which ensures the integration of theoretical knowledge with practical experience, which is essential for training highly qualified specialists. These features demonstrate the high level of professional preparation in the field of medical and pharmaceutical interpreting in the United States and may serve as a valuable reference point for improving corresponding programs in Ukraine.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The analysis conducted shows that the training of medical and pharmaceutical interpreting specialists within U.S. higher education is grounded in a comprehensive combination of theoretical instruction, practical skill development, and ethical principles. The programs examined exhibit a strong emphasis on competency-based pedagogy, technological integration, and interdisciplinary collaboration, enabling students to function effectively in diverse medical and cultural environments.

U.S. programs place particular emphasis on preparing students for national certification examinations, ensuring a high level of professional competence and readiness for real-world practice. The use of modern technologies, distance learning formats, online resources, and telemedicine tools makes training flexible and accessible while cultivating students' proficiency with current medical interpreting technologies.

The systemic and holistic approach that combines linguistic, medical, and cultural preparation enables graduates of American programs to become highly qualified specialists capable of ensuring accuracy, ethical conduct, and effective communication in healthcare settings. The U.S. experience may serve as a valuable model for developing analogous educational programs in Ukraine, contributing to improved medical communication and patient safety in multilingual and multicultural environments.

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MASTERMIND SESSIONS AS AN INNOVATIVE FORMAT FOR COLLEGIAL SUPERVISION AND PROFESSIONAL DEVELOPMENT OF EDUCATORS IN HIGHER EDUCATION INSTITUTIONS

Abstract. This article analyzes the potential and structure of mastermind sessions as an innovative format for collegial supervision and professional self-improvement among educators in higher education institutions (HEIs). The relevance of this topic stems from the evident crisis of traditional, predominantly vertical, supervision models. These established approaches are often formalistic, control-oriented, and fail to adequately address contemporary challenges such as digitalization, increased demands for academic autonomy, and high rates of professional burnout. This frequently leads to «professional isolation», where educators are left to face complex pedagogical, scientific, and administrative challenges alone. The purpose of this paper is to provide a theoretical substantiation for mastermind technology, analyzing its principles and advantages in comparison to traditional forms of methodological work. Using methods of theoretical analysis, synthesis, and comparative modeling, the study defines the mastermind as a structured, confidential, and results-oriented form of group work. This model is fundamentally based on principles of horizontality (peer-to-peer), mutual trust, and shared accountability. The paper details the core operational methodology of the «Hot Seat» format, which facilitates a focused, solutions-oriented dialogue. The analysis demonstrates that this format constitutes a significant paradigm shift from «control-focused» supervision to «support-focused» collegial development. The article posits that the implementation of mastermind groups within HEIs can effectively address complex issues across the three key domains of an educator's activity: research – overcoming publication stagnation and refining grant proposals; pedagogy – accelerating the adoption of innovative teaching methods (e.g., adapting to AI) and improving student engagement; organizational/psychological – providing critical support in managing administrative overload and preventing professional burnout. In conclusion, mastermind sessions represent a highly promising pedagogical technology that fosters a robust culture of collegial support, enhances faculty agency, and accelerates innovation within the academic community.

Keywords: mastermind, mastermind sessions, collegial supervision, professional development, professional self-improvement, higher education, educators, faculty, horizontal model, peer support, innovative educational technologies, professional burnout.

МАЙСТЕРМАЙНД-СЕСІЇ ЯК ІННОВАЦІЙНИЙ ФОРМАТ КОЛЕГІАЛЬНОЇ СУПЕРВІЗІЇ ТА ПРОФЕСІЙНОГО САМОВДОСКОНАЛЕННЯ ПЕДАГОГІВ У ЗАКЛАДАХ ВИЩОЇ ОСВІТИ

Анотація. У статті проаналізовано сутність та потенціал майстермайнд-сесій як інноваційного формату професійного розвитку та колегіальної супервізії викладачів закладів вищої освіти (ЗВО). Актуальність теми зумовлена кризою традиційних, переважно вертикальних, моделей супервізії, які часто мають формальний і контролюючий характер і не відповідають сучасним викликам (диджиталізація, академічна автономія, високий рівень професійного вигорання). Метою статті є теоретичне обґрунтування та аналіз структури, принципів та переваг майстермайнд-технології порівняно з традиційними формами методичної роботи. Застосовано методи теоретичного аналізу, синтезу, порівняння та моделювання. Визначено, що майстермайнд є структурованою, конфіденційною, орієнтованою на результат формою групової роботи, що базується на принципах горизонтальності, довіри та взаємної підзвітності. Докладно описано методологію проведення сесії у форматі «гарячого стільця» (Hot Seat). Проведено порівняльний аналіз, який демонструє зсув парадигми від «контролю» до «підтримки». Установлено, що імплементація майстермайнд-груп у ЗВО здатна розв'язувати комплексні завдання в трьох ключових сферах діяльності викладача: науково-дослідницькій (подолання публікаційної стагнації, генерація ідей для грантових заявок), навчально-методичній (упровадження інноваційних методів, адаптація до викликів ШІ) та організаційно-



психологічній (профілактика вигорання, розвиток «м'яких навичок»). Зроблено висновок, що майстермайнд-сесії є перспективною педагогічною технологією, що сприяє формуванню культури колегіальної підтримки, прискорює інноваційні процеси й посилює суб'єктність викладача в траєкторії його професійного самовдосконалення.

Ключові слова: майстермайнд, професійний розвиток, супервізія, викладачі, заклади вищої освіти, колегіальне навчання, горизонтальна модель, інноваційні освітні технології, професійне вигорання.

INTRODUCTION

The problem formulation. The modern higher education system operates under conditions of permanent transformations caused by globalization, accelerated digitalization, new labor market requirements, and increased competition among higher education institutions. These challenges place unprecedentedly high demands on the professional competence of academic staff. At the same time, traditional forms of professional development and supervision (advanced training courses, methodological seminars, open lectures, department meetings) often prove to be insufficiently effective. They are typically built on a vertical, «top-down» model of knowledge transfer, are formalized in nature, and do not take into account the specific, individual needs of lecturers (Astremaska I., 2017).

This leads to the phenomenon of «professional loneliness», where the lecturer is left alone with complex pedagogical, scientific, or organizational problems (Stanovskykh Z., 2014).

Traditional supervision is often reduced to a control function (attending classes, checking methodological materials), which creates a stressful atmosphere and hinders open discussion of real difficulties. There is an acute need to search for and implement new, flexible, and effective formats of collegial support and self-improvement.

Analysis of recent research and publications. The issue of the professional development of higher education institution lecturers is the subject of research by many scholars (N. Beshchuk-Venherska, T. Kirichuk, O. Pyltiai, S. Sysoieva) (Beshchuk-Venherska N., 2015; Kirichuk T., 2022, pp. 12-13). However, the analysis of existing supervision models indicates the dominance of administrative-control approaches (Briukhovetska O., 2019, pp. 21-33).

Despite the growing popularity of forms such as coaching and mentoring, they do not always take into account the advantages of collegial, horizontal exchange of experience (Sydoruk I., 2019, pp. 283-289). Mastermind technology, which originates from the business environment (where it was popularized by N. Hill) and is actively researched in the West as a management and development tool (Maslach C., Leiter M., Schaufeli W., 2008), remains insufficiently studied regarding its adaptation and implementation in the educational process of higher education institutions, especially in the domestic scientific-pedagogical space.

AIM OF THE RESEARCH

The aim of the article is the theoretical substantiation and analysis of the essence, structure, and advantages of mastermind sessions as an innovative format of collegial supervision and professional self-improvement for lecturers.

The research tasks are defined as follows: to determine the essence and key principles of mastermind technology; to conduct a comparative analysis of the traditional supervision model and the mastermind format; to describe the methodology of organizing and conducting a mastermind session in the teaching environment. In addition, to determine the specific areas of application and advantages of mastermind groups in higher education institutions.

RESEARCH METHODS

To achieve the research aim and objectives, a comprehensive set of methods was employed, including: theoretical methods – general scientific (analysis, synthesis, abstraction and concretization, systematization, classification, generalization, etc.); specific scientific methods: the method of terminological analysis (which facilitated the definition of the etymology of core concepts and terms, their systemic hierarchy, and relevance); the structural method (which enabled the development of the study's framework); and logical-systemic analysis of scientific publications (which ensured the logic of the scientific inquiry for the purpose of collecting and preparing factual material, defining tasks, seeking solutions, and obtaining results); empirical methods – for the symbolic representation of research results in figures and tables and their subsequent generalization. The application of these methods ensured the fulfillment of the set tasks, the conduct of comprehensive research operations, and the formulation of theoretical propositions and conclusions.

RESULTS OF THE RESEARCH

Mastermind (from English «mastermind» – «collective mind» «outstanding intellect») is a form of group work that unites a small group (usually 5–8 people) of practitioners who meet regularly (online or offline) for the purpose of mutual support, exchange of experience, and joint search for solutions to achieve the participants' personal and professional goals (N. Hill, 1937). It is not a «complaint club» nor a formal methodological seminar (Levin Yu., 2024).

It is a structured, action-oriented format based on four key principles (see Fig. 1): confidentiality, horizontality, focus on solutions, and mutual accountability.

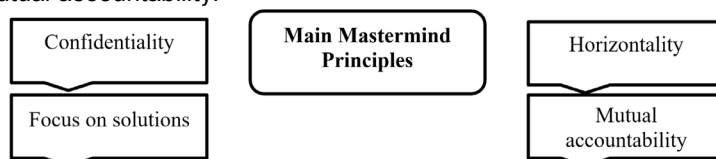


Fig. 1. Main Mastermind Principles

Confidentiality is realized through the participants' agreement that everything discussed in the group remains within it. This creates an atmosphere of absolute trust, where participants can openly speak about real problems and failures without fear of judgment or administrative consequences.



The principle of horizontality is a fundamental social contract underlying the effectiveness of formats such as the mastermind. It represents a conscious renunciation of formal and informal hierarchies for the duration and within the bounds of group work.

Horizontality is not a denial of reality. Participants understand that outside the room, the head of department holds administrative authority over the assistant. However, upon entering the group, everyone agrees to «leave their titles at the door». The roles of «head» and «assistant» are temporarily replaced by a single role – «mastermind group participant». This is the primary condition without which the format does not function.

The main goal of horizontality is to create psychological safety. This is a state in which a participant is not afraid of being punished or humiliated for expressing an idea, asking a «stupid» question, admitting a mistake, or challenging conventional wisdom (Edmondson, Harvey, 2025, pp. 614-632).

Without horizontality, an assistant will never dare to honestly criticize the idea of a Head of Department. They will worry about potential consequences for their career. The Head, in turn, will be unable to openly admit, «I don't know what to do with this problem, fearing a «loss of face» and authority.

With horizontality, a subordinate can say: «Dear manager, I see a risk in your plan...», and this is perceived as a valuable contribution rather than insubordination. The Head can say: «Colleagues, I am stuck» and this is viewed as a request to the group rather than a sign of weakness. The principle of horizontality separates the idea from the status of its holder.

In a traditional hierarchical structure, we often fall victim to the cognitive bias of «appeal to authority». We tend to attribute greater weight to an idea expressed by an «expert» or «manager» than to the same idea expressed by a «novice».

Horizontality forces the group to evaluate the idea itself on its own merits, not based on who voiced it. This leads to the disappearance of rigid «expertness» – the «expert» is not afraid to make a mistake, and the «novice» is not afraid to propose a bold solution. Furthermore, everyone has an equal right to speak and equal time for expression. The word of an assistant in the discussion carries as much weight as the word of the department head.

In our example, a young assistant likely possesses knowledge (e.g., regarding new digital tools or modern pedagogical methodologies) that an experienced head of department may lack. In a hierarchical system, the assistant often resorts to self-censorship («I better stay silent, it's not my business, I am the youngest here»).

The principle of horizontality removes this barrier and grants the group access to the full collective experience and knowledge, rather than just the experience of those at the top of the hierarchy.

Thus, horizontality is an artificially created but vital environment that temporarily eliminates power and status imbalances. This is done for one purpose: to give participants permission to be absolutely honest, vulnerable, and creative, which is the only path to finding non-trivial solutions and achieving genuine self-improvement.

Focus on solution ensures efficiency – the group does not waste time finding fault or engaging in endless problem analysis. 90% of the time is dedicated to searching for specific, practical solutions and next steps (Corcoran, Pillai, 2009, pp. 234–242).

Each participant, having received help from the group, assumes the obligation to implement the chosen action plan and reports on the results at the next meeting. This overcomes procrastination and stimulates real change.

The key difference of the mastermind lies in changing the very paradigm of supervision. While the traditional model is often an instrument of external control, the mastermind is an instrument of internal, collegial development (see Tab. 1).

The most common and effective structure of a mastermind session is the «Hot Seat» format. It is strictly regulated and allows for the most efficient use of time.

Phase 1. Presentation of the request (10–15 min). One of the participants (the «hero») takes the «hot seat». They describe their problem or challenge in detail (e.g., «I cannot get students to read primary sources», «I received a rejection from a reviewer for the third time», «I cannot find a balance between research and teaching»).

Table 1

Comparative characteristics of supervision models

Parameter	Traditional Supervision in higher education institution	Mastermind model
Goal	Control, evaluation, adherence to standards	Development, support, finding solutions
Structure	Vertical (manager → lecturer)	Horizontal (colleague = colleague)
Atmosphere	Formalism, stress, defense, evaluation	Trust, openness, confidentiality
Focus	Finding errors, analyzing the past	Finding opportunities, focus on the future
Process	«How it should have been done» (directives)	«How can it be done?» (brainstorming)
Result	Act/report, formal plan	Concrete action plan, accountability, insight

Phase 2. Clarifying questions stage (15–20 min). The group asks the «hero» questions exclusively. Advice and criticism are strictly prohibited at this stage. The questions help the «hero» understand the root of the problem deeper and see the situation from unexpected angles (e.g., «When does this problem not occur?», «What have you already tried?», «What do you feel at this moment?»).



Phase 3. Collective brainstorming (20–30 min). The «hero» stops speaking and only silently records ideas. Now, each participant shares their own experience, specific advice, contacts, and resources. This is the stage of generating the «collective mind».

Phase 4. Formulating an action plan (5–10 min). The «hero» takes the floor, thanks the group, and based on the insights and ideas received, formulates 1–3 concrete, measurable steps they commit to taking before the next meeting.

Let us consider the specifics of application and the advantages of mastermind sessions in higher education institutions. The uniqueness of masterminds lies in the fact that they can be both highly specialized (e.g., a group of associate professors from one department) and interdisciplinary (physicist, philosopher, lawyer), which enriches the discussion. Three key areas of application can be distinguished, corresponding to the three directions of a lecturer's work:

Educational-methodological work. Problem – the lecturer does not know how to adapt the course to AI challenges or how to engage passive students. Solution in the mastermind – colleagues share real, tested tools (e.g., «flipped classroom», «peer review using AI» methodology). This accelerates the implementation of innovations much faster than a formal seminar.

Scientific-research work. Problem – «publication stagnation», procrastination in writing a dissertation, grant rejection. Solution in the mastermind – the group acts as a «support group» and a «collective reviewer». Colleagues from other fields can pose «fresh» questions regarding methodology, forcing the researcher to look at their data in a new way.

Organizational-psychological work. Problem – excessive administrative load (bureaucracy, accreditation processes), professional burnout, conflicts within the department. Solution in the mastermind – this is a safe space for discussing these «uncomfortable» topics. The group helps find solutions in time management, automation of routine tasks (e.g., joint development of syllabus templates), and provides psychological support, breaking the sense of isolation.

In our opinion, it is also worth highlighting weak points or «omitted aspects». There are risks that a group of «like-minded people» will begin to suppress critical or non-standard ideas in favor of conformity; problems related to unequal levels of participants, internal conflicts, or unstructured facilitation may become active; or the group may turn into a «complaint club» or friendly gathering without a focus on concrete actions.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Mastermind sessions are an innovative, flexible, and effective technology for professional development and collegial supervision that addresses the current challenges faced by academic staff in higher education institutions.

In contrast to traditional vertical models focused on control, the mastermind offers a horizontal, trust-based, and solution-oriented approach. It shifts the paradigm from «evaluation» to «support». The methodology (the «hot seat») and key principles (confidentiality, accountability) allow the discussion of problems to be transformed into the generation of concrete, actionable solutions across the scientific, pedagogical, and organizational domains.

The implementation of mastermind groups into the practice of higher education institutions is capable of significantly accelerating innovation processes, improving the quality of teaching, reducing the level of professional burnout, and fostering a culture of cooperation and continuous self-improvement within the university environment.

Prospects for further research are seen in conducting an empirical study (pedagogical experiment) aimed at the quantitative and qualitative measurement of the impact of regular mastermind sessions on specific indicators of lecturers' professional activities (publication activity, quality of teaching indicators based on student feedback, level of professional stress), and in developing methodological guidelines for their implementation into official professional development programs within higher education institutions.

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Chapter II. HISTORICAL AND PHILOSOPHICAL ASPECTS OF PEDAGOGICAL RESEARCH

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EDUCATIONAL ASPECTS OF RESEARCHING THE TRANSFORMATION OF MOUNTAIN LANDSCAPES IN THE CONTEXT OF GLOBAL ECONOMIC DEVELOPMENT

Abstract. The relevance of studying the transformation of mountain landscapes is determined by the complex interaction of natural-geographical, social, and economic processes, which requires an integrated educational approach to develop students' comprehensive competencies. The characteristics of the mountain environment, in particular geographical isolation and demographic decline in small schools, create unique challenges for organizing the educational process. This emphasizes the need for methodological developments that take into account the specificity of mountain territories and ensure the development of ecological, spatial, and geo-economic competencies among students.

The aim of the study is to develop methodological principles for integrating the topics of the world economy and the transformation of mountain landscapes into the geography curriculum. This contributes to the effective formation of ecological, spatial, and geo-economic competencies, which are key for monitoring and rational natural resource management by local residents in mountainous areas. The study was conducted using the analysis of scientific publications, project-based activities, and a local studies approach. The local studies approach allows a deeper understanding of the local characteristics of interactions between natural and socio-economic processes, particularly in the Carpathian region, and enhances students' motivation.

Among the methodological techniques, the use of maps, remote sensing (RS), geographic information systems (GIS), and case studies was highlighted. Such a comprehensive approach ensures the integration of theoretical knowledge and practical skills. The results of the study confirmed that interdisciplinary integration of knowledge in geographical education contributes to increased learning motivation and improved research quality. Studying the educational aspects of mountain landscape transformation in the context of world economy development promotes the formation of systemic thinking and the development of integrated competencies: ecological (ability to make responsible decisions), spatial (ability to use GIS and cartographic materials), and geo-economic (understanding the impact of global processes). This format of organizing learning fosters ecological awareness and prepares students to make informed decisions in the field of sustainable development of mountain territories. The combination of world economy topics and mountain landscape transformation should become an integral part of modern geographical education.

Keywords: mountain landscape transformation, world economy, ecological competence, educational process, spatial competence, geo-economic competence, interdisciplinary projects, education for sustainable development.



ОСВІТНІ АСПЕКТИ ДОСЛІДЖЕННЯ ТРАНСФОРМАЦІЇ ГІРСЬКИХ ЛАНДШАФТІВ У КОНТЕКСТІ РОЗВИТКУ СВІТОВОГО ГОСПОДАРСТВА

Анотація. Актуальність дослідження трансформації гірських ландшафтів обумовлена складною взаємодією природничо-географічних, соціальних та економічних процесів, що потребує інтегрованого освітнього підходу для формування комплексних компетентностей здобувачів освіти. Особливості гірського середовища, зокрема географічна ізольованість та демографічний спад у малочисельних школах, створюють унікальні виклики для організації освітнього процесу. Це посилює потребу в методичних розробках, які б враховували специфіку гірських територій та забезпечували розвиток екологічної, просторової та гео економічної компетентностей здобувачів освіти.

Метою дослідження є розробка методичних засад інтеграції тематики світового господарства та трансформації гірських ландшафтів у навчальну програму з географії. Зазначене сприяє ефективному формуванню екологічної, просторової та гео економічної компетентностей, які є ключовими для моніторингу та раціонального природокористування гірських територій місцевими жителями. Дослідження проводилось із застосуванням аналізу наукових публікацій, проектної діяльності та краєзнавчого підходу. Краєзнавчий підхід дозволяє глибше зрозуміти локальні особливості взаємодії природних і соціально-економічних процесів, зокрема в умовах регіону Карпат та посилює мотивацію здобувачів освіти. Серед методичних прийомів також виділено використання карт, дистанційного зондування Землі (ДЗЗ), геоінформаційних систем (ГІС) та кейс-методів. Такий комплексний підхід забезпечує інтеграцію теоретичних знань і практичних навичок. Результати дослідження підтвердили, що міждисциплінарна інтеграція знань з географічної освіти сприяє посиленню навчальної мотивації та підвищенню якості дослідницької діяльності. Вивчення освітніх аспектів дослідження трансформації гірських ландшафтів у контексті розвитку світового господарства сприяє формуванню системного мислення й розвитку інтегральних компетентностей: екологічну (здатність приймати відповідальні рішення), просторову (уміння використовувати ГІС та картографічні матеріали) та гео економічну (розуміння впливу глобальних процесів). Такий формат організації навчання розвиває екологічну свідомість і формує готовність до прийняття обґрунтованих рішень у сфері сталого розвитку гірських територій. Поєднання тематики світового господарства та трансформації гірських ландшафтів має стати складовою сучасної географічної освіти.

Ключові слова: трансформація гірських ландшафтів, світове господарство, екологічна компетентність, освітній процес, просторова компетентність, гео економічна компетентність, міждисциплінарні проекти, освіта для сталого розвитку.

INTRODUCTION

The Problem Formulation. The transformation of mountain landscapes in the context of the development of the global economy is a multidimensional process that combines natural-geographical, ecological, social, and economic factors. The specificity of mountain territories creates particular challenges for the educational process, especially in small rural schools, which are affected by demographic decline, the mono-functionality of the economy, and geographical isolation. The lack of interdisciplinary integration of knowledge limits the development of competencies necessary for the sustainable development of mountain regions. These factors highlight the need for methodological materials that take into account the specificity of mountain territories, promote the development of research and project skills, and improve the digital literacy of students and teachers. Low motivation to study complex interdisciplinary topics also reduces students' access to modern knowledge and technologies.

Research on the transformation of mountain landscapes in the context of global economic development opens new perspectives for integrating knowledge in natural sciences, economics, and education, enabling the training of competent specialists capable of adequately responding to modern ecological and socio-economic challenges. Existing studies provide a solid knowledge base regarding the processes occurring in mountain landscapes and the methods to monitor these transformations.

Аналіз останніх досліджень і публікацій. Theoretical, methodological, and educational aspects of mountain landscape research have been addressed by Ukrainian scholars such as V. Armand, O. Beydyk, P. Maslyak, I. Pistun, V. Petlin, S. Pichura, M. Fashchevskyi, and others. Issues of anthropogenic transformation of mountain geosystems in the context of sustainable development have been explored by O. Molchak, M. Kovalenko, T. Lavruk, I. Kovalchuk, L. Shevchuk, and others. Educational and methodological approaches to studying mountain territories and developing geo-ecological thinking in students have been proposed by N. Herasymenko, V. Plakhotnik, I. Samoylenko and M. Stadnytskyi.

Overall, modern research in the field of geographical education is gradually shifting from purely natural science approaches toward interdisciplinary ones, encompassing educational, ecological, and economic aspects of mountain landscape transformation in a globalized world.

AIM OF THE RESEARCH

The aim of this study is to develop methodological foundations for integrating the topics of the global economy and mountain landscape transformation into the curriculum for the effective development of ecological, spatial, and geo-economic competencies.

RESEARCH METHODS

In the study of mountain landscape transformation in the context of global economic development, a comprehensive methodological approach was applied, combining the analysis of current scientific publications with a range of practice-oriented tools.

РЕЗУЛЬТАТИ ДОСЛІДЖЕННЯ



Global economic processes significantly influence the transformation of mountain landscapes through changes in socio-economic structures and the intensity of natural resource use. Mountain territories remain socially, economically, and ecologically vulnerable areas, where landscape changes are unique due to specific climatic conditions and topography. Economic factors determine not only the use of natural resources but also the socio-cultural development of local communities, requiring balanced approaches to preserve the sustainability of mountain ecosystems and landscapes. Thus, the interaction of global economic processes and changes in mountain landscapes represents an interplay of economics, ecology, and social spheres, shaping current trends in the development and transformation of these unique natural complexes.

The study of mountain landscapes allows the identification of patterns in their formation, structure, functioning, and changes under the influence of economic activity, providing a basis for developing theoretical models and practical recommendations for rational resource use and environmental protection. The educational aspect involves integrating this knowledge into curricula to prepare specialists with a systemic understanding of modern ecological and socio-economic challenges in mountain territories. Such education is essential for developing skills in landscape monitoring, the use of geographic information systems (GIS), and the implementation of sustainable approaches to natural resource management, making mountain landscapes an important topic in contemporary geographical and landscape education (Nadtoka O., 2018).

At this stage, it is crucial to study the educational aspects of mountain landscape transformation research, considering the impact of global economic development. Focus should be placed on revealing patterns of landscape changes under global economic processes and developing a systematic approach to their monitoring and management in the educational process. In this study, we focus on:

- Analysis of the impact of global economic trends on the transformation of mountain natural complexes;
- Formulation of recommendations for implementing educational approaches and methods for studying mountain landscapes in curricula;
- Identification of key aspects of developing students' competencies in monitoring and rational use of mountain territories.

The transformation of mountain landscapes is a process of changing their natural structure and functioning under the influence of anthropogenic and natural factors. In mountain regions, these processes are unique due to specific climatic, topographical, and ecosystem characteristics, which determine their increased vulnerability and the importance of controlling changes for rational resource use and environmental preservation (Telish P., 2014).

Mountain landscapes are unique natural-territorial complexes with vertical differentiation of environmental conditions and high sensitivity to economic activity. Global economic integration, intensive exploitation of natural resources, and the development of infrastructure, tourism, and agriculture cause profound transformations in these landscapes, altering their ecological status, structure, and functional properties (Plaskalnyi V. 2016).

The influence of the global economy on the spatial-temporal dynamics of mountain landscapes is manifested through several key types of economic activities that drive significant transformations: urbanization in mountain areas, tourism, agriculture, forestry, and energy. These processes occur under globalization and the increasing integration of the global economy, forming new spatial and temporal vectors of mountain landscape dynamics. The educational aspect of these changes lies in the necessity to study these processes for effective monitoring, forecasting, and rational management of natural resources and territorial development in mountain regions within a global context (Zvorych I., & Zvorych O., 2022).

Methods for assessing the socio-economic vulnerability of mountain territories include a comprehensive approach that combines quantitative and qualitative analysis: statistical analysis of socio-economic indicators, spatial analysis using GIS and digital elevation models (DEM), social vulnerability indices, expert assessments and sociological surveys, systems analysis methods, and scenario modeling of socio-economic development. These methods are applied comprehensively and adapted depending on the research goals and the specifics of mountain territories, ensuring a thorough assessment of vulnerability for sustainable development planning and risk management (Monynets V., 2022). The impact of the global economy on natural resource use in mountain areas is significant and multifaceted. Mountain regions cover over one-fifth of the Earth's surface and are home to a large portion of the population, while also possessing unique biodiversity and important natural resources. The global economy affects mountain regions through:

Intensification of the use of natural resources – water, forest, and mineral resources which often leads to ecosystem degradation, loss of biodiversity, soil erosion, landslides, and floods.

Development of tourism, which provides economic benefits but exerts pressure on natural systems through infrastructure load and landscape alteration.

Globalization and market changes, leading to the transformation of local types of economic activity, including the decline of traditional, intensive, or unsustainable agriculture.

Climate change, amplified by global economic processes, affects the water balance and natural cycles in the mountains, with long-term consequences for resource management.

International policies and agreements aimed at preserving mountain ecosystems and promoting sustainable development, whose effectiveness depends on integration into local resource management.



Thus, the global economy defines both opportunities and challenges for mountain regions, requiring balanced approaches to resource use that consider ecological, social, and economic aspects to ensure the sustainable development of mountain territories (Relevance of the Development of Mountain Regions, 2025).

This topic allows the integration of knowledge from physical geography, ecology, socio-economic geography, and landscape studies, contributing to the preparation of competent specialists capable of effectively assessing environmental risks and developing strategies for the sustainable development of mountain regions. The educational process based on this topic is enriched with practical examples of the interconnection between global economic processes and regional natural transformations, addressing contemporary challenges of the global economy and ecological safety, while fostering the development of relevant competencies (Table 1).

In school education, this topic is integrated into sections covering physical geography, ecology, and global economy, helping students develop a systemic understanding of the interaction between humans and nature, current global challenges, and the specific features of mountain region development. It promotes the development of ecological awareness, spatial thinking skills, and understanding of the impact of global economic processes on the natural environment.

Table 1

Competencies Developed During the Study of Mountain Landscape Transformation

Competence	Components	Expected Results
Ecological	Analysis of environmental problems; responsible resource use	Understanding threats and making ecologically justified decisions
Spatial	Cartography, GIS, remote sensing (RS), spatial data analysis	Ability to work with maps; perform basic geo-analysis
Geo-economic	Understanding global economic processes	Awareness of the impact of the global economy on regional development
Research	Project-based approach; case study methods	Development of skills in analysis, synthesis, and information evaluation

The integration of knowledge from socio-economic and physical geography, ecology, and landscape studies is a necessary condition for a comprehensive understanding of mountain landscape transformation and sustainable resource management.

An integrated approach ensures a thorough analysis of mountain landscapes, the development of sustainable resource use models, territorial development forecasting, and effective decision-making. An educational process based on such integration fosters systems thinking and skills in students and specialists for work in sustainable development, ecological monitoring, and mountain territory planning (Shevchuk L. & Herasymchuk O. 2024).

Table 2 presents methodological techniques that can be used in the study of mountain landscape transformation. The study of mountain landscape transformation in the context of global economic development can be addressed through topics such as “Introduction to Mountain Landscapes: Natural Features and Human Impact”, “Global Economic Processes and Their Impact on Mountain Ecosystems”, “Use of Remote Sensing and GIS in Mountain Landscape Monitoring”, and case studies like “Environmental Challenges in Mountain Regions and Ways to Overcome Them”. These topics combine theoretical knowledge with practical skills, contributing to the development of students’ ecological, spatial, and geo-economic competencies, which aligns with contemporary educational standards.

Table 2

Methodological Approaches in the Study of Mountain Landscape Transformation

Methodological Tool	Educational Function	Practical Application in Secondary Education Institutions
Cartographic Method	Visualization of changes and structures	Creating maps, analyzing relief and landscapes
Remote Sensing (Satellite Images)	Monitoring changes	Identifying deforestation, landslides, urbanization
GIS	Spatial modeling	Building digital models of the terrain
Case Methods	Analysis of real situations	Examination of local ecological problems



Project-Based Activities	Formation of research skills	Creating student projects: "Transformation of the Carpathians"
Local Studies Approach	Motivation and local research	Field studies, interviews, terrain mapping

Interdisciplinary educational projects on the transformation of mountain landscapes promote the integration of knowledge from geography, ecology, economics, social studies, and other disciplines. Examples of such projects include: "Globalization and the Carpathians," "Tourism and Landscapes," and "Energy and Mountain Nature" (Melesko V., 2003).

The use of a local studies (*kraieznavchyi*) approach in studying the transformation of mountain landscapes in the Ivano-Frankivsk region is particularly significant, as it allows for a deeper understanding of the local characteristics of the interaction between natural and socio-economic processes. Through this approach, students can analyze specific cases of landscape changes in their area, such as: the impact of tourism development in the Carpathians on vegetation and soils; the consequences of agricultural and forestry activities; manifestations of erosion, landslides, and changes in the hydrological regime in the region (Chervinska I., 2020).

This approach includes field research, working with local maps and historical data, and conducting interviews with residents, which contributes to the development of students' spatial, ecological, and socio-economic competencies. It also enhances motivation through a direct connection to their native region and develops skills for comprehensive analysis of landscape transformations within the regional context, which is an important component of sustainable development in Ivano-Frankivsk.

Education for Sustainable Development serves as the foundation for harmonizing the interaction between human activity and nature, especially in mountain regions such as the Carpathians. It aims to foster in students a holistic understanding of the ecological, economic, and social aspects of sustainable natural resource management. This type of education develops young people's skills for responsible resource use, critical thinking, and the ability to make balanced decisions that consider both nature's and humans' needs. In the mountain regions of Ukraine, particularly in Ivano-Frankivsk, education for sustainable development incorporates an interdisciplinary approach, the use of local studies examples, and modern methods for analyzing landscape transformation.

Legislative and strategic documents, as well as the experience of European programs ("Alpine Space"), emphasize the necessity of integrating education for sustainable development into national and regional policies. This contributes not only to the protection of natural resources but also to socio-economic development, the preservation of cultural heritage, and the improvement of quality of life.

CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Geographical education is influenced by demographic changes, declining interest in the exact sciences, and the need to update curricula. Addressing these challenges is possible through the modernization of teaching methods, the development of digital literacy, and the implementation of project-based approaches. Studying the transformation of mountain landscapes is crucial for understanding the interaction of natural, socio-economic, and ecological processes and for developing ecological and spatial competencies. A regional approach deepens the understanding of local changes and motivates students to explore their native region.

Combining topics of global economy and mountain landscape transformation fosters a systemic understanding of global and local challenges, helping students recognize the impacts of urbanization, tourism, industry, and ecological changes. Such an integrated educational approach develops ecological awareness and competence in future specialists. Adapting global trends to local conditions makes geographical education modern and practically oriented.

The prospects for further research on the educational aspects of studying mountain landscape transformation in secondary education institutions are driven by the need to deepen the interdisciplinary approach and strengthen the practical orientation of school geography education. A promising direction is the development of innovative educational technologies that combine the use of GIS, remote sensing, interactive maps, and digital platforms for monitoring changes in mountain landscapes. This will allow students to develop spatial, ecological, and geo-economic competencies at a new qualitative level.

Future research should focus on creating educational and methodological materials that adapt complex global processes to students' age capabilities and consider the specific features of mountain regions, particularly the Carpathians. It is also relevant to develop models for integrating the local studies approach into the school geography curriculum, allowing students to study transformation processes using examples from their native region, thereby enhancing motivation and research activity.

Equally important is the assessment of the effectiveness of interdisciplinary educational projects that combine geography, economics, biology, ecology, and social sciences. Such projects contribute to forming a comprehensive understanding of contemporary challenges related to the transformation of mountain landscapes in a globalized economy.



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LIANG QICHAO'S VIEWS ON THE DEVELOPMENT OF PEDAGOGICAL EDUCATION IN CHINA

Abstract. This article explores the historical and philosophical development of teacher education in China, with a particular focus on Liang Qichao's contributions. It begins by highlighting China's long tradition of valuing education, from ancient teachings to modern reforms, noting the pioneering work of educators like Kong Qiu and Han Gui. However, it was Liang Qichao who first formalized teacher training in the late Qing Dynasty. His 1896 publication «On Teacher Training» laid the foundation for establishing teacher training colleges in China, addressing both the inadequacies of the existing system and the essential need for reforms to cultivate high-quality educators. This reform, rooted in his patriotism and desire to strengthen China, aimed at improving teacher qualifications and instilling moral and intellectual values in educators.

The article further delves into the core of Liang Qichao's teacher education philosophy, emphasizing his vision of a specialized, multi-tiered teacher education system. Liang proposed a comprehensive, three-level educational structure consisting of normal teacher training schools, higher teacher training schools, and teacher training universities. He stressed the importance of teacher quality and believed that education should aim to produce "new people" who could adapt to the changing needs of society. His notion of "new people" was a blend of traditional Chinese values and Western ideals, aiming to foster a generation of well-rounded, morally upright citizens capable of contributing to national progress.

The article examines Liang's curriculum proposal for teacher education, which blended both Chinese and Western educational practices. Liang advocated for a curriculum that incorporated classical Chinese learning, Western scientific knowledge, and practical teaching methods. He emphasized the need for teachers to foster individuality in students, encourage critical thinking, and connect education with societal needs. His progressive views on teacher training marked a significant shift in Chinese education, shaping the trajectory of teacher education institutions in the country.

Keywords: Liang Qichao, chinese teacher education, higher education, teacher training, youth education.

ПОГЛЯДИ ЛЯН ЦІЧАО НА РОЗВИТОК ПЕДАГОГІЧНОЇ ОСВІТИ В КИТАЇ

Анотація. У статті розглядаються історичний та філософський розвиток педагогічної освіти в Китаї з акцентом на внеску Лян Цічао. Вона починається з наголошення на давній традиції пошанування освіти в Китаї: від стародавніх учень до сучасних реформ, підкреслено новаторську діяльність таких мислителів і педагогів, як Конг Цю та Хан Гуй. Однак саме Лян Цічао наприкінці династії Цін уперше офіційно започаткував підготовку вчителів. Його публікація 1896 року «Про підготовку вчителів» заклала основу для створення педагогічних коледжів у Китаї, у ній увиразнено як недоліки чинної системи, так і необхідність реформ для підвищення якості освіти. Ця реформа, зумовлена патріотизмом Лян Цічао і його прагненням зміцнити Китай, була спрямована на підвищення кваліфікації вчителів і впровадження моральних та інтелектуальних цінностей у підготовку педагогів.

У статті також докладно розглядається педагогічна філософія Ляна Цічао, підкреслено його бачення спеціалізованої багаторівневої системи педагогічної освіти. Учений запропонував комплексну трирівневу структуру освіти, що включала нормальні педагогічні школи, вищі педагогічні школи та університети для підготовки вчителів. Розкрито важливість якості освіти вчителів та необхідності адаптуватися до змінюваних потреб суспільства. Наголошено на концепції «нових людей» та поєднанні традиційних китайських цінностей і західних ідеалів, спрямованих на виховання покоління всебічно розвинених, морально стійких громадян, здатних сприяти національному прогресу.

У статті проаналізовано ідеї вченого щодо навчальної програми для педагогічних закладів, що поєднували китайські й західні освітні практики, Лян Цічао виступав за програму, що включала класичні китайські знання, західну наукову освіту та практичні методи викладання. Виокремлено ідеї Ляна Цічао щодо необхідності виховання індивідуальності в учнів, стимулювання критичного мислення, взаємозв'язку освіти із потребами суспільства, новаторські погляди на підготовку вчителів, що стали значним поштовхом для розвитку педагогічної освіти в Китаї.

Ключові слова: Лян Цічао, китайська педагогічна освіта, вища школа, підготовка вчителя, виховання молоді.

INTRODUCTION

The problem formulation. Education is the basis for a hundred years of planning. Since ancient times, China has attached great importance to the development of education, stressing the important position of teachers, many educators in their educational theories have discussed the teacher's moral character, teacher's watch and other teacher's way, and put forward the method of teaching, such as Kong Qiu advocated the "teaching without class", "learning by applying", Han Gui wrote "Teacher Says" article. The teacher said" a text, and so on.

Analysis of recent research and publications. However, the first educator in history to specifically address the issue of training teachers through specialised institutions was Mr. Ren Gong Liang Qichao. «On Teachers' Training» was a great work published by Liang Qichao in 1896, which was devoted to the issue of teachers' training, laying the ideological foundation for the development of teachers' training in China and influencing the opening of teachers' training colleges in the later generations. Various aspects have been studied by Liang Qichao (1999), Zhang Xuemei, Zhao Xinghui (2023), Liang Qichao (1998), An Zunhua (2014), Liu Min (2018), Zeng Fanyan (1991), Huang Minlan (2003), Zheng Chunkui (2008), Wei Yixia (2016).

AIM AND TASKS RESEARCH

This article explores the historical and philosophical development of teacher education in China, with a particular focus on Liang Qichao's contributions.

RESEARCH METHODS

In the process of research, theoretical methods of scientific search were used: analysis, synthesis, generalization of scientific sources, educational and methodological literature, normative educational documents.



RESULTS OF THE RESEARCH

The Origin of Liang Qichao's Ideas on Teacher Education. Liang Qichao's understanding of the purpose and significance of teacher education has improved and deepened in a new and higher level. He positioned teacher education as "the foundation of all schools", and in 1986, he published an article entitled "On Teacher Education in the Context of Changing the Law", which was the first time in the history of Chinese education that a special article was devoted to the issue of teacher education. In "On Teacher Education", Liang Qichao pointed out that "the rise of a nation lies in the rise of learning, and the rise of learning depends on teachers". Teachers are God in the minds of students, and their moral writings have a great influence on students, and they also had a great influence on the Chinese education sector at that time. Liang Qichao had already realised that the role of teachers was pivotal. To raise the role of teachers to a new level and role, the ability, quality, learning, morality, as well as the character of teachers are among the important factors affecting education at present. Whether at the level of the society, at the level of the school, or from the teachers and the students themselves, the strong role of teachers in education should be emphasized (Liang Qichao, 1999).

However, in the context of Chinese society at that time, faced with the heavy pressure of internal and external problems, many teachers simply did not achieve the quality of teaching and educating people, as well as the level of knowledge, morality and culture that should be possessed, in which, although there is no lack of a number of outstanding talents, but most of them are indiscriminately, therefore, in the context of the Chinese teachers of varying levels of quality, indiscriminately, Western teachers and there are all kinds of confusions and problems. Under the domestic background of the time, Liang Qichao put forward the reform of Chinese education, must pay attention to

Teacher training, teacher training needs to develop teacher training schools, teacher education, and therefore put forward: "want to reform the old habits, the rise of wisdom, must be the establishment of teacher training colleges for the first sense (Zhang Xuemei, 2023).

Therefore, the issues of strengthening the role of teachers, improving their qualifications, changing the problems and confusions of foreign teaching, as well as improving the standard of teachers became the reason and ultimate aim of teacher education! Therefore, Liang Qichao proposed the reform of founding teacher training colleges in China.

The introduction of teacher training as a system in China was made possible by the two books written by Huang Zunxian in the 1880s, *Nihon Kokushi - Academic Journal*, and *Nihon Miscellany Poems and Wide Notes*. However, neither Huang Zunxian himself nor any other educational thinker realised the importance of teacher training, and no one proposed the development of teacher training and the founding of teacher training schools in their own countries (Liang Qichao, 1998). It was not until 1896 that Liang Qichao, in his attempt to reform education, formally put forward the idea of establishing teacher training in China for the first time, and published an article in the *Times* on "Changing the Law - On Teacher Training", which was devoted to the shortcomings of the traditional education system and the importance and necessity of establishing teacher training. Liang Qichao's idea of teacher education was put forward against the objective background of the society at that time and his own patriotic sentiments and educational ideals were inseparable (An Zunhua, 2014).

The impetus for the formation and development of Liang Qichao's ideas on teacher education came from his passionate patriotic fervour and his sense of national responsibility to "take the prosperity and demise of the world as his own responsibility". This strong patriotic feeling drove him to actively explore new ways of enriching the country and strengthening the people, and to form the progressive proposition that education should be used as a means of promoting teacher training and rescuing the country.

The Connotation of Liang Qichao's Ideas on Teacher Education. The idea and practice of teacher education first emerged in France in the 17th century, and the teacher education system was first formed in France, Germany, the United States, Japan and other countries in the following two centuries. During the late Qing Dynasty, some enlightened Chinese scholars began to reflect on the causes of China's decline in the light of the advantages of the Western powers, and some scholars, such as Huang Zunxian, talked about the Western teacher education system, but there was a lack of systematic discussion. The formation of the old Chinese teacher education thought, mainly from Liang Qichao for the realization of the dream of a strong country and China's domestic and international situation of profound analysis, he is a broad view and about the take, thick and thin, written and published in the history of modern Chinese education for the first time in China, a more systematic and dedicated to the discussion of China's teacher training issues in the monumental work - "Changing Laws and General Discussions on teacher training".

(I) Formulation and Characteristics of the Normal Education System

The two earliest teacher-training schools in China, the Nanyang Public School Teachers' College (1897) and the Normal Hall of the Peking University Hall (1902), were strictly speaking only a department of the academy, not an independent school. Looking at the current situation of teacher education in China, in 1902, Liang Qichao suggested imitating the Japanese school system in the *Private Discussion on Educational Policies*, and drew the Table of Educational System alone, highlighting the teacher education system.

First, the formulation of the three-tier teacher education system. Liang Qichao specially drew up a three-tiered and more complete teacher education system. The first tier was a normal teacher training school equivalent to a secondary school, with three or four years of study; the second tier was a higher teacher training school, equivalent to a university school, with four years of study; and the third tier was a teacher training university, the same as a



university college, with free research during the training period and no restriction on the number of years of study. The third level is the teacher training university, which is the same as the university college, and during the period of study, students are free to study for as many years as they like. Moreover, each level of school trains teachers for various types of schools at all levels, with the normal teacher training schools training teachers for primary schools, the higher teacher training schools training teachers for secondary schools, and the teacher training universities training teachers for the universities or teachers from the other two teacher training schools.

Secondly, the characteristics of Liang's teacher education system. In this Table of Education System, on the one hand, teacher education was included in specialised education, which was more complete in the whole education system and had its own independent system. Teacher education had a higher status, for example, teacher training universities had an equal status with colleges. On the other hand, teacher education was divided into different levels, each level had its own academic year, and each level was connected to each other and progressed step by step, reflecting the objective law of educational development. At that time, the teacher education system in Japan was divided into two levels: the General Normal School and the Higher Normal School. The General Normal School recruited graduates from primary and secondary schools and trained teachers for primary schools; the Higher Normal School trained teachers for secondary schools and the General Normal School. From this, it can be seen that Liang Qichao, in the light of his own country's situation, made some modifications while following the Japanese teacher training system, and added the level of teacher training university to the level of higher teacher training in Japan, which demonstrated the great importance Liang Qichao attached to teacher training, and at the same time expressed his higher expectations for the quality of teacher training, hoping to train a group of outstanding teachers in teacher training schools and to ensure the quality of teachers through teacher training.

By comparing Liang Qichao's "Table of Educational System" and the "Imjin School System" promulgated by the Qing government, it can be found that Liang Qichao divided the teacher education system into three levels, and in the "Imjin School System", teacher education was divided into two levels, namely, Teacher Training Hall and Teacher Training Hall, and the teacher training school was included in the school system but not independent. In the "renyin school system", teacher education was divided into teacher training colleges and teacher training centres, and although teacher training colleges were included in the school system, they were not independent, and the highest level of teacher training colleges was equivalent to the second level of higher teacher training colleges classified by Liang Qichao (Liu Min, 2018).

Liang Qichao independently drew this "Table of Educational System", although it is the product of imitating the educational system of advanced countries, but before him, there is no other educator so systematically and comprehensively discusses the educational system, let alone in the educational system of the teacher education in such an important position. This is unparalleled by any other educator before him.

A View of the Purpose of Teacher Education with the New People as its Goal

As the first educator in the history of modern education in China to specifically discuss the need for education to have a correct goal, Liang Qichao's view of the purpose of education was formed inseparably from his ideal of education to save the country. In particular, Liang Qichao's discussion of the role and purpose of teacher education reflects his view of the purpose of teacher education as the goal of the new people.

1. The Formation of the Goal of "New People"

Liang Qichao's views on the purpose of teacher education can be divided into two stages. Firstly, during the period of the Restoration and Reform of China, Liang Qichao put forward the view of the purpose of teacher education as "the doctrine of politics and science", in which he hoped to create a team of teachers with new ideas and knowledge of the western political and management systems, so as to enable these "new teachers" to play an important role in school education. He hoped to create a team of teachers with new ideas and knowledge of western political and management systems, so that these "new teachers" could play a guiding role in school education and train a new group of political management talents. In the second stage, after the failure of the Reform, Liang Qichao realised that the goal of saving China could not be accomplished by training only a small number of political talents. Therefore, from the perspective of the whole social group, he proposed that teacher training should produce "new people" with the qualities of national ideology, public morality, aggressiveness, autonomy, unity, public morality, and martial arts. What is a new people? Liang Qichao that "the meaning of the new people are two: one said that the quenching force of its original and new. Second, it is said to adopt its original no and new. Without one of the two, the time is no work." That is, on the one hand, to promote the Chinese people for thousands of years in the accumulation of traditional culture in the essence of the part, and constantly update and reform, and abandon its backward things; On the other hand, is to continue to learn from foreign advanced culture, make up for the shortcomings of our culture, to help transform the Chinese people's national character, so that they become new national to adapt to the needs of the new era. Liang Qichao's idea of the qualities of such new nationals would be branded with the characteristics of both traditional Chinese culture and western culture. In other words, the new nationals that Liang Qichao wanted to cultivate were the combination of the eastern "gentleman" and the western "citizen"

2. The Importance of the Quality of "New People" (Zeng Fanyan, 1991).

Liang Qichao emphasised that teacher training colleges should pay special attention to shaping the personalities of teacher trainees. Teacher-training students, both as students of teacher-training colleges and as future teachers, had



to make themselves "new citizens" and to teach others to become "new citizens". Therefore, Liang Qichao took "new people" as the purpose of teacher training, emphasised that the quality of "new people" was essential for teacher trainees, and encouraged teacher trainees to be clear about their duties, "to take the world as their own", to study hard, and to seek their own personality. He encouraged the teacher trainees to be clear about their duties and to "take the world as their own", to study hard, to seek perfection in their personalities, and to seek to establish themselves as human beings. At the same time, he attached great importance to the all-round development of teacher trainees, and called upon them to cultivate their wisdom, experience their personality, and protect their free will. The "Sayings of Young China" is a work of Liang Qichao expounding his thoughts on youth education, in which he puts forward the important role of the youth in the wisdom of the nation, the wealth of the nation, the strength of the nation, the independence of the nation, the freedom of the nation, and the progress of the nation, and expresses the importance he attaches to and the expectation of the education of the young students. But ask, how can a teenager be wise? How can a teenager be independent? School education occupies an important position in the three major education systems and is crucial to the training of young people, while teachers are the key to youth education. Therefore, only teachers with the quality of "new people" can produce students with the new people's ideas, so that "if teachers are wise, young people will be wise, and if teachers make progress, young people will make progress".

(III) Xing Zhi Xue's View of Teacher Training Curriculum

At the end of the Qing Dynasty, the curriculum of traditional school education was mostly set up to adapt to the imperial examinations, and the content of the curriculum was based on the Four Books, the Five Classics, and the Chen-Zhu School of Reasoning. Liang Qichao's view of the teacher education curriculum came from his understanding of foreign teacher education programmes and his own educational insights.

1. Curriculum Content of Learning from China and the West

Because modern China lacked experience in teacher education, Liang Qichao advocated that teacher education initiatives should actively learn from foreign practices. He believed that the curriculum of teacher education was the key, and that the reason why Western education only learnt the skin of the West was because of the improper curriculum. Liang Qichao's thinking on how to set up the content of the teacher education programme was mainly based on the experience of Japanese teacher education. He learnt that the Japanese teacher training curriculum was very rich and comprehensive, covering dozens of courses such as teacher ethics, teaching methodology, subject knowledge and practical crafts. So should the curriculum of Chinese teacher education be set up in the same way? Liang Qichao believed that the curriculum of teacher education should depend on the national conditions of each country, so he did not copy the Japanese curriculum, but according to the national conditions of our country, follow the principle of "slightly according to its system and improve", reduce some of the contents that are not suitable for the Chinese national conditions, and increase the current curriculum. He drew up a complete outline of the curriculum of the teacher training school, including the six classics, the speciality of Gezhi, the history of the past dynasties, the situation of the countries, the origin of the characters and the characters of the countries of the six major categories. This six-category curriculum reflects that Liang Qichao took traditional education as the basis and expanded the teacher education programme to include the study of Western scientific and technological knowledge and the knowledge of other languages. The purpose of such a programme was to enable teacher trainees to learn from both the East and the West, and to learn from both the past and the present, so as to benefit the society. In addition, Liang Qichao, as the first modern educator to discuss teaching materials and methods, believed that teacher training classes should offer courses on teaching methods and "the way of teaching". Therefore, Liang Qichao had very high requirements for the courses offered to teacher training students, not only focusing on both basic and professional courses, but also emphasising the importance of teacher training.

2. Combination of Chinese and Western curriculum organisation

In the method of teaching organisation and implementation, Liang Qichao advocated the introduction and creative use of western teaching materials and methods, as well as the absorption of positive traditional teaching experience. For example, he highly praised the excellence of the "Records of Learning" in expounding educational principles and teaching methods. "The Record of Learning is a piece that talks about the teacher training school." Liang Qichao put forward several ideas for the organisation and implementation of the curriculum of the Teachers' Training College, one being that teaching should be gradual and promote individuality. Learning from near and far, gradually expanding horizons, schools, teachers, students, all three are human relationships, so that everyone can show their own strengths, to give full play to their personal potential; Second, teaching should be good to start the heavy guide, teaching in a fun way.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Teachers should guide the students according to the situation, and pay attention to the guidance of the learning method and the cultivation of students' self-learning ability, so that the students are willing to learn and more innovative. Thirdly, teaching should be combined with school and society, and learning should be applied. Liang Qichao emphasised that "school and society can never be separated", and that students should focus on the combination of learning, thinking, practising and acting, and encourage students to discuss social issues with each other. In particular, he believed that teacher trainees should set up the correct concept of serving the society, and after graduation, they should still regard themselves as students and never abandon the knowledge and skills learnt in school.



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PEDAGOGICAL CONDITIONS FOR DEVELOPING DIGITAL COMPETENCE OF FUTURE IT SPECIALISTS IN VOCATIONAL COLLEGES THROUGH STEAM TECHNOLOGIES

Abstract. The article substantiates the pedagogical conditions for developing the digital competence of future IT specialists in professional colleges through STEAM technologies. It shows that the rapid digitalization of society, and the IT sector in particular, creates the need to train specialists capable of effectively applying digital tools, modeling technological processes, working with data, and creating innovative products. It is determined that digital competence has a multidimensional structure that includes cognitive, technological, communicative, project-based, artistic, and ethical components, whose development becomes possible through the targeted integration of STEAM technologies into professional training.

The article reveals the content of five pedagogical conditions: motivational and value-based support of professional training; activation of independent learning activities through innovative forms and methods; integration of STEAM technologies into the curriculum to develop algorithmic, engineering, systemic, and design thinking; creation of a modern STEAM-oriented educational environment; implementation of a system for diagnostics, monitoring, and reflective-analytical support of digital competence development. It is proven that the implementation of these conditions ensures a practice-oriented character of learning, strengthens learners' intellectual autonomy, promotes their ability for innovative activity and professional mobility, enables the integration of engineering, IT, and design solutions, and ensures a high level of readiness for work in multidisciplinary teams.

The conclusion highlights that the systemic integration of STEAM technologies into professional education forms a strong foundation for preparing competitive IT specialists capable of acting effectively in a dynamic digital environment.

Keywords: digital competence; STEAM technologies; STEAM education; professional training of IT specialists; professional college; digital transformation; pedagogical conditions; digital educational environment; learner; design; artistic competencies.

ПЕДАГОГІЧНІ УМОВИ ФОРМУВАННЯ ЦИФРОВОЇ КОМПЕТЕНТНОСТІ МАЙБУТНІХ ФАХІВЦІВ ІТ-ГАЛУЗІ В ПРОФЕСІЙНИХ КОЛЕДЖАХ ЗАСОБАМИ STEAM-ТЕХНОЛОГІЙ

Анотація. У статті обґрунтовано педагогічні умови формування цифрової компетентності майбутніх фахівців ІТ-галузі в професійних коледжах засобами STEAM-технологій. Показано, що стрімка цифровізація суспільства й ІТ-сфери зокрема зумовлює потребу в підготовці фахівців, здатних ефективно застосовувати цифрові інструменти, моделювати технологічні процеси, працювати з даними та створювати інноваційні продукти. Визначено, що цифрова компетентність має багатовимірну структуру й охоплює когнітивні, технологічні, комунікативні, проєктні, мистецькі й етичні компоненти, розвиток яких можливий за умови цілеспрямованого впровадження STEAM-технологій у професійну підготовку.

Розкрито зміст п'яти педагогічних умов: мотиваційно-ціннісного забезпечення професійної підготовки; активізації самостійної навчальної діяльності через інноваційні форми й методи; інтеграції STEAM-технологій у зміст навчання для розвитку алгоритмічного, інженерного, системного та дизайн-мислення; створення сучасного STEAM-орієнтованого освітнього середовища; впровадження системи діагностики, моніторингу та рефлексивно-аналітичної підтримки розвитку цифрової компетентності. Доведено, що реалізація цих умов забезпечує практико орієнтований характер



навчання, посилює інтелектуальну автономію здобувачів освіти, сприяє формуванню здатності до інноваційної діяльності та професійної мобільності, дає змогу вільно поєднувати інженерні, IT та дизайнерські рішення, а також забезпечує високий рівень готовності до діяльності в мультидисциплінарних командах.

Зроблено висновок, що системна інтеграція STEAM-технологій у професійну освіту створює підґрунтя для підготовки конкурентоспроможних IT-фахівців, здатних ефективно діяти за умов динамічного цифрового середовища.

Ключові слова: цифрова компетентність; STEAM-технології; STEAM-освіта; професійна підготовка IT-фахівців; професійний коледж; цифрова трансформація; педагогічні умови; цифрове освітнє середовище; здобувач освіти; дизайн; мистецькі компетентності.

INTRODUCTION

The problem formulation. In the current context of deepening digital transformation across the economy, society, and the educational sector, the issue of developing digital competence among future IT specialists in professional colleges emerges as strategically significant. The modern labor market demonstrates a consistent demand for professionals capable of working effectively in information-rich environments, applying digital technologies for communication, data processing, production process modeling, information flow management, and solving complex professional tasks. Within this framework, digital competence is viewed not merely as an instrumental characteristic but as an integral component of an IT specialist's professional culture, encompassing cognitive, technological, communicative, social, and ethical dimensions.

Given this context, STEAM technologies – which integrate scientific, technological, engineering, and mathematical approaches – serve as a powerful methodological resource for modernizing professional training. They support the development of algorithmic, engineering, and systemic thinking, the ability to work with digital models, analytical tools, and simulation environments, and contribute to shaping innovative skills that are essential for the competitiveness of IT professionals in a globalized digital space.

The relevance of this issue intensifies alongside the digitalization of vocational education in Ukraine, where there remains a lack of coherent conceptual and technological approaches to integrating STEAM into the training of future specialists in professional colleges. As a result, a significant gap emerges between the needs of the IT industry and the actual level of digital preparedness among learners. According to S. Sevastyanova, in the modern educational environment «digital competence is the foundation for creating and implementing new educational technologies that transform traditional learning models and require adaptation to the conditions of «digital life»» (Sevastyanova, 2024, pp. 41– 42). This observation highlights the necessity of forming students' digital readiness not only at the level of mastering tools but also at the level of strategic capability for professional growth amid constant technological change.

Scientific studies confirm that the effectiveness of developing digital competence directly depends on specific pedagogical conditions. Among the key ones are: motivational and value-based support of learners' professional training grounded in STEAM-oriented educational practices; activation of independent learning activities in the process of studying informatics disciplines through innovative forms, methods, and digital tools; integration of STEAM technologies into the content of professional training to develop algorithmic, engineering, systemic, and design thinking in future IT specialists; creation of a modern STEAM-oriented educational environment within the professional college; and the implementation of a system for diagnostics, monitoring, and reflective–analytical support of learners' digital competence development. In professional colleges focused on practical training, the absence of these conditions leads to insufficient development of programming skills, engineering thinking, digital communication, and cybersecurity–competencies that form the core of contemporary professional preparation for IT specialists.

Therefore, the systemic implementation of STEAM technologies as a tool for developing the digital competence of future IT specialists is an essential prerequisite for modernizing the content and methods of vocational education. This approach ensures alignment with global educational trends, strengthens the practice-oriented nature of the learning process, and enables learners to acquire a comprehensive set of competencies necessary for effective performance in a high-technology digital environment.

Analysis of recent research and publications. The digitalization of the educational space has become one of the key vectors of educational development and an active subject of scientific inquiry. The methodological foundations of digitalizing the information and educational environment of vocational institutions have been explored by A. Hurzhiy, V. Radkevych, and M. Pryhodi; digital tools in Ukrainian vocational education–their historical evolution, implementation features, and prospects–have been examined by N. Marchuk. In the works of Ukrainian researchers such as V. Bykov, O. Budnyk, M. Dereniuk, O. Dzhogolyk, O. Kondur, N. Nychkalo, T. Paska, L. Prokopiv, S. Sysoieva, V. Stynska, O. Tsuniak and others, digital technologies are viewed as a strategic resource for modernizing professional training. Scholars emphasize that digital tools and technologies are becoming decisive for improving the quality of learning, enhancing professional mobility, and strengthening the competitiveness of future specialists, which underscores the need to develop a coherent system of relevant skills and practices.

A significant contribution to the study of digital competence development has been made by N. Borozenets, M. Sevastyanova, O. Spirin, I. Shyshenko, Yu. Shcherbyna and others, who emphasize the importance of developing learners' digital skills, interpreting them as a necessary prerequisite for sustainable societal development and the innovative renewal of the educational sphere.

The issue of STEAM education in the training of specialists under conditions of digital transformation has been highlighted by O. Buriak, K. Kravchenko, T. Kravchenko, O. Mysiuk, V. Saiko and others, while the theoretical



foundations of monitoring the development of a STEAM-oriented educational environment have been explored by N. Soroko, O. Shymon and others.

AIM AND TASKS RESEARCH – to substantiate the pedagogical conditions for developing the digital competence of future IT specialists in professional colleges through STEAM technologies.

RESEARCH METHODS

In the course of the study, a set of scientific and pedagogical research methods was used, namely:

Theoretical methods: analysis (of psychological-pedagogical, scientific-methodical, and regulatory literature on digital competence, STEAM education, and professional training of IT specialists); synthesis (generalization of theoretical approaches to the structure of digital competence and STEAM integration); comparison and classification (juxtaposition of international and national models of digital competence–DigComp, DigCompEdu, and Ukrainian concepts); modeling (theoretical substantiation of pedagogical conditions for developing digital competence in professional colleges).

Empirical methods: pedagogical observation (identifying features of students' learning activities in a STEAM-oriented environment); analysis of students' work products (STEAM projects, digital developments, results of independent and project-research activities).

RESULTS OF THE RESEARCH

Digital competence is a concept largely introduced by European policy documents, having then emerged as a research topic of the moment (Zhao et al., 2021). It was introduced by Ferrari (2013) with the publication of the DigComp framework, which served as basis for several other digital competence frameworks developed by the European Commission, such as DigComp for Consumers (2016), DigCompOrg (2017), DigCompEdu (2017), and the newest version DigComp 2.2 (2022), to cite a few

Since the concept of digital competence is actively developed and refined in European and global scientific discourse, there are multiple definitions of «digital competence» that reflect different emphases—from technical skills to integrated cognitive, social, and professional abilities, including:

- an integrated capability combining knowledge, skills, attitudes, cognitive abilities, and conscious strategies necessary for the effective, safe, and ethical use of ICT and digital media to solve professional tasks, communicate, and create and share information content (Ferrari, 2012, p. 30);
- confident, critical, and responsible use of and interaction with digital technologies in learning, professional activities, and social communication, based on the integration of relevant knowledge, skills, and attitudes (Vuorikari, 2022);
- an individual's ability to use ICT responsibly and consciously, to interact effectively with digital technologies in learning and professional activities, and to purposefully improve their own knowledge and skills to ensure successful lifelong development (Sevastyanova, 2024, pp. 41–42);
- an integral professional-personal characteristic of a specialist, reflecting their ability to design the educational process using digital technologies (Shcherbyna, 2023, p. 258);
- an individual's ability to use digital technologies confidently and competently in areas such as professional activity and employment, education, leisure, and civic engagement, which is essential for participation in everyday socio-economic life (Spirin, 2025, p. 62).

Digital competence is regarded as a core professional characteristic for future IT specialists, as it ensures their readiness to work effectively with technological, project-engineering, artistic, and organizational-management components of professional activity. For an IT specialist, digital competence encompasses not only mastery of tools and technologies but also the ability to critically assess their application, understand the impact of chosen technological solutions on product quality, user experience, and the effectiveness of team collaboration.

Within the structure of digital competence for future IT specialists, key elements include technical skills, algorithmic and systems thinking, the ability to integrate digital tools into software development processes, and awareness of pedagogical and methodological aspects of teamwork, mentorship, and mutual learning. Acting as a leader or member of an IT team, a future specialist fosters the digital competence of colleagues by guiding productive collaboration, knowledge exchange, and the implementation of innovations.

Based on the synthesis of the presented definitions and considering the specifics of the professional activity of future IT specialists, the category «digital competence of an IT specialist» is defined as a multidimensional system of knowledge, skills, abilities, and value orientations that combines technological, cognitive, communicative, project-based, artistic, and ethical components, ensuring the specialist's capacity to act effectively, creatively, and responsibly in the digital society and professional sphere.

The outlined characteristics of digital competence for future IT specialists highlight its multidimensional nature and key role in professional training. Understanding its structure, content emphases, and functional significance makes it possible to identify the specific pedagogical conditions under which it can be developed most effectively.

Therefore, substantiating the pedagogical conditions that ensure the purposeful, phased, and effective development of digital competence in future IT specialists in professional colleges through STEAM technologies becomes a key methodological task of the study.

The first pedagogical condition is the motivational and value-based support of learners' professional training through STEAM-oriented educational practices.



This condition involves creating an educational environment that fosters students' intrinsic motivation to master digital technologies through their practical relevance, professional value, and innovative potential. It is based on understanding motivation as a compensatory factor that ensures high productivity even with limited intellectual resources or foundational knowledge, guiding students toward success through cognitive-heuristic techniques (induction, deduction, heuristics) and cultivating an intrinsic need for the practical application of digital tools. In STEAM-oriented education, it serves as a system-forming component, engaging learners in intellectually rich activities, which is critically important for IT specialties that demand self-directed learning and adaptability (Sevastyanova, 2023).

Motivation, as a fundamental psychological determinant, defines the direction and persistence of educational activity, creating conditions for personal development and professional growth of the learner. Active engagement of learners in the educational process, manifested through various forms of academic involvement, serves as a key factor in enhancing the quality of learning and acquiring practical experience. A high level of engagement promotes deeper, conscious assimilation of educational content and the development of the ability to apply it in real professional contexts (Buriak, 2011).

STEAM technologies create a motivationally enriched educational environment by integrating computer science, mathematics, technology, engineering, and art into the solution of practical professional tasks, such as programming robotic systems, developing algorithms, designing digital prototypes, and analyzing data, thereby bringing learning into the realm of real professional relevance (Concept, p. 208). The use of simulators, virtual laboratories, and complex tasks models production processes, stimulating active problem-solving and the development of research initiative.

The practical implementation of such integration in professional colleges includes:

- the use of problem-oriented scenarios from real IT environments;
- the use of micro-didactic complexes, including training sessions with IT process simulations, hackathons for creating digital products, cybersecurity exercises, interdisciplinary quests, logic tasks (puzzles, mazes), and STEAM projects such as «Engineering Calculations + Python,» which combine engineering, technology, data analysis, and creative components;
- the development of a positive attitude toward digital technologies, digital ethics, and responsibility;
- the use of suggestive methods ensures psychological comfort, reduces anxiety, and fosters self-reflection, creating favorable conditions for productive learning activities.

Thus, the motivational and value-based component facilitates students' transition from reproductive forms of learning to research and project-based activities, actively developing algorithmic, critical, and creative thinking, which forms the foundation for digital competence.

The second pedagogical condition is the activation of independent learning activities in the process of mastering informatics disciplines through the use of innovative forms, methods, and digital tools.

This condition encompasses the organization of an educational process that stimulates students' autonomy, responsibility, and intellectual initiative. It is grounded in contemporary principles of cognitive pedagogy, self-regulated learning theory (A. Zimmerman), principles of self-regulated learning (F. Vinn), cognitive and metacognitive processes in self-regulated learning (F. de Jong), motivation and self-regulated learning (P. Pintrich), social aspects of self-regulation (M. Pressley), and STEM education concepts, which view the learner as an active subject of knowledge capable of constructing new understanding through research, experimentation, and practical application of technological tools (Balashov, 2020, p. 52).

The activation of independent learning activities in the context of STEAM education is implemented through:

- the use of cognitive-heuristic techniques (inductive, deductive, heuristic strategies) that stimulate the independent discovery of patterns and principles of digital technologies;
- the use of integrative, game-based, and problem-solving methods (digital crosswords, cryptograms, simulation models, logical mazes) that develop analytical and algorithmic thinking;
- the implementation of project-research learning technologies, which involve the creation of prototypes, web products, software modules, micro-projects for data processing, and elements of machine learning;
- the use of innovative digital platforms, cloud services, and virtual laboratories for independent experimentation and modeling of complex technical processes (Marchuk, 2024).

These tools contribute not only to mastering the content of informatics disciplines but also to developing the ability for self-regulation, self-assessment, critical analysis of information, and responsible use of digital content and the online environment.

In the professional training of IT specialists, this approach facilitates the transition of learners from observation and imitation to independently creating digital products, thereby developing the cognitive, operational-technological, and reflective components of digital competence.

Thus, the activation of students' independent learning activities is an important pedagogical condition that ensures the stability, systematicity, and effectiveness of developing digital competence in future IT specialists in professional colleges through STEAM technologies, while promoting their professional adaptability and readiness to work in rapidly changing technological environments.

The third pedagogical condition is the integration of STEAM technologies into the content of professional training to develop algorithmic, engineering, systems, and design thinking in future IT specialists.



This pedagogical condition involves the purposeful implementation of STEAM technologies (Science, Technology, Engineering, Art, Mathematics) into the content of professional training for future IT specialists, ensuring the comprehensive development of algorithmic, engineering, systems, and design thinking, as well as fostering the ability to create innovative digital products. According to the research by O. Stupak, the combination of technical and artistic competencies is a key condition for the effective preparation of specialists capable of working with 2D/3D animation, VR/AR technologies, multimedia tools, UX/UI design, digital content, and interactive environments (Stupak, 2024, p. 259).

The implementation of this pedagogical condition is carried out through:

- the implementation of interdisciplinary modules («Mathematics + Algorithmization,» «Engineering Graphics + 3D Modeling,» «Informatics + Digital Design»);
- the organization of design thinking and digital prototyping environments;
- the execution of STEAM projects using VR/AR technologies, robotics tools, and multimedia and interactive visualization;

the use of digital fabrication (FabLab), cloud services, and professional platforms (Adobe Creative Suite, Blender, Figma, Unity, Unreal Engine, etc.).

Thus, the integration of STEAM technologies cultivates holistic digital thinking in learners, enabling them to seamlessly combine engineering, IT, and design solutions, while ensuring a high level of readiness to work in multidisciplinary teams. This aligns with global trends in the IT industry and design, where the universalization of professional roles and the ability to work with integrated digital products are key factors in a specialist's competitiveness.

The fourth pedagogical condition is the creation of a modern STEAM-oriented educational environment in professional colleges, which ensures students' practical, research, and innovative activities in the context of digital transformation.

The implementation of this pedagogical condition involves establishing a comprehensive regulatory and legal framework that institutionalizes the introduction of STEAM education in professional colleges. This includes reviewing existing and developing innovative educational standards capable of reflecting the dynamics of modern technological changes, the demands of the digital economy, and global labor market trends. Simultaneously, there is an urgent need to update the content of curricula to strengthen the project-research component, employ practice-oriented tasks, digital simulations, interactive models, and tools that develop learners' abilities for interdisciplinary integration, technological thinking, and professional autonomy (Gurzhiy, 2022).

An important system-forming factor in implementing the STEAM approach is the professional development of teaching staff in vocational education institutions. This involves the targeted enhancement of their professional competence in innovative educational technologies, STEAM pedagogy methodology, digital didactics, and the management of digital learning environments. A teacher's preparedness to design, implement, and provide scientific-methodological support for innovative practices determines the effectiveness of transformative processes and the quality of learners' digital competence development. At the same time, the STEAM approach emphasizes project-based and practice-oriented learning, extending beyond the traditional STEAM paradigm through the integration of humanities and artistic components. This integration fosters the ability to work under uncertainty, handle multidimensional problems, and generate unconventional solutions (Saiko, 2024, p. 51).

In the context of enhancing teachers' digital-methodological competence, technologies for intellectual development and methods of technical creativity play a significant role. They contribute to the formation of the ability to design innovative solutions, master new approaches to research and project-based activities, and realize the creative potential of future IT and telecommunications specialists.

The implementation of the STEAM approach also supports the development of a range of soft skills, including teamwork, providing constructive feedback, articulating and defending one's position, presenting project outcomes, and applying marketing elements in the promotion of technological products. A well-prepared teacher acts as a facilitator of digital learning, models educational situations, supervises projects, and ensures the effective implementation of STEAM integration.

The issue of modernizing the material and technical base of professional colleges is also highlighted through the creation of a high-tech educational space, which includes STEM/STEAM laboratories, engineering hubs, FabLab centers, digital workshops, and innovative coworking zones. Such an environment provides learners with access to modern software, digital platforms, robotics complexes, modeling tools, 3D prototyping, and data analytics resources (Kravchenko, 2025).

This pedagogical condition also involves expanding partnerships between colleges and IT companies, manufacturing enterprises, and research institutions through mechanisms such as dual education, internships, mentorship programs, joint research-engineering projects, and student participation in hackathons, engineering tournaments, specialized competitions, and startup schools. This form of collaboration strengthens the practice-oriented component of training, enriches learners' educational experience with real professional cases, and promotes the development of digital, engineering, algorithmic, and project-based competencies.

The comprehensive implementation of these elements creates an innovative STEAM-oriented educational environment capable of responding to the challenges of the digital economy, ensuring a high level of professional training, and promoting the development of digital competence in future IT specialists.



The fifth pedagogical condition is the implementation of a system for diagnosing, monitoring, and providing reflective-analytical support for the development of learners' digital competence.

The need to create a comprehensive system for diagnosing and monitoring students' digital competence is driven by current requirements for the quality of digital training for specialists and the priorities of the European Higher Education Area. Within the DigComp 2.2 framework, the European Commission emphasizes that the development of digital competence should be accompanied by regular assessment, which tracks student progress, identifies individual educational needs, and allows for the adjustment of learning trajectories (Vuorikari et al., 2022). According to the document, digital competence is a dynamic structure that requires continuous formative assessment through a combination of tests, self-assessment, portfolios, and activity-based tasks.

The issue of monitoring digital skills is also addressed in UNESCO studies, which emphasize the need for valid assessment systems capable not only of measuring outcomes but also of supporting learning through reflection, personalization, and individual guidance (UNESCO, Digital Literacy Global Framework, 2018). The document highlights that effective monitoring should encompass the cognitive, technical, social, and ethical components of digital competence.

According to N. Soroko's research, monitoring STEAM education is a systematic process of collecting, analyzing, and interpreting data on its status and development trends. It provides researchers, educators, and other stakeholders with the necessary information to make strategic decisions. Additionally, it should be noted that monitoring the development of STEAM education is a comprehensive process that gathers, analyzes, and interprets data on the state and dynamics of STEAM approach implementation in educational institutions.

The main monitoring objectives are:

- determining the level of integration of STEAM components into the curricula;
- analyzing the readiness of teaching staff to implement STEAM-based learning;
- assessment of material-technical resources and digital infrastructure;
- measuring the impact of STEAM education on learners' academic achievements and their motivation (Soroko, 2025, p. 65),

According to leading Ukrainian researchers (S. Ivanova, A. Kilchenko, O. Spirin, N. Franchuk), a key element in developing digital competence is also diagnostic and analytical support, as it allows for systematic assessment of students' knowledge, skills, and abilities through online testing and automated systems such as Kahoot! or Quizlet, providing objective feedback. This approach identifies gaps in IT specialists' digital skills and facilitates the adaptation of learning strategies to individual needs, thereby enhancing the effectiveness of professional training (Spirin et al., 2024, p. 95).

Thus, the system of diagnostics, monitoring, and reflective-analytical support is considered an integral structural component in the development of digital competence for future IT specialists. It ensures objectivity and systematic assessment, facilitates the personalization of the educational process, enhances motivation for independent development, and creates conditions for cultivating highly qualified, responsible, and competitive professionals in the digital field.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Summarizing the results of the theoretical analysis, it can be noted that digital competence of future IT specialists emerges as a multidimensional professional-personal construct, integrating technological, cognitive, communicative, design, and ethical components, and ensuring the ability to act effectively in the context of the digital economy and rapid techno-global changes. A set of interrelated pedagogical conditions for its development in vocational colleges through STEAM technologies has been substantiated: motivational and value-based support of professional training; activation of students' independent learning through innovative forms, methods, and digital tools; targeted integration of STEAM technologies into the professional curriculum; creation of a modern STEAM-oriented educational environment; and implementation of a system for diagnostics, monitoring, and reflective-analytical support of digital competence development. It has been demonstrated that the realization of these conditions ensures a transition from reproductive learning models to research and project-based activities, promotes the formation of algorithmic, systemic, and design thinking, strengthens students' active learning position, and enhances the alignment of educational outcomes with IT industry requirements.

The prospects for further research lie in the development of a structural-functional model for forming digital competence of future IT specialists in vocational colleges, in the empirical verification of the effectiveness of the outlined pedagogical conditions through pedagogical experiments, as well as in the creation of diagnostic tools for phased monitoring of the dynamics of digital competence formation at various stages of professional training.

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EDUCATIONAL AND CULTURAL MISSION OF SCIENTIST MARIA KITSYUK IN SHAPING THE UKRAINIAN IDENTITY OF DIASPORA CHILDREN

Abstract. The Ukrainian diaspora in the United States has made a significant contribution to the preservation of national identity and the formation of subsequent generations of Ukrainians, who have been nurtured in the traditions of language, culture, and civic engagement. A key element in this process was the establishment of Saturday and Sunday schools dedicated to the study of Ukrainian culture. Among the educators who devoted their lives to advancing Ukrainian education in emigration, a distinguished role belongs to Dr. Maria Kitsyuk, a Ukrainian-American teacher and community activist who served for many years as the director of the School of Ukrainian Studies in Yonkers, New York. She was actively engaged in educational and cultural initiatives of the Ukrainian diaspora in the United States. Diaspora periodicals (*Svoboda*, *Surma*/*Nova Gazeta*) have highlighted her significant contribution to both the school and community. Her life stands as an exemplary embodiment of dedicated service to the Ukrainian language. At the same time, her worldview reflects a profound sense of national identity and a genuine commitment to Ukrainian education in the diaspora.

Her life is an exemplary embodiment of service to the Ukrainian language, and her worldview reflects a national identity and a genuine concern for Ukrainian education in the diaspora.

Having worked for many years within both the American and Ukrainian educational systems, Dr. Maria Kitsyuk developed her own approaches to teaching English and Ukrainian as foreign languages. In her pedagogical practice, she employed traditional methods, carefully adapting them to the specific context of the American educational environment.

Distinctive features of Dr. Maria Kitsyuk's methodology: the application of comparative analysis (particularly through the study of Ukrainian and American literature, as well as historical figures of Ukraine and the United States); the integration of multicultural discourse in the educational process (incorporating song, embroidery, folk traditions); an emphasis on the development of critical thinking with students engaged in essay writing and classroom discussions; the inclusion of extracurricular activities as an essential component of learning, such as excursions, concerts, and collaboration with Plast scouts.

In the context of a new wave of migration at the turn of the 20th and early 21st centuries, the role of the Ukrainian studies teacher acquired heightened significance and complexity. Educators faced the dual task of integrating newcomer students into the school and cultural environment while simultaneously sustaining the interest of children with varying levels of Ukrainian language proficiency. Through their personal example, as well as their educational and cultural activities, these teachers contributed to shaping the self-awareness of Ukrainian youth abroad and instilling in them a sense of belonging to a great nation.

Keywords: emigration, Ukrainian schooling, Ukrainian youth, mentor, school of Ukrainian studies.

ОСВІТНЬО-КУЛЬТУРНА МІСІЯ НАУКОВИЦІ МАРІЇ КІЦЮК У ФОРМУВАННІ УКРАЇНСЬКОЇ ІДЕНТИЧНОСТІ ДІТЕЙ ДІАСПОРИ

Анотація. Українська діаспора у США відіграла виняткову роль у збереженні національної ідентичності та формуванні наступних поколінь українців, вихованих у традиціях мови, культури та громадянської активності. Важливим чинником цього процесу стало створення суботніх та недільних шкіл українознавства. Серед педагогів, які присвятили своє життя розвитку української освіти в еміграції, особливе місце посідає д-р. Марія Кіцюк - українсько-американська педагогиня й громадська діячка, багаторічна директорка Школи українознавства в Йонкерсі (штат Нью-Йорк); активна в освітніх і культурних ініціативах української діаспори США. Про її роль у школі та громаді пишуть діаспорні видання («Свобода», «Сурма»/Nova Gazeta). Її життя є прикладом служіння українському слову, у світоглядних засадах відображено національну ідентичність і щире вболівання за українську освіту на еміграції.



Працюючи упродовж довгих років у системі американської та української освіти, пані Марія напрацювала власні авторські методики викладання англійської й української мови, як іноземної. У своїй роботі навчальній діяльності Марія Кіцюк використовувала традиційні методи викладання з адаптацією до американського освітнього середовища.

Особливості її методики: використання порівняльного – компаративного аналізу (українська й американська літератури, історичні постаті України та США); мультикультурний дискурс у навчальному процесі (пісня, вишивка, народна традиція); орієнтація на розвиток критичного мислення – учні писали есе, брали участь у дискусіях; позакласна активність як невід’ємна частина навчання (екскурсії, концерти, співпраця з пластунами).

У умовах нової міграції кін. ХХ – поч ХХІ ст. роль учителя школи українознавства посилилася й ускладнилася, адже перед ним постало завдання не лише інтегрувати новоприбулих учнів у шкільне та культурне середовище, а й утримати інтерес до навчання дітей з різними навичками розуміння української мови. Особистий приклад вчителя та освітньо-культурна діяльність формують самосвідомість української молоді за межами України, укорінюють відчуття належності до великої нації.

Ключові слова: еміграція, українське шкільництво, українська молодь, наставник, школа українознавства.

INTRODUCTION

The problem formulation. To comprehend the significance of Dr. Maria Kitsyuk’s contribution, it is essential to analyse the history of the establishment and development of Ukrainian studies education for children across different waves of emigration. A deeper exploration of her pedagogical legacy is vital for understanding how Ukrainian schools in the diaspora not only sustained their existence but also evolved into a crucial factor in shaping national consciousness in emigration.

In the aftermath of World War II, the Ukrainian community in the United States experienced significant expansion due to a new wave of emigration. This development created an urgent need to organise systematic teaching in the Ukrainian language, history, literature, and culture for children. In response, a network of Ukrainian studies schools emerged operating under the auspices of community organisations and parishes. These institutions not only fulfilled an educational mission, but also functioned as centres of cultural preservation and civic education. It was within this context that Maria Kitsyuk’s educational and cultural activities unfolded.

Analysis of recent research and publications. The issue of national education for the younger generation of Ukrainians abroad has been addressed by: L. Bozhuk, I. Bodnarchuk, H. Vashchenko, M. Vasylyk, I. Golovinsky, I. Goncharenko, E. Zharky, V. Zhulkovsky, I. Kuchynska, M. Lomatsy, V. Mats’kiv, T. Mykhailenko, O. Nych, I. Ogienko, T. Ronyak, I. Rudnytska-Yuriychuk, Ye. Fedorenko, V. Yaniv, and others. The specific challenges of teaching the Ukrainian language to children and youth in the diaspora have been the focus of research by B. Azhnyuk, A. Bohdanyuk, M. Deiko, K. Kysilevsky, T. Rybak, S. Romanyuk, and Ya. Rudnytsky, R. Smal-Stotsky, L. Khraplyva-Shchur, Yu. Shevelov and other scholars.

Scholars such as H. Byhar, L. Bozhuk, O. Dzhus, V. Kemin, I. Kizin, I. Mashkova, A. Onkovich, O. Paliychuk, N. Primas, I. Pits, S. Ponomarevsky, S. Romanyuk, I. Rusnak, I. Strazhnikova, H. Filipchuk, M. Chepil, and others have studied the development of Ukrainian schooling abroad.

AIM AND TASKS OF THE RESEARCH

The study aims to reveal the distinctive features of the educational and cultural activities of the prominent figures of pedagogical mastery; to encourage the academic community to engage in the study of the experiences of the founders of Ukrainian schooling in emigration; to unite teaching staff for the purpose of conducting a series of interviews with senior participants in the pedagogical process at specific schools of Ukrainian studies; and to develop materials for compiling bibliographic indexes, which will serve as a reliable source of historical and biographical research on the Ukrainian educational paradigm in the United States.

RESEARCH METHODS

The study employs a range of research methods. Theoretical methods, including analysis, synthesis, generalisation, and classification, play a central role, alongside empirical methods such as observation and the examination of teaching and methodological materials.

RESULTS OF THE RESEARCH

Dr. Maria Kitsyuk represents a generation of Ukrainians who endured the Soviet terror as well as Austrian and German forced labour camps. She earned a Master of Arts in Foreign Language Studies from Hunter College and subsequently obtained a Ph.D. in Linguistics from the City University of New York. Her professional career included teaching English at Lehman College and Ukrainian to adult Americans. In 1993, she participated in the Fulbright Program, where she delivered lectures in English to a group of 25 male students from Kharkiv State University. These students, trained under the Soviet system, were being prepared to work in European and African countries (1993).

Additionally, Dr. Kitsyuk lectured in foreign languages to future English teachers. She compiled workbooks on the Ukrainian language for the 10th and 11th grades, contributed to the preparation of materials for the New York State Regents examinations in Ukrainian, and edited the Jubilee Book marking the 50th anniversary of the School of Ukrainian Studies in Yonkers. Maria Kitsyuk dedicated her education mission to Ukrainian schools in the diaspora (Nova Gazeta / Surma – presentation of a memorial plaque at the School of Ukrainian Studies in Yonkers). She served as the correspondence secretary of the School Board of the Ukrainian Cultural Council of America, worked as a teacher for many years, and acted as an educational advisor in Stamford. Additionally, she directed the School of Ukrainian Studies in Yonkers, New York, for fourteen years. In addition to her pedagogical and organisational activities, she authored the autobiographical book "Maria’s Story of Hope and Survival" (1922) (Kitsyuk, 2022).



Teachers as a bridge between generations. In the United States, teachers in Ukrainian schools were predominantly representatives of the post-war wave of emigration—a period during which these educational institutions were establishing themselves. In subsequent decades, the children of Ukrainian immigrants also joined the teaching staff. Their mission was distinctive: to transmit intergenerational experience. By combining the educational and upbringing functions of the school, teachers provided students with Ukrainian studies, simultaneously cultivating a deep love and respect for the Ukrainian people, their culture, and their homeland. Instruction extended beyond the classroom to include individual conversations, cultural gatherings, communal prayers, and choir performances, all of which reinforced connections between learning and cultural identity.

Maria Kitsyuk had been working in Ukrainian schools in the United States since the 1960s and consistently took an active role in Ukrainian studies programs in New York and the surrounding region.

The principal areas of her educational activities included:

- teaching the Ukrainian language and literature in middle and high school;
- developing instructional materials, including lesson plans, curricula, and extracurricular activities;
- fostering a reading culture by engaging students in literary clubs and Ukrainian book festivals;
- promoting cultural education through the organisation of Shevchenko festivals, Christmas nativity plays, and theatrical performances;
- advancing pedagogical cooperation through active participation in seminars and meetings of Ukrainian studies teachers, as well as the exchange of methodological developments.

With extensive experience in both the American and Ukrainian educational systems, Maria Kitsyuk developed her methods for teaching English and Ukrainian as foreign languages (News12 – 3rd anniversary of the war Community participation in remembering the war). In her pedagogical practice, she employed traditional teaching approaches, carefully adapting them to the American educational environment.

Features of Maria Kitsyuk's Methodology

Several key factors distinguished the methodological approach developed by the educator:

- the use of comparative analysis, particularly in examining Ukrainian and American literature as well as historical figures of both nations;
- the incorporation of multicultural discourse into the educational process through songs, embroidery, and folk traditions;
- an emphasis on the development of critical thinking, with students writing essays and engaging in classroom discussions;
- the integration of extracurricular activities as an essential component of learning, including field trips, concerts, and cooperation with Plast scouts.

Through the consistent application of these approaches, students not only acquired knowledge of the Ukrainian language but also laid the foundations for a sense of national self-awareness.

In the context of the new wave of migration at the turn of the 21st century, the role of Ukrainian studies teachers has become increasingly complex and multifaceted. Educators face the dual challenge of integrating new students into the school and cultural environment, while maintaining the interest in learning among children with different levels of Ukrainian language proficiency. Having arrived in America at the beginning of Russia's full-scale invasion of Ukraine, I had the honour of being invited to work at a Ukrainian studies school in Yonkers, NY. During this period, I required professional guidance and support, as teachers in diaspora schools must be multifunctional, serving as teachers, event organisers, psychologists, cultural mediators, and mentors. Dr. Maria Kitsyuk, in her characteristic thoughtful manner, explained the specific aspects of teaching Ukrainian as a foreign language, including the structure of educational programs and challenges related to textbooks (News12 – 3rd anniversary of the war Community participation in remembering the war). The example of such people convinces us that a teacher is not only an educator, but also a bearer and guardian of national identity, a link between the past and future of the Ukrainian people outside their homeland.

Dr. Maria Kitsyuk is the author of the following Ukrainian literature programs for diaspora schools:

1. Ukrainian Literature Program (7th grade) – “The Knight's Era” This structured course, designed for Saturday schools, covers topics related to Kyiv Rus, chronicles, and folk art. It includes introductory texts, discussion questions, and tasks designed to develop students' critical thinking and independent work skills. The program has been implemented in Ukrainian studies schools across the United States.

2. Ukrainian Literature Program (8th grade) – “The New Era” This course addresses literature from the Baroque period and subsequent eras. It provides brief biographical notes on writers, discussion questions, and texts for literary analysis. The program is specifically adapted for diaspora children, taking into account the linguistic characteristics of Ukrainian as a heritage language.

3. Ukrainian Literature Program (10th grade) This course organises context into thematic sections, with a particular focus on the works of Olga Kobylanska. Tasks include creating outlines of literary works, responding to discussion questions, and reviewing brief biographical summaries. The program aims to foster a sense of national identity through in-depth engagement with Ukrainian literary classics. The example of educators such as Dr. Kitsyuk demonstrates that a teacher's role extends beyond instruction: they act as both custodians and transmitters of national identity, serving as a vital link between the historical heritage and future of the Ukrainian community abroad.



Maria Kitsyuk's educational and cultural activities exemplify the multifaceted role of pedagogy in the diaspora. She not only instructed students but also cultivated their understanding of Ukrainian heritage, preserving and transmitting the memory of their homeland to future generations (News12 – 2nd anniversary of the war "I'm a refugee..." about the journey to the US Access mode). We can analyse her contribution across three dimensions: educational, by preparing students proficient in the Ukrainian language and literature; cultural, by promoting Ukrainian traditions among youth; and civic, by fostering the development of active members of the Ukrainian community in the United States.

Despite her advanced age, Dr. Maria Kitsyuk remains actively engaged in self-education. She reads the best works of world literature in their original languages, following recent updates to the Ukrainian spelling (approved in 2024), methods of teaching the native language, and the life of the Ukrainian community in Yonkers. When asked about her current work and research, she responded that she keeps regular contact with her children and grandchildren, closely monitors events in Ukraine, and actively addresses misinformation about the country. For example, she counters claims equating Ukraine with Russia or Kyiv with "Russian". She also challenges long-standing narratives propagated by Russian media, which depict Ukrainians as anti-Semitic or collaborators (referring to the so-called Ukrainian Fascist Army) and misrepresent historical events such as parades in Lviv associated with nationalist symbols. Additionally, she refutes assertions that Ukraine prosecutes individuals for their faith or that Rusyns (Lemkos) are ethnically Russian. Dr. Kitsyuk fulfils not only pedagogical, but also educational and missionary functions. Her letter to Timothy Snyder, an American historian and writer, professor at Yale University, is impressive. He is a historian specialising in Eastern Europe, with particular emphasis on the 20th-century histories of Ukraine, Poland, and Russia. His research addresses issues of nationalism, totalitarianism, and the Holocaust. He is a full member of the Shevchenko Scientific Society in the USA. In her analysis of *Bloodlands: Europe Between Hitler and Stalin* (2010), Dr. Kitsyuk respectfully identifies several factual inaccuracies:

- Western Ukraine is represented solely as part of Eastern Poland, neglecting its earlier history within Kyiv Rus;
- passages concerning the Ukrainian Insurgent Army, proudly mentioning her husband Yaroslav, who, together with his brothers, fought for Ukraine's independence against various governments and regimes;
- the coverage of the bloody genocide of the Ukrainian nation is incomplete, as the repressions targeted not only "peasants and Soviet Poles," but also destroyed the Ukrainian intelligentsia, clergy, and other social groups.

A closer examination of Dr. Maria Kitsyuk's intellectual reflections reveals the distinctiveness of her worldview, which transcends any single disciplinary or cultural perspective. As a prominent figure in the Ukrainian diaspora, she has, through her daily efforts, ensured the continuity of national culture in a new environment (Nova Gazeta/Surma – presentation of a memorial plaque at the School of Ukrainian Studies in Yonker). Thus, her educational and social activities have made a lasting impact on preserving Ukrainian identity among young Ukrainians living overseas.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Therefore, a Ukrainian teacher in a diaspora school is not just an educator. They are builders of a spiritual bridge between Ukraine and the world. Their personal example and educational and cultural activities shape the self-awareness of Ukrainian youth outside Ukraine and instil a sense of belonging to a great nation. Thanks to such pedagogical mentors, Ukrainian children in emigration have the opportunity not only to learn but also to take pride in being Ukrainian.

Maria Kitsyuk is one of those figures in the Ukrainian diaspora who, through their daily work, ensured the continuity of national culture in a new environment. Her educational and community activities made a significant contribution to preserving Ukrainian identity among young people overseas. Further research into her pedagogical legacy is crucial for understanding how the Ukrainian diaspora school not only survived but also became a significant factor in the development of national consciousness.

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Chapter III. THEORETICAL-METHODICAL FUNDAMENTALS OF PROFESSIONAL TRAINING OF FUTURE TEACHERS

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TRAINING FUTURE SPECIALISTS TO USE DIGITAL TECHNOLOGIES IN TEACHING LANGUAGE AND LITERATURE DISCIPLINES

Abstract. The article examines the features of training future specialists for the effective use of digital technologies in the process of teaching language and literature disciplines. The role of teachers' digital competence is analyzed, and the challenges and prospects of implementing educational innovations are identified. The European Digital Competence Framework (DigComp 2.0) and the views of Ukrainian scholars on the content of the concept of "digital competence" are characterized. Practical examples of digital tools and methods that increase the effectiveness of teaching language and literature disciplines in higher education institutions are proposed.

It is concluded that training future specialists to use digital technologies in teaching language and literature disciplines is an important factor in modernizing the system of Ukrainian pre-tertiary and higher education. Systematic training of future teachers makes it possible to form modern digital pedagogical competence, which is a necessary condition for professional growth in the information society. The digital competence of a future specialist includes the ability to work with digital resources and services; the capacity to create and adapt electronic educational materials; skills in organizing online and blended learning; and readiness to use digital tools for assessment, communication, and collaboration.

When using IT in language and literature classes within the New Ukrainian School, it is important to adhere to a number of organizational and pedagogical conditions. Special attention should be paid to the development of students' communicative activity and the formation of a Ukrainian-language personality, particularly among children from families of internally displaced persons. Equally important are the abilities to critically evaluate information from the internet, create a linguistically ecological environment, and promote the enhancement of parents' ICT culture and language literacy. Examples of methods and forms of using IT in the professional training of future teachers are provided.

Keywords: digital technologies, language and literature disciplines, digital competence, vocational education, pre-tertiary education, higher education, higher education institution, pre-tertiary education institution, teacher professional training, information technologies, learners, innovative teaching methods, pedagogical conditions, barrier-free educational environment.

ПІДГОТОВКА МАЙБУТНІХ ФАХІВЦІВ ДО ВИКОРИСТАННЯ ЦИФРОВИХ ТЕХНОЛОГІЙ У ВИКЛАДАННІ ДИСЦИПЛІН МОВНО-ЛІТЕРАТУРНОГО ЦИКЛУ

Анотація. У статті розглянуто особливості підготовки майбутніх фахівців до ефективного використання цифрових технологій у процесі викладання дисциплін мовно-літературного циклу. Проаналізовано роль цифрової компетентності педагогів, визначено виклики та перспективи впровадження освітніх інновацій. Схарактеризовано європейську Рамку цифрової компетентності (DigComp 2.0), погляди українських учених на зміст поняття «цифрова компетентність» тощо. Запропоновано практичні приклади цифрових інструментів і методів, які підвищують результативність навчання дисциплін мовно-літературного циклу в закладах вищої освіти. Зроблено висновок, що підготовка майбутніх фахівців до використання цифрових технологій у викладанні дисциплін мовно-літературного циклу є важливим чинником модернізації системи української передвищої і вищої освіти. Системна підготовка майбутніх педагогів уможливує формувати в них сучасну цифрову педагогічну компетентність, що є необхідною умовою професійного зростання за умов інформаційного суспільства. Цифрова компетентність майбутнього фахівця охоплює вміння працювати з цифровими ресурсами та сервісами; здатність створювати й адаптувати електронні освітні матеріали; навички організації онлайн- та змішаного навчання; готовність застосовувати цифрові інструменти для оцінювання, комунікації та співпраці. Під час використання ІТ на уроках мовно-літературного циклу в НУШ важливо дотримуватися низки організаційно-педагогічних умов. Особливу увагу варто приділяти розвитку комунікативної активності учнів, формуванню українськомовної особистості, зокрема дітей із сімей внутрішньо переміщених осіб. Важливими є також уміння критично оцінювати інформацію з інтернету, створювати мовноекологічне середовище та сприяти підвищенню ІКТ-культури й мовної грамотності батьків. Наведено приклади методів і форм використання ІТ у професійній підготовці майбутніх учителів.

Ключові слова: цифрові технології, дисципліни мовно-літературного циклу, цифрова компетентність, професійна освіта, передвища освіта, вища освіта, заклад вищої освіти, склад передвищої освіти, професійна підготовка вчителів, інформаційні технології, здобувачі освіти, інноваційні методи навчання, педагогічні умови, безбар'єрне освітнє середовище.

INTRODUCTION

The problem formulation. The digitalization of higher education today is one of the key directions of its development. Under contemporary challenges – such as the globalization of the educational space, war, the migration of Ukrainian students, the spread of distance learning, and other factors – the effectiveness of professional training of higher education students is determined not only by the amount of knowledge acquired. Equally important are the abilities to navigate rapidly changing information flows, independently acquire new knowledge, regulate one's own activities, and be capable of further professional development.

Therefore, the implementation of computer-oriented education in higher education institutions (HEIs) is intended to ensure the training of competitive and competent specialists who meet global standards, are mobile and flexible, and are ready for continuous professional growth throughout life. The use of interactive technologies (IT) in schools is one of the key tasks of modern education. The Concept of the New Ukrainian School emphasizes that a learner in general secondary education – that is, a future graduate of the NUS – should be not only a well-rounded individual but also capable of innovation (Concept of the New Ukrainian School, 2016).

The introduction of IT into the educational process of the New Ukrainian School makes it possible to effectively achieve these objectives. In particular, digital technologies help ensure high-quality mastery of the Ukrainian language



and contribute to the formation of learners as Ukrainian-speaking individuals, patriots, and active citizens. All of this directly influences the professional training of teachers, which is carried out in pre-tertiary education institutions and higher education institutions.

Analysis of recent research and publications. Various aspects of the professional training of future specialists in higher education institutions through interactive technologies have been the subject of research by Ukrainian scholars (V. Bykov, O. Bihych, V. Bosa, L. Harapko, M. Ikonnikova, T. Kutsenko, S. Kutova, N. Morze, T. Polonska, S. Protska, M. Sidun, N. Telychko, L. Tyshakova, V. Shuliar, and others). Within the scope of our research, particular attention should be paid to the works of V. Bobrytska (Bobrytska, 2015), V. Bosa, O. Ovcharuk (Ovcharuk, 2019), O. Pometun (Pometun, 2004), V. Starosta (Starosta, 2019), S. Tolochko (Tolochko, Bordiug, Knysh, 2020; Tolochko, 2021), and other scholars who analyze the theoretical and methodological aspects of the professional training of higher education students, including philological and pedagogical training. These researchers characterize the leading methodological approaches and conceptual foundations of the problem of forming the professional competence of future specialists through IT, examine the historical aspects of IT development, and explore the essence of the categorical framework (Bandura, 2018; and others), among other issues. At the same time, the problem raised in the title of the article requires further consideration.

THE AIM AND RESEARCH TASKS

The aim of the article is to analyze certain aspects of training future specialists to use digital technologies in teaching language and literature disciplines under contemporary challenges.

RESEARCH METHODS

In the course of the study, theoretical research methods were used, including analysis, synthesis, and generalization of scholarly sources, teaching and methodological literature, and regulatory educational documents. Empirical methods were also applied, namely pedagogical observation of the learning process of education seekers, as well as a survey of teachers, which made it possible to highlight the state of development of the problem in theory and practice.

RESULTS OF THE RESEARCH

As early as the late 1990s, the computerization of education began, laying the foundation for further digitalization and the introduction of innovative technologies into teaching. Despite this, the scholarly literature still lacks a clear and unified conceptual and categorical framework: in pedagogical practice, the terms “innovative technologies”, “interactive technologies”, “information technologies”, “computer technologies”, “computer-supported lesson”, and others are used in parallel (Bandura, 2018). The terms “information technologies” and “computer technologies” are often used as synonyms, although the former is much broader and includes the latter as a component. O. Pometun also draws attention to this issue, emphasizing that the vagueness of definitions leads to the conflation of different concepts – “interactive technologies”, “interactive methods”, and “forms of interactive learning” – as equivalent (Pometun, 2004, p. 20).

As the analysis of the source base has shown (Bandura, 2018; Bobrytska, 2015; Ovcharuk, 2019; Pometun, 2004; Starosta, 2019; Tolochko, Bordiug, Knysh, 2020; Tolochko, 2021; and others), scholars view interactive learning as active interaction among all participants in the educational process, organized with regard to the psychological characteristics of children and based on communication, polylogue, cooperation, and problem-search activities. Researchers distinguish several groups of interactive technologies, which are conventionally divided into four blocks: cooperative learning technologies; cooperative group learning technologies; situational modeling technologies; and technologies for addressing discussion-based issues. Teachers select these technologies according to the lesson topic, the characteristics of the class, and pedagogical conditions.

An analysis of the updated body of sources, as well as the results of a survey of primary school teachers in Ivano-Frankivsk (20 respondents), makes it possible to identify both the advantages and the bottlenecks in the use of interactive technologies in schools (see Table 1) and to take them into account in the process of training future teachers in pre-tertiary and higher education institutions.

Table 1

Advantages and disadvantages of using interactive technologies (IT) in primary school

Advantages	Disadvantages
Development of communicative skills	Sanitary and hygienic standards for the use of computer technologies are not always observed
Awareness of participation in teamwork	Individual characteristics are sometimes not taken into account, for example, the educational trajectories of students with special educational needs (SEN)
Development of reflection	Limited number of methods (if a teacher uses only one tool, there is a risk that students will find it more difficult to adapt to others)
Formation of a learner's subject position in learning	Insufficient teacher preparation for the use of interactive technologies



Implementation of cooperative learning technology	An adaptation period is required, since most children enjoy interactive tools, but all children are different; for some, learning through interactive methods may be more difficult than for others. As a result, in the initial days some students may experience internal discomfort, as interactive learning breaks familiar stereotypes about the learning process
Development of communication skills, speech etiquette, interaction in small groups	–
Formation of value-oriented group cohesion	–
Acceptance of moral norms and rules of joint activity	–
Evaluation of the process and results of joint activity	–
Increase in the class's cognitive activity	–
Development of analysis and self-analysis skills in the process of group work, etc.	–
Availability of ready-made instructional materials for lessons; interactive equipment includes ready-made programs, effects, lessons, and guidelines	–
Development of creative abilities	–

An analysis of current sources (Bandura, 2018; Bobrytska, 2015; Ovcharuk, 2019; Pometun, 2004; Starosta, 2019; Tolochko, Bordiug, Knysh, 2020; and others) shows that the necessity of preparing future teachers to implement IT in schools is no longer a matter of debate – it is a requirement of the time. What remains relevant, however, are tasks related to the modernization of these technologies, determining the optimal conditions for their use, and refining the classification of IT, since there is no unified approach to their systematization in Ukrainian pedagogical science. Researcher V. Starosta (Starosta, 2019, p. 235) also emphasizes the significant diversity of IT.

The concept of developing digital competences defines digital competence (DC) as a dynamic combination of knowledge, skills, ways of thinking, and personal qualities that ensure successful socialization and professional activity in the field of digital technologies. Within the European Digital Competence Framework (DigComp 2.0), this concept is associated with confident use of information and communication technologies (ICT) in work, learning, leisure, and civic engagement (DigComp Digital Competence Framework 2.1, 2017). The European Framework for the Digital Competence of Educators highlights several key components. These include professional engagement, which involves using digital tools in teaching and professional development; digital resources, which covers creating, selecting, and sharing digital content; teaching and learning, which focuses on organizing work with digital technologies; assessment, which refers to applying digital strategies to support assessment procedures; empowering learners, meaning the individualization and personalization of the learning process; and facilitating learners' digital competence, which involves developing skills in information management, communication, content creation, and problem-solving. These aspects are discussed in more detail in our separate publication (Bilavych, 2024).

In accordance with the European Digital Competence Framework (DigComp 2.0), professional training of future teachers should focus on developing IT competence in preparation for teaching language and literature disciplines. Scholar S. Tolochko notes that a teacher's digital competence (DC) includes the ability to effectively apply digital technologies for communication, collaboration, professional growth, creation and dissemination of digital resources, management of the learning process, individualized assessment, and ensuring inclusivity. It implies a creative, responsible, and ethical approach to working with information, producing content, and solving educational problems. Digital competence belongs to transversal, universal skills because it combines knowledge, abilities, and metacognitive capacities necessary for addressing real-life situations and supports lifelong learning (Tolochko, 2021; Tolochko, Bordiug, Knysh, 2020).

The scholar emphasizes the challenges faced in the digitalization of vocational education, which requires significant resources and systematic support. Between 2019 and 2023, Ukraine has been implementing the EU and partner countries' program EU4Skills: Better Skills for a Modern Ukraine, aimed at modernizing vocational education, aligning learning outcomes with labor market needs, and enhancing students' opportunities for professional development. The program focuses on improving the quality of the educational process, updating infrastructure, modernizing equipment, and creating Centers of Professional Excellence, which is impossible without the integration of digital technologies. Research on teachers' digital competence conducted by the Ministry of Digital Transformation and EU4Skills revealed insufficient levels of digital skills. In response, training programs were organized: for example, at the end of 2020, over 1,000 instructors participated in 128 online webinars, while 25 educational-methodical centers and 2,700 teachers



from 59 institutions received training on implementing Microsoft Office 365. Additionally, two open online courses were created to enhance the digital competence of teachers and vocational education leaders (Tolochko, 2021, pp. 29–30).

Today, the digitalization of pre-tertiary and higher education institutions is a key condition for their competitiveness in the global educational space. The current trend of uniting university resources and coordinating joint actions contributes to the creation of more accessible, high-quality, and economically efficient education. Global practice demonstrates the relevance and success of educational models that combine traditional learning with digital tools and foster the development of new forms of online education. The main directions of digital modernization include the implementation of partnership pedagogy, optimization of organizational processes, and updating the educational business model. This involves creating online platforms, digitizing materials, using big data to analyze educational demands, constructing individual learning trajectories, remote teamwork, modeling educational situations, testing, and providing remote access to laboratory equipment and research resources. Open educational resources can exist in the form of video lectures, electronic materials, textbooks, tests, and specialized programs. Their “openness” implies not only free access but also the absence of restrictions on their use (Tolochko, 2021, pp. 29–30).

Based on the most common classifications by Ukrainian researchers (Bandura, 2018; Bobrytska, 2015; Ovcharuk, 2019; Pometun, 2004; Starosta, 2019; Tolochko, Bordiug, Knysh, 2020) and the results of a survey of teachers at the St. Basil the Great Catholic School in Ivano-Frankivsk regarding practically applied IT, the types of IT that most effectively support the assimilation of educational material by primary school students were identified. The results showed that the lowest educational outcomes are achieved under conditions of passive learning (reading – 10%), while the highest results are seen with interactive learning, such as working in discussion groups (50%), learning through action (75%), and teaching others or immediate application (90%). These are generalized data; naturally, results may vary in individual cases, but the pattern is evident in the work of every teacher (Bilavych, Ozarko, 2025).

This provides grounds for the conclusion that IT, when combined with classical or traditional teaching, contributes to positive educational outcomes. The variety of IT tools allows teachers to select effective methods tailored to specific topics and to the individual characteristics and knowledge levels of students—in this case, in language and literature subjects.

Using interactive methods enables students to complete more tasks during lessons in Ukrainian language, literary reading, and English in primary school, achieving higher efficiency in mastering the material and developing relevant skills. Moreover, learning activities with IT foster students’ motivation to learn and cultivate important social skills, such as teamwork. Group work can also be conducted in pairs, allowing students to collaborate and complete tasks together, exchange ideas, and perform exercises more quickly – tasks that may not always be possible in traditional lessons. Additionally, the mosaic method supports the combination of group and whole-class work, with small groups able to work on different assignments simultaneously.

For language and literature disciplines, which traditionally rely on textual materials and interpretation, IT opens new opportunities for comprehension, creative interaction, and the development of students’ critical thinking. In this context, preparing future teachers to use digital tools in their professional activities becomes particularly relevant. The use of digital instruments enhances several aspects of the learning process:

- working with texts and developing language skills is supported by corpus technologies, such as the National Corpus of the Ukrainian Language, which help students analyze linguistic phenomena across large text corpora. Online platforms for editing and checking written work, like Language Tool and the “Dictionaries of Ukraine” (NASU), contribute to the formation of spelling and grammatical competence. These tools are also used for studying word frequency, stylistic features, and contextual analysis. Digital language labs, such as Sketch Engine and AntConc, help higher education students develop text-processing skills;
- studying Ukrainian and foreign literature and analyzing literary texts is facilitated by digital archives and libraries (e.g., E-library “Chytko”, “Diasporiana”), which provide access to rare publications and manuscripts. Visualization services like Canva and Genially assist in creating interactive character maps, timelines, and literary portraits. Virtual literary museums of Ukrainian writers allow for multimedia excursions, museum lessons, library classes, and other interactive activities;
- organizing interactive learning is supported by collaborative platforms like Google Workspace, Padlet, and Miro, which enable collective text analysis;
- services for creating tests, such as Quizizz, Kahoot!, and Classtime, provide opportunities for rapid knowledge assessment of students.

In our view, preparing future specialists to teach language and literature disciplines using digital tools should include not only a theoretical component – such as courses in digital pedagogy, modules on teaching methodology for Ukrainian language and literature in digital environments, and familiarization with regulatory documents on the digitalization of education – but also a practical component. The practical component should cover creating one’s own electronic courses in LMS platforms like Moodle, Google Classroom, or Canva, developing multimedia lectures and digital case studies for language and literature subjects, designing online lessons, conducting microteaching sessions using digital resources, and more. An important aspect is the research component, which involves higher education and pre-higher education students carrying out mini-projects such as creating online dictionaries, test tasks in various formats, interactive dictionaries for correct word stress and normative usage, literary portraits of writers, “passports” of literary works, interactive maps illustrating major stages of writers’ lives and activities, as well as their creative connections using Genially. These projects may include video clips, maps, QR codes linking to digitized primary



sources, comparisons of the effectiveness of traditional versus digital text analysis methods, studying the impact of interactive platforms on student performance, analyzing how literary works are perceived in multimedia formats, interactive literary analysis, and learning to work with Padlet using AI, among other activities.

A certain level of experience in using IT for the professional training of future specialists in extracurricular activities has been developed through the work of the University of the Gifted Child (UGC), which has been operating since 2017 at the Vasyl Stefanyk Precarpathian National University under the leadership of prof. H. Bilavych. As part of the "Interesting Holidays" project, each year lecturers and student volunteers create a barrier-free educational platform and a rich developmental environment for younger schoolchildren and adolescents. Under the guidance of lecturers, students conduct master classes in the IT School, School of Language Ecologists, School of Polyglots, Literary Workshop, School of Rhetoric, School of Creative Ideas, and others using IT. Volunteers at UGC understand that, in the context of the Russian-Ukrainian war, children represent the most vulnerable group in Ukrainian society and require support. It is crucial not only to preserve children's lives and protect their rights but also to provide them with a childhood in which they feel safe, healthy, educated, and nationally aware. Creating a barrier-free environment gives students equal opportunities to realize their creative potential and natural abilities, develop a national-linguistic worldview, and cultivate their personalities as "ecologists of the Ukrainian language" and polyglots (for more details see Bilavych, Ilichuk, Maliona, Savchuk, Dovgij, Yaremchuk, 2021). Participation in UGC activities also contributes to the development of both language and digital competencies among students.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Training future specialists for the use of digital technologies in teaching language and literature disciplines is an important factor in modernizing the Ukrainian system of pre-higher and higher education. Digital tools not only enhance the effectiveness of the learning process but also contribute to the development of students' creative and critical thinking. Systematic training of future teachers enables the formation of modern digital competence (DC), which is a necessary condition for professional growth in the information society. The digital competence of a future specialist includes the ability to work with digital resources and services, the capacity to create and adapt electronic educational materials, the development of skills for organizing online and blended learning, and the readiness to use digital tools for assessment, communication, and collaboration. When using IT in language and literature lessons in the New Ukrainian School (NUS), it is important to follow a number of organizational and pedagogical conditions. In particular, digital tools should correspond to the didactic objectives of the lesson and meet ergonomic requirements for program materials (readability of text, image quality, etc.). It is essential to consider the age and individual characteristics of children, including students with special educational needs. Maintaining students' motivation, creating a friendly atmosphere for interacting with digital tools, and ensuring an adequate level of the teacher's own digital competence are crucial. Sanitary and hygienic standards regarding the duration of IT use must be observed, and both the advantages and possible limitations of digital tools should be acknowledged. Future teachers should pay special attention to developing students' communicative activity, fostering Ukrainian-language identity, particularly among children from internally displaced families. Equally important are skills in critically evaluating information from the internet, creating a language-ecological environment, and promoting ICT literacy and language proficiency among parents.

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INFORMATION COMPETENCE OF THE MODERN TEACHER IN THE CONTEXT OF THE DIGITAL TRANSFORMATION OF EDUCATION

Abstract. The article explores the essence of teachers' informational competence as a pivotal component of professional activity in the context of the digital transformation of education. The conceptual framework is analyzed, the structural components of competence are delineated, and methodological approaches to its development are presented. It is highlighted that the contemporary educational environment is characterized by the rapid advancement of digital technologies, the increasing volume of information, and the necessity for the ability to critically evaluate, systematize, and effectively apply information in the educational process. Informational competence encompasses a set of skills, including searching, analyzing, interpreting, storing, creating, and transmitting information using digital tools. The article also underscores the interrelation between informational literacy, media literacy, digital culture, critical thinking, and academic integrity.

It is shown that the formation of information competence is an important condition for increasing the effectiveness of learning, developing independence and integrating innovative methods into practice. Special attention is paid to the role of digital resources, educational platforms that create opportunities for personalized learning, distance interaction and the formation of a digital educational environment.

The main challenges facing teachers in the context of digitalization are considered: the need for constant updating of digital skills, working with large amounts of information, ensuring data security and organizing digital interaction. Based on the scientific works of Ukrainian researchers, the challenges of digitalization and ways to improve the quality of digital education of teachers are analyzed. The results of the study summarize the characteristics of the interpretation of the concepts of digital culture, digital literacy and digital competence of a teacher in the context of modern requirements. The importance of information competence for the modernization of the educational process and the implementation of the Concept of the New Ukrainian School is substantiated.

It is noted that a teacher's informational competence constitutes a key factor in the successful modernization of schools and ensures the effective functioning of the educational process amid the changes driven by digital transformation.

Keywords: professional training of teachers, information competence, digitalization, digital transformation of education, teacher, digital literacy, digital culture.

ІНФОРМАЦІЙНА КОМПЕТЕНТНІСТЬ СУЧАСНОГО ПЕДАГОГА В КОНТЕКСТІ ЦИФРОВОЇ ТРАНСФОРМАЦІЇ ОСВІТИ

Анотація. У статті розкрито сутність інформаційної компетентності вчителя як ключового компонента професійної діяльності за умов цифрової трансформації освіти. Проаналізовано поняттєвий апарат, окреслено структурні компоненти компетентності й представлено методологічні підходи до її формування. Акцентується, що сучасний освітній простір характеризується стрімким розвитком цифрових технологій, зростанням обсягу інформації та потребою в умінні критично оцінювати, систематизувати й ефективно застосовувати її в освітньому процесі. Інформаційна компетентність включає сукупність навичок: пошуку, аналізу, інтерпретації, зберігання, створення та передачі інформації за допомогою цифрових інструментів. У статті наголошується на зв'язку інформаційної грамотності з медіаграмотністю, цифровою культурою, критичним мисленням та академічною доброчесністю.

Показано, що формування інформаційної компетентності є важливою умовою підвищення ефективності навчання, розвитку самостійності та інтеграції інноваційних методів у практику. Особлива увага приділяється ролі цифрових



ресурсів, освітніх платформ, які створюють можливості для персоналізованого навчання, дистанційної взаємодії та формування цифрового освітнього середовища.

Розглянуто основні виклики, що стоять перед вчителями в умовах цифровізації: необхідність постійного оновлення цифрових навичок, робота з великими обсягами інформації, забезпечення безпеки даних та організація цифрової взаємодії. На основі наукових праць українських дослідників проаналізовано виклики цифровізації та шляхи підвищення якості цифрової освіти педагогічних працівників. Результати дослідження узагальнюють характеристики інтерпретації понять цифрової культури, цифрової грамотності та цифрової компетентності вчителя в контексті сучасних вимог. Обґрунтовано значення інформаційної компетентності для модернізації освітнього процесу та реалізації Концепції Нової української школи.

Зазначено, що інформаційна компетентність вчителя є одним із ключових чинників успішної модернізації школи та забезпечує якісне функціонування освітнього процесу в умовах змін, спричинених цифровою трансформацією.

Ключові слова: професійна підготовка вчителів, інформаційна компетентність, цифровізація, цифрова трансформація освіти, педагог, цифрова грамотність, цифрова культура.

INTRODUCTION

The problem formulation. The digital transformation of Ukrainian education has substantially redefined the requirements for teachers professional activities and highlighted the imperative of developing their informational competence. In the context of rapid technological change, teachers are expected to do more than just master digital tools; they must also be able to critically evaluate information, design high-quality educational content and ensure the digital safety of their students. However, research and practical experience suggest that the development of teachers information literacy remains uneven, hindering the implementation of contemporary educational models. This situation necessitates the scientific substantiation of methods and methodological frameworks for cultivating informational competence under current conditions. As a key trend in modern educational development, digitalisation transforms all fundamental aspects of the educational process, including objectives, content, pedagogical methods, organisational forms and instructional tools, across all levels of education, from primary to higher. These requirements are further reflected in the Digital Competence Framework for Pedagogical Workers (Conceptual and Reference Framework for Digital Competence of Pedagogical and Scientific-Pedagogical Workers).

Digital Competency Framework for Pedagogical and Scientific-Pedagogical Workers: Project. Ministry of Digital Transformation of Ukraine), effective communication in a digital learning environment involves not only mastering online tools, but also the ability to moderate educational discussions and integrate digital resources to support interactive learning. This framework not only outlines levels of digital literacy, but also defines new approaches to professional communication, making it more accessible, flexible, and ethical.

Digital technologies are developing rapidly and transforming all areas of society, including education, which means new demands are being placed on teachers. Changing communication models, the emergence of electronic educational resources and platforms for distance and blended learning, and the active use of social networks and digital services mean that traditional teaching methods can no longer ensure an adequate standard of education. Teachers now face a dual challenge: they must not only master modern digital tools themselves, but also teach their students to use them rationally, critically and safely. In the context of reforming Ukrainian education, implementing the Concept of the "New Ukrainian School" and transitioning to a digital educational environment, the issue of developing teacher information competence is gaining strategic importance. Thus, the Concept of the New Ukrainian School states that information and digital competence includes the ability to confidently and critically apply information and communication technologies to create, search, process, and exchange information in professional activities, as well as information and media literacy, security, and ethical use of information (Concept of the New Ukrainian School).

The relevance of the formation of information competence is stated in particular in the Concept of the Development of Digital Competencies by 2025, the document emphasizes that the main tasks that will contribute to digital development are the formation of digital skills and digital competencies in society (Concept of the Development of Digital Competencies by 2025 and its significance).

In this document, digital competence is conceptualized as a dynamic integration of knowledge, skills, abilities, cognitive strategies, attitudes, and other personal attributes in the domain of information, communication, and digital technologies, which determines an individual's capacity to effectively participate in social, professional, and educational activities mediated by these technologies. The framework encompasses the cultivation of digital skills across all age cohorts; the establishment of conditions for the optimal utilization of digital resources, including educational platforms and assessment instruments; the enhancement of awareness concerning the hazards of the digital environment; the formulation of legal and methodological instruments to underpin state policy in the field of digital competencies; and the development of indicators for the systematic monitoring of digital literacy. The Concept of the Development of Digital Competencies by 2025 delineates the principal challenges associated with advancing digital competence in Ukrainian society, articulates strategic measures to address these challenges, and specifies the anticipated outcomes of its implementation. It constitutes the foundation for the formulation of a national strategy and a strategic action plan aimed at the coordinated advancement of digital competencies throughout society (Concept of the Development of Digital Competencies by 2025 and its significance).

Analysis of recent research and publications. The information competence of a modern teacher was studied by O. Barna, V. Bykov, S. Goncharenko, G. Selevka, O. Ovcharuk, M. Zhaldak, A. Chychuk, M. Morse, etc. The concept, structure of digital competence, and its levels are highlighted in the studies of N. Morse, O. Bazelyuk, I. Vorotnikova,



N. Dementievskaya, etc. (Morse, Bazelyuk, Vorotnikova, Dementievskaya, Zakhar, Nanaeva, Chernikova, 2019), the definition of digital competence is given and different approaches to its interpretation in pedagogical discourse are shown in the works of O. Ovcharuk, O. Spirin (Spirin, Ovcharuk, 2021), the levels and stages of the formation of a teacher's digital competence are highlighted in the studies of M. Kryvonos (Kryvonos, 2023). Despite significant scientific achievements, the issues of integrating digital tools into the professional activities of teachers in the context of digitalization and modern challenges remain insufficiently analyzed, which makes further research relevant.

THE AIM AND RESEARCH TASKS

The article's purpose is to theoretically substantiate the essence of the information competence of a modern teacher and determine effective methodological approaches to its formation in the conditions of digital transformation of education.

RESEARCH METHODS

A number of methods were used in the research process, including: analysis, comparison, and systematization of psychological and pedagogical literature on the issue of teacher information competence.

RESULTS OF THE RESEARCH

The digital revolution in education is causing fundamental changes to the professional activities of modern teachers and creating new requirements for their professional competence. The challenge lies in determining the content, structural components and mechanisms for developing the information literacy of modern teachers, and in finding effective ways to develop this skill in line with the challenges posed by the digital transformation of education.

We agree with the opinion of O. Storonska and M. Vorobel, who interpret the concept of "digital competence" as an integral characteristic that combines digital literacy and digital culture, encompassing knowledge, skills, values, worldviews and ethical orientations regarding the use of digital technologies in professional activities. This approach allows us to consider the digital competence of a teacher as a key factor in its successful implementation in the conditions of intensive digital transformation of education (Storonska, & Vorobel, 2023).

Although the issue of teacher training in the context of the digitalisation of the Ukrainian education system has been the subject of many scientific studies, a number of issues remain unresolved, including those related to the conceptual and categorical apparatus. The results of scientific research reveal various aspects of this problem, such as the professional development priorities of modern teachers in the context of digital challenges (The Concept of the Development of Digital Competencies by 2025 and its significance), the essence and structure of digital competence (Morse, Vember, & Gladun, 2019), features of the development of digital skills of teachers at different levels of the education system, especially general education schools (Zhaldak, 2013), etc. A significant number of scientific studies reveal the impact and consequences of the digitalization of education on the professional activities of a teacher, in particular changes in its goals, objectives, and directions (Ryabova, & Yelnikova, 2020).

Drawing on the findings of our analysis of the sources, we conclude that information competence is not only an integral component of ICT competence, but also a vital resource in ensuring educational quality, academic integrity, digital security, and pedagogical autonomy. The studies examined the development and manifestation of teachers information competence in the context of the digital transformation of education. The digital transformation of the education system leads to fundamental changes in the professional activities of teachers, which subsequently places new requirements on their professional competence. In particular, a significant update and expansion of the tasks of pedagogical activity under the influence of the digitalization of education requires the formation of digital skills and abilities of the teacher as integral components of his professional competence (Kryvonos, 2023).

Digitalization is a reflection of the modern paradigm of social development, where competitiveness and efficiency appear as vital qualities of a specialist.

We state the following based on the results of the analysis of the source database: in the Ukrainian scientific discourse on the formation of information competence in higher education students, a number of concepts have emerged that characterise this component of a modern teacher's professional competence in the context of the digital transformation of education (see Table 1). These include, in particular, the concepts of digital literacy, digital culture, digital awareness, digital competence, etc.

Table 1

Information competence of a teacher in the dimension of scientific discourse

Concept	Definition	Author	Source
Information competence of the teacher	The ability to adapt scientific information to the specifics of the pedagogical process, formulate pedagogical problems and use various information and communication tools to solve them.	O. Shelever, L. Kapitan, Y. Bordian	Shelever O., Kapitan L., Bordian Ya. Information competence as a basis for the professional development of a modern teacher. Pedagogical innovation: modernity and prospects. 2025. No. 7. Pp. 125-129.
Information literacy	Skills in working with information in educational and professional activities and the ability to search for, process, and apply it.	N. Vakulenko	Vakulenko N. Information competence of future specialists in the field of technological education. Ukrainian Professional Education. 2021. No. 9-10 pp. 15-28.



Information literacy	A system of knowledge, skills and abilities that allows you to effectively work with information in professional and educational activities.	M. Bilyanska	Bilyanska M. M. Information competence as a component of professional training of a future teacher. Problems and innovations in natural science, mathematics, technological and vocational education: collection of materials of the 13th International Scientific and Practical Online Internet Conference, Kropyvnytskyi, June 13-28, 2022. Kropyvnytskyi: RVV TSPU named after V. Vynnychenko, 2022. P. 113-115.
Information and digital competence of the teacher	The ability to navigate in the information space, receive information and operate with it in accordance with one's own needs and the requirements of a modern high-tech society.	O. Polyakova	Polyakova O. V. Information and digital competence of a teacher as a factor in the implementation of a culture of democracy in education V All-Ukrainian scientific and practical Internet conference "Implementation of the principles of democracy in preschool and primary education: balance, awareness, experience", September 15, 2022, Kyiv, Ukraine.

Analysing the scientific approaches of individual Ukrainian researchers (see Table 1) shows that information competence is interpreted as an individual's ability to search for, critically analyse, process and ethically use information in professional activities. The most generalised and relevant approach to modern educational challenges is presented in the Concept of the New Ukrainian School, in which a teachers information and digital competence combines information and media literacy, ICT proficiency, and adherence to the principles of digital security and academic integrity.

The relevance of the formation of information competence is reinforced, in particular, by the Concept of the Development of Digital Competencies by 2025, which states that the main tasks that will contribute to digital development are the formation of digital skills and digital competencies in society. This document additionally identifies priority areas and main tasks for the development of digital competencies, increasing the level of digital literacy of the population; provides for the development of a methodology and conducting research in the field of digital competencies, assessing their level in different segments of the population, in particular among teachers; outlines the framework of digital competencies and creates indicators for their monitoring; describes ways to obtain digital education and continuous development of professional digital competencies during advanced training, etc. (Concept of the Development of Digital Competencies by 2025 and its significance; Morse, Vember, & Gladun, 2020).

The digital metamorphosis of education engenders profound alterations in the structuring of the educational process, communication between participants in the educational milieu, and the role of the teacher. The traditional role of the teacher as a source of knowledge is evolving into that of a facilitator, moderator and mentor who can work with large amounts of information, use digital resources, provide a safe learning environment and promote students digital literacy. This is why information competence is becoming a key element of a teachers professional activity. A modern teacher operates in conditions of the digital transformation of education, which requires a significant expansion of the content and structure of their professional activity. The structure of information competence is quite complex, which requires taking into account the components of information competence in the professional training of a future teacher. Table 2 presents some views of Ukrainian scientists on this problem.

Table 2

Approaches of Ukrainian scientists to determining the components of a teacher's information competence

Author	Year	The main components of in-formation literacy
O. Spirin	2011	Information literacy; the ability to search, analyze and evaluate information; the use of ICT in professional activities.
N. Morse	2018	Digital literacy; ability to work with digital educational re-sources; creation of one's own digital content; digital com-munication.
V. Bykov	2019	Information and communica-tion skills; working in a digital educational environment; ped-agogical design of digital re-sources.

Source: (Spirin, 2011; Morse, 2018; Bykov, 2019)

Based on the work of Ukrainian researchers (Spirin, 2011; Morse, 2018; Bykov, 2019) (see Table 2), it is advisable to consider the information competence of a teacher as an integrated quality that includes: the ability to work with information (search, critical analysis, structuring); the ability to use digital tools for learning; creating one's own digital



educational content; compliance with ethical norms and security requirements in the digital environment; awareness of the influence of the information space on the personal development of students.

The transformation of education into a digital format is altering the professional roles of a contemporary educator: they become not only the transmitter of knowledge, but also the mediator of educational digital processes, the architect of multimedia materials and a guide in digital literacy of learners. As V. Bykov (2019) notes, the digital educational environment demands new professional competencies from teachers and requires them to have a high level of information and communication skills. In this context, the key manifestations of the transformation of education are blended and distance learning, the use of digital platforms (Google Classroom, Moodle, "All-Ukrainian School Online"), the active creation of digital content and the formation of media literacy as an important component of the competency-based approach of the New Ukrainian School. Based on the work of the above-mentioned scientists, it is possible to single out effective directions for the formation of information competence of a primary school teacher, which take into account the specifics of working with younger schoolchildren. These directions include the formation of information culture and digital literacy of a teacher, which involves the ability to consciously work with information and understand the role of information and communication technologies in the educational process of primary school. It is important to master the pedagogically appropriate use of ICT in teaching, in particular the use of digital educational platforms, interactive tools and educational applications in accordance with the age and psychological and pedagogical characteristics of students. A significant role is played by the development of skills to create and adapt digital educational resources, such as presentations, interactive exercises and electronic didactic materials. Special attention should be paid to the formation of skills for safe and ethical work in the information environment, which includes compliance with copyright norms, digital security and responsible online behavior. At the same time, an important direction is the development of the teacher's critical thinking in assessing the quality and reliability of information, as well as the ability to adapt it to the educational opportunities of younger students. In general, the formation of information competence of a primary school teacher also involves an orientation towards continuous professional self-development in a digital educational environment.

The above points show us that there are a number of ways to develop information and communication skills.

1. Competency-based approach – compliance of the content of the training with the requirements of the teacher's professional standard.
2. Modular-resource approach – formation of digital skills through work with interactive modules and online tasks.
3. Project-based learning – development of teachers' own digital educational products.
4. Practically oriented approach – implementation of pedagogical cases from the real digital environment of the school.
5. Mentoring model – support of teachers by educational coaches and digital tutors.
6. Integration of media education – development of critical thinking, ability to work with information and create media content.

Consequently, the notion of digital competence of a teacher in contemporary scientific literature is ordinarily generalised to a sophisticated attribute of his personality, which is predicated on a system of knowledge, skills, worldview, value orientations and ethical attitudes related to the utilisation of digital technologies in professional and pedagogical activities. The content of this concept emphasises its integrated nature as a dynamic combination of knowledge, experience, values, attitudes and ways of thinking, which ensure a teacher's ability to perform their professional duties successfully.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

It has been concluded based on the analysis of regulatory documents and works of Ukrainian scientists that information competence is a complex pedagogical phenomenon, one of the basic competencies of a modern teacher in the context of the digital transformation of education and a key condition for his successful professional activity. A teacher's information competence comprises technological, information-analytical, communicative, and ethical components. Information competence should be developed through competency-based, practice-oriented, project-based and modular approaches. The Ukrainian scientific school has developed significant theoretical provisions on structuring a teacher's digital competence which require further integration into educational practice. Developing a teacher's information competence improves the quality of education and facilitates the implementation of the Concept of the New Ukrainian School. It also enables the educational process to adapt to the conditions of digitalisation and military challenges. Further research could focus on analysing and experimentally verifying effective pedagogical conditions and models for developing the information competence of primary school teachers in the context of digital and blended learning.

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MEDIA TEXT AS A TOOL FOR SHAPING THE LINGUISTIC PERSONALITY OF 5TH–6TH GRADE STUDENTS IN UKRAINIAN LANGUAGE LESSONS

Abstract. The article substantiates the relevance of using media texts as an effective resource for developing students' language competence in Ukrainian language lessons within the framework of the New Ukrainian School. It highlights the impact of the rapid growth of the media space and the spread of innovative media education resources on the need for systematic preparation of students to work with media-digital materials. Media texts, combining verbal, visual, and audio elements, are shown to serve not only as an object of analysis but also as a powerful tool for enhancing speech skills, critical thinking, information retrieval abilities, and the creation of original media products. The study analyzes the language and methods of presenting media texts in modern Ukrainian language textbooks and outlines methodological techniques for their classroom use (analytical reading, work with infographics, creation of blogs, podcasts, and interactive projects). The importance of media didactics and digital tools (Padlet, Canva, Genially, etc.) is emphasized as a means of increasing students' motivation, enriching their vocabulary, and fostering communicative and information-media competence. The purpose of the study is to reveal the features of working with media texts as an effective resource for the formation of language competence of students in Ukrainian language lessons in grades 5-6 of the New Ukrainian School. The author emphasizes that the interdisciplinary nature of media literacy, the understanding of media text as a means of integrating school subjects and media resources, determines the mandatory formation of media literacy and speech competence as basic competencies, and also actualizes the need for dialogization and an interdisciplinary approach during educational interaction of students in Ukrainian language lessons during the adaptation cycle of education in grades 5-6 of the New Ukrainian School. The proposed recommendations can be applied by Ukrainian language teachers to update educational content and organize blended or distance learning.

Keywords: media text, media education, media literacy, language competence, Ukrainian language, language personality, development, integration.

МЕДІАТЕКСТ ЯК ІНСТРУМЕНТ ФОРМУВАННЯ МОВНОЇ ОСОБИСТОСТІ УЧНІВ 5-6 КЛАСІВ НА УРОКАХ УКРАЇНСЬКОЇ МОВИ

Анотація. У статті обґрунтовано актуальність використання медіатекстів як ефективного ресурсу формування мовної компетентності здобувачів освіти на уроках української мови в умовах Нової української школи. Розкрито вплив стрімкого розвитку медіапростору та поширення інноваційних медіаосвітніх ресурсів на необхідність системної підготовки учнівської молоді до роботи з медійно-цифровими матеріалами. Визначено, що медіатекст, поєднуючи вербальні, візуальні та аудіальні елементи, стає не лише об'єктом аналізу, а й дієвим засобом розвитку мовленнєвих умінь, критичного мислення, навичок інформаційного пошуку та створення власних медіапродуктів. Проаналізовано мову й способи представлення медіатекстів у сучасних шкільних підручниках з української мови, окреслено методичні прийоми їх застосування на уроці (аналітичне читання, робота з інфографікою, створення блогів, подкастів, інтерактивних проєктів). Акцентується на значенні медіадидактики та цифрових інструментів (Padlet, Canva, Genially тощо) для підвищення мотивації здобувачів освіти, збагачення їхнього лексичного запасу, розвитку комунікативної та інформаційно-медійної компетентності. Мета дослідження полягає у розкритті особливостей роботи з медіатекстами як дієвого ресурсу формування мовної компетентності здобувачів освіти на уроках української мови в 5-6 класах Нової української школи.



У дослідженні автор наголошує на тому, що міжпредметний характер медіаграмотності, розуміння медіатексту як засобу інтегрування шкільних предметів і ресурсів медіа, зумовлює обов'язковість формування медіаграмотності та мовленнєвої компетентності як базових компетентностей, а також актуалізує необхідність діалогізації й міжпредметного підходу під час освітньої взаємодії здобувачів освіти на уроках української мови під час адаптаційного циклу навчання у 5-6 класах Нової української школи. Представлені рекомендації можуть бути використані вчителями української мови для оновлення освітнього контенту та організації змішаного й дистанційного навчання.

Ключові слова: медіатекст, медіаосвіта, медіаграмотність, мовна компетентність, українська мова, мовна особистість, розвиток, інтеграція.

INTRODUCTION

The problem formulation. Development of Mass Media, Rapid Expansion of Innovative Media-Educational Resources, and the Formation of Students' Media Literacy in Modern Secondary Education

The development of mass media and the rapid spread of innovative media-educational resources determine the need for a systematic preparation of school students for the effective and safe use of these resources in the educational process of modern institutions of general secondary education. This creates the necessity of high-quality training of students to master media education and media literacy, to develop information and communication competence, and to form practical skills for working with media texts.

The State Standard of Basic Secondary Education defines the fundamental knowledge for the language and literature field, which includes the following blocks: information, communication, text, literary work, and language means. Basic knowledge in language and literature education is formed during lessons in the Ukrainian language, Ukrainian and foreign literature, as well as foreign language education. The State Standard also outlines a list of key competencies and cross-cutting skills that students should acquire by the end of the adaptation cycle of study (Grades 5–6) and the basic subject-based cycle (Grades 7–9) of the New Ukrainian School (State Standard of Basic Secondary Education, 2020).

This distribution of key competencies and cross-cutting skills enables teachers, while preparing and organizing Ukrainian language lessons, to better account for the age and individual developmental characteristics, needs, and requests of students. Such an approach to organizing the educational process ensures the implementation of tasks and plans for individual educational trajectories of students. The requirements for mandatory learning outcomes are defined on the basis of a competence-based approach, which provides a list of key competencies. With regard to the language and literature field, this list includes: information and communication competence, free command of the state language, the ability to communicate in one's native language (if different from the state language), and foreign languages. Cross-cutting skills are formed while studying all integrated courses or subjects, as they are common to all competencies that school students must master. These include the ability to read with understanding; to express one's own opinion orally and in writing; to think critically and systematically; to act creatively; to show initiative and logically justify one's position; to manage emotions constructively; to assess risks and make decisions; and to solve problems (State Standard of Basic Secondary Education, 2020).

The requirements of the State Standard (2020) and the realities of the modern information space necessitate updating the methodology of working with media-digital resources in Ukrainian language lessons. The powerful flow of media content (news, blogs, podcasts, social networks, multimedia platforms) creates a new culture of text perception and raises demands on the level of language literacy. In this context, proficiency in media-digital resources facilitates the preparation of students to work with various types of media texts. Under these circumstances, the media text becomes not only an object of analysis but also an effective tool for forming students' language competence, which involves the development of speech skills, linguistic competence, critical thinking, the ability to work with information, and the creation of their own media texts.

As stated in the Standard, "free command of the state language implies the ability to communicate in oral and written form based on knowledge of the functions of language, its resources (vocabulary, grammar) and norms of modern Ukrainian literary language, types of linguistic interaction, and features of the styles of informational and artistic texts, media texts, etc. It also presupposes the ability to obtain and process information from various (printed and digital, including audiovisual) sources in different educational fields and contexts, to critically comprehend it and use it for oral and written communication, for defending one's views, beliefs, social and national values..." (State Standard of Basic Secondary Education, 2020).

Analysis of recent research and publications. The issue of developing media literacy among the younger generation has been the subject of research by Ukrainian scholars (V. Baidyk, K. Binitska, O. Volosheniuk, O. Hanyk, V. Holoshchapova, H. Dehtiarova, A. Yermolenko, V. Ivanov, T. Ivanova, L. Kulchynska, O. Mokrohuz, and others). Researchers consider the media text as a multi-channel product that combines verbal, visual, and audio elements and transmits information in the context of mass communication. Scholars (O. Achylova, O. Bartash, N. Habor, L. Matsko, O. Ponomareva, I. Liashenko, and others) emphasize that media texts foster the formation of media education and media literacy in young people, develop skills of critical reading and analysis of media texts, and ensure the connection of educational content with real sociocultural processes and students' life experience.

As researcher L. Bashmanivska notes in the article "Topical Issues of the Language of Modern Media Texts": "Today, the language of media texts has become a certain indicator of social processes and reflects changes in methods of information transmission, language practices, and also responds to the demands of an audience striving



for interactivity and personalized experience. This is one of the key factors determining the effectiveness and influence of the media” (Bashmanivska, 2025).

The analysis and description of various types of media texts are the focus of linguistics, communication theory, and media education. Scientific investigations by O. Volosheniuk, V. Ivanova, O. Podariashcha, I. Serebrianska, and H. Onkovych reveal the educational and sociocultural functions of media texts, describe general psychological and pedagogical aspects of their analysis, and define contextual connections in the information-digital society within the framework of new information-communication and digital paradigms of educational development.

The process of forming students’ media literacy during the study of the language and literature field is addressed in the works of N. Bondarenko, N. Hohol, O. Isaieva, L. Melnyk, O. Slyzhuk, V. Shuliar, and others.

THE PURPOSE OF THE RESEARCH

The purpose of the research is to reveal the specific features of working with media texts as an effective resource for developing students’ language competence in Ukrainian language lessons in Grades 5–6 of the New Ukrainian School.

The objectives of the research are to:

- conduct an analysis of the language of media texts in basic school textbooks on the Ukrainian language;
- identify the specific features of presenting material in modern media texts;
- summarize the ways of presenting media texts in Ukrainian language school textbooks;
- reveal the features of students’ media training in Ukrainian language lessons;
- scientifically substantiate and test the effectiveness of a methodology for developing the language personality of students in Grades 5–6 through the systematic use of media texts, and determine its impact on the development of students’ communicative, speech, and media literacy competencies.

RESEARCH METHODS

The methodological basis of the study included methods of content analysis of texts for a thorough examination of psychological, pedagogical, and methodological resources (school textbooks, educational and methodological manuals, workbooks for the development of media literacy); systematization of scientists’ views and achievements; methods of linguistic analysis and synthesis for forming knowledge about the functioning of language units; descriptive methods to highlight the specifics of educational media texts; and the method of continuous sampling for systematizing the types of media texts used in school textbooks.

For Ukrainian language lessons, it is particularly important that a media text reflects living language practice, enriches students’ vocabulary, and demonstrates the variability of styles and genres.

RESULTS OF THE RESEARCH

The modern educational environment is characterized by an ever-increasing flow of information reaching students through diverse communication channels. Learners are constantly immersed in the media space: they read news, watch video blogs, use social networks, and listen to podcasts. The rapid development of the media sphere is transforming approaches to teaching the Ukrainian language.

Researchers of media education processes S. Verbeschuk, N. Lutsan, and I. Chervinska emphasize that “the modern educational process requires the integration of innovative media tools capable of significantly enhancing students’ communicative skills. The importance of being able to adequately articulate one’s thoughts and emotions, as well as to deliver logical and coherent monologues, is beyond doubt, since these skills form the foundation of effective communication in society” (Verbeschuk, Lutsan & Chervinska, 2024).

School-age youth interact daily with a variety of media texts—news, advertisements, social media posts, podcasts, videos, blogs, and multimedia articles. Using these texts in Ukrainian language lessons not only increases motivation but also creates a natural environment for developing language competence, which includes the ability to perceive, analyze, interpret, and produce oral and written statements in accordance with communicative norms.

Under these conditions, traditional forms of teaching Ukrainian require renewal. One of the most effective tools for updating educational content is working with media texts. A media text serves not only as learning material but also as a resource for developing language competence—the ability to use the Ukrainian language correctly, precisely, appropriately, and expressively in all spheres of communication.

In mainstream pedagogical practice, experience in organizing learning through various media-educational resources is actively emerging. Media didactics, as an innovative branch of pedagogical knowledge, offers a wide range of tools that make it possible to integrate educational content with media-educational methods and techniques in Ukrainian language instruction. The most effective include:

Visual media using infographics, maps, and digital collages to present educational content and ethnocultural heritage.

Interactive platforms (Padlet, Canva, Genially, etc.) for creating modern ethnocultural language projects.

Media narratives for building digital stories connected with folk traditions, holidays, and folklore themes.

Media text analysis integrated with discussions of films, music videos, or news in terms of cultural codes and symbols.

Network collaborations that enable international online projects where students compare ethnocultural features of different regions and ethnic groups.



Gamification techniques aimed at creating interactive quizzes and quests with QR codes revealing facts about the Ukrainian language, such as stress patterns and lexical nuances.

Mastering these media tools provides students with practical experience in applying media resources during Ukrainian language lessons.

Modern Ukrainian school textbooks (V. Zabolotnyi, Ukrainian Language, Grade 5 (2022); O. Hlazova, Ukrainian Language, Grade 5 (2022); O. Avramenko, Ukrainian Language, Grade 5 (2022); S. Svintkovska et al., Ukrainian Language, Grade 5 for Schools with Instruction in Moldovan (2022), and others) of the New Ukrainian School actively employ various types of work with media texts, which enhances effectiveness and fosters the development of students' critical thinking.

Textbooks developed by scholars of the Institute of Pedagogy of the National Academy of Educational Sciences of Ukraine for the adaptation cycle of basic secondary education are aimed at shaping a holistic system of knowledge, skills, and value orientations in 5th–6th graders. As T. Zasiékina and O. Topuzov note, "In designing the didactic system and the concept of textbooks as its components, it was taken into account that new instructional materials should focus on achieving the expected learning outcomes defined by model curricula and on forming key competencies and cross-cutting skills specified by the State Standard of Basic Secondary Education" (Topuzov & Zasiékina, 2022, p.195).

Researcher N. Bondarenko highlights the positive impact of working with media texts on the development of students' language personality. In her view, this type of activity "opens opportunities to supplement and update textbook content with interesting and useful up-to-date information, newly presented scientific discoveries, and facts that stimulate discussion and sometimes even refute the data given in the textbook" (Bondarenko, 2021, p.16).

In the context of martial law, well-organized work with media texts is particularly relevant for distance and blended learning formats. Organizing the educational process under such conditions requires intensifying media-digital content, increasing student engagement with the media space, mastering information-digital resources, and analyzing media texts that convey verbal or non-verbal information in textual, graphic, associative, and other forms.

The methodology of using media texts in grades 5–6 represents a multi-level system where lessons, exercises, and creative projects complement one another. Students not only master linguistic norms but also become active communicators capable of critical thinking, information evaluation, and responsible creation of their own media texts.

Analyzing modern media texts, Bondarenko notes that their content extends beyond traditional texts by combining media and verbal units. Effective work with media texts in Ukrainian lessons, she argues, requires students to complete diverse tasks, primarily of a creative and research nature, such as:

- analyzing the content of a media text;
- connecting a media text with printed textbook material;
- supplementing media text information with examples from a textbook or real-life situations;
- interpreting a media text within the textbook;
- determining the cognitive value or novelty of a media text;
- selecting thematically related media texts that provide new information (Bondarenko, 2021, p.17).

Media texts—news reports, analytical articles, advertisements, social media posts help students to identify main ideas, find supporting arguments, and recognize manipulative linguistic techniques. Working with media texts in Ukrainian language lessons in grades 5–6 promotes language competence, media literacy, and the ability to edit texts according to language norms while creating original media products such as blogs, posts, and podcasts.

"Media text has established itself as a convenient means of information exchange and influence on the socio-cognitive sphere of human existence (even though information is interpreted according to the author's value system). The content of media texts affects the formation of the recipient's values, worldview, biases, and stereotypes. Media text contributes to the creation of a friendly informational and educational space and saves time and mental effort needed for perceiving, selecting, processing, understanding, and assimilating information" (Bondarenko, 2021, p.15).

Working with media texts in Ukrainian lessons is therefore an essential component of students' media education, ensuring a systematic approach to the formation of media literacy and providing a unified logic and integrity to the entire process of media-educational activity.

Ukrainian language teachers frequently use media texts during the educational process. These may include informational news fragments. For effectiveness, teachers must clearly define tasks that determine how to work with a news-format media text for example, "identify the topic and main idea, underline key words, find examples of official-business expressions."

Analysis of publicistic and conversational texts can draw on social media, which students use most actively. Tasks such as "transform a social media post into an official announcement for the school newspaper" or "explain why the author used colloquial elements ('friends,' 'and what about you?)" help develop critical thinking.

Work with commercial media texts (advertisements, posters) involves identifying linguistic means of influence such as epithets, calls to action, and emotionally charged vocabulary. A collective creative task might be to "rewrite the text in a neutral style without emotional coloring," fostering teamwork, creative interaction, and the development of emotional intelligence.

Another option for creative-analytical work is analyzing news headlines and exploring clickbait techniques. Journalists often use clickbait—sensational or misleading headlines sometimes accompanied by equally manipulative



images—to attract attention, generate advertising revenue, and increase site traffic. Creative tasks may include “compose several extended informational messages based on the provided headlines using complex sentences and direct speech,” which helps develop students’ monologic speech.

An additional area of media text work is infographics (visual-verbal material). Students learn to read infographics, work with statistical tables, analyze content, and describe it as “describe the chart using adjectives and adverbs, create a title, and summarize it in one sentence.”

Innovative techniques also include analytical reading of newspaper or magazine articles and social media posts, during which students identify the topic, subtext, and other textual units while analyzing the use of linguistic means to highlight key information. Editing tasks may involve correcting errors in a news fragment or social media publication, while stylistic transformation exercises require rewriting a news item in a different style (scientific, journalistic, literary, etc.).

Interactive options include school debates based on media texts, where participants discuss socially significant issues, prepare arguments, and present factual material. Particularly engaging are creative educational projects such as “school media center,” “school blog,” “interactive school webpage,” or “school online newspaper.” Implementing such tasks and projects combines traditional Ukrainian language instruction with the development of media competence and creativity in 5th–6th graders.

Thus, a media text is a text created and disseminated through mass communication channels (print, electronic, or online) that combines verbal, visual, and auditory codes. In contemporary mass media, the concept of “media text” serves as a basic, dynamic unit through which a specific audience communicates with the media. In this context, we concur with N. Bondarenko’s observation that “with the development of online information resources, we observe changes in the process of creating media texts: first, the authors of such texts may include not only professional journalists but also specialists in other fields (politicians, political scientists, sociologists, lawyers, etc.); second, the journalistic style and its genres are undergoing transformation. The core of the genre system of mass communication is considered to be the text of media news. News texts in online media are characterized by lexical units and stylistic techniques with a pronounced ideological orientation” (Bondarenko, 2021).

Developing students’ language competence entails enhancing lexical and grammatical knowledge, forming stylistically appropriate speech skills, and improving communicative and media literacy. The use of media texts is based on a competency-based approach that integrates speech activity with critical thinking and analytical skills.

Educational potential of media texts in Ukrainian lessons:

Relevance and motivation. Working with real-life examples increases students’ interest in language study, strengthens motivation, and highlights the importance of media education and media literacy.

Interdisciplinary integration. Media texts allow Ukrainian language instruction to be combined with history, literature, civic education, and media literacy, integrating knowledge across disciplines. This interdisciplinary nature underscores the necessity of forming media literacy and language competence as core competencies while promoting dialogue and cross-subject approaches in classroom interaction.

Critical thinking development. Analyzing news or advertisements fosters the ability to distinguish between facts and opinions and to justify one’s own position, which collectively supports the growth of critical thinking.

Formation of diverse speech activities. Working with various types of media texts involves the integrated development of reading, listening, speaking, and writing skills.

The educational and instructional context of media texts for use in Ukrainian language lessons includes materials for studying specific topics in the school curriculum or for completing various exercises. These may be news excerpts or short reports from Ukrainian online outlets such as Suspilne or BBC Ukraine; content from social media platforms (posts from Facebook, Instagram, Threads, or X/Twitter) featuring materials that describe contemporary linguistic trends.

Advertising texts—such as slogans, banners, posters, and audio commercials—are of particular interest to students. Learners also become participants and authors of podcasts and video blogs, preparing short interviews or reviews of cultural events. Examples of creative exercises with media texts in Ukrainian language lessons are presented in Table 1.

Table 1.

Examples of creative exercises with media texts

Type of Activity	Example of Media Text	Task
News Structure Analysis	Excerpt from a news portal	Identify the headline, lead, main and secondary information; create an outline.
Stylistic Editing	Social media post with colloquial elements	Rewrite the text in a journalistic style.
Lexical Work	Advertising slogan	Find synonyms/antonyms; explain emotionally evaluative vocabulary.
Creative Writing	Photo from an online publication	Write a comment or a short report using the assigned words.
Critical Analysis	Video clip	Distinguish between facts and opinions; formulate your own position.



To better understand the essence of working with media texts in Ukrainian language lessons within the New Ukrainian School, it is necessary to identify the advantages and challenges of this type of educational activity.

Advantages of working with media texts include:

- Increased motivation to learn thanks to the relevance of the material;
- Development of critical thinking and skills for safe interaction with the media environment;
- Integration of cross-curricular connections (history, civic education, computer science) through media text materials.

Challenges include:

Careful selection by teachers of media resources and materials appropriate to the age and individual characteristics of school students;

The need for Ukrainian language teachers to be prepared to work with dynamic media content;

Risks related to the dissemination of unreliable or manipulative information.

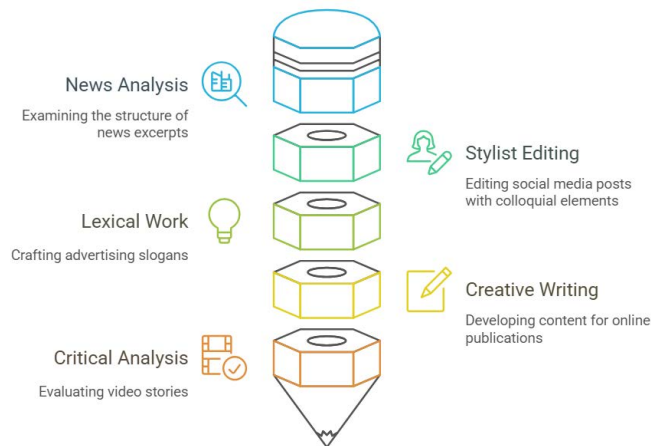


Fig. 1. Overview of various types of media activities

So, it should be noted that the media text serves as a powerful resource for developing the language competence of students during Ukrainian language lessons. Its use promotes the growth of speaking skills, media literacy, critical analysis abilities, and creative self-expression. However, it is important to emphasize that “the analysis of media texts cannot simply duplicate the work with traditional texts without taking into account their specificity. This requires the introduction of a new literacy dialogical, interdisciplinary, and so on” (Bondarenko, Vaskovska, 2021). The systematic integration of media texts into the educational process enhances the quality of language education, fosters students’ ability to use the Ukrainian language consciously and responsibly in the modern information environment, and ensures the formation of a well-rounded linguistic personality.

The integration of media education with the Ukrainian language lies in finding as many points of intersection as possible between educational content and the information flows that contemporary students encounter both during the learning process and in their organized leisure time. During this integration of language and media education, a wide range of textual resources is used: literary works, school textbooks, reference and encyclopedic literature, didactic materials and literary criticism, press materials (professional, pedagogical, and other periodicals), television broadcasts, audio and video recordings, musical works, as well as information obtained during visits to exhibitions, museums, and other cultural events.

The choice of methodological techniques for such integration depends on the media-educational and competence-based objectives of a specific Ukrainian language lesson in grades 5–6, as well as on the professional competence and level of media literacy of the Ukrainian language teacher. The ability to organically combine media education tasks with subject competencies can be realized through the application of interactive methods of educational interaction, such as:

- selecting samples of painting, graphics, or music that correspond to the literary text under analysis;
- conveying the content of poetic works or students’ own poems through visual representation in drawings, comics, or scribing based on what they have seen or heard;
- creating original media products through online interaction (fanfiction style), announcing premieres, writing or producing advertising videos, video clip scripts, reviews, and more.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Effective examples of practical use of media education technologies in Ukrainian language lessons in grades 5–6 include preliminary viewing and analysis of films followed by the writing of an annotation. While working on the annotation, students are encouraged to record the characters’ thoughts and feelings, identify subtext, and explore the memories and relationships of the on-screen characters. It is important for students to experience the role of a



film critic who provides a detailed review of the viewed film, including the characterization of style, historical period, characters, structure, conflict, and its comparison with the literary source.

Thus, it is worth noting that the described innovative approaches and techniques of working with media texts aim to develop a linguistic personality as an active, critically thinking, and socially responsible communicator. The combination of psychological-pedagogical and linguodidactic principles ensures motivation (media texts and life-relevant situations for a particular individual), develops communicative skills (oral and written speech, multimedia products), and forms value orientations (responsibility for words, ethical communication).

Further scientific investigations are focused on cultivating students' behavioral skills in the digital media world, since at this stage of growing up the influence of media resources on the formation of language competence and the worldview of the developing personality becomes increasingly significant.

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MODERN TECHNOLOGIES FOR THE DEVELOPMENT OF CRITICAL THINKING AMONG HIGHER EDUCATION STUDENTS

Abstract. The article examines modern technologies for developing critical thinking among higher education students as a key factor in training highly qualified professionals in the context of globalization challenges, rapid sociocultural transformations, and the digitalization of society. It is emphasized that critical thinking functions not only as a component of the professional and personal competence of a modern student but also as a universal 21st-century skill that ensures the ability to deeply analyze and evaluate information, identify cause-and-effect relationships, formulate well-grounded conclusions, and make effective decisions in complex, problematic, and uncertain situations.

The study theoretically substantiates the expediency of integrating innovative pedagogical technologies into the higher education learning process, in particular problem-based learning, the debate method, case study, project-based activities, the “flipped classroom” model, as well as the use of interactive and digital educational platforms that foster the development of students’ analytical, communicative, and reflective skills. Special attention is given to the role of the teacher as a facilitator of the educational environment, capable of creating conditions for open dialogue, partnership interaction, and the development of self-directed learning and reflection skills.

The importance of combining traditional teaching methods with the latest digital tools is highlighted, including online courses, educational games, augmented and virtual reality technologies, which significantly expand the possibilities of critical analysis and creative comprehension of educational material. The practical part of the research focuses on testing the effectiveness of implementing these technologies in the learning process of higher education institutions, which is confirmed by analyzing the results of experimental work with students majoring in primary education.

It is concluded that the systematic, purposeful, and comprehensive use of modern educational technologies creates favorable conditions for the formation of sustainable critical thinking skills among students, ensures their readiness for future professional activity, and contributes to the development of universal and professional competencies necessary for successful self-realization in a rapidly changing world.

Keywords: critical thinking, higher education students, innovative pedagogical technologies, problem-based learning, digital educational platforms, competence development.

СУЧАСНІ ТЕХНОЛОГІЇ РОЗВИТКУ КРИТИЧНОГО МИСЛЕННЯ ЗДОБУВАЧІВ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ

Анотація. У статті розглядаються сучасні технології розвитку критичного мислення здобувачів закладів вищої освіти як ключового чинника підготовки висококваліфікованих фахівців у контексті глобалізаційних викликів, швидких соціокультурних трансформацій і цифровізації суспільства. Наголошується, що критичне мислення виступає не лише складником професійної та особистісної компетентності сучасного студента, а й універсальною навичкою XXI століття, яка забезпечує здатність до глибокого аналізу й оцінювання інформації, виявлення причинно-наслідкових зв’язків, формулювання аргументованих висновків, ухвалення ефективних рішень у складних, проблемних і невизначених ситуаціях.

Теоретично обґрунтовується доцільність інтеграції інноваційних педагогічних технологій у навчальний процес вищої школи, зокрема проблемно-орієнтованого навчання, методу дебатів, кейс-методу, проєктної діяльності, технології «перевернутого класу», а також застосування інтерактивних і цифрових освітніх платформ, які сприяють розвитку аналітичних, комунікативних та рефлексивних умінь студентів. Особливу увагу приділено ролі викладача як фасилітатора освітнього середовища, здатного створити умови для відкритого діалогу, партнерської взаємодії та розвитку навичок самостійного пізнання й рефлексії.

Наголошується на важливості поєднання традиційних методів викладання з новітніми цифровими інструментами, серед яких онлайн-курси, освітні ігри, технології доповненої та віртуальної реальності, що значно розширюють можливості критичного аналізу та творчого осмислення навчального матеріалу.

Зроблено висновок, що системне, цілеспрямоване й комплексне використання сучасних освітніх технологій створює умови для формування в студентів стійких навичок критичного мислення, забезпечує їх готовність до майбутньої професійної діяльності та сприяє розвитку загальнолюдських і фахових компетентностей, необхідних для успішної самореалізації у швидкозмінному світі.

Ключові слова: критичне мислення, здобувачі вищої освіти, інноваційні педагогічні технології, проблемно-орієнтоване навчання, цифрові освітні платформи, розвиток компетентностей.

INTRODUCTION

The problem formulation. In the modern world, characterized by the rapid pace of scientific and technological progress, globalization processes, and constant sociocultural transformations, there is an increasing demand for specialists who are not only equipped with specific knowledge but also capable of critically analyzing information, making well-founded decisions, and acting responsibly under conditions of uncertainty. Traditional approaches to learning in higher education institutions, which are mainly focused on the reproductive assimilation of knowledge, prove insufficient for the development of such a quality as critical thinking, which in the 21st century is considered a universal competence and an essential prerequisite for the competitiveness of graduates. The problem lies in finding and implementing effective educational technologies that ensure the development of critical thinking among higher education students, foster their ability for analytical reasoning, well-grounded communication, reflection, and creative problem-solving. At the same time, the practice of integrating innovative pedagogical technologies—such as problem-based learning, the debate method, the case study method, project-based activities, the “flipped classroom” model,



as well as digital tools that open new opportunities for intensifying the educational process and expanding students' cognitive potential—requires scientific substantiation and verification.

Analysis of recent research and publications. The Problem of Developing Critical Thinking among Higher Education Students occupies a significant place in contemporary pedagogical and psychological research. The theoretical foundations of critical thinking as an important cognitive skill were laid in the works of J. Dewey, who regarded it as a form of reflective thinking aimed at analyzing and verifying judgments. Further development of the concept was advanced in the studies of R. Ennis, D. Halpern, R. Paul, and M. Lipman, who focused on defining the structure of critical thinking, its key skills, and methods of developing it among students. In Ukrainian scholarship, a considerable contribution to the study of this issue was made by O. Pometun, L. Pyrozhenko, and I. Zymnia, who emphasized the importance of interactive teaching methods and technologies in fostering students' analytical and reflective abilities.

Modern research (N. Bibik, O. Savchenko, L. Lukianova, T. Yatsenko) emphasizes the integration of innovative technologies into the educational process, particularly the use of problem-based learning, the case method, debates, project activities, and digital educational platforms that promote the development of critical thinking and increase students' motivation to learn. At the same time, a number of scholars (O. Spirin, V. Kukhareenko, N. Morze) explore the potential of digitalization in education, highlighting the importance of combining traditional methods with innovative online tools, which significantly expand students' opportunities for independent learning and creative thinking.

However, despite the considerable scientific achievements, the issue of a comprehensive approach to integrating various pedagogical technologies and digital tools into a unified educational space of higher education institutions requires further study. The aspect of practically verifying the effectiveness of these technologies in different specialties and learning conditions, as well as defining the optimal role of the teacher as a facilitator in the process of developing students' critical thinking, also remains open. These aspects determine the relevance and scientific novelty of the presented study.

THE PURPOSE OF THE RESEARCH is to provide a theoretical justification and practical verification of the effectiveness of modern pedagogical technologies for developing critical thinking among higher education students through the analysis of scientific approaches, the generalization of innovative experience, the implementation of a pedagogical experiment, and the formulation of methodological recommendations for their successful integration into the educational process.

RESEARCH METHODS

The research employed a set of methods, including theoretical analysis and synthesis of scientific sources, of modern pedagogical technologies for developing critical thinking among higher education students.

RESULTS OF THE RESEARCH

The formation of critical thinking among higher education students is of particular importance in the teaching of such disciplines as "Effective Strategies for Implementing Innovations in the Educational Process of the New Ukrainian School," "Modern Educational Technologies in the New Ukrainian School," "Didactics," "Theory of Education" and others. It is precisely in the process of mastering these courses that the need arises for a systematic approach, which involves an organic combination of profound theoretical knowledge and practical activity. This contributes to the development of students' ability to analyze information, justify their own position, and make well-founded decisions.

In the course of the research, a set of pedagogical technologies was identified as the most effective for achieving the stated goal. These include problem-based learning, the case method, the debate method, project-based activities, the "flipped classroom" model, the use of digital educational platforms, and virtual environments. The application of these technologies opens up wide opportunities for the development of analytical skills, the formation of critical and creative components of thinking, and the enhancement of higher education students' independence (Yatsenko, T., 2021).

Example: Students are asked to analyze a case study: "Implementation of a new digital platform for teachers in the New Ukrainian School (NUS) in primary grades: benefits, risks, and potential challenges".

Tasks for students:

1. Identify the key benefits of implementing the platform for the educational process.
2. Identify potential difficulties and risks associated with its use.
3. Justify their own position regarding the feasibility of implementing the platform, using arguments from scientific sources and practical experience.
4. Propose alternative strategies for implementing technologies in NUS to achieve optimal results.

Methods to stimulate critical thinking:

- **Debates:** Students are divided into two groups, "for" and "against," and discuss the effectiveness of the platform.
- **Project-based activity:** Development of a step-by-step plan for implementing the platform, taking possible challenges into account.
- **Reflection:** Each student evaluates their own decisions and arguments in writing, analyzing the strengths and weaknesses of their position.

Outcome: Students learn to analyze information, identify cause-and-effect relationships, formulate well-founded conclusions, and make effective decisions in uncertain situations, which forms the basis of critical thinking.



At the same time, the effectiveness of implementing educational innovations largely depends on the personality of the teacher. When an educator, with genuine love for students, applies modern methodologies, they cease to be merely learning tools and become a source of spiritual and intellectual growth. Such a teacher becomes a kind of “sun” for students, which, through rays of knowledge, wisdom, and warmth, helps them to unlock their inner potential.

Thus, the synergy of professional mastery, a systematic approach, and the teacher’s love creates a unique educational environment in which innovative technologies gain vital force and become a factor in nurturing a mature, critically thinking personality. This allows for generalization and the transition to the formulation of the study’s conclusions and proposals (Kopchuk-Kashetska, M., Klymyshyn, O., Semak, O., Yaroshenko, I., & Maslii, O., 2023).

The methodological basis of the research was grounded in the combination of competence-based, learner-centered, and activity-based approaches. The competence-based approach ensured a focus on developing key 21st-century skills, with critical thinking taking a leading place among them. The learner-centered approach contributed to creating conditions for the development of students’ individual abilities, while the activity-based approach provided for the active engagement of students in the process of learning through practical tasks and the modeling of real professional situations.

During the experimental work, the following tools were applied:

- **Problem-based learning**, which involved working with open-ended problems that have no single solution and stimulated students to search for arguments and formulate their own conclusions.
- **Case method**, which allowed for modeling real professional situations, analyzing possible solutions, and developing decision-making skills.
- **Debate method**, which promoted the development of communication skills, the ability to defend one’s own position with arguments, and the capacity to critically evaluate the opponent’s arguments.
- **Project-based activities**, which ensured the integration of knowledge from various disciplines and the development of teamwork skills.
- **Flipped classroom technology**, which encouraged greater student independence in mastering material and freed up class time for practical work.
- **Digital educational platforms** (online courses, interactive tests, virtual laboratories, educational games), which increased access to information and created conditions for the individualization of learning.

The research results demonstrated that the systematic use of these technologies contributes to:

- improving students’ analytical abilities;
- developing skills of well-grounded communication;
- fostering the ability to work in a team and make joint decisions;
- increasing motivation for learning and independent knowledge acquisition;
- forming reflective skills necessary for self-assessment of one’s own activity (Savchenko, O., 2019).

The analysis of the experimental work confirmed that the most effective approach lies in combining traditional and innovative methods, particularly the integration of problem-based learning with digital platforms and virtual tools. This not only fosters the development of critical thinking but also forms in students the ability to respond flexibly to the challenges of the modern world, which is an important prerequisite for their professional self-realization.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The conducted research provides grounds to assert that the development of critical thinking among higher education students is one of the leading goals of modern higher education, as it constitutes a key competence necessary for successful professional activity and adaptation in a rapidly changing society.

Summarizing the results of the study, the following conclusions can be drawn:

1. Critical thinking is a universal 21st-century skill that enables students to analyze, reflect, engage in reasoned dialogue, and make effective decisions in complex situations.
2. The most effective technologies for developing critical thinking in higher education students include problem-based learning, the case method, the debate method, project-based activities, the flipped classroom model, interactive digital tools, and virtual learning environments.
3. Practical verification showed that the integrated application of these technologies contributes to the improvement of students’ analytical and communication skills, the development of teamwork, independence, and reflective abilities.
4. Combining traditional and innovative approaches creates a favorable educational environment in which the student is regarded not only as an object but also as an active subject of the learning process.

It is recommended to systematically implement innovative pedagogical technologies in higher education institutions, taking into account the specifics of educational programs and professional training. Continuous professional development of teachers regarding the use of modern digital platforms, interactive methods, and tools for developing critical thinking is advisable. The interdisciplinary nature of learning should be strengthened by integrating the development of critical thinking across all disciplines. It is also important to develop a system for diagnosing students’ critical thinking levels to further improve the educational process.

Among all modern educational technologies, a special place belongs to those based not only on methodological techniques or innovative models but also on the genuine love of the teacher for their profession and students. Any technology loses its effectiveness if applied formally, without inner warmth and inspiration. The most effective pedagogical strategy is one based on personal dedication, spiritual generosity, and the deep love of the teacher.



When a teacher implements educational innovations with great love, they cease to be mere tools and become a true source of student development. In this process, the teacher becomes a kind of sun, whose rays of knowledge, wisdom, and love provide light, warmth, and inner strength. Such a combination of professionalism and sincerity creates an atmosphere of trust, inspiration, and a desire for learning.

Students perceive this love and warmth—not through words, but through sincere care—which awakens in them the desire to learn, grow, and overcome challenges. In this way, a genuine educational environment is formed, where knowledge becomes not only an intellectual achievement but also a source of spiritual wealth.

Thus, the effectiveness of any educational technology directly depends on the extent to which the teacher fills it with love, wisdom, and warmth. Only then does learning transform into a living process, in which students do not merely acquire information but experience the joy and meaning of learning.

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INNOVATIVE STRATEGIES FOR IMPLEMENTING MEDIA EDUCATION TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF TRAINING FUTURE PRIMARY SCHOOL TEACHERS

Abstract. The article substantiates the relevance of introducing media education technologies into the professional training of future primary school teachers in the context of the digitalisation of education and the transformation of the educational environment, which is determined by contemporary educational challenges and the needs of society. It reveals the essence of key categories such as 'media education technologies,' 'media culture,' and 'media literacy,' and defines their role in the formation of professional competence, the development of critical thinking, media literacy, and the ability to interact safely and responsibly with the digital information environment. Particular attention is paid to the analysis of the history, classification and functions of media education technologies, hardware and software used in the modern educational process, as well as the development of media culture as a component of an individual's information and communication competence.

The article shows that media education is a systematic process of developing the ability to critically perceive, analyse, evaluate, interpret and create media content in various forms. It examines contemporary approaches to the formation of media competence and the development of media literacy among educators, emphasising the need to integrate digital and multimedia technologies, mobile communications, Internet resources, television and other mass media into the educational process, while drawing attention to the potential risks of manipulative influence.

Innovative strategies for introducing media education technologies into the training of future primary school teachers have been identified: integrative, practice-oriented, interactive and reflective, with a description of their content and pedagogical conditions for effective application. The importance of teachers' readiness to use modern technologies, student motivation, the availability of a digital educational environment and scientific and methodological support for the educational process is emphasised.

The structure of media literacy of an individual and its main components are considered: knowledge, skills, values, motivational and cognitive abilities that ensure effective perception, critical understanding and creative application of information in professional activity. The role of media culture in the formation of a holistic personality capable of interacting with information flows, analysing media texts and creating their own media products is shown.

Keywords: media education, media education technologies, media culture, media literacy, innovative strategies, professional training, future primary school teachers.



ІННОВАЦІЙНІ СТРАТЕГІЇ ВПРОВАДЖЕННЯ МЕДІАОСВІТНІХ ТЕХНОЛОГІЙ В ОСВІТНІЙ ПРОЦЕС ПІДГОТОВКИ МАЙБУТНІХ УЧИТЕЛІВ ПОЧАТКОВОЇ ШКОЛИ

Анотація. У статті обґрунтовано актуальність впровадження медіаосвітніх технологій у професійну підготовку майбутніх учителів початкової школи в умовах цифровізації освіти та трансформації освітнього середовища, що визначається сучасними освітніми викликами та потребами суспільства. Розкрито сутність ключових категорій, таких як «медіаосвітні технології», «медіакультура» та «медіакомпетентність», визначено їхню роль у формуванні професійної компетентності, розвитку критичного мислення, медіаграмотності та здатності до безпечної і відповідальної взаємодії з цифровим інформаційним середовищем. Особлива увага приділена аналізу історії, класифікації та функцій медіаосвітніх технологій, апаратних і програмних засобів, що застосовуються у сучасному освітньому процесі, а також розвитку медіакультури як складової інформаційної та комунікативної компетентності особистості.

У статті показано, що медіаосвіта є системним процесом формування здатності критично сприймати, аналізувати, оцінювати, інтерпретувати та створювати медіаконтент у різних формах. Розглянуто сучасні підходи до формування медіакомпетентності та розвитку медіаграмотності у педагогів, наголошено на необхідності інтеграції цифрових та мультимедійних технологій, мобільного зв'язку, Інтернет-ресурсів, телебачення та інших мас-медіа в освітній процес, одночасно звертаючи увагу на потенційні ризики маніпулятивного впливу.

Визначено інноваційні стратегії впровадження медіаосвітніх технологій у підготовку майбутніх учителів початкової школи: інтеграційну, практико-орієнтовану, інтерактивну та рефлексивну, із описом їхнього змісту та педагогічних умов ефективного застосування. Наголошено на важливості готовності викладачів до використання сучасних технологій, мотивації студентів, наявності цифрового освітнього середовища та науково-методичного забезпечення освітнього процесу.

Розглянуто структуру медіакомпетентності особистості, її основні компоненти: знання, навички, цінності, мотиваційні та когнітивні здібності, що забезпечують ефективне сприйняття, критичне осмислення та творче застосування інформації в професійній діяльності. Показано роль медіакультури у формуванні цілісної особистості, здатної взаємодіяти з інформаційними потоками, аналізувати медіатексти та створювати власні медіапродукти.

Ключові слова: медіаосвіта, медіаосвітні технології, медіакультура, медіакомпетентність, інноваційні стратегії, професійна підготовка, майбутні вчителі початкової школи.

INTRODUCTION

The problem formulation. The modernization of contemporary general secondary education and the implementation of a new model of primary schooling necessitate an in-depth analysis and reconsideration of the existing theoretical, methodological, and conceptual foundations of pre-service primary school teacher training. Ensuring the relevance of such training and its alignment with current educational demands remains crucial, despite the availability of numerous scholarly studies addressing this issue.

The modern higher education system must be oriented toward societal needs, state priorities, and emerging challenges of the digital educational environment. Professional training of future primary school teachers in higher education institutions should be conducted in accordance with the current legislation of Ukraine (the Laws of Ukraine "On Education" and "On Higher Education"), as well as state, professional, and higher education standards.

According to these standards, future teachers are expected to possess a range of competencies, including the ability to search for, process, and analyze information from various sources; to act in a socially responsible and conscious manner; to navigate the information space; to use open resources, information and communication, and digital technologies; and to apply information and communication technologies and digital services in organizing educational and research processes in the field of primary education (Standards, 2020, 2024).

Mass media exert a significant influence on the formation of these competencies, as they generate powerful information flows that provide rapid access to knowledge and substantially expand opportunities for self-education, communication, dissemination of ideas, and personal self-realization. The active development of information and communication technologies, as well as the spread of distance and blended learning formats, has led to intensive use of media products and has actualized media education as an essential component of the contemporary educational space. Today, it is virtually impossible to imagine the educational process (as well as everyday life) without the Internet, mobile communication, television, cinema, and other forms of mass media.

At the same time, mass media may pose certain threats to individuals, including manipulative influence, propaganda, and manifestations of cyberbullying. The ability to perceive, analyze, and process information increases personal resilience within the information environment, as the growing volume of content often exceeds individuals' capacity for critical evaluation, making it difficult to identify misinformation, manipulation, and information propaganda.

In this regard, there arises a need to introduce media education technologies into the educational process of training future primary school teachers in order to ensure their purposeful and systematic preparation for competent, responsible, and safe use of such technologies in professional practice.

THE PURPOSE OF THE RESEARCH

The purpose of the research is to identify innovative strategies for implementing media education technologies in the educational process of training future primary school teachers.

RESEARCH METHODS

The study employs analysis of the regulatory and legal framework governing the organization of the educational process; review and analysis of scientific literature related to the research problem; pedagogical observation; and generalization and interpretation of the obtained results.



RESULTS OF THE RESEARCH

Innovative strategies are understood as comprehensive, long-term action plans aimed at achieving competitive advantages and objectives through the introduction of innovations in processes, technologies, or management, drawing on scientific and technological achievements and best practices. They constitute a system of actions focused on innovation-driven qualitative change and sustainable development, taking into account both internal resources and external conditions.

In education, innovative strategies are aimed at the modernization and innovative development of the educational process through the implementation of advanced approaches, technologies, and methods, such as personalized and blended learning, the use of artificial intelligence, and the development of soft skills, including flexibility and lifelong learning ability. These strategies enhance the role of learner-centered approaches and innovative pedagogical activity in achieving improved educational outcomes.

The goal of innovative development of the educational process is to achieve qualitative changes in the content of educational components for higher education students, in the organization and implementation of practical training, and in ensuring innovative teaching approaches by academic staff. Contemporary educational programs for training students majoring in Primary Education fully comply with the State Standard of Primary Education, the Professional Standard "Teacher of a General Secondary Education Institution," and the Higher Education Standards for specialty 013 Primary Education at the first (bachelor's) and second (master's) levels. However, continuous monitoring of educational quality, labor market needs analysis, consideration of accreditation outcomes, stakeholder recommendations (employers, students, graduates), as well as dynamic changes in educational policy and the digital educational environment contribute to the annual updating and improvement of existing educational programs.

Clearly, achieving this goal is a complex and long-term process that must be implemented gradually through the fulfillment of a set of interrelated tasks.

In contemporary scholarly discourse, media education is viewed as a purposeful process of developing an individual's ability to critically perceive, analyze, interpret, and create media content. Media education technologies, in turn, are understood as a set of methods, forms, and teaching tools based on the use of digital, multimedia, and interactive resources.

In the training of future primary school teachers, media education technologies perform a number of important functions, including educational, developmental, formative, and motivational functions. Their application facilitates the integration of theoretical knowledge and practical skills, promotes reflection, enhances creative potential, and supports professional mobility of future educators.

Accordingly, higher education institutions improve educational programs by incorporating topics aimed at developing students' digital literacy into compulsory course syllabi, and by offering elective courses and modules focused on advanced mastery of media education technologies, development of media competence, critical thinking, creative and communicative skills, as well as readiness for safe and pedagogically appropriate use of digital resources in professional practice.

K. Taylor and N. Colet (2023) emphasize that teacher education programs should be oriented toward the development of digital competencies, critical thinking, and the ability to work in inclusive educational environments. Y. Supriani et al. (2022) highlight the effectiveness of practice-oriented learning models aimed at developing verbal and communicative skills, creativity, critical evaluation abilities, and logical thinking through the integration of modern interactive technologies into educational programs. At the same time, M. Halaweh (2023) focuses on educational strategies that consider the impact of the digital educational environment on students' cognitive development, activation of reflective activity, and formation of information and digital competence.

The concept of "media education technologies" is defined as tools for organizing learning activities through the use of media resources to achieve pedagogical goals. Although terms such as "technology," "information technologies," "information and communication technologies," and "media technologies" are widely used, there is still no unified interpretation of these concepts.

Technology (from Greek *téchne* – art, skill, craftsmanship, and *logia* – study) is understood as a set of methods and tools for achieving a particular result, or a way of transforming an existing state into a desired one (Maiboroda, 2014).

Media education technologies can be classified into hardware and software tools. Hardware tools include:

Basic tools: computers, multimedia projectors, manipulators (mouse, keyboard, etc.);

Additional tools: CD and DVD players, video and audio players, video and audio recording devices, and sound systems.

Software tools relevant to teaching philological disciplines include multimedia applications and tools for creating multimedia products, such as presentation software, multimedia reporting tools, electronic publications and online resources; video and audio editors, image editors, hypertext tools, and online platforms for creating blogs and web pages.

Media education is considered a component of the educational process aimed at forming media culture in society and preparing individuals for safe and effective interaction with modern mass media. It encompasses both traditional media (print publications, radio, cinema, television) and modern forms (computer-mediated communication, the Internet, mobile communication), taking into account the rapid development of information and communication technologies.



Historically, media education technologies have accompanied humanity for centuries and can be conditionally classified into five types:

- Early – writing;
- Print – printing, lithography, photography;
- Electrical – telegraph, telephone, sound recording;
- Mass media – cinema, television;
- Digital – computers, the Internet.

Issues of media education have been explored by Ukrainian scholars such as D. Bachynskyi, H. Onkovych, L. Naidonova, B. Potiatynnyk and I. Chervinska. Significant contributions to the study of media education and media literacy have also been made by international researchers, including R. Hobbs, E. Hart, L. Masterman, and D. Buckingham. The formation of teachers' media competence has been examined by L. Naidonova, I. Donin, and O. Shkurenko, while the role of media education in personality development has been investigated by A. Lytvyn and I. Zadorozhna. Problems of implementing media education in the educational process have been analyzed by V. Rizun and M. Skyba.

Professional competence is widely recognized as a key indicator of readiness for professional activity. Media education constitutes an integral component of general pedagogical competence. H. Onkovych defines teachers' media literacy through media competence, understood as an integrated personal characteristic that includes motives, knowledge, skills, values, and abilities ensuring effective implementation of media education for learners of different ages (Onkovych, 2014).

According to S. Herhul, media competence encompasses an individual's ability to perceive, create, and transmit information, taking into account the specifics and limitations of technical and semiotic systems. The foundation of these skills lies in critical thinking and the capacity for effective dialogue within the information space (Herhul, 2017).

R. Kubey conceptualizes media competence as a system comprising motives, knowledge, skills, and abilities that enable the selection, use, critical analysis, evaluation, creation, and dissemination of media information through various means and forms (Onkovych, 2013).

The formation of teachers' media competence, given their sociocultural role, should be based on principles such as individual socio-psychological approach, patriotism, continuous content renewal, prioritization of moral and ethical values, productive motivation, respect for national traditions, civic orientation, and systemic integrity (Concept, 2016).

In addition to the aforementioned concepts, scholars also address the notion of media culture, which is considered one of the functions of media education. Media culture is viewed as a system comprising needs, orientations, knowledge, skills, abilities, and other social characteristics formed through interaction with the media environment (Baryshpolets, 2010).

Researchers emphasize that media culture is part of information culture, which, in turn, constitutes a component of communicative culture and overall personal culture. These forms of culture are interrelated, mutually enriching, and complementary.

According to K. Shvorak and I. Karpik, media culture is a multifunctional phenomenon that expands individuals' experiential boundaries and serves as an important mediator between social structures, enabling effective interaction with mass media and competent behavior in the information environment (Shvorak, 2018).

Given contemporary challenges, the activation of media education components in the educational process is particularly relevant. The ability to identify misinformation and avoid its dissemination contributes to the development of analytical thinking among future professionals.

In the training of future primary school teachers, the following innovative strategies for implementing media education technologies are proposed:

- Integrative strategy – systematic inclusion of media education components into professional disciplines, teaching practice, and research activities;
- Practice-oriented strategy – formation of practical skills through modeling lessons, creating media products, and project-based activities;
- Interactive strategy – use of active learning methods (web quests, case studies, project work, online discussions) to stimulate cognitive activity and critical thinking;
- Reflective strategy – development of self-analysis skills, evaluation of one's own media activity, and awareness of pedagogical risks and opportunities of the digital environment.

Among the key pedagogical conditions for effective implementation of media education technologies are teachers' readiness for innovation, availability of a modern digital educational environment, students' motivation for media educational activity, systematic monitoring of learning outcomes, and adequate scientific and methodological support.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Further research on innovative strategies for implementing media education technologies in the training of future primary school teachers may focus on the development and testing of new methodological models for integrating media education into academic disciplines; analysis of differentiated training approaches considering students' individual characteristics and levels of media literacy; investigation of the impact of interactive, game-based, and digital media technologies on professional skills, communication abilities, and soft skills; assessment of long-term effects of media education technologies on graduates' professional practice; and exploration of interdisciplinary media education projects aimed at fostering creativity, critical thinking, and communicative competence.



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PEDAGOGICAL CONDITIONS FOR THE FORMATION OF A CULTURE OF ACCESSIBILITY OF FUTURE SPECIALISTS IN THE EDUCATIONAL PROCESS OF HIGHER EDUCATION INSTITUTION THROUGH TRAINING TECHNOLOGIES

Abstract. The article examines the pedagogical conditions for developing a culture of accessibility among future specialists in the social sphere within the educational process of higher education institutions through the application of training technologies. The relevance of the issue is substantiated by the need to prepare professionals capable of acting effectively in socially diverse environments, responding to the needs of vulnerable groups, and ensuring the principles of accessibility and inclusion in their professional activities. It is demonstrated that training technologies, as an interactive form of instruction, facilitate the integration of cognitive, emotional-value, and behavioral components of professional preparation, thereby creating conditions for the formation of stable attitudes and competencies related to accessibility.

The article identifies and characterizes key pedagogical conditions that determine the effectiveness of training technologies in developing a culture of accessibility. These include the creation of a psychologically safe and supportive educational environment; integration of accessibility-related content into training modules; the use of active experiential learning methods such as role-playing, situation modelling, group discussions, and reflective practices; development of students' reflective skills as a mechanism for understanding the values of inclusion and overcoming personal stereotypes; enhancement of the trainer's professional competence as a model of accessible interaction; and the provision of interdisciplinary and practice-oriented learning.

It is concluded that the systematic implementation of these pedagogical conditions creates an optimal educational environment for fostering a culture of accessibility among future professionals, contributes to the transformation of their professional values, and strengthens their readiness to act within an inclusive social space. The obtained results provide a theoretical foundation for further research and practical developments in the training of specialists in the educational and social spheres.

Keywords: barrier-free, inclusiveness, barrier-free competence, training technologies, pedagogical conditions, professional training, educational sphere, social sphere.

ПЕДАГОГІЧНІ УМОВИ ФОРМУВАННЯ КУЛЬТУРИ БЕЗБАР'ЄРНОСТІ МАЙБУТНІХ ФАХІВЦІВ В ОСВІТНЬОМУ ПРОЦЕСІ ЗАКЛАДІВ ВИЩОЇ ОСВІТИ ЗА ДОПОМОГОЮ ТРЕНІНГОВИХ ТЕХНОЛОГІЙ

Анотація. У статті висвітлено педагогічні умови формування культури безбар'єрності майбутніх фахівців соціальної сфери в освітньому процесі закладу вищої освіти із застосуванням тренінгових технологій. Обґрунтовано, що актуальність проблеми зумовлена необхідністю підготовки фахівців, здатних професійно діяти за умов соціальної різноманітності, ефективно реагувати на потреби вразливих груп населення та забезпечувати принципи доступності й інклюзивності у своїй професійній діяльності. Доведено, що тренінгові технології як інтерактивна форма організації навчання сприяють поєднанню когнітивного, емоційно-ціннісного та поведінкового компонентів професійної підготовки, створюючи умови для формування стійких установок і компетентностей, пов'язаних із безбар'єрністю.



У статті визначено й схарактеризовано педагогічні умови, що забезпечують ефективність тренінгових технологій у процесі формування культури безбар'єрності. До них віднесено: створення психологічно безпечного й підтримувального освітнього середовища; інтеграцію змістових компонентів безбар'єрності в тренінгові модулі; використання активних методів досвідного навчання, зокрема рольових ігор, моделювання ситуацій, групових дискусій та рефлексивних практик; розвиток рефлексивних умінь студентів як механізму усвідомлення цінностей інклюзії та подолання власних стереотипів; підвищення професійної компетентності тренера як носія моделі безбар'єрної взаємодії; забезпечення міждисциплінарності навчального процесу та його практичної спрямованості.

Зроблено висновок, що системне впровадження зазначених педагогічних умов створює оптимальне освітнє середовище для розвитку культури безбар'єрності в майбутніх фахівців, сприяє трансформації їхніх професійних цінностей і готовності діяти в інклюзивному соціальному просторі. Здобуті результати становлять теоретичне підґрунтя для подальших досліджень і практичних розробок у галузі підготовки фахівців освітньої та соціальної сфер.

Ключові слова: безбар'єрність, інклюзивність, безбар'єрна компетентність, тренінгові технології, педагогічні умови, професійна підготовка, освітня сфера, соціальна сфера.

INTRODUCTION

The problem formulation. The contemporary stage of higher education development is marked by increased attention to ensuring barrier-free environments and inclusivity as key foundations of humanistic educational policy. The training of future specialists in the educational and social spheres requires not only the acquisition of professional knowledge but also the development of the ability to act effectively in diverse contexts, adhere to ethical standards of interaction, and contribute to the creation of an accessible social environment. Training-based technologies have become an important instrument in this process, as they enable the integration of cognitive, emotional-value, and behavioural components in students' professional preparation.

Despite the availability of individual studies, the issue of identifying pedagogical conditions that ensure the effectiveness of training technologies in fostering a culture of barrier-free interaction remains insufficiently explored. In particular, the list of such conditions, their substantive content, and their functional role within the structure of professional training for future specialists in the social sphere require further clarification.

In this context, the main objective of the study is to provide a theoretical rationale and detailed description of the pedagogical conditions that ensure the effective formation of students' barrier-free culture through the use of training technologies in the educational environment of higher education institutions. Achieving this objective involves: analysing scholarly approaches to the concept of "barrier-freeness"; identifying the potential of training technologies in developing barrier-free competence; offering a substantive characterisation of the pedagogical conditions that determine the effectiveness of training interventions; and substantiating the significance of these conditions within the system of professional preparation for future specialists in the educational and social spheres.

Analysis of recent research and publications. Analytical reports and strategic documents outline the priorities of state policy on barrier-free development, describe the regulatory and legal framework, and identify the challenges associated with the implementation of accessibility standards (including recommendations on universal design). They provide important contextual information, in particular the socio-political and institutional requirements within which the system of higher education must operate (Priorities and Challenges of Barrier-Free Policy, 2024).

In contemporary Ukrainian scholarly literature, there is a noticeable increase in attention to the issues of inclusion, barrier-free conditions, and accessibility in education. For example, the work "Inclusivity and Barrier-Free Educational Space: Children with Special Educational Needs" presents a detailed analysis of the barriers that arise during the implementation of inclusive learning and emphasizes that equal access to education is of fundamental importance for individuals with special educational needs (Prokhorenko, 2024). At the same time, the study "Inclusive Culture of Pedagogical Education Students as an Indicator of Their Professional Culture" substantiates that the formation of an inclusive culture among future educators is not only an institutional task but also a matter of their professional ethics, worldview, and readiness to work with different categories of learners (Rashydova, 2024).

Modern scholarly articles in domestic journals emphasize the need for a clearer conceptual distinction between the notions of "barrier-free environment" and "inclusivity," as well as clarify their applied significance in higher education. Studies published in 2023-2024 offer an analysis of the semantic meaning of these categories and point to different levels of barrier-free conditions (physical, communicative, informational, cultural-psychological), which is useful for shaping the content of training programmes; however, they do not focus on the integration of these aspects as a comprehensive and multidimensional phenomenon of barrier-freeness. In addition, scientific publications reveal a lack of empirical research that examines the impact of specific training methodologies on changes in students' professional attitudes and behaviours.

Recent methodological manuals aimed at the practical implementation of inclusion and barrier-free practices (Kolupayeva & Taranchenko, 2023) propose algorithms for organizing teaching and practical support for participants in the educational process, emphasizing methodological tools for educators and the adaptation of the educational environment. These materials are useful as a practical basis for forming the substantive components of training modules; however, they are predominantly focused on school-level practice rather than on the preparation of specialists in the educational and social spheres within higher education institutions.

The review of international experience demonstrates that many European countries employ specialized methodologies, adapted educational programmes, individualized approaches, and practices that may be useful for



the Ukrainian context (Chepka, 2021). At the same time, the article “Integration of Barrier Freeness Accessibility into Educational Standards: Challenges and Prospects of Professional Training” analyses that current educational standards in Ukraine often lack clear provisions on accessibility and barrier-freeness, and therefore the training of specialists is insufficiently oriented towards the development of competencies necessary for working in an inclusive environment (Hurich, 2025).

Overall, the analysis of contemporary studies demonstrates a number of important trends. First and foremost, inclusivity and barrier-freeness are becoming increasingly established as key values of modern education. At the same time, scholarly interest is growing in the formation of an inclusive culture among future educators as an integral component of their professional competence. Researchers also emphasize the need to update and reconceptualize educational standards and programmes in accordance with the principles of accessibility and universal design. Considerable attention is devoted to the development and adaptation of methodologies, practices, and technologies (both Ukrainian and international) capable of effectively ensuring barrier-free conditions within the educational environment. In addition, the issue of preparing specialists to work in contexts of social diversity is becoming increasingly relevant, as it requires flexibility, empathy, and readiness to interact with various groups of learners.

For further research, particularly those concerning the preparation of future specialists in the educational and social spheres, it is important to take into account both theoretical achievements and practical challenges. This includes adapting the content of educational programmes, integrating training-based and reflective technologies, and providing interdisciplinary support and adequate resource provision.

AIM OF THE RESEARCH

To identify the pedagogical conditions and methodological approaches for cultivating a culture of barrier-freeness among future specialists in a higher education institution through the use of training technologies, and to evaluate their effectiveness for developing professional competencies and readiness to work in an inclusive environment.

RESEARCH METHODS

The research methods included a combination of theoretical and empirical approaches. The theoretical methods comprised the analysis and synthesis of scientific and methodological literature, the generalization of experience related to the implementation of inclusive and barrier-free practices in higher education institutions, and a comparative analysis of international and domestic practices. To obtain empirical data, observation and analysis of educational training sessions, modelling of educational situations, as well as reflective methods that made it possible to identify the level of formation of students’ value-based and professional competencies were employed. The study also used methods of systematization and generalization of results, which ensured a comprehensive assessment of the pedagogical conditions for forming a culture of barrier-freeness and the effectiveness of training technologies in the professional preparation of future specialists.

RESULTS OF THE RESEARCH

The formation of a culture of barrier-freeness among future specialists emerges as one of the key tasks of contemporary professional training, oriented towards the implementation of the principles of accessibility, inclusivity, and human rights. In view of the growing social diversity and the increasing number of situations requiring specialists to work effectively with different groups of the population, pedagogical conditions that foster the development of a barrier-free worldview, empathy, tolerance, and constructive communication gain particular importance.

In the context of professional education, it is essential not only to convey knowledge about barrier-freeness as a social phenomenon, but also to create learning situations that allow students to experience its practical significance, reflect on their own attitudes, and model barrier-free behavior in conditions of interpersonal interaction. The effectiveness of forming a culture of barrier-freeness increases under conditions of purposeful organization of the educational process, which integrates the value-semantic component, an open communicative space, and the application of active training technologies.

The formation of a culture of barrier-freeness among future specialists necessarily requires the creation of pedagogical conditions in higher education institutions that ensure the integration of the values of inclusivity, humanism, and non-discrimination into educational interactions. Of particular importance in this regard are training technologies, which allow not only the actualization of students’ understanding of the nature of various types of barriers but also the creation of opportunities for safe, reflective, and emotionally significant experiences of overcoming them in simulated situations. Training, as an active learning method, facilitates the transition from declarative knowledge to practical mastery of the principles of barrier-freeness, promotes the development of empathy, communicative sensitivity, tolerance, and the ability to act in accordance with ethical norms of interaction with individuals from diverse groups. At the core of such technologies is the creation of conditions for experiences that transform attitudes, behavioral strategies, and the professional thinking of the future specialist.

The conducted theoretical analysis of pedagogical approaches made it possible to identify a system of pedagogical conditions that ensure the effectiveness of this process:

- Value-oriented focus of the educational environment on the principles of barrier-freeness and respect for human dignity, which involves developing students’ awareness of the significance of barrier-freeness as a societal and professional norm.



- Creation of an open communicative environment, in which students have the opportunity to freely express their opinions, discuss complex issues of barrier-freeness and inclusivity, and analyze their own biases.
- Use of training technologies as practice-oriented forms of learning, aimed at developing empathy, cooperation, conflict-free communication skills, and supportive interaction.
- Provision of reflective support, which stimulates awareness of personal changes and the development of readiness to apply barrier-free approaches in professional activity.

Together, these conditions provide a systematic influence on the student's personality and contribute to the formation of stable attitudes toward barrier-free behavior.

The training format of interaction plays a special role, as it combines the emotional-cognitive and activity-based aspects of learning. Training methods, in particular, create opportunities for experiencing empathy, analyzing barrier situations, searching for solutions, developing practical skills, and changing internal attitudes. Thus, training within the system of professional preparation of future social educators and social workers serves as an effective means for developing a culture of barrier-freeness.

The study on the formation of a culture of barrier-freeness among future specialists in the social sphere was conducted in two stages and involved work with two groups of respondents: a control group and an experimental group.

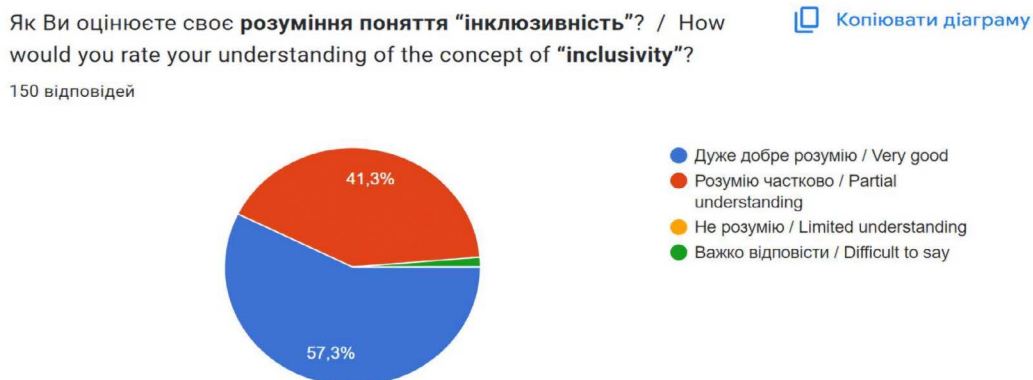
At the first, diagnostic stage, a large-scale survey of students from various specialties and higher education institutions was conducted. The aim was to determine the initial level of students' awareness of the concepts of "inclusivity" and "barrier-freeness," as well as to ascertain the extent to which students understand the key components of these phenomena.

The sample for the first stage of the study consisted of 150 individuals – students at the "Bachelor" and "Master" levels from Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk National Medical University, Ivano-Frankivsk National Technical University of Oil and Gas, King Danylo University, Ivan Franko National University of Lviv, Lviv Polytechnic National University, Ukrainian Catholic University, and Kherson State University. The respondents also represented a wide range of academic specialties. These included the following fields of study: A2 Preschool Education, A3 Primary Education, A4 Secondary Education, A5 Vocational Education, A6 Special Education, A7 Physical Culture and Sports, C4 Psychology, D3 Management, D4 Public Administration, D8 Law, E2 Ecology, I2 Medicine, I7 Therapy and Rehabilitation, I10 Social Work and Counseling, and I11 Child and Youth Services. This distribution ensured the representativeness of the data, as it encompassed both those who were just beginning their professional training and those who already had a developed understanding of professional activity in the field for which they were being trained.

The questionnaire was designed to collect data on the following key indicators: 1) the respondents' level of understanding of the concept of "inclusivity," 2) understanding of the concept of "barrier-freeness," 3) students' perceptions of the components of inclusivity, and 4) students' knowledge of the types of barrier-freeness.

The obtained data made it possible to assess students' level of awareness on these issues and to identify aspects that require further development within the educational process. For clarity and a deeper understanding of the results, an overview of each block with corresponding diagrams is provided.

Diagram 1. Level of Understanding of the Concept of «Inclusivity»



The survey results indicated a fairly high level of understanding of the concept of inclusivity among students. More than half of the respondents (57.3%) reported that they understand this concept very well, while 41.3% indicated that they partially understand its meaning. Only a few participants stated that they did not understand the term or were unsure of how to respond.

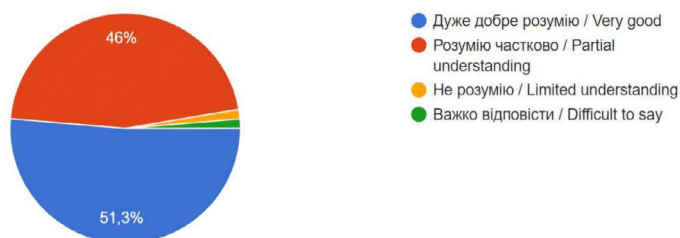


Diagram 2. Understanding of the Concept of «Barrier-Freeness»

Як Ви оцінюєте своє розуміння поняття «безбар'єрність»? / How do you assess your understanding of the concept of "barrier-free"?

[Копіювати діаграму](#)

150 відповідей



In contrast to inclusivity, the level of understanding of the concept of "barrier-freeness" was somewhat lower. Only 51.3% of students rated their knowledge as very good, while 46% indicated that they partially understood the concept. At the same time, a small proportion of respondents demonstrated insufficient understanding of the term. This suggests that the concept of barrier-freeness is not yet as widely integrated into educational programmes as inclusivity and requires targeted pedagogical intervention, particularly through training technologies.

Diagram 3. Students' Perceptions of the Components of Inclusivity

Які компоненти, на Вашу думку, входять до поняття "інклюзивність"? (оберіть до 3) / Which of the following components do you believe are part of "inclusivity"? (Select up to 3)

[Копіювати діаграму](#)

150 відповідей



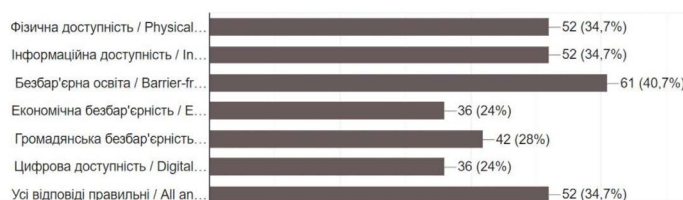
In analyzing the responses regarding the components of inclusivity, students most frequently selected the following: creating conditions for equal opportunities (76.7%), equal access to educational and social services (72.7%), social support (50.7%), non-discriminatory interaction (53.3%), and acceptance of diversity (46%). These results indicate that students primarily associate inclusivity with ensuring equal access and providing support, which aligns with contemporary approaches to understanding this phenomenon. At the same time, the lower percentage regarding acceptance of diversity points to the need to develop empathy and readiness for open interpersonal interaction – key elements of a culture of barrier-freeness.

Diagram 4. Students' Perceptions of the Types of Barrier-Freeness

Що, на Вашу думку, входить до поняття "безбар'єрність"? (можна обрати кілька варіантів) / What do you think is included in the concept of "barrier-free"? (you can choose several options)

[Копіювати](#)

150 відповідей



The respondents identified the following types of barrier-freeness as the most important: barrier-free education (40.7%), physical accessibility (34.7%), informational accessibility (34.7%), digital accessibility (24%), economic



barrier-freeness (24%), and civic barrier-freeness (28%). A significant proportion of students (34.7%) selected “all answers are correct,” demonstrating an understanding of the comprehensive nature of barrier-freeness. However, the overall distribution shows that students are better oriented toward traditional, more visible forms of barriers (physical, informational) and less aware of social and economic aspects.

The survey results indicate that the concepts of inclusivity and barrier-freeness are well recognized by students and are already partially integrated into their professional training. At the same time, the analysis highlights the need for additional in-depth learning that would enable future specialists to apply this knowledge effectively in practice and to develop a genuine culture of barrier-freeness in the professional environment.

The obtained data confirmed the necessity of developing a training programme and implementing it in the process of forming a culture of barrier-freeness, because:

- students demonstrate sufficient theoretical understanding of inclusivity, but have fragmented notions of barrier-freeness;
- the greatest difficulties concern the social aspects of barrier-freeness: empathy, non-discriminatory communication, and awareness of hidden barriers;
- there is a varying level of students' preparedness depending on their year of study.

At the second, experimental stage, the training programme “Barrier-Freeness as a New Standard of Social Work” was implemented for students of the I10 Social Work and Counseling specialty (educational programmes “Social Pedagogy” and “Social Work”) at Vasyl Stefanyk Precarpathian National University. The sample for the second stage of the study consisted of 24 participants.

The programme had a comprehensive, practice-oriented nature and was aimed at developing barrier-freeness competencies in future social workers and social educators. Its main components included:

- Interactive lectures and brief theoretical blocks, including explanations of key concepts of inclusivity and barrier-freeness, types of barriers (physical, informational, communicative, psychological), as well as examples of their elimination in professional practice.
- Practical tasks, during which students performed simulation exercises, modeled real-life interactions with various client groups, and assessed the accessibility of public and educational spaces.
- Case analysis through group discussions of specific professional practice situations, aimed at identifying barriers and developing strategies to overcome them.
- Development of empathetic communication and adaptive skills, including tasks focused on understanding the needs of people with different types of limitations and developing practical ways of effective interaction.
- Study of all six types of barrier-freeness (physical, informational, educational, civic, digital, and economic), analyzing all components in professional activities and societal life.
- Reflective sessions and discussion of results, during which participants evaluated their own knowledge and skills, shared impressions, and made suggestions for improving practical work in the field of barrier-freeness.

Such a comprehensive approach enabled students to acquire theoretical knowledge and practice essential skills, which are critical for the development of barrier-freeness competence. Participation in the programme contributed to increasing students' readiness to apply this knowledge in real professional contexts, while also fostering a stable professional stance regarding accessibility and inclusivity.

Upon completion of the training, feedback was collected from this group through a questionnaire, which allowed for the assessment of the training's impact on the development of competencies, practical skills, and value-based attitudes toward barrier-freeness. Analysis of the survey results indicated a high level of students' mastery of the core concepts of barrier-freeness and their readiness to apply them in professional practice.

Approximately 60% of respondents indicated that they fully understand the content of the training and are ready to apply it, 30% reported a good understanding of the material, and about 10% indicated partial understanding, which points to the need for additional in-depth training for some participants. Regarding the significance of the topic, more than half of the students (55%) rated it as critically important for their future professional activities, 40% considered it important and relevant, and only a small proportion (about 5%) regarded it as partially important. This reflects a high level of motivation and interest among students in developing a culture of barrier-freeness. Equally important is the readiness to apply the acquired knowledge in professional practice, with approximately 75% of respondents expressing full agreement and 25% partial agreement. This confirms the effectiveness of the training programme in developing practical barrier-freeness skills and a conscious readiness for integrative activities in the professional environment.

The analysis of the obtained data revealed a positive dynamic in the development of the components of a culture of barrier-freeness. Students demonstrated an increased awareness of the importance of barrier-free interaction, enhanced empathy, and a greater readiness to help others. Changes were also observed in communicative behavior: more expressions of support, tolerance, and constructive dialogue, along with a reduction in categorical and stereotypical judgments.

Students' reflective records confirmed that participation in the training facilitated the re-evaluation of personal attitudes, the development of the ability to identify barriers in everyday interactions, and the awareness of ways to overcome them.



The assessment of the effectiveness of the pedagogical conditions revealed their coherence and integrity in the process of forming barrier-freeness. The combination of the two stages – initial survey and training programme – provided a comprehensive approach to the study, allowing for the recording of the initial level of knowledge and attitudes toward barrier-freeness and for evaluating the effectiveness of training technologies in fostering a culture of barrier-freeness among future specialists in higher education institutions.

The conducted study confirmed that the formation of a culture of barrier-freeness among future specialists in higher education institutions is both feasible and effective, provided that the educational process is scientifically grounded. The identified pedagogical conditions ensure the development of important personal and professional qualities in students, necessary for implementing the principles of inclusivity and accessibility. The training programme proved to be effective as a form of practical acquisition of barrier-free behavior.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The study of the pedagogical conditions for forming a culture of barrier-freeness among future specialists in the social sphere demonstrated that training technologies play a central role in the development of students' professional competencies and value orientations. It is precisely the training forms of instruction (role-playing, case analysis, situation modeling, group discussions, and reflective practices) that ensure the integration of cognitive, emotional-value, and practical components of preparation. Through training, students gain experience in barrier-free interaction, the ability to recognize their own stereotypes and barriers, and develop readiness to act in an inclusive environment, thereby enhancing the effectiveness of their future professional activities. A key factor is the creation of a psychologically safe and supportive environment, which stimulates active participation and deep reflection.

Prospects for further research lie in the development and testing of comprehensive models of training programmes with various forms of active interaction, the assessment of their impact on different aspects of students' professional competencies and value orientations, as well as in the systematization of criteria for the effective formation of a culture of barrier-freeness. An important direction is the study of mechanisms for applying the acquired skills in practical activities and the integration of an interdisciplinary approach combining pedagogy, psychology, social work, and ethical aspects of interaction with various population groups. Furthermore, future research should consider the influence of the sociocultural and regulatory context, as well as technological innovations, on the effectiveness of preparing future specialists, which will ensure a more systematic and strategically oriented development of inclusivity and barrier-freeness in the educational process.

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IMPLEMENTATION OF THE ACTIVITY APPROACH IN THE EDUCATIONAL PROCESS OF PRIMARY SCHOOL

Abstract. The article focuses on the organization of the educational process in primary school on the basis of the activity approach. It is determined that activity forms the personality and determines its further development trajectory. The phenomenon of activity and the historical sources of the formation of the activity approach in education are revealed. The current scientific sources on the problem are analyzed. It is established that the reformative changes in primary education have necessitated the need to rethink the content, forms and methods of teaching younger schoolchildren, significantly influenced the choice of new scientific approaches, among which the priority place is occupied by the competency-based, activity-based, personality-oriented and integrative. Changes in education in recent years are characterized, the main directions, goals, and objectives of the New Ukrainian School are highlighted. It is noted that the renewal of the educational process on the basis of the activity approach consists in reorienting the goals and objectives of education, and affects the components of the school education system. The content of education is not an established system of knowledge, but a system of actions that ensure its assimilation. It is proven that the activity approach is the orientation of the educational process towards the development of key competencies and cross-cutting skills of the applicant, improving the ability to use theoretical knowledge in practice, forming teamwork skills, integration into society and self-realization, increasing interest in learning, self-education, instilling the desire for further development. The psychological and pedagogical principles and main principles of the activity approach in primary education in the context of the New Ukrainian School are highlighted. It is noted that the activity approach is cross-cutting in modern education and is aimed at the development of individual skills and abilities, skillful use of acquired knowledge in practice, increasing the effectiveness of individual adaptation in society, self-realization, forming readiness for collective activity and self-education.

Ключові слова: activity, educational and cognitive activity, independence, educational standards, curricula, types of training, competencies.



РЕАЛІЗАЦІЯ ДІЯЛЬНІСНОГО ПІДХОДУ В ОСВІТНЬОМУ ПРОЦЕСІ ПОЧАТКОВОЇ ШКОЛИ

Анотація. У статті акцентовано на організації освітнього процесу в початковій школі на засадах діяльнісного підходу. Визначено, що діяльність формує особистість та визначає її подальшу траєкторію розвитку. Розкрито феномен діяльності й історичні джерела становлення діяльнісного підходу в освіті. Проаналізовано актуальні наукові джерела з проблеми. Встановлено, що реформаційні зміни в початковій освіті зумовили необхідність переосмислення змісту, форм і методів навчання молодших школярів, істотно вплинули на вибір нових наукових підходів, пріоритетне місце серед яких посідають компетентісний, діяльнісний, особистісно орієнтований та інтегративний. Схарактеризовано зміни в освіті впродовж останніх років, виокремлено основні напрями, мету, завдання Нової української школи. Зауважено, що оновлення освітнього процесу на засадах діяльнісного підходу полягає в переорієнтації мети і завдань освіти, торкається складників системи шкільної освіти; зміст навчання становить не встановлена система знань, а система дій, які забезпечують їх засвоєння. Доведено, що діяльнісний підхід – це спрямованість навчально-виховного процесу на розвиток ключових компетентностей і наскрізних умінь здобувача, удосконалення вміння використання теоретичних знань на практиці, формування навичок командної роботи, інтеграція в соціумі й самореалізація, підвищення інтересу до навчання, самоосвіти, прищеплення прагнення подальшого свого розвитку. Виокремлено психолого-педагогічні засади й головні принципи діяльнісного підходу в початковій освіті в контексті Нової української школи. Зауважено, що діяльнісний підхід є наскрізний у сучасній освіті та спрямований на розвиток умінь і навичок особистості, уміле використання набутих знань на практиці, підвищення ефективності адаптації особистості в соціумі, самореалізацію, формування готовності до колективної діяльності й самоосвіти.

Keywords: діяльність, навчально-пізнавальна активність, самостійність, освітні стандарти, навчальні програми, види навчання, компетентності.

INTRODUCTION

The problem formulation. The change in the educational paradigm necessitates a deep study of the genesis of the activity approach in education. The State Standard of Basic Secondary Education defines the meaning and content of modern education: "The purpose of education is to develop the natural abilities, interests, and talents of students, to form competencies necessary for their socialization and civic activity, to consciously choose their future life path and self-realization, to continue their studies at the level of specialized education or to obtain a profession, and to foster a responsible, respectful attitude towards the family, society, the environment, and the national and cultural values of the Ukrainian people" (State Standard, 2016). In particular, the activity approach in primary school acts as a process of personality formation and its harmonious development, self-determination through individual choice of forms, methods and ways of solving certain tasks that meet personal needs, needs, character, pace of activity, etc. The activity approach is the focus of the educational process on the development of key competencies and cross-cutting skills of the applicant, improving the ability to use theoretical knowledge in practice, forming teamwork skills, integration into society and self-realization, increasing interest in learning, self-education, instilling the desire for further development.

THE PURPOSE OF THE RESEARCH – to reveal the importance of the activity approach in the educational process of primary school.

RESEARCH METHODS

Research methods: analysis of the regulatory framework for the organization of the educational process, scientific sources on the specified problem; pedagogical observation, analysis and synthesis, generalization of results.

RESULTS OF THE RESEARCH

In the 30s of the 20th century the principle of "unity of consciousness and activity" gained wide popularity in the field of pedagogy and psychology. In the context of the above, the personality was considered as a subject that is formed in the process of activity, which determines its character and uniqueness. The essence of activity, in particular, was that it was at the same time the basis, means and main condition for the development of the personality, a form of its active purposeful interaction with the surrounding world. Confirmation of the special mission of activity in the life of the individual are the words of the famous foreign writer J. B. Shaw that: "The only path that leads to knowledge is activity...". Interesting for our study is Fichte's theory of practical, moral activity, which is based on the idea that the "I" itself "gives itself birth by its own action and contemplates itself as a product of its own action at the moment of birth" (Volynka, Gusev, 2006, p. 129).

Analysis of the latest sources on the topic showed that the problems of personality development in activity have always been relevant. Thus, the concept of "activity" has been studied by scientists in various aspects, namely:

- philosophical (M. Kagan, V. Lektorsky, G. Shchedrovytsky);
- psychological (O. Zaporozhets, G. Kostyuk, V. Synyov, etc.);
- pedagogical (Yu. Babansky, I. Bekh, O. Kolesnikova, T. Martynyuk, I. Pidlasy, A. Sichkar).

It has been scientifically proven that the mental development of a person depends on his activity. This indicates that in the context of education, activity should be considered as a means and method of learning that serves to solve the didactic, educational, developmental tasks of the New Ukrainian School and serves the comprehensive development of the personality.

Worthy of attention are scientific studies in the field of education and, in particular, the activity approach of famous foreign scientists A. Disterweg, J. Dewey, V. Kilpatrick, E. Collings, as well as domestic ones: P. Atamanchuk, L. Blagodarenko, I. Bekha, N. Huziy, S. Velychko, O. Husak, L. Derkach, V. Zabolotny, G. Ivanyuk, O. Kolesnikov, V. Lozova,



O. Lyashenko, M. Martynyuk, N. Myslitska, L. Petrychenko, I. Salnyk, V. Sergienko, V. Syrotyuk, N. Sosnytska, B. Sus, V. Sharko, M. Shuta and others. The concept of “activity approach” is interpreted by scientists as a complex and multifaceted formation that includes an analysis of the processes of formation, formation, self-realization and self-development of the individual as a subject of activity. Thus, the activity approach is aimed at acquiring knowledge through the participation of students in various types of activities in the position of an active subject of knowledge and communication, which serves to realize the purpose of their own activities, draw up an action plan, carry out self-control, analyze and evaluate results (Shelestova). Domestic researchers G. Bovsunivska and T. Trokhymenko note that: “The activity approach is a teaching method thanks to which a child does not receive knowledge in a ready-made form, but acquires it himself in the process of his own educational and cognitive activity. Children deeply perceive the subtleties of the educational subject, master the methods of its knowledge and various ways of solving problems. One of the main tasks is to organize the educational process in such a way that, in addition to finding information, students could process it and use it in various life situations. In classes, it is necessary to teach students independence, the ability to create an educational product as a result of joint activity” (Bovsunivska, Trokhymenko, 2022).

Today, reform changes in primary education necessitate a rethinking of the content, forms and methods of teaching younger schoolchildren, significantly influencing the choice of new scientific approaches, among which the priority is occupied by competency-based, activity-based, personality-oriented and integrative. This is indicated by the main regulatory documents on education in Ukraine, such as: the Laws “On Education”, “On General Secondary Education”, “On Higher Education”, “On Preschool Education”, the State Standard of Basic and Complete General Secondary Education, the Concept of Implementation of State Policy in the Field of Reforming General Secondary Education “New Ukrainian School” for the Period Until 2029, etc. In particular, the State Standard of General Secondary Education (State Standard) emphasizes the need for students to acquire activity experience, which requires a creative approach to the organization of the educational process. On the other hand, the implementation of the activity approach serves to create favorable conditions for learning and upbringing, the ability to take into account the individual and age needs of each applicant. For the first time, the implementation of the activity approach in education was emphasized in 2011 in the State Standard of Basic and Complete General Secondary Education, approved by the Resolution of the Cabinet of Ministers of Ukraine dated November 23, 2011 No. 1392. In 2016, ideas regarding the activity approach were noted in the foundations of the Education Standard and were considered as a tool for implementing the competency paradigm of education. In accordance with the provisions of the State Standard for Basic and Complete General Secondary Education, the activity approach is pervasive in education and is aimed at developing the abilities and skills of the individual, the practical use of knowledge in various academic subjects, increasing the effectiveness of the individual’s adaptation in society, self-realization, and the formation of readiness for collective activity and self-education.

The implementation of the activity approach in primary school is of particular importance. It is known that the younger school age is a period of heightened cognitive activity and interests of the child, which should be expanded through active participation in various types of activities. This is also indicated by the theory of pragmatism of J. Dewey (“School and Society”), according to which the organization of the educational process has a threefold goal, which promotes learning, preparation for socially useful work and independent life. And, therefore, the activity approach is the basis of learning, upbringing and development of the personality. It is important that the implementation of the activity approach is based on psychological and pedagogical principles, namely:

- organization of learning on the basis of individual activity by creating appropriate conditions and a zone of proximal development;
- clear guidance of the teacher in the educational and cognitive process through the student's own efforts (search for information, its analysis, awareness, etc.);
- increasing the cognitive activity of students, developing their internal motivation, stimulating the desire to learn, setting goals and finding ways for further self-development;
- forming competencies based on improving the ability to exercise self-control and self-assessment.

According to the provisions of the Concept of the New Ukrainian School, the organization of the educational process is based on integrated learning with a predominance of game methods in the first cycle (grades 1-2) and is based on an integrated subject basis in the second cycle (grades 3-4). Therefore, the renewal of the educational process on the basis of an activity approach consists in reorienting the goals and objectives of education, affecting the components of the school education system. In other words, the content of education does not consist in an established system of knowledge, but in a system of actions that ensure their assimilation. The productive component concerns the formation of key competencies of younger schoolchildren, namely (Fig. 1).

Educational practice shows that modern typical educational programs take into account the research interests of younger schoolchildren. This indicates the implementation of the educational process on the principles of the New Ukrainian School: the principles of development and historicism, the principle of child-centrism, the objectivity of learning, activity, a value approach, unity of internal and external activity, systematic analysis of pedagogical phenomena and processes, creation of a developing educational environment, preparation of students for further independent life, work, creativity (New Ukrainian School, 2017). Importantly, critical thinking of the individual is considered as the driver and basis of the educational and cognitive activity of schoolchildren. The implementation of the activity approach is carried out through the use of various types of learning in primary school, namely: game, interactive, project, active, activity, problem-based, based on students’ requests. Thanks to this, the following skills and abilities are formed in students, such as (Fig. 2).

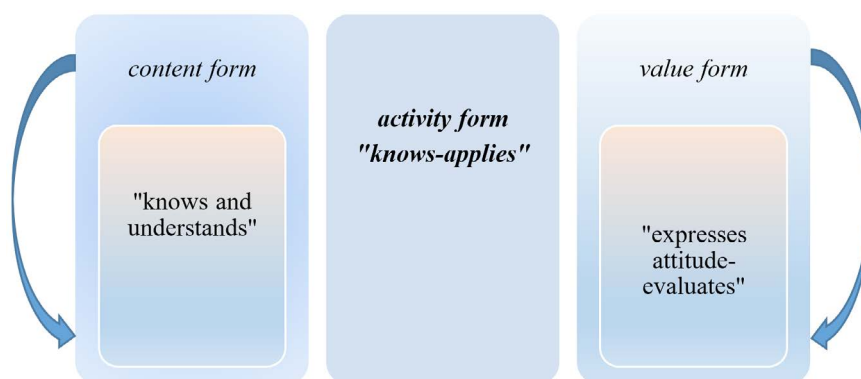


Fig. 1. Key competencies of a modern student

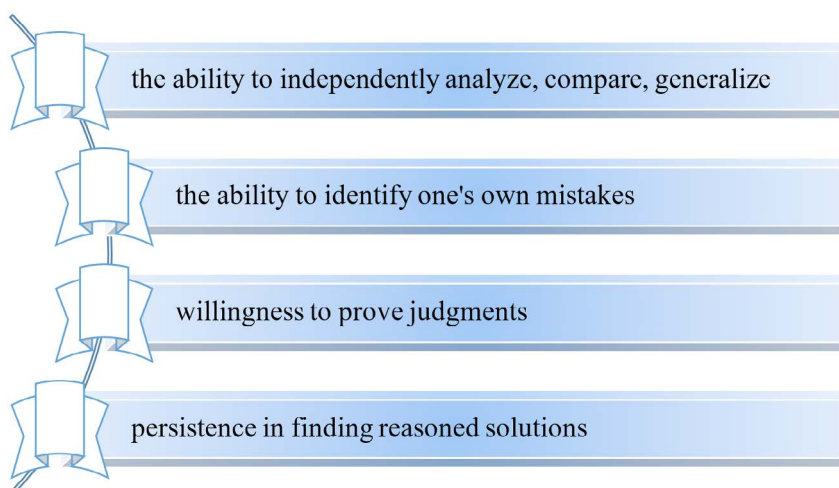


Fig. 2. Key skills and abilities of younger schoolchildren

Analysis of the updated primary school curricula showed significant changes in the transition to active activity, such as:

- dominance of activity results (the student calculates, observes, analyzes, models, investigates, transforms, photographs, works in a group) over cognitive, factual ("knows" or "understands");
- increase in the number and variability of activity forms of organizing the educational process: excursions, demonstrations, practical work and practical tasks, research workshops, organization of observations, mini-projects, etc.

Similarly, today we observe the process of creating textbooks on an activity basis, as the correspondence of the proposed types of activity to the complex of personal traits of the student, strengthening the developmental component of learning. Textbooks are designed to ensure the assimilation of not only formal-logical, but also operational knowledge (for example, how to act in specific situations to achieve the set goal); to stimulate search, analysis, synthesis. In particular, the activity-oriented tasks presented in them have a special structure (include various illustrative or conventionally graphic images) and are based on material that allows modeling practical life situations, encouraging practical activity. In general, the ultimate goal of the activity approach is the transformation of the subject of learning into a subject of practical activity (Bekh, 2012).

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The implementation of the core tasks of the New Ukrainian School is carried out today on the basis of improved theories and practices of primary education. Our research proves that the activity has a subject-transformative nature, which is activated as a result of motivation, which is taken into account today in the educational process. Its organization in the context of the activity approach involves the implementation of a threefold goal: a) didactic: harmonization of activity, integrative and personality-oriented learning, partnership pedagogy in order to realize and master basic concepts, scientific facts, knowledge about methods of activity; b) educational: increasing cognitive interest, motivation; c) developmental: improving mental powers and abilities. On the other hand, the educational process today involves the active participation of each junior schoolchild in various types of activities and increasing the level of independence. The implementation of the activity approach occurs through the use of various types of learning: game, interactive, project, active, activity, problem-based, based on students' requests, which gives high results, forms a creative personality, ready for further independent life and work.



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PROFESSIONAL IMAGE OF THE FUTURE EDUCATIONAL MANAGER: STATE, CRITERIA, AND DIAGNOSTIC METHODS

Abstract. The article presents a theoretical and methodological analysis of the problem of forming and diagnosing the professional image of a future educational manager in the context of the transformation of the modern educational space. The relevance of the study is substantiated by the growing requirements for managerial, communicative, and social effectiveness of heads of educational institutions. The essence of the concept of the “professional image of an educational manager” is revealed as an integrative construct that combines personal, professional-competence, value-motivational, and behavioral-communicative characteristics. The criteria for the formation of the professional image of a future educational manager (motivational-value, cognitive, activity-behavioral, reflective-evaluative) and the corresponding indicators of their manifestation are defined and characterized. A set of methods and diagnostic tools is presented that ensures a comprehensive assessment of the state of the professional image at various stages of professional training, including questionnaires, testing, expert assessment, self-assessment, and pedagogical observation. Levels of professional image formation (high, medium, low) are outlined, as well as the possibilities of using diagnostic results to adjust the educational process. The purpose of the study is to determine the state of formation of the professional image of future educational managers and to substantiate the criteria, indicators, and methods for its diagnosis in the process of professional training. The proposed study makes it possible to systematize approaches to diagnosing the professional image of educational managers, identify the components and criteria of image formation, and create a methodological basis for assessing the training of managers in higher education institutions. The research objectives include analyzing modern approaches to characterizing professional qualities and image characteristics of future specialists in educational management, determining criteria and indicators of the formation of the professional image of educational managers, and describing diagnostic tools for assessing the formation of the professional image of future educational managers. It is emphasized that diagnosing the professional image of future educational managers is a complex, multidimensional process that requires a systemic and scientifically grounded approach. It serves not only as a tool for assessing the state of image formation but also as an important factor in its purposeful development in the course of professional training, ensuring the improvement of the quality of managerial education and the readiness of future specialists for effective professional activity.

Keywords: professional image, educational manager, criteria, indicators, diagnostic methods, professional training.

ПРОФЕСІЙНИЙ ІМІДЖ МАЙБУТНЬОГО МЕНЕДЖЕРА ОСВІТИ: СТАН, КРИТЕРІЇ ТА МЕТОДИ ДІАГНОСТИКИ

Анотація. У статті здійснено теоретико-методологічний аналіз проблеми формування та діагностики професійного іміджу майбутнього менеджера освіти в умовах трансформації сучасного освітнього простору. Обґрунтовано актуальність дослідження, зумовлену зростанням вимог до управлінської, комунікативної та соціальної ефективності керівників закладів освіти. Розкрито сутність поняття «професійний імідж менеджера освіти» як інтегративного утворення, що поєднує особистісні, професійно-компетентнісні, ціннісно-мотиваційні та поведінково-комунікативні характеристики. Визначено та схарактеризовано критерії сформованості професійного іміджу майбутнього менеджера освіти (мотиваційно-ціннісний, когнітивний, діяльнісно-поведінковий, рефлексивно-оцінний) і відповідні показники їх прояву. Представлено комплекс методів і діагностичних інструментів, що забезпечують цілісне оцінювання стану професійного іміджу на різних етапах фахової підготовки, зокрема анкетування, тестування, експертне оцінювання, самооцінку та педагогічне спостереження. Окреслено рівні сформованості професійного іміджу (високий, середній, низький) та можливості використання результатів діагностики для корекції освітнього процесу. Метою дослідження є визначення стану сформованості професійного іміджу майбутніх менеджерів освіти, обґрунтування критеріїв,



показників і методів його діагностики в процесі професійної підготовки. Запропоноване дослідження дозволяє систематизувати підходи до діагностики професійного іміджу освітніх менеджерів, окреслити компоненти та критерії сформованості іміджу, а також створює методичну базу для оцінювання підготовки менеджерів в закладах вищої в освіти. Завдання дослідження включають аналіз сучасних підходів до характеристики професійних якостей та іміджевих характеристик майбутніх фахівців у галузі управління освітою, визначення критеріїв та індикаторів сформованості професійного іміджу менеджерів освіти, опис інструментарію для діагностики формування професійного іміджу майбутніх менеджерів освіти. Наголошується, що діагностика професійного іміджу майбутніх менеджерів освіти є складним багатовимірним процесом, що потребує системного, науково обґрунтованого підходу. Вона виступає не лише інструментом оцінювання стану сформованості іміджу, а й важливим чинником його цілеспрямованого розвитку в процесі професійної підготовки, забезпечуючи підвищення якості управлінської освіти та готовність майбутніх фахівців до ефективної професійної діяльності.

Ключові слова: професійний імідж, менеджер освіти, критерії, показники, методи діагностики, фахова підготовка.

INTRODUCTION

The problem formulation. In the current conditions of transformation of the educational system under the influence of social, economic, and technological challenges, the role of the educational manager as a key subject of managerial activity is significantly increasing. The professional image of an educational manager serves not only as a reflection of personal and professional qualities but also as an important factor in the effectiveness of interaction with colleagues, learners, and society as a whole. Within the educational space, the professional image of an educational manager emerges as a crucial factor in enhancing the effectiveness of managerial activity, building trust in an educational institution, and creating a positive socio-psychological climate within the teaching staff.

The formation of the professional image of a future educational manager is a holistic process that encompasses the development of professional and personal qualities, the advancement of ethical and communicative skills, and the mastery of self-presentation, self-regulation, and leadership technologies. Despite the growing attention to managerial functions in education, there remains a certain gap between normative and structural management models and the practical mechanisms of self-presentation and perception of educational managers as professionals, as well as effective practices for diagnosing their professional training. In scholarly research, the issue of diagnosing the level of formation of the professional image has not been addressed in a sufficiently systematic manner, which highlights the need for methodological and empirical substantiation of relevant criteria, indicators, and assessment methods.

The proposed study makes it possible to systematize approaches to diagnosing the professional image of educational managers, clearly define the components and criteria of image formation, and create a methodological basis for assessing the training of educational managers within educational programs. The objectives of the study include: analyzing modern approaches to diagnosing professional qualities and image characteristics of future specialists in the field of educational management; determining criteria and indicators of the formation of the professional image of educational managers; and describing diagnostic tools for assessing the level of formation of the professional image of future educational managers.

Analysis of recent research and publications. The problem of forming the image of an educational manager has been addressed in the works of V. Bondar, L. Kalinina, T. Sorochan, H. Yelnykova, and L. Danylenko, while issues of professional image have been explored in the studies of N. Kuzmina, I. Ziaziun, S. Maksymenko, V. Lozova, and I. Podlasyi. However, the structural and functional foundations of this process require further clarification, which determines the relevance of the present study. The development of the image of a teacher's personality has become the subject of scientific inquiry by both domestic scholars (K. Atamanska, V. Bondarenko, N. Huzii, I. Ziaziun, A. Kaliuzhnyi, O. Plakhotnyk, I. Chervinska, and others) and foreign researchers (P. Bird, K. Boulding, A. Dodge, L. Roberts). The essence and substantive content of the professional image of educators have been described in the scientific works of A. Kononenko, A. Korkishko, I. Nikolayescu, L. Sushchenko, and O. Khudenko, among others. Issues of imagology, including conceptual foundations, practice-oriented tools, and educational resources, have been revealed in the works of L. Brown, A. Panasiuk, and A. Korkishko.

The analysis of the literature demonstrates that the professional image of an educational manager has a multi-component structure. Accordingly, there has emerged a need to highlight a comprehensive methodology for diagnosing the level of its formation and to systematically integrate theoretical and empirical approaches for assessing and developing the image-related qualities and professional characteristics of future educational managers.

AIM OF THE RESEARCH

The purpose of the article is to determine the level of formation of the professional image of future educational managers and to substantiate the criteria, indicators, and methods for its diagnosis in the process of professional training.

RESEARCH METHODS

To achieve the stated objectives, the following methods were employed: theoretical methods, including analysis, synthesis, generalization, and comparison of scientific sources for defining key concepts and constructing the conceptual framework of the study; empirical methods, including a questionnaire survey of future educational managers to collect data on the level of formation of image-related characteristics. These methods ensure a systemic approach to diagnosing the professional image of future educational managers by combining quantitative and qualitative assessment tools.

RESULTS OF THE RESEARCH



In the current context of transformation of the educational system, driven by rapid digitalization, increased public visibility of managerial decisions, growing competitiveness of educational institutions in the educational services market, and rising societal expectations regarding managerial activity, the professional image of an educational manager acquires the status of an important integrative indicator of professional maturity and managerial effectiveness. Today, a future educational manager acts not only as an administrator of the educational process but also as a leader, communicator, facilitator of change, bearer of values and norms of behavior, business ethics and communication, and a representative of the educational institution in the public sphere.

At the same time, the analysis of educational practice indicates that the process of forming the professional image of future educational managers in higher education institutions is often fragmented or spontaneous, and its diagnosis is not always based on clearly defined criteria, indicators, and scientifically grounded tools. This actualizes the problem of determining the level of formation of the professional image of future educational managers and developing effective approaches to its diagnosis.

In the scientific and pedagogical context, diagnostics is understood as a systematic study of the state, level of development, or effectiveness of a particular phenomenon aimed at identifying patterns, forecasting, and correction. According to K. Ingenkamp, a well-known German scholar and a leading researcher in the field of educational diagnostics, "pedagogical diagnostics is also regarded as a process of recognizing phenomena and determining their state at a certain moment based on the use of parameters necessary for this purpose. Such an interpretation makes it possible to distinguish the specificity of pedagogical diagnostics as an independent type of activity and to reveal its essence, goals, and objectives" (Ingenkamp, 1975). In this context, researcher I. Chervinska emphasizes that "pedagogical diagnostics is a tool for objectively assessing the readiness of future specialists for professional activity and the formation of their image" (Chervinska I., 2024).

Researcher V. Uruskyi, in the work *Pedagogical Diagnostics*, reveals various aspects of pedagogical activity, focusing on:

Managerial aspect – how a teacher analyzes, plans, organizes, controls, and regulates the process of interaction with learners.

Psychological aspect – how the teacher's personality influences learners, how individual characteristics of learners are taken into account, and how learning motivation is determined and created.

Pedagogical aspect – through which forms and methods the teacher conveys the content of educational material (Uruskyi V., 2012).

Taking into account the proposed aspects of pedagogical activity, and in accordance with the purpose, subject of evaluation, and methodological approach to determining the formation of the professional image of a future educational manager, it is advisable to distinguish the following types of diagnostics of the professional image of future educational managers:

Self-diagnostics, aimed at identifying learners' awareness of their own professional image, the development of reflective skills, and the ability for self-analysis and self-correction. It is implemented through questionnaires, reflective essays, and self-assessment scales.

Expert diagnostics, as an innovative type of diagnostics, involves assessment of the professional image by teachers, academic supervisors, internship supervisors, and employers. This type of diagnostics allows comparison of learners' subjective perceptions with external professional evaluations.

Socio-perceptive diagnostics, aimed at determining how a future educational manager is perceived by peers, participants in the educational process, and representatives of the professional community. This type of diagnostics is particularly significant for assessing the communicative and behavioral components of the professional image.

Comprehensive (integrated) diagnostics, which combines various methods and sources of information, ensuring objectivity and reliability of results and allowing determination of the overall level of formation of the professional image (low, medium, sufficient, high).

The formation of the professional image of future educational managers is a complex socio-pedagogical process that involves the purposeful integration of cognitive, value-based, behavioral, and reflective components of personality and combines personal development, professional training, and socio-cultural adaptation of the future specialist.

Diagnostics of the professional image of a future educational manager is a purposeful, systemic process of identifying the level of formation of personal-professional, communicative, value-motivational, and behavioral-activity characteristics that ensure a positive perception of the subject of managerial activity within and beyond the educational environment. Scientifically sound diagnostics of the professional image presupposes the determination of methodological approaches, structural components of the image, selection of criteria and indicators of their formation, and the use of a set of complementary methods, as well as the combination of self-assessment and external expert evaluation.

To conduct scientifically grounded diagnostics, it is advisable to rely on a system of interrelated methodological approaches that ensure the comprehensiveness, coherence, and effectiveness of this process. These include the systemic, structural-functional, competence-based, activity-based, personality-oriented, axiological, acmeological, and integrative approaches, which together ensure the multidimensionality of the process of forming the professional image of a future educational manager and reveal the integrity and logic of this process.



The systemic approach allows the formation of the professional image to be viewed as a holistic dynamic system in which all structural elements (goals, content, methods, forms, and results) are interconnected and subordinated to a common goal the creation of a positive, professionally significant image of a future educational manager.

The structural-functional approach serves as the methodological basis for constructing the model, as it makes it possible to identify structural blocks (target, content, procedural, and result-oriented) and define the functions of each.

The competence-based approach orients the model toward achieving results in the form of developed key professional competencies that determine the image of an educational manager as a modern leader, organizer, and communicator.

The activity-based approach defines the formation of the professional image as the result of the subject's active engagement, emphasizing conscious participation in self-knowledge, self-development, and self-presentation.

The personality-oriented approach views learners as subjects of their own professional development, focusing on self-awareness, self-analysis, and the formation of confidence in professional value.

The axiological approach emphasizes the value dimension of the professional image, highlighting moral and ethical foundations such as humanism, responsibility, tolerance, professional honor, and pedagogical culture.

The acmeological approach focuses on achieving the highest levels of professional development, viewing image formation as a path toward professional excellence and leadership maturity.

The integrative approach unites all previous approaches into a single methodological system, ensuring the interaction of pedagogical, psychological, managerial, and sociocultural aspects and promoting the harmonious development of motivational, cognitive, behavioral, and reflective components of the professional image.

Thus, the representation of the process of forming the professional image of future educational managers is based on the interaction of a number of methodological approaches, the synthesis of which constitutes a unified conceptual foundation for an in-depth analysis of this process. Such an approach ensures scientific coherence, structural logic, and functional completeness of the model, as well as its practical effectiveness in the process of professional training of future educational managers.

The professional image of an educational manager is a multi-component formation that includes external, behavioral, socio-communicative, value-motivational, and digital-informational aspects. For its comprehensive assessment in the process of professional training, it is necessary to identify clear criteria and relevant indicators that make it possible to measure the level of formation of this integrative professional quality. To ensure the effectiveness and reliability of assessing the formation of the professional image of a future educational manager, it is essential to describe the basic criteria and leading indicators that reveal the integrity of the diagnostic process.

The criteria for assessing the formation of the professional image include:

The cognitive criterion reflects the level of students' professional awareness of the essence of image, ethics, norms of professional behavior, principles of business communication, and requirements for managerial activity. It includes knowledge of the theoretical foundations of imagology, educational management, and business ethics acquired through relevant academic disciplines (Professional Ethics of an Educational Manager, Imagology in the Modern World), understanding of psychological and social mechanisms of image formation, and the ability to reflect on and self-assess one's own professional image.

The personal-motivational criterion characterizes students' internal readiness for professional self-development, their value orientations, professional responsibility, and motivation to form a positive professional image. It includes the formation of professional identity, stable motivation for improving professional competencies, orientation toward ethical standards of managerial activity, and a pronounced need for professional self-improvement.

The communicative-behavioral criterion assesses the student's ability to demonstrate professional behavior, interact effectively with others, adhere to etiquette norms, and appropriately present themselves in the professional environment. It includes speech style, behavioral culture, nonverbal components, public speaking and presentation skills, the ability to engage in constructive communication, and conflict resolution skills.

The organizational-managerial criterion evaluates the level of formation of time-management skills, activity planning, project management, and the ability to work in a team. It includes effective time management, the ability to organize the activities of others, responsibility, discipline, punctuality, and strategic thinking in managerial situations.

The visual-representational criterion characterizes the formation of an external (visual) image that corresponds to professional norms and expectations of the educational environment. It includes compliance of appearance with professional standards, neatness, presentability, adherence to business style norms, and the ability to select visual means of representation (presentations, portfolios, etc.).

One of the tools for diagnosing the professional image of a future educational manager is the system of indicators of its formation.

Indicators are specific parameters by which the level of manifestation of a particular criterion can be assessed. Educational indicators are defined as numerical measures used as benchmarks in the development and monitoring of educational policy. In the educational field, an indicator is understood as statistical data collected in accordance with state educational policy, providing information about the condition, level, stability, or changes in the functioning or effectiveness of the education system and its individual components (Monitoring of Educational Standards, 2003).



Indicators of the cognitive criterion determine the accuracy of identifying the components of the professional image, the ability to explain managerial and communicative principles, the level of mastery of general imagology and professional ethics norms, and the ability to analyze the effectiveness of the image of real educational managers.

Indicators of the personal-motivational criterion characterize the development of clearly formulated professional goals, a positive attitude toward self-development and professional improvement, and the ability to self-present through participation in professional events, training programs, competitions, and the development of an electronic portfolio.

Indicators of the communicative-behavioral criterion determine the level of speech culture, clarity and logic of expression, appropriateness of nonverbal behavior (gestures, posture, distance), emotional restraint and stress resistance, mastery of business communication techniques, and competence in negotiations and conflict resolution.

Indicators of the organizational-managerial criterion describe the ability to create individual and team activity plans, effectiveness in project management, rational use of time, control over task completion, and initiative in solving professional situations.

Indicators of the visual-representational criterion characterize compliance with business dress code rules, neatness, restraint in appearance, quality of presentation and documentation design, and the ability to create a professional image in the digital environment (social media, electronic communication).

It should be noted that criteria and indicators do not exist in isolation; they interact systematically, forming a holistic professional image of a future educational manager. All criteria function in close interrelation, ensuring the multidimensional formation of a positive professional image. Collectively, the proposed criteria and indicators constitute a comprehensive assessment system that enables a thorough analysis of the formation of the professional image and allows for systematic evaluation of the effectiveness of pedagogical conditions, educational programs, and specially designed managerial training.

The formation of a professional image is the result of the synergy of all criteria, as each influences the others. For example, the cognitive block provides the theoretical foundation necessary for conscious professional self-presentation; the personal-motivational criterion determines readiness to maintain and develop one's image; the communicative-behavioral criterion ensures external manifestation in interaction; the organizational-managerial criterion shapes professional reliability and effectiveness; and the visual-representational criterion creates the first impression and supports overall professional perception. Together, these components form an integral model of professional image formation, where a high level of each criterion reinforces the others, while a deficit in any component reduces the overall image potential.

The professional image of a future educational manager is a complex integrative formation that develops within an image-forming environment during professional training and manifests itself in stable personal, behavioral, and activity-related characteristics of the managerial subject. For scientifically sound diagnostics, it should be considered as a multi-component system whose elements are closely interconnected and interdependent.

The structure of the professional image of a future educational manager includes the following components: *motivational-value, cognitive (knowledge-based), communicative-behavioral, personal-reflective, and visual-presentational.*

The motivational-value component reflects the internal readiness of a future educational manager to purposefully form their professional image, as well as their value orientations, professional attitudes, and managerial motives. It includes awareness of the social and professional significance of image, stable motivation for professional self-development and self-presentation, orientation toward humanistic, ethical, and democratic values of management, and a positive attitude toward innovation, publicity, and open communication.

The cognitive (knowledge-based) component characterizes the volume, systematization, and awareness of knowledge regarding the essence, structure, functions, and mechanisms of professional image formation. It includes knowledge of imagology, educational management, business communication, professional ethics, corporate culture, managerial etiquette, public presentation technologies, branding of educational institutions, and digital reputation management.

The communicative-behavioral component reflects the practical realization of professional image in managerial interaction and behavior. It includes speech culture, public communication skills, dialogue and negotiation abilities, conflict resolution skills, adaptability of behavioral style, and adherence to ethical norms.

The personal-reflective component characterizes the ability to recognize, evaluate, and correct one's professional image, including developed professional reflection, adequate self-assessment, openness to constructive criticism, and emotional self-regulation oriented toward continuous professional development.

The visual-presentational component represents external and symbolic manifestations of professional image, including business appearance, nonverbal communication, offline and digital self-presentation, and the ability to form a positive personal and professional brand.

Thus, identifying and analyzing the structural components of the process of forming the professional image of a future educational manager provides a methodological basis for its holistic diagnostics. Each component performs an independent function, while only their integration ensures the formation of a stable, positive, and professionally significant image.

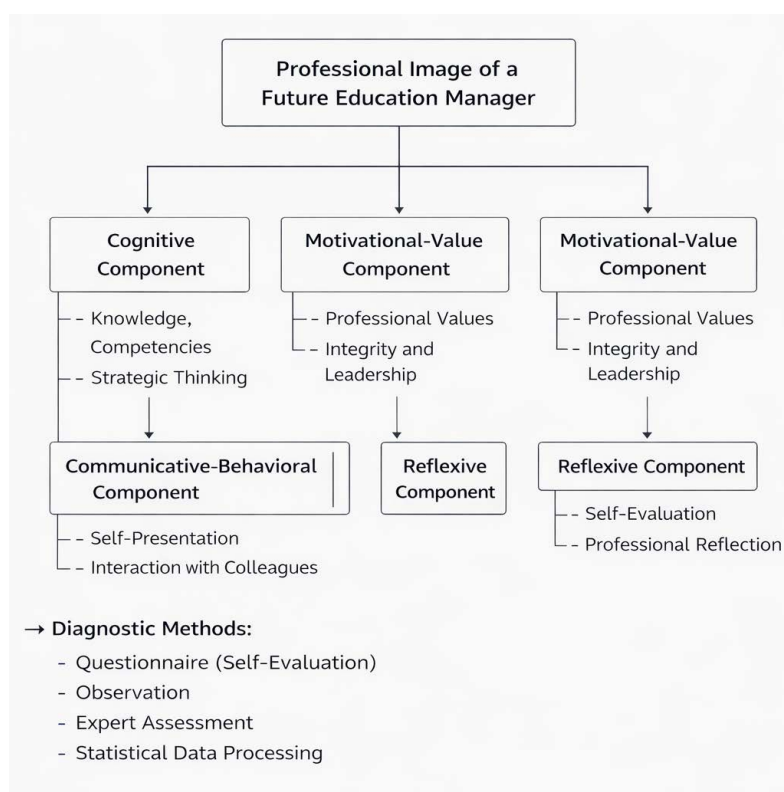


Fig. 1. Professional Image of a Future Educational Manager

Diagnostics of the professional image of future educational managers is based on a combination of quantitative and qualitative methods, ensuring a comprehensive assessment of the level of formation of its structural components and enabling identification of both the current state and the potential for further development. The diagnostic toolkit includes questionnaires and surveys, psychodiagnostic methods, pedagogical observation, expert evaluation, analysis of learning and professional activity products, and reflective methods.

Among the diagnostic methods, we propose to highlight the following:

1. Questionnaires and surveys are basic diagnostic methods aimed at identifying the self-assessment of the professional image, the level of awareness of its significance, and the readiness for purposeful image formation. Author-developed questionnaires such as “Professional Image of an Educational Manager”, self-assessment scales of professional qualities, and surveys regarding attitudes toward managerial activity and public communication are used. This method allows assessing the motivational-value component of the professional image, including professional attitudes, value orientations, and aspirations for self-development and managerial self-realization.

2. Psychodiagnostic methods (standardized psychodiagnostic instruments) are used to study personal characteristics that determine the effectiveness of managerial image. These include methods for assessing communicative and organizational tendencies, leadership tests, emotional intelligence diagnostics, and methods for studying stress resistance and self-regulation. These methods enable the diagnosis of the personal-behavioral component, which reflects the future educational manager’s ability to interact effectively, manage a team, and constructively resolve professional situations.

3. Pedagogical observation is used to identify the actual behavior of students in educational-professional situations (business games, trainings, managerial cases, public presentations). The style of managerial behavior, speech culture, nonverbal communication, argumentation skills, and decision-making abilities, as well as adherence to ethical norms of professional activity, are recorded. This method allows comparing the declared and actual image, which is important for comprehensive diagnostics.

4. Expert evaluation method involves engaging teachers, practice supervisors, and administrative staff of educational institutions to assess manifestations of the professional image of future managers. Evaluation is conducted according to established criteria and indicators, including professional competence, managerial culture, communicative effectiveness, and image attractiveness in the professional environment. This method ensures the objectivity of the diagnostic results and reduces the influence of subjective self-assessment.

5. Analysis of products and outcomes of educational-professional activity (portfolios, resumes, managerial projects, presentations, analytical reports, public presentations) allows assessment of the cognitive-professional component of the image. Particular attention is paid to the logic and justification of managerial decisions, the ability for strategic thinking, the quality of public self-presentation, and the use of modern managerial and digital tools.



6. Self-analysis and reflective methods are implemented through reflective journals, essays, and SWOT-analysis of one's professional image. They contribute to identifying the reflective-evaluative component, which reflects the future educational manager's ability for critical consideration of their professional image and ways to improve it.

The application of a complex of diagnostic methods ensures a multidimensional study of the professional image of future educational managers, helps determine the levels of its formation (low, medium, high), and provides a basis for highlighting effective pedagogical conditions and practical technologies for purposeful image formation during professional training. The purposeful combination of quantitative and qualitative diagnostic methods contributes to a comprehensive study of the levels of professional image formation in future educational managers.

The purposeful integration of quantitative and qualitative diagnostic methods contributes to a comprehensive study of the levels of professional image formation. Based on the analysis of criteria and indicators, the following levels have been identified:

Low level – fragmented understanding of professional image, situational motivation, insufficient communicative culture, lack of reflective skills.

Medium level – partial awareness of the significance of image, basic knowledge and skills, unstable professional behavior, limited self-reflection.

Sufficient level – formed motivation, systematic knowledge, stable managerial behavior, ability to self-correct the image.

High level – integrity of professional image, conscious self-presentation, high level of reflection, stable positive reputation in the educational environment.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, diagnostics of the professional image of future educational managers is a complex, multidimensional process that requires a systemic and scientifically grounded approach. It serves not only as a tool for assessing the level of image formation but also as an important factor in its purposeful development during professional training, ensuring improved quality of managerial education and readiness of future specialists for effective professional activity.

Further research will focus on studying the processes of modeling managerial activity of future educational managers.

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ON THE PROBLEM OF FAIRY TALE THERAPY IN THE EDUCATIONAL PROCESS OF ELEMENTARY SCHOOL: THE CONCEPT OF A THERAPEUTIC FAIRY TALE AND THE METHOD OF ITS COMPOSITION

Abstract. The relevance of the topic of the scientific article is considered in the context of the need to analyze pedagogical technologies that express the methodology of using fairy tales and stories in the educational process of the school for the purpose of educational and therapeutic influence. The purpose of the study is to analyze the didactic and methodological aspects of the use of fairy tale therapy in the educational process of elementary school. In the process of scientific research, the following research methods were used: analysis; generalization and systematization; comparison; method of analysis of the knowledge system; comparative.

The names of Ukrainian personalities who researched the psychological aspects of fairy tale therapy (O. Vasilevska, I. Danyliuk, S. Zolnikova, K. Kolomina, O. Kosarieva, L. Magdysyuk, R. Fedorenko, M. Zamelyuk, N. Nikitina, V. Solodukhov, A. Fradynska) and didactic and methodological dimensions of using fairy tales in the educational process of primary school (I. Garmash, O. Muzychuk, L. Slyvka, K. Striletska, O. Fil, V. Tsys) have been announced. It is noted that the range of domestic developments that systematically cover the research problem is very narrow.

The essence of the concept of «fairy tale therapy» is clarified, and the difference between a therapeutic fairy tale and an ordinary fairy tale is emphasized. It is noted that fairy tale therapy becomes a protective barrier and can free a child from traumatic experiences, relieve tension, and promote the development of communication skills, emotional, and cognitive spheres. It is emphasized that a fairy tale for fairy tale therapy is composed for each child separately, taking into account their characteristics and based on the problems and fears that are inherent in a particular child. The algorithm for composing a therapeutic fairy tale is described. The main techniques for working with a fairy tale are detailed (analyzing a fairy tale; telling a fairy tale; rewriting a fairy tale; staging a fairy tale with the help of puppets; drawing based on a fairy tale; playing episodes of a fairy tale; composing a fairy tale). Examples of methodological recommendations for composing a therapeutic fairy tale, which are presented in available sources, are given.

It is concluded that the didactic and methodological aspects of using fairy tales in the educational process of primary school have not yet found sufficient coverage in the research of domestic scientists. A promising field for further directions of scientific research has been identified, such as: analysis of educational programs for primary schools for the potential use of fairy tales in the educational process; study of foreign experience in using fairy tale therapy in the educational process of primary schools.

Keywords: diagnostic, correctional and therapeutic potentials, emotional and behavioral difficulties, fairy tale therapy, methodological recommendations, elementary school, therapeutic fairy tale.

ДО ПРОБЛЕМИ КАЗКОТЕРАПІЇ В ОСВІТНЬОМУ ПРОЦЕСІ ПОЧАТКОВОЇ ШКОЛИ: ПОНЯТТЯ ПРО ТЕРАПЕВТИЧНУ КАЗКУ І МЕТОДИКУ ЇЇ СКЛАДАННЯ

Анотація. Актуальність теми наукової статті розглянуто у контексті потреби аналізу педагогічних технологій, які увиразнюють методику використання казкових оповідань та історій в освітньому процесі школи з метою виховного і терапевтичного впливу. Мета дослідження полягає в здійсненні аналізу дидактичних і методичних аспектів використання казкотерапії в освітньому процесі початкової школи. У процесі наукового пошуку використано такі дослідницькі методи: аналіз; узагальнення і систематизація; порівняння; метод аналізу системи знань; порівняльно-зіставний.



Аносовано прізвища українських персоналій, які досліджували психологічні аспекти казкотерапії (О. Василевська, І. Данилюк, С. Зольнікова, К. Коломіна, О. Косарева, Л. Магдисюк, Р. Федоренко, М. Замелюк, Н. Нікітіна, В. Солодухов, А. Фрадинська) і дидактичний та методичний виміри використання казки в освітньому процесі початкової школи (І. Гармаш, О. Муzychuk, Л. Сливка, К. Стрілецька, О. Філь, В. Цись). Відзначено, що коло вітчизняних напрацювань, в яких системно висвітлено проблему дослідження, дуже вузьке.

Поточнено сутність поняття «казкотерапія», увиразнено відмінність терапевтичної казки від звичайної казки. Зазначено, що казкотерапія є своєрідним психологічним захисним бар'єром, який може звільнити дитину від травматичного досвіду, зняти напругу, сприяти розвитку комунікативних здібностей, емоційної та когнітивної сфер. Наголошено, що казку для казкотерапії складають для кожної дитини окремо, з урахуванням її особливостей і відштовхуючись від тих проблем та страхів, які притаманні конкретній дитині. Схарактеризовано алгоритм складання терапевтичної казки. Деталізовано основні прийоми роботи з казкою (аналіз казки; розповідання казки; переписування казки; постановка казки з допомогою ляльок; малювання за мотивами казки; програвання епізодів казки; складання казки). Наведено приклади методичних рекомендацій щодо складання терапевтичної казки, які представлені у доступних джерелах.

Зроблено висновок про те, що дидактичний і методичний аспекти використання казки в освітньому процесі початкової школи ще не знайшли достатнього висвітлення у розвідках вітчизняних науковців. Увиразнено перспективне поле для подальших напрямів наукових пошуків, як-от: аналіз освітніх програми для початкової школи на предмет потенційної можливості використання казки в освіті; вивчення закордонного досвіду використання казкотерапії в освітньому процесі початкової школи.

Ключові слова: діагностичний, корекційний і терапевтичний потенціали, емоційні і поведінкові труднощі, казкотерапія, методичні рекомендації, початкова школа, терапевтична казка.

INTRODUCTION

The problem formulation. In today's conditions, an important task for a teacher is to form in students the idea that a person's life will largely depend on how they perceive certain problems and events in their own lives. Fairy tale therapy is an invaluable tool for appropriate pedagogical activity. Using a fairy tale in working with a growing personality helps them effectively learn life lessons. Using the example of fairy tale characters, the child studies patterns of behavior and learns moral norms and rules. The fairy tale clearly explains what is good and what is evil. In fairy tales, a child becomes familiar with situations that can cause fear and anxiety, and finds appropriate solutions to such problems. Overall, the relevance of the topic of the article is due to the need to analyze pedagogical technologies that express the methodology of using fairy tales and stories in the educational process of the school for the purpose of educational and therapeutic influence.

The psychological aspects of fairy tale therapy were studied by O. Vasylevska (Vasylevska, 2012), I. Danylyuk, S. Zolnikova (Danylyuk & Zolnikova, 2019), K. Kolomina (Kolomina, 2023), O. Kosareva (Kosareva, 2012), L. Magdysyuk, R. Fedorenko, M. Zamelyuk (L. Magdysyuk, R. Fedorenko & M. Zamelyuk, 2019), N. Nikitina (Nikitina, 2024), V. Solodukhov (Solodukhov, 2007), A. Fradynska (Fradynsk, 2015) and others. The didactic and methodological dimensions of using fairy tales in the educational process of primary school have been highlighted in a number of studies (authors: I. Garmash (Garmash, 2018), O. Muzychuk (Muzychuk, 2012), L. Slyvka (Fairy Tale Therapy, 2014), K. Striletska (Striletska, 2016), O. Fil (Fil, 2008), V. Tsys (Tsys, 2013)), at the same time, we note that the range of developments of relevant content is very narrow.

THE AIM AND RESEARCH TASKS

The aim – to analyze the didactic and methodological aspects of using fairy tale therapy in the educational process of primary school.

RESEARCH METHODS

The goal was achieved using a number of research methods, namely: analysis, generalization and systematization of sources; comparison – to identify common and specific aspects in the content of investigations dedicated to fairy tale therapy; the method of knowledge system analysis – to ensure a systematic presentation of ideas regarding the problem of scientific research; the comparative method – to formulate conclusions.

RESULTS OF THE RESEARCH

The concept of «fairy tale therapy» is considered one of the effective methods of working with students who have certain emotional and behavioral difficulties (Kolomina, 2023; Kosareva, 2012). Fairy tale therapy can be used in work, for example, with aggressive children, insecure children, shy children, etc. (Molitska, 2009; Fradynska & Lazarevska, 2019).

A therapeutic fairy tale differs from an ordinary fairy tale in that it is specially invented, taking into account the characteristics of the child. The point is that the main character of the fairy tale is very similar to the child, he experiences the same problems or emotions. Therefore, from the hero's actions, the child can see that a particular problem can be solved (Application of the methodology).

Below is a specific algorithm for composing a therapeutic fairy tale.

1. Clearly define the problem that needs to be solved.
2. Identify possible ways to overcome it in real life.
3. To embody in the character of the main character of the fairy tale those character traits, fears, complexes, etc. that need to be gotten rid of.



In the scientific literature (Zalitok, 2017; Magdysyuk, Fedorenko & Zamelyuk, 2019; Stryletska, 2016; Tsys, 2013) the main techniques for working with a fairy tale are distinguished, namely:

Fairy tale analysis. The purpose of this technique is to understand and interpret the problem that lies «behind the scenes» of the fairy tale situation, the plot structure, and the behavior of the characters. For analysis, they choose, for example, a well-known fairy tale or a fairy tale created by a psychologist or teacher for individual work with a student. The child is asked to answer a series of questions, such as: «What do you think this fairy tale is about?»; «Which of the characters did you like the most and why?»; «Why did the character do certain things?»; «How did the character find a way out of a difficult situation?»; etc.

Telling a fairy tale. This technique is aimed at developing the fantasy and creative imagination of a child or group of children. The child is asked to tell a fairy tale in the first or third person, on behalf of other fairy tale characters, etc. For example, you can suggest telling a fairy tale about a gingerbread man on behalf of a fox, grandfather, grandmother, etc.

Rewriting a fairy tale. Using this technique makes sense when the child does not like something in the plot of the fairy tale (the course of events, certain situations in which the characters find themselves, the ending of the fairy tale, etc.). As a result, the teacher receives important diagnostic material. The point is that when a child «rewrites» a fairy tale, adds his (author's) ending, introduces other characters into the content, he independently chooses the plot that best suits his inner state and finds a way to break down negative situations that allows her to free herself from internal tension. This is precisely the psychocorrective meaning of rewriting a fairy tale.

Acting out a fairy tale with the help of puppets. When a child works with a puppet, he sees that every action he takes immediately affects the puppet's behavior. Therefore, the child can independently adjust their movements and make the doll's behavior as expressive as possible. Among other things, working with dolls allows a child to improve and express through the doll those emotions that they usually (for certain reasons) cannot afford to express.

Drawing based on a fairy tale. The drawing reveals the child's free associations. The analysis of the drawings takes place together with the child: she evaluates the behavior and motives of the character's actions (good – bad).

Playing episodes of a fairy tale. This technique allows the child to experience some emotionally significant situations and experience certain emotions.

Composing a fairy tale. On the one hand, this process promotes the development of imagination, on the other hand, it allows the child to inform others about their problems. In general, it is recommended not to interfere with the content of what the child has invented, but at the initial stage (to show an example of composing a fairy tale), you can «create» the fairy tale together with them. A fairy tale composed by a child will help an adult understand children's problems and difficulties.

A number of available sources that we analyzed (Application of the Methodology; Applying the fairy; Fairy Tale Therapy, 2014) provide methodological recommendations for composing a therapeutic fairy tale. We present this content below.

1. Start from afar. Traditionally, phrases that indicate time are used: «a long time ago», «in ancient times», «last year», «on such and such a date and such a year», etc.

2. Indicate the place where the events will take place. In classic fairy tales, this sounds like this: «in a certain kingdom-state», «in the thirtieth kingdom», «in a certain forest», etc. But nothing prevents the creator of a fairy tale from coming up with something of their own. Especially if the fairy tale is therapeutic and is designed to help a child cope with a certain problem. The location of fairy tale events can be the school where the child studies, the city or village where he or she lives, a playground or kindergarten, etc.

3. Invent a main character who is very similar to the child to whom the fairy tale is addressed. Let the hero love the things that the child is interested in, have similar habits and hobbies. However, you shouldn't completely copy your child when creating a story hero. Make the character interesting, funny, and charming, which can make the child like them and want to be in their shoes.

4. Symbolically indicate the problem: it should indirectly reflect the situation the child is in. Change the situation so that it is only «guessable». The situation should be truly fabulous, magical, and at the same time completely recognizable. At the same time, don't minimize the difficulties the main character faced.

5. Come up with a continuation of the story. You can «introduce» anti-heroes who will exacerbate the problem, or you can do without them. The main requirement: the problem must be exacerbated as much as possible. Develop the story so that it becomes clear that the hero simply has to do something to solve the problem.

6. Together with the hero, solve his fairy tale problem: the hero of the fairy tale must come to a solution to the problem in such a way that the child sees a way out of his own – the one about which the fairy tale was actually created. Let the hero show his best qualities, use various resources, and become stronger, smarter, kinder, and braver.

7. Bring your hero out of all the adventures as the absolute winner. Rejoice with your child in his success and courage. Finally, discuss with your child what the fairy tale character realized when he overcame all the problems and difficulties, and how, in your child's opinion, he would behave if he found himself in a similar situation.

As a rule, a fairy tale for fairy tale therapy is composed for each child separately, taking into account their characteristics and based on the problems and fears that are inherent in a particular child. The content of such a fairy tale should motivate the child to engage in introspection. Since the main character of the fairy tale experiences the same emotions that the child experiences, overcomes the same fears and complexes that the child overcomes,



and then finds ways out of the problem situation, then a perfectly created fairy tale can be considered one that, after using it, the child will begin to compare himself with this hero, analyze his behavior and learn to overcome difficulties of various kinds in real life, to get rid of the shortcomings that are inherent in it now.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, Ukrainian scientific sources present a fairly extensive theoretical analysis of the diagnostic, corrective, and therapeutic prognostic potential of fairy tales. The metaphorical nature and symbolism of the fairy tale contribute to its effective use in psychological and educational practices. Fairy tale therapy can be a tool for rehabilitation and a cure for the fears and anxieties that children have experienced and are caused by military actions in Ukraine. A fairy tale is a certain survival strategy, it is the fairy tale narrative that acquires therapeutic features. Fairy tale therapy becomes a protective barrier and can free a child from traumatic experiences, relieve tension, and promote the development of communication skills, emotional, and cognitive spheres.

So far, the didactic and methodological dimensions of using fairy tales in the educational process of elementary school have not yet found sufficient coverage in the research of domestic scientists.

Appropriate methods and techniques for working with fairy tales that can be used in working with primary school students are: reading fairy tales, telling fairy tales, retelling fairy tales, analyzing fairy tales, rewriting fairy tales, staging fairy tales using puppets, writing fairy tales.

A promising field for further directions of scientific research is the analysis of educational programs for primary schools for the potential use of fairy tales in the educational process, as well as studying foreign experience in using fairy tale therapy in the educational process of primary schools.

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FORMATION OF THE READINESS OF FUTURE PRIMARY SCHOOL TEACHERS TO USE MEDIA EDUCATION TECHNOLOGIES: CONTEMPORARY PROFESSIONAL CHALLENGES

Abstract. The article reveals the features of the formation of the readiness of future primary school teachers to use media educational technologies in the context of today's professional challenges. It is emphasized that the study of the problem of forming the readiness of future primary school teachers to use media educational technologies is a relevant problem of the professional education system. After all, the professional activity of a primary school teacher today goes beyond traditional training and involves the fulfillment of new roles of modern information and media intermediaries, a mentor, tutor, tutor and facilitator of the educational process. The purpose of the study is to conduct a content analysis of scientific sources, study the experience of teachers' professional activities, to describe the process of forming professional readiness for the use of media educational technologies in the educational process. To achieve the goal of the study, a complex of theoretical and empirical methods was used: content analysis of scientific sources, system-structural analysis, generalization and synthesis, methods of studying the experience of teachers' professional activities, questionnaires and interviews of applicants for pedagogical education, analysis of pedagogical activity products, pedagogical observation, methods of qualitative analysis, systematization and generalization of results.

It is indicated that the formation of the readiness of future primary school teachers to use media educational technologies is ensured through the comprehensive mastering of the content of the educational components of the educational and professional program "Primary Education", which directly affects the development of professional competence and determines the program learning outcomes. The author emphasizes that the structure of the readiness of future teachers includes motivational and value, cognitive, activity and reflective components, each of which acquires a specific meaning in the media educational context. The pedagogical conclusions of the study confirm that media educational technologies are integrated into the educational process in a comprehensive way, combining traditional teaching methods and digital resources. They serve as a tool for active learning, allow for a differentiated approach, and increase the motivation and involvement of higher education students in the educational process.

Keywords: readiness, media education, media educational technologies, primary school teachers, professional challenges.

ФОРМУВАННЯ ГОТОВНОСТІ МАЙБУТНІХ УЧИТЕЛІВ ПОЧАТКОВОЇ ШКОЛИ ДО ЗАСТОСУВАННЯ МЕДІАОСВІТНІХ ТЕХНОЛОГІЙ: ПРОФЕСІЙНІ ВИКЛИКИ СЬОГОДЕННЯ

Анотація. У статті розкриваються особливості формування готовності майбутніх учителів початкової школи до застосування медіаосвітніх технологій у контексті професійних викликів сьогодення. Наголошується, що дослідження проблеми формування готовності майбутніх учителів початкової школи до застосування медіаосвітніх технологій є актуальною проблемою системи професійної освіти. Адже професійна діяльність учителя початкової школи сьогодні виходить за межі традиційного навчання й передбачає виконання нових ролей сучасних інформаційно-медійних посередників, наставника, ментора, тьютора та фасилітатора освітнього процесу.

Метою дослідження є проведення контент-аналізу наукових джерел, вивчення досвіду професійної діяльності вчителів для опису процесу формування професійної готовності до застосування медіаосвітніх технологій в освітньому



процесі. Для досягнення мети дослідження використано комплекс теоретичних та емпіричних методів: контент-аналіз наукових джерел, системно-структурний аналіз, узагальнення та синтез, методи вивчення досвіду професійної діяльності вчителів, анкетування та опитування здобувачів педагогічної освіти, аналіз продуктів педагогічної діяльності педагогічне спостереження, методи якісного аналізу, систематизації та узагальнення результатів. Вказується, що формування готовності майбутніх учителів початкової школи до застосування медіаосвітніх технологій забезпечується через комплексне опанування змісту освітніх компонент освітньо-професійної програми «Початкова освіта», що безпосередньо впливає на розвиток професійної компетентності та визначає програмні результати навчання. Наголошується, що структура готовності майбутніх педагогів охоплює мотиваційно-ціннісний, когнітивний, діяльнісний і рефлексивний компоненти, кожен з яких набуває специфічного змісту в медіаосвітньому контексті. Педагогічні висновки дослідження підтверджують, що медіаосвітні технології інтегруються в освітній процес комплексно, поєднуючи традиційні методи навчання та цифрові ресурси. Вони слугують інструментом активного навчання, дозволяють реалізовувати диференційований підхід, підвищують мотивацію та включеність здобувачів вищої освіти в освітній процес.

Ключові слова: готовність, медіаосвіта, медіаосвітні технології, вчителі початкової школи, професійні виклики.

INTRODUCTION

The problem formulation. The current stage of development of primary education in Ukraine is characterized by profound transformations driven by the digitalization of the educational space, the implementation of the Concept of the *New Ukrainian School*, the spread of distance and blended learning formats, as well as the growing influence of the media environment on the processes of socialization and learning of students. Under these conditions, the problem of forming the readiness of future primary school teachers to apply media education technologies in their professional activities becomes especially relevant. This problem is aimed at addressing the tasks of scientific-methodological and practice-oriented support for the process of training highly professional and competent specialists in the field of media education and media literacy.

The professional activity of a primary school teacher today goes beyond traditional teaching and involves performing the roles of a modern information and media mediator, mentor, tutor, and facilitator of the educational process (Dubaseniuk O., 2003). This unequivocally requires an appropriate level of mastery of information and media tools and modern media education technologies, a properly formed media education competence, the ability to critically evaluate media content, ensure information security of school students, and form the foundations of media literacy in them.

The relevance of the outlined problem is reinforced by the initiatives and projects of the Ministry of Education and Science of Ukraine, which during 2017–2025 have been implemented in the educational environment of general secondary education institutions to scale school media education (the Concept for the Implementation of Media Education in Ukraine (2016), experimental programs, roadmaps for media literacy in wartime and post-war periods). This also confirms the demand for the problem of forming media literacy among school students and the need to increase the level of media education and media awareness of primary school teachers.

The problems of training future teachers to form media literacy have been studied by both Ukrainian and international scholars, including K. Binytska, O. Volosheniuk, S. Dubovyk, A. Yefymenko, O. Mukoviz, L. Naidonova, H. Onkovych, and others. Issues of defining the goals, objectives, and principles of media literacy have been examined in the scientific works of T. Beshok, V. Ivanov, and O. Isaieva. The problem of preparing future teachers for the formation of media literacy has also been addressed by H. Holovchenko, H. Marchenko, V. Sharko.

Certain aspects of the study of media education and media literacy formation among future educators are reflected in the research of M. Makoviichuk (*Formation of Media Literacy of Future Social Pedagogues*), O. Bohomaz (*Formation of Readiness of Future Preschool Teachers to Use Media Education Tools*) O. Dubliak (*Methodology for the Formation of Primary School Pupils' Monologic Competence by Means of Media Education*) and others. The practice-oriented aspect of implementing media education in modern educational institutions has been studied by O. Rekun, among others.

THE PURPOSE OF THE RESEARCH. Based on a content analysis of scientific sources and the study of professional pedagogical experience, to describe the process of forming the professional readiness of future primary school teachers to apply media education technologies in the educational process in the context of contemporary educational challenges and societal transformations.

RESEARCH METHODS

To achieve the stated purpose and objectives, a complex of scientific and pedagogical methods was applied. Theoretical methods included content analysis of scientific sources, generalization, and synthesis to determine the essence of future teachers' readiness to use media education technologies. Empirical methods involved studying teachers' professional experience, questionnaires and surveys of students of pedagogical education, analysis of products of pedagogical activity (lesson plans, media projects, information and digital resources), and pedagogical observation of the use of media technologies. The processing of results was carried out using methods of qualitative analysis, systematization, and data generalization, which made it possible to identify patterns in the formation of professional readiness under modern educational challenges.

RESULTS OF THE RESEARCH

The formation of readiness of future primary education teachers to use media education technologies is a necessary component of professional training, determined by the relevance of the role of the media space in optimizing the educational process and in the everyday life of school students. Under the current realities of rapid informatization, a primary school teacher acts not only as a transmitter of knowledge but also as an organizer of students' learning interaction with various types of media content, a facilitator of learning activities, and a guide



in forming the foundations of students' media literacy. According to these considerations, the readiness of future teachers to apply media education technologies should be viewed as an integrated professional and personal quality that reflects the ability to purposefully, pedagogically appropriately, and safely use media educational resources and media-digital tools in the educational process of primary school.

Within the context of this study, attention is paid to the analysis of the basic concept of "readiness." We share the interpretation proposed by researcher M. Hryniova, who defines teacher readiness as "the process of forming the personality of a future teacher who is capable of performing tasks at a creative professional level. The content of professional activity consists in the teacher's fulfillment of a set of professional tasks during the implementation of educational, upbringing, and developmental functions of the educational process" (Hryniova M., 2006). S. Honcharenko defines professional pedagogical training as "the training of pedagogical staff for schools and other educational institutions" (Honcharenko S., 1997). Such readiness is formed in the process of professional training in higher education institutions, during various types of practical activities (propaedeutic, educational-introductory, pedagogical, industrial practices, and other types of practice in general secondary education institutions), and is based on awareness of the significance of media education for the development of cognitive activity, critical thinking, and information culture of future primary school teachers.

It should be emphasized that "in the media space of higher education institutions, media education technologies (the Internet space, tools of social networks and cyberspace) act as an integral innovative segment of the education system, enabling effective and high-quality realization of the core potential of a particular field of knowledge, the creation of a personality-oriented environment, and influencing the level of self-education and self-development of graduates" (Chervinska I. & Prytuliak O., 2022).

The formation of readiness of future primary school teachers to apply media education technologies is ensured through comprehensive mastery of the content of educational components of the educational and professional program *Primary Education*, which directly "influences the formation of professional competence and determines program learning outcomes related to the ability to integrate and apply innovative technologies in teaching primary school educational areas, taking into account the requirements for the educational process and pedagogical activity, as well as the individual needs of students" (Educational and Professional Program, 2024). In the same context, it is noted that "media technologies can be effectively integrated into the educational content of all academic disciplines of an educational and professional program at a certain level, provided that didactic and organizational requirements regarding the appropriateness of achieving goals and implementing the outlined objectives of media education are observed" (Educational and Professional Program, 2024).

In particular, the educational component *Media Information Technologies* provides knowledge about modern digital resources, interactive platforms, and tools for creating educational content, contributes to the formation of information and digital literacy, and develops students' informational and technical capacity. The content of the course includes the study of modern information and digital tools, including educational platforms (Google Classroom, Kahoot!, Quizizz), graphic and presentation programs (PowerPoint, Canva, Genially), and other innovative multimedia tools. The purpose of the educational component is to form in future primary school teachers the competencies necessary for creating, organizing, and using information and digital resources, as well as for the effective application of media education technologies in professional activity. The main objectives of the course are the development of information and digital media literacy, the ability to integrate media resources into the educational process, and the formation of skills for organizing distance learning (Educational and Professional Program, 2024).

The educational component *Media Didactics of Primary School* focuses on revealing the potential of media learning tools and innovative media education technologies for their effective use in the educational process of primary education. It ensures comprehensive preparation of future primary school teachers for safe and effective interaction in the media space, mastery of the basics of media education, media literacy, and media culture, and the formation of students' awareness in the field of modern media technologies and ways of their use in the educational process. The purpose of studying this discipline is to familiarize higher education students with the theoretical, methodological, organizational, and didactic foundations of primary school media didactics in the context of the New Ukrainian School (Syllabus of the course *Media Didactics...*, 2025). While mastering this component, students become acquainted with the didactic potential of innovative media education and multimedia technologies, learn to use media formats in the educational process of primary school, study effective platforms for applying game-based media technologies in primary school lessons, analyze principles of lesson planning with media integration, and organize project-based, game-based, and creative activities using media technologies in language and literature, mathematics, and natural science educational fields. The course aims to teach future primary school teachers to effectively combine pedagogical goals of the educational process with the wide possibilities of media technologies, to form media competencies, and to ensure active acquisition of knowledge in media education (Syllabus of the course *Media Didactics...*, 2025).

The educational component *Developmental (Age) Psychology* provides an understanding of the psychological characteristics of perception and learning of students aged 6–10, including cognitive, emotional, social, and motivational development. Its purpose is to teach educators to take into account age-related characteristics of students' learning activities when using media education technologies in the study of educational fields. This approach contributes to increasing learning effectiveness through adapting content complexity and selecting forms and methods that correspond to students' psychological and pedagogical capabilities and needs (Educational and Professional Program, 2024).



Developmental Psychology as an innovative educational component of training future primary school teachers reveals the patterns of personality development of schoolchildren, their cognitive activity and self-organization, as well as the formation of skills for independent information search and critical evaluation. Its purpose is to prepare higher education students for the application of innovative media education technologies that take into account individual characteristics of schoolchildren and contribute to the formation of key information and digital competencies. The course is aimed at developing skills to organize activities in such a way that media tools stimulate cognitive activity, independence, creativity, and critical thinking (Educational and Professional Program, 2024).

Mastering the educational content of the courses *Developmental (Age) Psychology* and *Developmental Psychology* provides an understanding of the essence of age periodization of primary school students, reveals the specifics of their mental, anatomical, physiological, and social development, and allows educators to take into account cognitive, emotional, and social characteristics of schoolchildren. This ensures the pedagogical appropriateness of using modern media education technologies and increases learning effectiveness.

In the process of forming the readiness of future teachers for pedagogical activity, systemacity and gradual progression in learning can be observed, starting with fundamental disciplines (pedagogy and psychology, methods of teaching primary school subjects) and moving toward the integration of knowledge into practical activity. A special role in this complex process is played by methodological practices, training, and pedagogical experiments, which contribute to the acquisition of professional skills in a real educational environment.

Thus, it can be confidently stated that the combination of the described knowledge and professional competencies enables future teachers to effectively apply media education technologies, develop students' media competencies, and adapt pedagogical activity to contemporary educational challenges. During their studies, students acquire skills in planning and implementing lessons with media integration, organizing project-based and game-based activities, evaluating the effectiveness of specific media education technologies, and taking into account the psychological characteristics of school students to ensure pedagogical appropriateness and activate learning. The structure of readiness of future primary school teachers to apply media education technologies in the educational process includes motivational-value, cognitive, activity-based, and reflective components, each of which acquires specific content within the media education context.

Motivational and Value-Based Component. The motivational and value-based component reflects the internal readiness of a future primary education teacher to use media education technologies, their attitude toward media education as an important component of professional activity, and their awareness of its socio-pedagogical significance. In the media education context, this component presupposes the formation of positive motivation to integrate media technologies into the educational process of the New Ukrainian School, a desire for professional self-development in a dynamic media environment, and the acceptance of the values of responsible media consumption.

Important characteristics of the motivational and value-based component include awareness of the teacher's role as a media mediator between the pupil and the information space, as well as readiness to form the foundations of media literacy in learners. It also involves developing and generalizing attitudes aimed at adhering to ethical standards, rules of netiquette, principles of information security, and humanistic values in working with media content. The formation of this component determines the active position of the future teacher regarding the use of media education technologies and serves as an effective basis for the development of other components of readiness for professional activity.

Cognitive Component. The cognitive component encompasses a system of theoretical knowledge necessary for a future teacher to consciously and pedagogically appropriately apply media education technologies in primary school. It includes knowledge about the essence and types of media education technologies, their didactic potential, principles of integration into the educational process, as well as psychological and pedagogical features of perception and interpretation of media content by younger schoolchildren. Within the cognitive component, an important place is occupied by knowledge of the fundamentals of media literacy, critical analysis of media texts, information security, copyright, and ethical aspects of media use. A future teacher must understand the specifics of media influence on the formation of worldview, behavior, and value orientations of primary school pupils, as well as possess theoretical foundations for selecting high-quality media content appropriate to students' age characteristics.

Activity-Based Component. The activity-based component characterizes the level of formation of practical skills and abilities related to the application of media education technologies in the professional activity of a primary school teacher. It is manifested in the future teacher's ability to design and implement the educational process using media resources, integrate media education technologies at various stages of the lesson, and combine them with traditional teaching methods. The content of this component includes skills in selecting, adapting, and creating simple media products (presentations, video fragments, media-digital stories, interactive exercises), organizing students' learning interaction in the media environment, and applying game-based and project-based media technologies. An important indicator of the formation of this component is the ability to ensure pedagogically appropriate and safe use of media resources in the educational process.

Reflective Component. The reflective component ensures the future teacher's ability to engage in self-analysis and critical evaluation of their own activities related to the use of media education technologies. In the media education context, it involves the ability to assess the effectiveness of selected media technologies, their compliance with educational goals, students' age characteristics, and expected learning outcomes. The formation of the reflective component is manifested in the future teacher's ability to analyze their own pedagogical decisions, identify difficulties and risks in the use of media education technologies, and adjust their activities based on feedback and the results of



students' learning achievements. This component is an important factor of professional growth and ensures teachers' readiness for continuous improvement under constant changes in the media education space.

A technologically balanced combination of the described components is reflected in the levels of professional training of future primary school teachers and is traced through the formation of the teacher's personal qualities. This confirms the need to improve the process of professional training of future primary school teachers and to optimize efforts aimed at forming readiness to use innovative media education technologies in the educational process of primary school.

The use of interactive presentations, video fragments, animations, and visualizations helps explain complex concepts more clearly by engaging different channels of information perception and maintaining learners' attention and interest. In this context, it is important to combine multimedia with active forms of work during lessons, such as collective discussions, creative tasks, and interactive exercises. The effective application of innovative platforms such as LearningApps, Google Classroom, Kahoot, and Padlet makes it possible to organize interactive exercises, testing, and group projects, which is especially effective in distance or blended learning formats. Such media education technologies contribute to the formation of information and digital competencies and the development of teamwork skills.

Project-based and game-based activities using media tools are implemented through the creation of simple media projects, comics, book trailers, digital storytelling, and research and inquiry tasks, which contribute to the development of learners' creativity, logical thinking, and skills in working with various types of information. The use of game-based media technologies in educational interaction during practical or seminar classes motivates learners toward cognitive activity and makes the learning process interactive.

The described media education technologies help learners develop media literacy, critical thinking, and information competence. The use of visual creative media tools, interactive whiteboards, digital drawings, presentation builders, and animation editors allows future educators not only to receive information but also to create their own media products, which contributes to deeper mastery of educational content.

Analyzing the information presented, it should be noted that the range of media education technologies used in higher education institutions demonstrates their diversity and pedagogical effectiveness. This provides grounds to assert that both visual interactive media education technologies presentations, multimedia, visual constructors and digital educational platforms for organizing learning and assessing knowledge, such as Google Classroom, Kahoot!, Quizizz, and LearningApps, are successfully used in the educational process. The pedagogical purpose of media education technologies is multifaceted, as they:

- use interactive presentations and multimedia to enhance visualization and engage various channels of information perception;
- provide information and digital platforms to organize interactive learning, conduct testing, implement group projects, and develop media competencies;
- employ project-based and game-based activities aimed at developing creativity, logical thinking, and skills in working with information;
- apply media text analysis to form learners' media literacy, critical thinking, and ethical behavior in the media environment.

Pedagogical conclusions of the study confirm that media education technologies are integrated into the educational process comprehensively, combining traditional teaching methods with information and digital resources. They serve as tools of active learning, enable the implementation of a differentiated approach, and increase learning motivation. For the effective use of media education technologies, it is necessary to consider pedagogical appropriateness as well as ethical and safety aspects of their use in education.

The analysis of media education technologies successfully applied in the educational process demonstrates their universality, practical value, and influence on the development of key competencies. Interactive presentations, multimedia, and digital educational platforms ensure visualization and engagement of different channels of perception, promote interactive learning, testing, and organization of group projects. Project-based, game-based, and creative activities using media tools develop critical thinking and information-handling skills. Technologies for media text analysis form the foundations of media literacy and a responsible attitude toward information among future primary school teachers.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The generalization conducted in this study shows that media education technologies are not only tools for knowledge transmission but also mechanisms for forming the professional readiness of future teachers, integrating modern information and digital resources into all educational areas of primary education and promoting active, differentiated, and safe learning. Developed media and information competence is a component of the training of future primary school teachers and involves mastering the essence of media education technologies, information and digital resources, and methods of their integration into the educational process of modern primary education. Learners acquire skills in creating interactive materials, organizing distance and blended learning, evaluating media content, and teaching pupils to think critically about the information they receive.

Contemporary professional challenges in forming readiness to apply media education technologies are caused by the rapid dynamics of media tool development, as modern technologies change faster than higher education curricula are updated. Future teachers often master information and digital platforms and media tools fragmentarily, without a deep understanding of their pedagogical potential. This creates challenges in ensuring a systemic approach to the



development of information and digital competence, where a teacher not only uses technologies but is also able to integrate them into the educational process effectively and appropriately.

The need for continuous self-education and professional development is driven by rapid changes in the information space. Therefore, future teachers must independently expand their media awareness, master new platforms, interactive services, and pedagogical techniques of media integration. This requires a high level of self-discipline, professional motivation, and readiness for lifelong learning. It should be noted that when using media education technologies, future primary school teachers must take into account the requirements of differentiated and inclusive approaches for learners with different levels of preparation, consider their individual and age-related characteristics and needs, thus ensuring equal access and high learning effectiveness for all students. Successfully overcoming these challenges is a key factor in the effective formation of professional readiness and the development of professional competence in the field of primary school media education.

Thus, the formation of readiness of future primary school teachers to apply media education technologies is a complex and multifaceted process that takes place under the conditions of contemporary educational challenges and wartime realities.

Prospects for further research are seen in the development and experimental verification of models and pedagogical conditions for forming the media education readiness of future primary school teachers.

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Chapter IV. PROBLEMS OF EDUCATION AND UPBRINGING OF CHILDREN IN EDUCATIONAL INSTITUTIONS OF MOUNTAIN REGIONS

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STEM EDUCATION IN THE PROFESSIONAL TRAINING OF FUTURE TEACHER EDUCATORS AS A SUBJECT OF SCIENTIFIC DISCOURSE

Abstract. The article analyzes STEM education in the professional training of future teachers as a subject of contemporary scientific discourse. The essence of STEM education is revealed as an integrative educational approach that combines natural sciences, technology, engineering, and mathematics with the aim of forming the professional competencies of a new generation of teachers. The views of domestic and foreign scholars on the role of STEM education in the modernization of teacher education in response to the challenges of digitalization, innovative development, and labor market demands are summarized.

Emphasis is placed on the interdisciplinary nature of STEM education and its potential to develop critical thinking, research skills, creativity, and the ability to solve complex problems among future teachers. Scientific approaches to the implementation of STEM-oriented methodologies in the system of professional pedagogical education are analyzed, including project-based learning, problem-based learning, and the use of digital technologies. Particular attention is paid to the relationship between STEM education and social and emotional learning as a factor in creating a safe and supportive educational environment in the process of training future teachers.

It is determined that STEM education serves not only as a tool for integrating academic disciplines but also as an important means of forming the professional identity of teachers who are ready for innovative activity and continuous professional development. The article concludes that further scientific reflection on STEM education as a strategic direction for the development of professional training of future teachers in the context of global educational trends is necessary. At the same time, the analysis of scientific sources indicates that the issue of STEM education in the professional training of future teachers of natural science disciplines requires further generalization in the context of contemporary educational reforms and the requirements for pedagogical activity. The purpose of the article is to provide a theoretical understanding of STEM education in the professional training of future teachers as a subject of contemporary scientific discourse and to determine its role in the preparation of natural science teachers under conditions of educational reforms and societal transformations.

The objectives of the study are to analyze the approaches of domestic and foreign scholars to the interpretation of STEM education, to reveal the essence of the concept of "STEM education" in the context of professional teacher training, to determine the role of STEM education in the formation of professional competencies of future natural science teachers, and to outline the significance of STEM education in the implementation of modern educational reforms.

Keywords: STEM education, professional training, scientific discourse, integration, natural science teachers, innovations.

STEM-ОСВІТА У ПРОФЕСІЙНІЙ ПІДГОТОВЦІ МАЙБУТНІХ ПЕДАГОГІВ ЯК ПРЕДМЕТ НАУКОВОГО ДИСКУРСУ

Анотація. У статті здійснено аналіз STEM-освіти в професійній підготовці майбутніх педагогів як предмета сучасного наукового дискурсу. Розкрито сутність поняття STEM-освіти як інтегративного освітнього підходу, що поєднує



природничі науки, технології, інженерію та математику з метою формування професійних компетентностей учителів нового покоління. Узагальнено погляди вітчизняних і зарубіжних дослідників щодо ролі STEM-освіти у модернізації педагогічної освіти відповідно до викликів цифровізації, інноваційного розвитку та потреб ринку праці. Акцентовано увагу на міждисциплінарному характері STEM-освіти, її потенціалі для розвитку критичного мислення, дослідницьких умінь, креативності та здатності до розв'язання комплексних проблем у діяльності майбутніх педагогів. Проаналізовано наукові підходи до впровадження STEM-орієнтованих методик у систему професійної педагогічної освіти, зокрема проектну діяльність, проблемно-орієнтоване навчання та використання цифрових технологій. Окрему увагу приділено взаємозв'язку STEM-освіти та інноваційного навчання як чинника створення безпечного й підтримувального освітнього середовища у процесі підготовки майбутніх учителів. Визначено, що STEM-освіта виступає не лише інструментом інтеграції навчальних дисциплін, а й важливим засобом формування професійної ідентичності педагога, готового до інноваційної діяльності та безперервного професійного розвитку. Зроблено висновок про доцільність подальшого наукового осмислення STEM-освіти як стратегічного напрямку розвитку професійної підготовки майбутніх педагогів у контексті глобальних освітніх трансформацій. Водночас аналіз наукових джерел засвідчує, що проблема STEM-освіти у професійній підготовці майбутніх учителів природничих дисциплін потребує подальшого узагальнення в контексті сучасних освітніх реформ та вимог до педагогічної діяльності.

Метою статті є теоретичне осмислення STEM-освіти у професійній підготовці майбутніх педагогів як предмета сучасного наукового дискурсу та визначення її ролі у підготовці вчителя природничих дисциплін в умовах освітніх реформ та суспільних трансформацій.

Завдання дослідження: проаналізувати підходи вітчизняних і зарубіжних учених до трактування STEM-освіти, розкрити сутність поняття «STEM-освіта» у контексті професійної педагогічної підготовки, визначити роль STEM-освіти у формуванні професійних компетентностей майбутніх учителів природничих дисциплін, окреслити значення STEM-освіти в умовах реалізації сучасних освітніх реформ.

Ключові слова: STEM-освіта, професійна підготовка, науковий дискурс, інтеграція, учителі природничих дисциплін, інновації.

INTRODUCTION

The problem formulation. Transformational processes in education driven by globalization, digitalization, the development of knowledge-intensive technologies, and the reform of national education systems highlight the need to train a new type of teacher one capable of interdisciplinary integration, innovative activity, research-oriented thinking, and the use of modern educational technologies.

In this context, STEM education occupies a special place as a strategic direction for the development of Ukraine's education system. At the present stage, it is characterized by increased attention to the integration of science, technology, engineering, and mathematics as key drivers of innovation.

Among global educational transformations, STEM education is also viewed as a strategic direction for modernizing educational content and technologizing the professional training of teaching staff. Of particular relevance is the issue of implementing STEM education in the training of future teachers of natural sciences, who in their professional activities must ensure that school students develop an appropriate level of scientific thinking, research skills, technological literacy, and readiness to solve complex interdisciplinary problems.

Under the conditions of implementing the reforms of the New Ukrainian School, the competence-based approach, the digitalization of education, and orientation toward the European educational space, the requirements for the professional training of natural science teachers are increasing. Under these circumstances, teachers must be not only carriers of subject-specific competencies but also facilitators of learning, capable of integrating STEM education, project-based research methods, and innovative educational practices into the educational activities of institutions. In this regard, STEM education emerges as a subject of active scientific discourse that requires theoretical comprehension and generalization of scientific approaches.

An analysis of scientific sources (N. Byrka, S. Halata, N. Hushchyna, R. Koller) provides grounds for identifying the relevance of STEM education as an object of scientific reflection, determined by a number of global and national factors: the digitalization of society, the innovative development of the economy, changes in the labor market structure, the need to develop 21st-century competencies, and the modernization of the education system. In this context, STEM education acts as an effective strategy that responds to current educational transformations, contributes to updating the traditional subject-based model of learning, and facilitates the transition to interdisciplinary, practice-oriented, and competence-based approaches to organizing the educational process.

Analysis of recent research and publications. In Ukrainian and international scientific discourse, STEM education is considered not only an educational innovation but also a paradigmatic learning model that integrates scientific knowledge, technological tools, engineering thinking, and mathematical modeling with a focus on real-life and professional tasks. In the professional training of future natural science teachers, STEM education acquires the status of a pedagogical technology that determines the content, methods, forms, and learning outcomes.

The theoretical and methodological foundations of STEM education are presented in the works of domestic and foreign scholars. In the international academic space, the theoretical and methodological principles of STEM education have been studied by J. Bybee, R. Sanders, M. Honey, G. Pearson, E. Breiner, N. Stohlmann, S. Moore, and C. Roehrig, who emphasize the interdisciplinary nature of STEM, its focus on solving real problems of science and society, and the development of applied 21st-century competencies. Issues of teacher professional training in the STEM context are addressed in the studies of D. Capraro, R. Capraro, J. Falk, and L. Darling-Hammond,



which emphasize the importance of practice-oriented learning and pedagogical innovation. Various aspects of STEM education are widely represented in the works of Ukrainian scholars such as O. Barna, O. Buturlina, D. Vasylieva, O. Voronkin, N. Honcharova, O. Dziuba, V. Zhukova, S. Kyrylenko, O. Kuzmenko, O. Lozova, N. Morze, N. Polikhun, V. Khmurenko, and others. Researchers O. Trehub and Yu. Skibchuk analyze the peculiarities of applying STEM education in the training of future teachers of vocational education. In Ukrainian pedagogical science, various aspects of STEM education are studied by V. Kremen, O. Spirin, N. Morze, S. Semerikov, I. Slipukhina, and O. Patrykeieva, who reveal the potential of the STEM approach for modernizing natural and mathematical education, forming key and subject competencies, and developing the digital and engineering culture of future teachers.

At the same time, the analysis of scientific sources indicates that the problem of STEM education in the professional training of future natural science teachers requires further generalization in the context of modern educational reforms and contemporary requirements for pedagogical activity.

THE PURPOSE OF THE RESEARCH

The purpose of the article is the theoretical comprehension of STEM education in the professional training of future teachers as an object of contemporary scientific discourse and the determination of its role in training natural science teachers under conditions of educational reforms and societal transformations.

The objectives of the study are to analyze the approaches of Ukrainian and foreign scholars to the interpretation of STEM education; to reveal the essence of the concept of “STEM education” in the context of professional pedagogical training; to determine the role of STEM education in the formation of professional competencies of future natural science teachers; and to outline the significance of STEM education in the implementation of modern educational reforms.

RESEARCH METHODS

The research methods include theoretical analysis and synthesis of scientific sources, comparison, generalization, systematization of pedagogical approaches, and interpretation of research findings in the field of STEM education.

RESULTS OF THE RESEARCH

Issues of a country’s STEM development are at the center of attention of many international organizations and educational institutions worldwide. Accordingly, high-quality STEM education of citizens is an integral component of the national educational strategies of leading highly developed countries. In this context, the views of O. Yurova, O. Yevtushenko, and I. Savchenko are noteworthy, as they point out that “modern education systems and labor markets face global challenges associated with dynamic changes in the professional sphere. New professions are emerging, and the range of specialties in existing industries is expanding. This is especially true for professions related to science, technology, engineering, and mathematics (STEM)” (Yurova, O., Yevtushenko, O., & Savchenko, I., 2019).

According to current regulatory documents (Order of the Cabinet of Ministers of Ukraine “On Approval of the Concept for the Development of Natural and Mathematical Education (STEM Education)” (2020) and “On Approval of the Action Plan for the Implementation of the Concept for the Development of Natural and Mathematical Education (STEM Education) until 2027” (2021)), “STEM education is considered one of the priorities for the development of the education sector, a component of state policy aimed at increasing the competitiveness of the national economy and developing human capital, and a key factor of innovation in education that meets economic demands and societal needs” (Order of the Cabinet of Ministers of Ukraine, 2020; 2021).

STEM education is based on transdisciplinary approaches to curriculum design at various levels, individual didactic elements, the study of phenomena and processes of the surrounding world, and the solution of problem-oriented tasks. The application of the leading principle of STEM education—integration—“makes it possible to modernize methodological foundations, educational content, the scope of learning material, technologize the learning process, and form qualitatively new learning competencies among learners. It also contributes to higher-quality training of future specialists for successful employment and further professional growth, which requires diverse and technically more complex skills, including the application of mathematical knowledge and scientific concepts” (Yurova, O., Yevtushenko, O., & Savchenko, I., 2019).

In contemporary research, STEM education is viewed as an integrated educational paradigm that combines natural sciences (Science), technology (Technology), engineering (Engineering), and mathematics (Mathematics) with the aim of forming a holistic scientific and technological worldview and developing research, project-based, and critical skills.

The acronym “STEM” stands for Science, Technology, Engineering, and Mathematics. It should be noted that these disciplines occupy leading positions not only in education but also in the economy and energy sectors. As researchers V. Miziuk and H. Novak note, “global practice includes analogous forms of such integration: STEAM, STREM, STREAM, STEMLE, iSTEM, eSTEM, METALS, MINT, GEMS, etc. They denote combinations of core disciplines with various fields (Logic, Law, Gender studies, Ecology, etc.)” (Miziuk & Novak, 2023).

Analyzing the experience of countries where STEM education is successfully implemented, it should be emphasized that several of its variants are actively introduced in the Ukrainian education system, namely:

STEM (Science, Technology, Engineering, Mathematics);

STEAM (Science, Technology, Engineering, Arts, Mathematics);

STREAM (Science, Technology, Reading, Engineering, Arts, Mathematics) (Office of the Chief Scientist, 2013).

STEM education develops in such key areas as educational robotics, information technologies, and project-based research activities.



These innovative educational formats not only enrich educational content but also significantly improve the quality of training of future specialists. The integration of scientific, technical, and creative (humanitarian) fields of knowledge makes the learning process more effective and valuable for both learners and educators.

STEM education is implemented through all forms of education: formal, non-formal, and informal (via various technological online platforms, simulation laboratories, technological spaces, and digital hubs), as well as through excursions, competitions, Olympiads, festivals, and techno-quests.

STEM education is a response to the challenges of modern “Society 4.0,” driven by rapid developments in science, technology, digitalization, and the global labor market. The main problem addressed by STEM education is the mismatch between the traditional subject-fragmented learning system and the needs of modern education, which requires integrated thinking and the ability to apply interdisciplinary knowledge to practical life tasks.

Unlike traditional subject-based education, STEM education focuses on interdisciplinary integration, practical orientation, and solving real-world problems, thereby ensuring the connection between theory and practice and fostering innovative thinking. Researcher O. Trehub defines STEM education as “an interdisciplinary approach to learning that cultivates critical thinking, innovation, and technical competencies necessary for solving complex problems in various spheres of life” (Trehub, 2024).

The Concept for the Development of Natural and Mathematical Education defines STEM education as “a holistic system of natural and mathematical educational fields aimed at personal development through the formation of competencies, a scientific worldview, value orientations, and life values using a transdisciplinary approach to learning based on the practical application of scientific, mathematical, technical, and engineering knowledge to solve practical problems for further use in professional activities” (Concept for the Development of Natural and Mathematical Education, 2020). The theory of practice-oriented learning, which underlies the modern understanding of STEM education, is attributed to MIT professor Mitchel Resnick (Resnick, *Lifelong Kindergarten: Cultivating Creativity Through Projects*, 2017).

The organization of STEM learning is based on practice-oriented and interdisciplinary approaches, whereby learners apply knowledge from various fields to solve specific practical tasks. This approach forms engineering and technical competencies that include critical thinking, teamwork, and the ability to present and defend projects. In the educational process, the STEM approach is applied in the study of geography, biology, mathematics, physics, and robotics.

Today, STEM education integrates the educational process, professional activity, and career development into a holistic system. A vivid example of its implementation is the creation of the “Atlas of Future Professions,” which outlines new professions that will emerge or be in demand in the near future. Most of these professions are based on engineering and technical competencies formed through STEM-based learning. According to the Institute for the Future (USA), by 2030, 85% of professions that today’s students will work in have not yet been fully defined or even invented (Institute for the Future, 2024). In this context, STEM education is viewed not merely as a fashionable educational trend but as a new stage in the development of the global education system.

The implementation of educational innovations is carried out through the interconnection of formal, non-formal, and informal learning by developing specialized educational programs for different age groups and through extracurricular activities such as science camps, museums, excursions, STEM competitions, projects, and fairs (Morze, Strutynska, & Umryk, 2018).

Thus, STEM education is one of the priorities for today’s labor market, placing increasing demands on the quality of training of qualified professionals—future natural science teachers. A successful specialist today is one who can work with information technologies, process large data sets, quickly find, analyze, and present information effectively. While knowledge can be acquired through learning activities, core competencies are formed through practical work and strong motivation.

Integrative STEM education involves approaches that examine learning interactions among multiple subject areas included in STEM education within social and ethical contexts of human activity. The mastery of technologies should not be detached from the study of basic humanities, social sciences, or arts, nor from adherence to academic integrity and ethical standards.

In the classical educational model, scientific disciplines are often taught in isolation, leading to fragmented knowledge acquisition and reduced motivation. In contrast, real scientific, technical, and engineering tasks are complex and cannot be effectively solved within a single discipline. This contradiction between educational content and societal needs constitutes the key problem that STEM education seeks to address.

STEM education is an object of interdisciplinary scientific analysis, as it integrates knowledge, methods, and approaches from various fields, including:

- pedagogy (learning theory, didactics, educational technologies);
- psychology (cognitive development, motivation, critical and creative thinking);
- natural sciences (geography, natural science, physics, chemistry, biology);
- mathematics and computer science (modeling, algorithmic thinking, data analysis);
- engineering and technology (project activity, construction, design thinking, engineering);
- sociology and economics (labor market needs, innovative societal development).



Thus, it should be emphasized that STEM education is not reduced to the simple addition of several subjects but represents a holistic educational concept based on the integration of scientific knowledge and practical activity. This integration is reflected in an interdisciplinary approach, which in STEM education is substantiated from several perspectives.

First, the nature of contemporary problems of sustainable societal development is inherently interdisciplinary. Environmental crises, energy challenges, and the development of artificial intelligence and biotechnology require the simultaneous application of knowledge from various scientific fields.

Second, interdisciplinarity contributes to the formation of key competencies, including critical thinking, teamwork skills, the ability to analyze and synthesize information, creativity, and innovativeness.

Third, the integration of disciplines enhances the practical orientation of learning. Project-based and research activities in STEM education enable learners to see the real-world application of knowledge, which positively affects motivation and the quality of learning outcomes.

Fourth, the interdisciplinary approach corresponds to the requirements of the modern labor market, where not narrowly specialized knowledge but rather the ability to learn quickly, adapt, and work at the intersection of different educational fields is highly valued.

Therefore, STEM education as an object of interdisciplinary scientific analysis is a complex, multidimensional phenomenon that combines pedagogical, psychological, scientific, and socio-economic aspects. The interdisciplinary approach constitutes its methodological foundation, as it ensures the integrity of knowledge, the practical orientation of learning, and the preparation of individuals for effective activity in a modern technological society.

Global transformations driven by the development of digital technologies, automation, and the knowledge economy actualize the need to update the content and methods of education. In this context, STEM education is viewed as a strategic direction for the modernization of educational systems, aimed at developing learners' abilities for complex problem-solving, critical thinking, and innovative activity.

At the same time, scientific discourse indicates that STEM education cannot be adequately comprehended within the framework of a single field of knowledge, which necessitates its interdisciplinary analysis.

Analyzing the essence of the comprehensive interpretation of the concept of STEM education in contemporary scientific research, it should be noted that in scholarly literature STEM education is interpreted as "an integrated approach to learning that combines science, technology, engineering, and mathematics with the aim of forming applied and research competencies" (Honcharova, N., 2017).

According to the definition of the National Science Foundation (USA), "STEM education is an educational model that involves the integration of disciplines to solve real-world problems through inquiry, design, and experimentation" (National Science Foundation, 2022). In this context, R. Bybee emphasizes that STEM is not a collection of subjects but a pedagogical paradigm aimed at developing scientific and technological literacy and the ability to apply knowledge in new situations. UNESCO considers STEM education as "a tool for ensuring sustainable development, emphasizing its role in preparing human capital for an innovative economy" (Bybee, 2013). Interdisciplinarity is a defining characteristic of STEM education, manifested in the integration of methods, concepts, and research strategies from different scientific fields.

From a pedagogical perspective, STEM education is based on competency-based, activity-oriented, and constructivist approaches, emphasizing the active role of learners in the process of cognition (Froyd, Wankat, & Smith, 2012).

The psychological dimension of STEM is associated with "the study of cognitive processes, the development of critical and creative thinking, motivation for learning, and self-realization" (Hmelo-Silver, 2004).

The socio-economic aspect of STEM education is considered in the context of labor market needs and the innovative development of society. According to OECD analytical reports, the integration of STEM disciplines contributes to the development of 21st-century skills necessary for economic competitiveness and the achievement of sustainable development goals (OECD, 2019). The need for an interdisciplinary approach is primarily обусловлена the nature of modern scientific and technological problems, which are complex in character. As J. Klein notes, "interdisciplinarity is the response of science and education to the complexity of the real world, which cannot be adequately analyzed from the perspective of a single discipline" (Klein, 2010).

Within the context of STEM education, the interdisciplinary approach ensures:

- the integrity of scientific knowledge;
- the transfer of theoretical knowledge into practical activity;
- the formation of abilities for analysis, synthesis, and modeling;
- the development of engineering and systems thinking.

In addition, the integration of disciplines in STEM education correlates with the ideas of education for sustainable development, where knowledge is viewed as a tool for social and technological change (UNESCO, 2017).

STEM education is an interdisciplinary educational phenomenon that integrates pedagogical, psychological, scientific, and socio-economic aspects. Its analysis requires the use of an interdisciplinary methodology capable of reflecting the complexity and multidimensionality of this phenomenon. The interdisciplinary approach in STEM education functions not only as a didactic principle but also as a strategic condition for training specialists capable of innovative activity in a modern technological society.



Thus, STEM education is a complex systemic phenomenon that cannot be fully studied within the framework of a single scientific paradigm. In the professional training of future teachers, STEM education functions not only as a content component but also as a methodological foundation for organizing the educational process, involving the use of project-based, research-oriented, digital, and engineering learning technologies. As A. Ilnatusha notes, “during the implementation of STEM education in Ukraine, the main emphasis is placed on practical tasks and problem-solving close to real-life situations. This motivates learners to seek solutions not only through mastering theoretical material but also through conducting practical experiments and organizing applied testing” (Ilnatusha, A., 2018).

In its modern understanding, STEM education represents the organization of learning interaction through practice-oriented activity, challenging the traditional didactic principle of progression from theory to practice. In STEM education, the process is reversed: learners first reflect, design projects, experiment, and work on inventions. Based on the experience and practical skills acquired, they then master theoretical principles and gain new knowledge. The analysis of literature shows that STEM education presupposes a blended learning environment in which learners become aware of how to optimally apply acquired knowledge in practical activities.

Thus, the analysis of theoretical literature provides grounds to assert that STEM education is a progressive direction in educational interaction that combines interdisciplinary and applied approaches. This integration helps learners acquire more knowledge and expands and deepens interdisciplinary connections. By integrating disparate natural science and humanities disciplines into a unified whole, future teachers learn to understand and more deeply comprehend a holistic picture of the world.

It should also be emphasized that STEM education contains its own resources. Macro-resources of STEM education include specially designed educational and technological environments equipped with the necessary technological tools (laboratories, studios, technoparks). Micro-resources of STEM education may include various phenomena of material and spiritual culture that contain educational potential for the development of technological and innovative thinking. The blended STEM learning environment makes it possible to design forms and learning technologies with an emphasis on project-based and research activities of future natural science teachers.

Therefore, the focus of modern pedagogical science on the essence of STEM education and the implementation of innovative technologies in teacher training programs can become an effective step toward optimizing the preparation of modern teaching staff for the rapidly changing educational services market under the conditions of the Fourth Industrial Revolution. The introduction of innovative STEM technologies into the educational process and educational-professional programs for training future specialists in the natural sciences within formal, informal, and non-formal education in modern higher education institutions can ensure, through the integration of interdisciplinary and applied approaches, the solution of not only general pedagogical problems related to the development of innovative and technological thinking and the formation of core “4C” skills of the 21st century, but also promote learners’ involvement in scientific and research activities.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

The generalization of the results of the theoretical analysis allows for the following conclusions.

STEM education is a complex interdisciplinary phenomenon formed at the intersection of pedagogy, natural sciences, technologies, and professional education, and it constitutes an object of active scientific discourse.

In scientific research, STEM education is conceptualized through integrative, competency-based, activity-oriented, technological, and professionally oriented approaches, which complement one another and form a holistic understanding of its essence. In the professional training of future natural science teachers, STEM education has a system-forming significance, as it ensures the integration of learning content, the activation of cognitive activity, and the formation of readiness for innovative pedagogical practice.

STEM education contributes to the formation of professional competencies in future teachers necessary for implementing the ideas of the New Ukrainian School, including the ability for interdisciplinary integration, project-based activity, the use of digital technologies, and formative assessment.

The theoretical comprehension of STEM education as an object of scientific discourse creates a methodological foundation for further research into the organizational and didactic conditions for preparing future teachers to apply STEM technologies in professional activity, which determines the prospects for subsequent studies on the outlined problem.

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PSYCHOLOGICAL AND PEDAGOGICAL FEATURES OF INTEGRATIVE-VALUE METHODS IN THE EDUCATIONAL SPACE OF AN EDUCATIONAL INSTITUTION

Abstract. The relevance of the study is due to the need to modernize the educational process through the active implementation of integrative-value teaching methods based on activity technologies. Such methods contribute to the formation of a holistic personality, the development of its spiritual and moral values, national self-awareness, as well as key competencies of students. The integration of value and activity approaches meets the modern requirements of the New Ukrainian School, as it is aimed at educating an active, creative and responsible citizen capable of participating in public life on the principles of democracy and patriotism.

The purpose of the study is to substantiate the psychological and pedagogical features of integrative-value methods implemented through activity technologies, as well as to determine their didactic potential in the formation of the worldview and national identity of students.

The research methods included theoretical analysis and generalization of scientific literature, classification and systematization of pedagogical approaches, as well as the use of qualitative research methods - interpretation and SWOT analysis. The use of such a complex allowed us to comprehensively reveal the essence of integrative-value methods and determine ways of their effective implementation in the educational process.

The results of the study indicate that the use of integrative-value methods in combination with activity technologies provides a deep interdisciplinary integration of knowledge, skills and practical experience. This contributes to the activation of cognitive activity, the development of critical and creative thinking, independence, responsibility and the formation of cultural and national identity of students. In addition, such methods improve the quality of education of spiritual and moral values, contribute to the acquisition of key competencies, the development of social responsibility and readiness for civic participation.

Therefore, integrative-value teaching methods can be considered as a promising tool for the modernization of Ukrainian education, which corresponds to modern pedagogical approaches and the concept of the New Ukrainian School, ensuring the harmonious and comprehensive development of the personality of the student.

Keywords: integrative-value methods, activity technologies, spiritual and moral values, national self-consciousness, educational competencies, modern education, New Ukrainian School, personality formation, pedagogical technologies.

ПСИХОЛОГО-ПЕДАГОГІЧНІ ОСОБЛИВОСТІ ІНТЕГРАТИВНО-ЦІННІСНИХ МЕТОДІВ В ОСВІТНЬОМУ ПРОСТОРИ ЗАКЛАДУ ОСВІТИ

Анотація. Актуальність дослідження зумовлена необхідністю модернізації освітнього процесу шляхом активного впровадження інтегративно-ціннісних методів навчання, що базуються на діяльнісних технологіях. Такі методи сприяють формуванню цілісної особистості, розвитку її духовно-моральних цінностей, національної самосвідомості, а також ключових компетентностей здобувачів освіти. Інтеграція ціннісного та діяльнісного підходів відповідає сучасним вимогам Нової української школи, оскільки спрямована на виховання активного, творчого та відповідального громадянина, здатного брати участь у суспільному житті на засадах демократії та патріотизму.



Мета дослідження полягає в обґрунтуванні психолого-педагогічних особливостей інтегративно-ціннісних методів, реалізованих через діяльнісні технології, а також у визначенні їхнього дидактичного потенціалу у формуванні світогляду й національної ідентичності учнівської молоді.

Методи дослідження охоплювали теоретичний аналіз та узагальнення наукової літератури, класифікацію й систематизацію педагогічних підходів, а також застосування якісних дослідницьких методів – інтерпретації та SWOT-аналізу. Застосування такого комплексу дозволило всебічно розкрити сутність інтегративно-ціннісних методів і визначити шляхи їхнього ефективного впровадження у навчальний процес.

Результати дослідження свідчать, що використання інтегративно-ціннісних методів у поєднанні з діяльнісними технологіями забезпечує глибоку міжпредметну інтеграцію знань, умінь та практичного досвіду. Це сприяє активізації пізнавальної діяльності, розвитку критичного й творчого мислення, самостійності, відповідальності та формуванню культурно-національної ідентичності здобувачів освіти. Крім того, такі методи підвищують якість виховання духовно-моральних цінностей, сприяють набуттю ключових компетентностей, розвитку соціальної відповідальності й готовності до громадянської участі.

Отже, інтегративно-ціннісні методи навчання можна розглядати як перспективний інструмент модернізації української освіти, що відповідає сучасним педагогічним підходам і концепції Нової української школи, забезпечуючи гармонійний та всебічний розвиток особистості здобувача освіти.

Ключові слова: інтегративно-ціннісні методи, діяльнісні технології, духовно-моральні цінності, національна самосвідомість, освітні компетентності, сучасна освіта, Нова українська школа, формування особистості, педагогічні технології.

INTRODUCTION

The problem formulation. Relevance of the study Modern education is focused on the development of key competencies and the creation of conditions for the personal growth of each student. This has led to the need to develop new teaching methods that can meet the requirements of the time. Innovative changes that cover both the content and procedures of the educational process require a review of traditional approaches to the organization of educational activities. The development of didactic theories emphasizes the importance of using not individual methods, but a holistic system that takes into account specific learning conditions. Studies show that the connections between methods are not always fully implemented in practice, and the conditions for their systematic application remain insufficiently clarified. This limits the effectiveness of the formation of value attitudes and reduces the effectiveness of learning.

In modern conditions, the implementation of innovative approaches, in particular activity technologies, which actualize the justification of such methods that would harmoniously combine all components of the educational process, is of exceptional importance. Such methods are integrative-value methods, which function not only as a teaching tool, but also as a systemic basis for holistic learning, combining knowledge, values, experience and activity into a single educational environment. They are focused on interdisciplinary interaction and effectively implement modern approaches in teaching integrated disciplines, in particular ethnographic ones, which contributes to the formation of a system of spiritual, moral and cultural values of students. Despite the presence of numerous studies on the methodology of teaching individual disciplines, the development of new methods and technologies aimed at interdisciplinary interaction and the formation of values in the process of teaching ethnographic studies remains insufficiently developed. This necessitates further theoretical and methodological understanding of the psychological and pedagogical features of integrative-value methods in the context of activity technologies and their practical implementation in the educational process.

Analysis of recent research and publications. In the middle of the 20th century, in Ukrainian pedagogy, a simplified classification of teaching methods into verbal, visual and practical was used. Subsequently, numerous systematizations were proposed by Ukrainian researchers A. Aleksyuk, G. Vashchenko, I.P. Pidlasy, V. Palamarchuk. The most common classifications divide methods by the source of information, the nature of cognitive activity, the didactic goal and the form of educational activity.

Y. Babansky proposed a universal classification based on a holistic activity approach that takes into account motivation, sources of knowledge, forms and logic of learning, control and self-control. Despite its constructiveness, it needs improvement, since it does not cover systemic and structural methods and does not reflect the subordination of groups (Zinko, Bilyk, & Khanas, 2014).

The work of A. Aleksyuk, which traces the development of classifications of teaching methods (Aleksyuk, 1981), remains relevant. V. Sydorenko emphasized the relationship between content and form as the basis of the normative system of methods (Sydorenko, 2006).

In world pedagogy in the second half of the 20th century, new approaches to the classification of methods focused on active cognition, student autonomy, and research became widespread. In particular, J. Dewey (1938) emphasized experiential learning, J. Bruner (1961) emphasized the development of cognitive autonomy, and B. Bloom (1956) created a taxonomy of educational goals, which became the basis for the choice of methods. Robert Gagnй (1985) developed a model that takes into account the types of cognitive activity, and David Kolb (Kolb, 1984) proposed an educational cycle focused on experience and reflection. As a result, multidimensional models of teaching methods have developed in international pedagogy, combining cognitive, emotional and behavioral factors.

At the same time, in domestic pedagogical science, the issue of classifying teaching methods according to the competency-based approach is considered in a broader general didactic context. Ukrainian researchers focus on



the combination of traditional and innovative methods, as well as on the formation of value orientations and key competencies of education seekers in the learning process, which corresponds to global trends, but takes into account the national characteristics of the educational process.

A significant role in this is played by the concept of the New Ukrainian School (NUS), which is focused on a personally-oriented approach, the development of critical thinking, independence, and social responsibility of students (On Approval of the Concept, 2016). In view of this, an extensive classification of methods has been developed according to numerous criteria: level of application (general and specific), form of educational activity (group, individual, collective), effectiveness (productive, unproductive), ratio of teacher and student activity (active, passive, interactive), novelty (traditional, innovative), source and method of knowledge transfer (verbal, visual, practical, information and communication), as well as competence-targeted purpose (methods for forming key competencies. Although this classification requires further improvement, it significantly brings us closer to the creation and implementation of competency-oriented teaching methods that meet the challenges of modern education. Analysis of these approaches allows us to identify common trends and features that contribute to increasing the efficiency of organizing the educational process in modern schools (Kucheruk, 2008).

THE AIM AND RESEARCH TASKS

Modern education should be aimed not only at the acquisition of knowledge, but also at the development of the personality and its spiritual and moral potential. In this, an important role is played by activity technologies that ensure the active participation of students, form cognitive independence, critical thinking and the ability to apply knowledge in practice. This turns learning into creative cooperation, where the student is an active subject of the process. It is necessary to introduce methods that combine the mastery of the material with the formation of a holistic personality, integrating knowledge and values in accordance with the requirements of the New Ukrainian School. Integrative and value methods based on an activity approach will contribute to the education of active, creative and morally mature citizens.

PURPOSE: To substantiate the psychological and pedagogical features of integrative-value teaching methods based on activity technologies and to identify their didactic potential in the formation of a holistic worldview, cultural and national self-awareness and spiritual and moral values of students in the process of studying subjects of ethnographic content.

RESEARCH TASK:

1. To analyze modern approaches to the classification of teaching methods in the context of activity technologies and an integrative-value approach.
2. To identify the psychological and pedagogical features of integrative-value teaching methods in the context of the formation of a holistic worldview and spiritual and moral values of students.
3. To investigate the didactic potential of integrative-value methods based on activity technologies in the process of teaching ethnographic subjects.
4. To develop recommendations for the implementation of integrative-value teaching methods in the educational process, focused on the requirements of the New Ukrainian School.
5. To identify the main advantages and difficulties of using integrative-value methods in a modern school in order to increase the effectiveness of the formation of key competencies and value attitudes of education seekers.

RESEARCH METHODS

The study used theoretical and empirical methods. In particular, classification and systematization allowed to organize integrative-value teaching methods, and predictive modeling allowed to predict their effectiveness in the educational process. Among the empirical methods, expert assessments were used to involve professional opinion in the field of pedagogy and value education. Both quantitative and qualitative methods were used to analyze the results. Additionally, a SWOT analysis was conducted to identify the advantages and disadvantages of the integrative-value approach.

Traditional teaching methods rely on the transfer of knowledge from teacher to student, with a dominant verbal approach and an authoritarian model of interaction. These methods are effective for actual learning, especially at the elementary level, but they limit the development of critical thinking, creativity and teamwork. Studies show that their effectiveness is moderate (effect range 0.40–0.59), they achieve basic academic results, but are inferior to active, student-centered methods (Hattie, J, 2009).

Innovative teaching methods (integrated, integrative, binary) are based on competency-based, activity-based, axiological approaches and are aimed at activating cognitive abilities, developing interdisciplinary thinking, practical application of knowledge and teamwork. They combine the content of different subjects, generalize knowledge and involve students in in-depth analysis of the material. Studies confirm their high effectiveness - an increase in success by 10–15% and increased student motivation (OECD (2018). PISA). Innovative methods significantly outperform traditional ones in developing critical thinking, creativity, and key competencies, which meets modern educational requirements.

RESULTS OF THE RESEARCH

Modern education, taking into account the challenges of the time and the priorities of the Concept of Spiritual National Revival based on the ethnographic potential of Ukraine, requires new methods that ensure not only the acquisition of knowledge, but also the formation of a holistic spiritually and morally developed personality, able to



act on the basis of national values. This requires the introduction of pedagogical technologies that integrate various scientific approaches, stimulate the development of thinking, creativity, and social responsibility.

The methodological basis of the Concept of Spiritual National Revival on the basis of the ethnographic potential of Ukraine is determined by the scientific approaches laid down in its basis, including: culturological, systemic, personally and mentally oriented, axiological, competency-based, activity-based, implemented on the basis of the corresponding principles and methods of work:

- culturological approach: principles of scientificity and historicism;
- systemic approach: principles of integrity, communicativeness, structurality, purposefulness and manageability, development; methods – systemic analysis, systemic synthesis, modeling;
- personality-oriented approach: principles of subjectivity, individuality, self-actualization, choice, creativity and success, trust and support; methods – dialogue, game, reflection, facilitation and pedagogical support, diagnostics, creation of a situation of success and choice;
- competency-based approach: principles of subjectivity, reflexivity, creativity, effectiveness, design and construction of the educational space of modeling; methods – life planning, project activities, trainings, business games, creative portfolio, analysis of life situations, targeted creative programs, social practice, reflection;
- activity approach: principles of subjectivity, taking into account leading types of activities and the laws of their change; taking into account sensitive periods of children's development; determining the zone of proximal development and organizing joint activities of children and adults in it; application (enrichment, reinforcement, deepening); design, construction and creation of situations of educational activity; effectiveness and motivation, reflexivity; cooperation; methods – portfolio, game, reflection, support of initiative, social practice, participation in social projects) (Orzhekhovska, 2013).
- mentally oriented approach: principles of humanism, cultural conformity, nature conformity, continuity, continuity, stimulation, pedagogical competence; methods – dialogue, game, facilitation and pedagogical support, creation of a situation of success and choice, life design, project activity, trainings, creative portfolio, analysis of life situations, targeted creative programs, social practice, reflection, diagnostics;
- axiological approach: principles of objectivity, humanism, continuity, self-sufficiency, dialogicity, cultural correspondence; methods – dialogue, life design, project activity, targeted creative programs, social practice, modeling, forecasting, programming. Educational priorities of the concept – child-centeredness, pedagogy of cooperation, end-to-end education and new content of education based on the formation of competencies and the ethnographic potential of Ukraine, on the basis of the program "Ethnographical Studies in Action" with the aim of educating a new society that implements common values through the connection of generations (Hrytsiv, 2023).

The conceptual model of a personality brought up on an ethnographic basis involves the formation of a multifaceted system of values: civic values, family values, worldview values, ecological values, intellectual values, aesthetic values, valeological values. Integrative-value methods, implemented through activity technologies, provide a deep understanding of the historical and cultural origins of the Ukrainian people, contributing to the transmission of spiritual heritage from generation to generation.

The culturological approach is based on the principles of scientificity and historicism, which provide a deep and objective awareness of cultural and historical experience. The psychological and pedagogical feature is that methods such as games, dialogue, analysis of life situations contribute to the development of cultural consciousness, the formation of a value attitude towards cultural heritage, traditions and customs. This creates conditions for the student to become aware of his/her own cultural identity and openness to cultural diversity, which is important for the development of emotional maturity and social competence.

The principles of integrity, communication, structure, purposefulness, manageability and development are at the heart of the systemic approach. Psychologically, this approach helps students perceive knowledge as a complex, interconnected and developing system. Methods of systemic analysis, synthesis and modeling develop analytical and critical thinking in students, the ability to logically organize information, which increases the effectiveness of cognitive activity and contributes to the conscious assimilation of educational material.

The main principles of the personality-oriented approach - subjectivity, individuality, self-actualization, choice, creativity, success, trust and support - create conditions for the development of the unique capabilities of each student. The use of methods of dialogue, play, reflection, facilitation and pedagogical support provides support for internal motivation, forms emotional well-being and self-esteem, contributes to the disclosure of creative potential. Psychologically, this stimulates the active inclusion of the student in the learning process as a subject who takes responsibility for his own development.

The competency-based approach is based on the principles of subjectivity, reflexivity, creativity, effectiveness, design and construction of the educational space. This approach focuses on the formation of key competencies in the student, which provide not only knowledge, but also the ability to apply them in practical, social and life situations. Methods of life design, project activities, trainings, business games, creative portfolio, analysis of life situations and social practice contribute to the formation of the ability to make independent decisions, the development of responsibility and readiness to adapt in a dynamic social environment.

The basis of the mentally oriented approach are the principles of humanism, cultural conformity, nature conformity, continuity, continuity, stimulation and pedagogical competence. Psychologically, this approach contributes to the development of mental processes (attention, memory, thinking), the emotional sphere, self-regulation and motivation



for learning and self-improvement. Methods of dialogue, game, facilitation, creation of situations of success, trainings, creative programs and social practice form the conditions for the harmonious development of the personality in the context of its natural and cultural characteristics.

The axiological approach is based on the principles of objectivity, humanism, continuity, self-sufficiency, dialogicity and cultural correspondence. This approach ensures the formation of a conscious system of values and moral guidelines in students through dialogue, life planning, project activities, targeted creative programs and social practice. Psychologically, it contributes to the development of responsibility, the ability to make independent choices and an ethical attitude towards oneself and society.

The activity approach is focused on the principles of subjectivity, taking into account leading types of activity, the patterns of their change, sensitive periods of development, determining the zone of proximal development, application, design of educational situations, as well as on effectiveness, motivation, reflexivity and cooperation. Psychologically, this approach activates personal development through direct activity (game, portfolio, initiative support, social practice), which stimulates active assimilation of knowledge, consistent building of competencies, development of social skills and the ability to work in a team.

Today, in modern education, there is a growing need to develop methods that not only ensure the acquisition of knowledge, but also contribute to the formation of a holistic, value-oriented personality.

The concept of "teaching methodology" is understood as ways of organizing the educational process that contribute to the development of thinking and cognitive activity of students; a system of principles, methods and tools aimed at the effective acquisition of knowledge and the development of skills. (Bekh, 1996, 136-141).

Activity technologies place the learner at the center of the educational process, ensuring the acquisition of knowledge through active practical activity, interaction and reflection. They combine the value, cognitive and practical components, in the interaction of approaches, principles and relevant methods, contributing to the formation of worldview guidelines and national self-awareness.

Activity technologies are based on active practical activity, which is the basis for deep assimilation of ethnographic knowledge and values, which will contribute to the harmonious development of the personality, the formation of a holistic worldview, critical thinking and active civic position. They modernize ethnographic education, combining theory and practice, knowledge and values, which meets the challenges of modern society. They form the subjectivity of the student through direct research into the traditions, customs, rituals and art of the Ukrainian people, while developing critical thinking, communication skills and responsibility for preserving national and cultural identity. Integrative and value methods, organically combined with activity technologies, enrich the educational process, contributing to the formation of a spiritually rich, conscious personality, capable of applying national cultural values in life. Integrative-value methods go beyond the simple combination of knowledge, focusing on the development of spiritual, moral and social qualities of the individual. Through projects, research and discussions, learners not only acquire factual knowledge, but also perceive it in a value context, which is key to the activity approach.

Z. Rebukha in the monograph "Innovative technologies of education in the conditions of modernization of modern education" considered technologies of the personality-oriented educational process, interactive teaching methods, technology of formation of creative personality, distance and media technologies of education as an innovation in the educational process, but there is no clear justification of the features of activity technologies. According to her, the concept of "educational technology" is most fully conveyed by the following definition: education technology is a way of implementing the content of education provided for by educational programs, which represents a system of forms, methods and means of education, which ensures the most effective achievement of the set goals. Therefore, in education technology, the content, methods and means of education are interconnected and interdependent (Rebukha, 2022).

Active learning technologies, built on the basis of integrative-value methods based on our research, are a way of implementing educational content through the systemic interaction of forms, methods and means that are focused on the active cognitive activity of the student and ensure the effective formation of competencies and value attitudes.

Therefore, active technologies in combination with integrative-value methods create an effective learning system that combines theory with practice, knowledge with values and forms a conscious citizen capable of preserving and developing cultural heritage.

In this context, it is also important to distinguish between integrated, integrative and integrative-value learning methods, each of which has its own didactic potential and influence on the formation of the student's worldview.

Integrated methods are teaching methods that combine several teaching methods at the same time. They are implemented using a variety of techniques that allow the teacher to develop an individual teaching style. Such methods ensure the effectiveness of the educational process through the use of various pedagogical strategies that complement each other and support the involvement of students. Integrated methods aim to cover the material as widely as possible, combining several teaching methods, making the learning process more dynamic and adapted to the needs of students.

Integrative methods, on the contrary, are aimed at creating interdisciplinary connections, generalizing the knowledge of students through their cognitive activity. They are aimed at combining knowledge from different subjects to create a holistic view of the world, helping students understand the relationships between different areas of study. Integrative methods contribute to the formation of students' ability to perceive problems in a comprehensive way, which develops critical thinking and problem-solving skills.



Integrative-value teaching methods have a broader and deeper character, because in addition to the integration of knowledge, they focus on the formation of value attitudes of the student, the development of his personality, spiritual and moral qualities. These methods integrate the cognitive, emotional and social spheres of the educational process, contributing to harmonious development, self-actualization and the formation of a value system that meets the cultural and personal requirements of modernity (Table 1)

Table 1

Integrative-value methods

Integrative-value methods		
Game Situational games Role playing games	Analysis of life situations	Dialogue
Facilitation and pedagogical support	Support for the initiative	Creating a situation of success and choice
Modeling	Project activities	Life design
Social project	Social program	Targeted creative program
Creative portfolio	Training	Reflection

Source: developed by the author

Scientific substantiation of integrative-value methods is necessary to create a methodological basis that will ensure the targeted development of spiritual and moral values, national and cultural identity, national self-awareness and social responsibility of education seekers. Taking into account the psychological and pedagogical characteristics of education seekers, the specifics of the cultural context, the integrative nature of knowledge increases the effectiveness of the educational process and contributes to the development of an active civic position. The development of activity-based learning technologies requires a systematic approach that integrates various methods and approaches taking into account modern pedagogical requirements.

Activity technology involves the following components: methodological basis, source and form of knowledge presentation, level of cognitive activity, learning logic, degree of autonomy of education seekers, control of acquired competencies.

The basis of such technology is a combination of traditional, innovative and integrative-value teaching methods, which ensures the comprehensive development of the seeker of education.

1. Methodological basis. In the activity technology, traditional methods (lecture, explanation, conversation) are used for basic knowledge acquisition, innovative methods (project method, targeted creative program) are used to activate the educational process, and integrative-value methods are used to form value orientations and a holistic personality of the applicant. Integrative-value methods combine not only educational knowledge, but also value attitudes, moral and social aspects, educating a holistic personality.

2. Source and form of knowledge presentation. Includes verbal (explanation, conversation), visual (demonstrations, illustrations), practical (laboratory work, experiments). Integrative-value methods enrich the presentation of information through role-playing games, modeling of life situations, life design, facilitation and dialogue, which activates cognitive activity.

3. Level of cognitive activity. A gradual transition from passive perception (listening, reading) to active (conversation, discussion, task completion) and interactive activity (brainstorming) is ensured, which contributes to the development of creative thinking and independence. Integrative-value methods are based on various forms of information presentation (role-playing games, facilitation, training, project activities), which maximally involve students in practical, emotional and social activities. This allows them to form deep value beliefs through living experience.

4. Learning logic. Focused on a combination of inductive and deductive approaches, with an emphasis on problem-solving and research methods, as well as project activities. Integrative-value methods are based on problem-solving, research and social projects, modeling, which allows students to independently find ways to solve real life problems.

5. The degree of autonomy of students. Gradually increasing from guided to independent forms of learning with mentoring support (training with mentoring, independent work with exercises). Integrative-value methods contribute to the development of personal initiative, self-organization, the formation of decision-making skills and responsibility for one's own learning process (facilitation, support for initiative, creating a situation of success and choice). The implementation of these methods requires a high level of autonomy of education seekers with the support of a mentor or facilitator. This creates conditions for the development of responsibility and independence.



6. Interactivity and social interaction. Integrative-value methods contribute not only to intellectual development, but also to the development of social skills through collective activities, role-playing games and social projects. This allows education seekers to actively interact with each other, express their thoughts, arguments and create mutual understanding. They develop communication skills, the ability to work in a team, express their ideas, and also critically evaluate the opinions of others. Social interaction in the learning process also helps to form moral values, respect for diversity of opinions, and the development of emotional intelligence.

7. Control of acquired competencies Provides for various forms of assessment: traditional (tests, oral answers) and innovative (reflection, portfolio, self-assessment, collective assessment, project presentations), which take into account not only factual knowledge, but also the development of value orientations and practical skills. Thus, the activity-based learning technology, which is based on a balanced combination of traditional, innovative and integrative-value methods, creates conditions for the comprehensive development of the student, forms him as an active, responsible and integral subject of the educational process (Table 2).

Table 2.

Comparison of classifications of teaching methods: general and integrative-value methods

Classification dimension	Categories / Description	General methods	Integrative-value methods
1. Methodological basis	Division of methods into traditional and innovative. Integrative-value methods are innovative.	Traditional: lecture, explanation, conversation.	Innovative: project method, social program
2. Source and form of knowledge	Forms of information presentation: verbal, visual, practical, digital/multimedia.	Explanation, demonstration, laboratory work.	Game, situational games, role-playing games, analysis of life situations, dialogue, modeling, facilitation
3. Level of cognitive activity	Level of student engagement: passive, active, interactive.	Lecture (passive), conversation (active), brainstorming (interactive).	Mostly active methods: role-playing, facilitation, training, project activities
4. Learning logic	The method of organizing the educational process: inductive, deductive, problem-solving, research, project-based.	Inductive presentation, research projects, problem-based conversations.	Problem-search, research, project-based: social projects, life planning, targeted creative programs.
5. Degree of student autonomy	Level of independence in learning: guided, semi-independent, independent with mentoring, fully independent.	Trainings with mentoring, independent work with exercises.	Facilitation, support for initiative, creating a situation of success and choice.
6. Interactivity and social interaction	Interaction between students and teachers, development of social and communication skills, moral and emotional aspects of learning.	Collective activities, role-playing games, discussions.	Active interaction between students, discussion, critical evaluation of opinions, development of emotional intelligence, teamwork, social projects, moral values.
7. Control of acquired competencies	Forms of control and assessment of knowledge, skills and values of education seekers	Tests, oral answers, tests.	Reflection, portfolio, self-assessment, collective assessment, project presentation

Source: developed by the author

Integrative-value ethnographic methods, implemented through activity technologies, involve students in active participation in the cognitive process through practical, research, and creative activities. The study of traditional Ukrainian holidays combines historical, cultural, and moral aspects, forming a holistic view of the heritage and encouraging knowledge of one's own culture. Role-playing games that involve the reproduction of rituals, analysis of life situations, and modeling of family holidays create conditions for emotional immersion and the development of communication skills. Project activities (creating folklore albums, researching local customs) stimulate critical thinking, initiative, and the ability to work with information. The method of analyzing life situations helps to deepen understanding of the meaning of tradition and develop analysis and generalization skills. Discussions about values and assistance in creating ethnographic projects foster independence, responsibility, and active citizenship. The final stage is a creative portfolio or reflective exercises in which students define their own vision of national identity and the values of their native land, which contributes to the development of patriotism and civic activism.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

If we analyze the strengths and weaknesses of the integrative-value approach based on activity technologies, we can draw certain conclusions. The combination of traditional and innovative methods provides flexibility, but the complexity of integration requires high qualifications of the teacher. Accordingly, the diversity of sources increases interest, but the excess of material can complicate perception. Stimulating creativity and motivation plays an important role, but requires high internal interest of education seekers. Systematicity and consistency contribute to deep



understanding, but the complexity of classes can overload education seekers. The responsibility and independence of education seekers requires support for less organized participants in the educational process. Verification of acquired competencies stimulates reflection, but an objective assessment of value aspects remains a challenge.

Therefore, in view of this, we have developed methodological recommendations that provide for increasing the efficiency of work on the problem under study.

1. Ensure the combination of theoretical knowledge with practical activities through activity technologies.
2. Improve the qualifications of teachers in the application of integrative and value-based methods.
3. Use an interdisciplinary approach to form a holistic worldview and value attitudes.
4. Focus on the development of independence, critical thinking and responsibility of students.
5. Introduce reflective methods (discussion, portfolio, self-assessment) for awareness of values and personal growth.
6. Provide a variety of forms of control that take into account knowledge, skills and value attitudes.

Thus, the psychological and pedagogical features of integrative-value methods based on activity-based learning technologies consist in the comprehensive development of the learner's personality - both cognitive and emotional, social and spiritual. Thanks to the combination of principles and methods of different approaches, these methods contribute to the activation of creative potential, the formation of stable value orientations, the development of competencies and the ability to self-realization in the modern dynamic world.

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DIGITAL TECHNOLOGIES AS AN INNOVATIVE RESOURCE FOR THE DEVELOPMENT OF INCLUSIVE EDUCATION IN EDUCATIONAL INSTITUTIONS

Abstract. The article presents a scientific and methodological analysis of digital technologies in the context of inclusive education in general secondary education institutions. The theoretical and methodological foundations for the use of digital technologies within the system of psychological and pedagogical support for children with special educational needs are revealed. The functional purpose of digital tools of corrective and developmental orientation is substantiated, their main groups and pedagogical potential are identified. Emphasis is placed on the methodological features of implementing digital tools in corrective and developmental activities, and the specifics of their effective application are outlined.

The purpose of the study is, based on a content analysis of psychological and pedagogical literature and familiarization with the experience of general secondary and preschool education institutions, to theoretically substantiate and describe the educational potential of digital technologies as an innovative resource for the development of inclusive education.

The objectives of the study are to analyze scientific approaches to the problem of digitalization of inclusive education; to clarify the essence and content of the basic concepts of the research; to determine the pedagogical possibilities of digital technologies in ensuring accessibility and individualization of inclusive education; and to outline the main directions for the use of digital technologies in the practice of educational institutions implementing inclusive education.

It is emphasized that digital technologies act as an innovative resource for the development and optimization of inclusive education due to the following factors: ensuring accessibility of educational content; implementation of the principles of individualization and universal design for learning; increasing the effectiveness of pedagogical support; and expanding opportunities for interdisciplinary interaction. It is proven that the purposeful use of digital tools contributes to the individualization of the educational process, increases motivation, and enhances the effectiveness of corrective and developmental work in an inclusive educational environment. Their systematic and pedagogically balanced implementation creates conditions for a qualitative transformation of the inclusive educational environment aimed at improving educational outcomes for students with special educational needs.

Keywords: inclusive education, corrective and developmental work, digital tools, special educational needs, individual development program.

ЦИФРОВІ ТЕХНОЛОГІЇ ЯК ІННОВАЦІЙНИЙ РЕСУРС РОЗВИТКУ ІНКЛЮЗИВНОГО НАВЧАННЯ У ЗАКЛАДАХ ОСВІТИ

Анотація. У статті здійснено науково-методичний аналіз цифрових технологій в умовах інклюзивного навчання закладів загальної середньої освіти. Розкрито теоретико-методологічні засади використання цифрових технологій у системі психолого-педагогічного супроводу дітей з особливими освітніми потребами. Обґрунтовано функціональне призначення цифрових інструментів корекційно-розвиткової спрямованості, визначено їх основні групи та педагогічний потенціал. Акцентовано увагу на методичних особливостях упровадження цифрових інструментів у корекційно-розвиткову діяльність та окреслено особливості їх ефективного застосування. Мета дослідження: на основі проведеного контент-аналізу психолого-педагогічної літератури, ознайомлення з досвідом роботи закладів загальної середньої і дошкільної освіти, теоретично обґрунтувати та описати освітній потенціал цифрових технологій як інноваційного ресурсу розвитку інклюзивного навчання.



Завданнями дослідження є: проаналізувати наукові підходи до проблеми цифровізації інклюзивної освіти, уточнити сутність і зміст базових понять дослідження, визначити педагогічні можливості цифрових технологій у забезпеченні доступності та індивідуалізації інклюзивного навчання, окреслити основні напрями використання цифрових технологій у практиці роботи закладів освіти з інклюзивним навчанням. Наголошується, що цифрові технології виступають інноваційним ресурсом розвитку та оптимізації інклюзивного навчання завдяки таким чинникам: забезпеченню доступності освітнього контенту, реалізації принципів індивідуалізації й універсального дизайну навчання, підвищенню ефективності педагогічного супроводу та розширенню можливостей міждисциплінарної взаємодії. Доведено, що цілеспрямоване використання цифрових інструментів сприяє індивідуалізації освітнього процесу, підвищенню мотивації та ефективності корекційно-розвиткової роботи в інклюзивному освітньому середовищі. Їх системне та педагогічно виважене впровадження створює умови для якісної трансформації інклюзивного освітнього середовища з метою підвищення освітніх результатів здобувачів освіти з особливими освітніми потребами.

Ключові слова: інклюзивне навчання, корекційно-розвиткова робота, цифрові інструменти, особливі освітні потреби, індивідуальна програма розвитку.

INTRODUCTION

The problem formulation. The contemporary education system operates under the simultaneous influence of two powerful transformational processes: the digitalization of education and the institutionalization of inclusive learning. Despite the active implementation of digital technologies in the educational process, their potential as an innovative resource for ensuring accessibility, individualization, and adaptability in inclusive education is still realized in a rather fragmented and unsystematic manner.

This underlines the relevance of investigating the outlined problem, which is determined by a combination of social, pedagogical, and technological factors. Notably, inclusive education is a priority area of educational policy in both Ukraine and the European educational space, aiming to create a barrier-free educational environment for individuals with special educational needs. Meanwhile, the rapid development of digital technologies such as adaptive platforms, assistive technologies, artificial intelligence, and digital educational resources opens qualitatively new opportunities for personalizing learning, yet requires scientifically grounded pedagogical implementation. The importance of this issue is further amplified under the current realities of martial law and contemporary educational challenges (remote and blended learning, wartime conditions, migration processes), which significantly intensify the need for flexible digital solutions in educational institutions capable of ensuring educational equity for all categories of learners.

Thus, the study of digital technologies as an innovative resource for the development of inclusive learning is both scientifically and practically significant, as it aims at modernizing the educational process and enhancing its social impact.

Analysis of recent research and publications. The issue of applying innovative digital technologies in inclusion has been explored by researchers such as V. Bondar, V. Zasenko, L. Prokhorenko, N. Yarmola, and others. The socio-pedagogical challenges of educating students with special educational needs have been partially addressed in studies by O. Budnyk, R. Vaynoli, H. Vasyanovych, O. Dzhus, A. Kapska, Z. Leniv, N. Seyko, I. Chervinska and O. Chekan, who emphasize critical aspects of this problem and highlight the necessity of a holistic and systematic approach to organizing social and psycho-pedagogical support for such learners in the inclusive environment of contemporary educational institutions.

The problem of integrative processes regarding the application of information and digital technologies in the practice of educational institutions with inclusive programs is intensively investigated. Well-known scholars in the field of educational digitalization, including V. Bykov, Yu. Nosenko, M. Mariotti, and N. Morse, propose ways of integrating digital elements into the work of teacher assistants and develop software solutions for digital technologies in inclusive learning. Noteworthy are H. Davidenko's contributions concerning approaches to creating digital inclusion.

International research on inclusive education is reflected in the works of D. Cameron, D. Chambers, M. Friend, L. Kincadec, and P. Sarah, focusing on the study of various models of inclusivity, support mechanisms, and socio-cultural characteristics of different countries. However, despite the existing body of research, the issue of digitalization in inclusive education requires more profound scientific investigation.

THE AIM AND RESEARCH TASKS

Aim: Based on a content analysis of psycho-pedagogical literature and an examination of the practices of general secondary and preschool educational institutions, to theoretically substantiate and describe the educational potential of digital technologies as an innovative resource for the development of inclusive learning.

Research tasks. To analyze scientific approaches to the problem of digitalization in inclusive education. To clarify the essence and content of the basic concepts of the study. To identify the pedagogical possibilities of digital technologies in ensuring accessibility and individualization of inclusive learning. To outline the main directions of using digital technologies in the practice of educational institutions with inclusive programs.

RESEARCH METHODS

To achieve the research objectives, a set of general scientific and special pedagogical methods was employed, including: analysis, synthesis, and generalization for processing scientific sources on the research problem; comparison and systematization for contrasting approaches to the use of digital technologies in inclusive learning; terminological analysis to clarify the key concepts of the study; and structural-logical analysis to determine the interrelation between digital technologies and the inclusive educational environment.



RESULTS OF THE RESEARCH

In the contemporary educational space of Ukraine, the topic of implementing digital technologies in inclusive learning is gaining increasing significance due to growing societal demands for equal access to quality education. Implementing the fundamental principles of inclusive education implies creating conditions under which students with special educational needs (SEN) can learn alongside their peers within educational institutions.

The use of digital technologies allows for the expansion of such conditions by enabling differentiation, adaptation, and individualization of learning trajectories. For example, studies by Ukrainian educators demonstrate that using digital technologies in the inclusive process for Grades 1–4 of the New Ukrainian School increases both accessibility and educational quality.

In recent years, there has been a significant growth in research investigating the role of digital technologies in ensuring inclusion, including both empirical studies and systematic reviews/meta-analyses that attempt to outline effective practices and barriers. The integration of digital technologies into the educational process rapidly transforms traditional learning models into innovative ones, necessitating a comparison and analysis of international and national approaches to their application in organizing inclusive education for students with SEN.

Contemporary studies on educational digitalization emphasize that digital technologies increasingly permeate human activity and learning, positively influencing all aspects of life. The relevance of digitalization processes in European society is evidenced by the "Digital Europe" program (2021–2027), in which Ukraine has been involved since 2023 (Agreement, 2023).

At the legislative level, the implementation of digital technologies and innovations in Ukraine is regulated by laws such as the Law of Ukraine "On Education", "On Innovative Activity", "On the Concept of the National Informatization Program", and "On the National Informatization Program", among others (Ovcharuk O. & Malytska I., 2019).

Modern digital technologies in education constitute a combination of digital tools, platforms, and resources (online services, electronic educational resources, assistive and adaptive technologies) that ensure the organization, support, and improvement of the educational process.

In the context of inclusive education, inclusive learning requires special approaches to creating conditions that foster the development of social skills in learners with diverse educational needs. A complex of digital technologies (hardware and software solutions) enables the creation of an interactive educational space that optimizes learning and facilitates effective socialization of all participants in the educational interaction. Therefore, inclusive learning refers to the organization of the educational process in which all learners, regardless of individual characteristics and educational needs, study in an environment that considers the principles of barrier-free access, learning accessibility, equality, and non-discrimination for all participants.

In its broadest sense, inclusion is defined as "the process of increasing the degree of participation of all citizens in society, which entails the development and implementation of specific solutions that allow every individual to participate equally in academic and social life" (Pryhodyi M., 2024).

At the current stage of inclusive education development in Ukraine, the active integration of digital technologies across all components of the educational process is evident. The issue of using digital tools in corrective and developmental work with children with SEN is particularly relevant, as traditional psycho-pedagogical methods do not always ensure the required level of individualization and educational effectiveness.

Researchers I. Batsurovska & V. Kurepin emphasize that "current trends in education have significantly changed learning approaches, particularly in special and inclusive education. Digital technologies play a key role in ensuring accessibility and quality of learning for higher education students with special educational needs. By integrating digital tools, an inclusive educational environment is created, where each student can realize their potential regardless of physical, cognitive, or emotional barriers" (Batsurovska I. & Kurepin V., 2024).

The effectiveness of digital tools in corrective and developmental work is ensured when combined with traditional pedagogical methods, clearly defined corrective objectives, controlled time allocation for using digital tools, and systematic result analysis. Integrating digital tools into individualized development programs and coordinating the actions of all team members of psycho-pedagogical support is essential.

The innovative potential of digital technologies in inclusive learning is primarily due to their ability to overcome accessibility barriers physical, communicative, cognitive, and social. The application of electronic educational platforms, specialized software, assistive and adaptive technologies creates conditions for equal access to learning content, regardless of diagnosis, level of functional limitations, or pace of material acquisition. Consequently, digital technologies facilitate the implementation of Universal Design for Learning (UDL) principles, a key methodological orientation in inclusive education.

An important aspect of the innovativeness of digital technologies is their capacity to optimize the educational process through individualization and differentiation of learning. Adaptive learning environments, electronic textbooks with varied formats of information presentation (text, audio, video, interactive modules), and alternative and augmentative communication (AAC) programs allow for consideration of sensory, intellectual, speech, and motor impairments. This contributes to increasing learning motivation, cognitive activity, and academic success of learners with SEN.

Yu. Zaporozhchenko argues that "the current range of digital tools and resources enables the design of diverse pedagogical strategies for teaching children with special needs" (Zaporozhchenko Yu., 2013). Digital tools open new possibilities for implementing corrective-developmental tasks, providing access to learning content, adapting



educational methods to the individual capabilities and needs of school learners with SEN, and systematically monitoring their developmental progress.

Accordingly, there is a need for a scientific understanding of the potential of digital tools as an innovative resource for inclusive learning. Under the described circumstances, the use of digital resources and tools in inclusive education plays a critical role in ensuring the quality of the educational process for learners with SEN. Key examples and their impact on the quality of special and inclusive education include:

Virtual classrooms and online platforms (Google Classroom, Microsoft Teams, Moodle) provide learners with SEN access to educational materials and enable communication with teachers and peers, ensuring equal conditions for all participants regardless of location or physical limitations.

Assistive technologies (screen access programs such as NVDA, JAWS that convert text to audio; screen magnifiers and software for font enlargement and contrast adjustment; speech synthesizers and text-to-speech programs; automatic speech recognition tools facilitating written communication; digital alternative and augmentative communication systems for children with speech disorders). Abbott C. and other researchers note that the provision of educational services through assistive technologies is based on medical indicators (Abbott C., 2007).

Computers for assistive technology use are equipped with specialized keyboards, mice, and devices that allow computer operation through eye tracking. They facilitate the participation of learners with physical or cognitive impairments in educational interaction. These digital technologies enable the adaptation of digital content to the individual needs of each learner, significantly enhancing learning effectiveness.

Assistive technologies are innovative digital tools and software solutions designed to overcome deficits and compensate for specific functional impairments, ensuring full participation in the educational process. They are a core component of digital support for inclusive learning, providing accessibility for students with visual, hearing, motor, speech, or intellectual impairments and promoting the implementation of UDL principles.

Adaptive educational platforms are digital learning environments that automatically or semi-automatically adjust the content, complexity level, pace, and form of instruction according to the individual educational needs of learners. In inclusive education, adaptive platforms serve functions such as content personalization, compensation for individual developmental limitations, support for individual learning trajectories, and creation of conditions for independent and successful learning activities for students with SEN.

Technological Mechanisms of Adaptive Learning. Technological mechanisms of adaptive learning are implemented through adaptive platforms, which operate based on the integration of several technological components: a diagnostic module that determines the learner's level of preparedness, learning style, and pace of mastering the material; adaptive algorithms that adjust task difficulty and the format of information presentation; personalized recommendations generated based on learning outcomes; and analytical tools that track the dynamics of academic achievements. From a methodological perspective, it is crucial that adaptation occurs not only according to academic indicators but also considering the learner's psychophysiological characteristics. Digital adaptive platforms allow for the individualization of the educational process in accordance with learners' educational needs, learning pace, and cognitive abilities.

Mobile applications (Khan Academy, Duolingo, ClassDojo) designed for learning and development provide learners with the opportunity to study materials and complete tasks independently at their convenience. This is particularly important for learners with special educational needs (SEN), as they can learn at their own pace and according to their individual capabilities.

Interactive whiteboards (SMART Board, Miro, Popplet, Twiddla, Rizzoma, Scrumlr, Vyew, Educreations, WikiWall) facilitate the creation of interactive lessons in which learners actively engage in the educational process. This supports better comprehension of the material and the development of collaboration and communication skills.

Visualization software (Mindomo, Inspiration) assists learners with SEN in organizing their activities and structuring educational content, promoting better retention of information and enhancing learning efficiency.

Multimedia interactive presentations (Prezi, Google Slides, Haiku Deck, Apple Keynote, SlideRocket, SlideDog, Slides) optimize learning interaction and communication. Innovative digital technologies for assessing learners' performance are particularly valuable. These include online testing platforms (e.g., Quizizz, MasterTest, LearningApps, Online Test Pad, ClassMarker, Google Forms, Kahoot) and tools for evaluating written work (e.g., email, interactive worksheets, cloud storage). Tools for assessing oral responses include ZOOM, WizIQ, Google Hangouts, Skype, and PRUFFME (Batsurovska I., & Kuriepin V., 2024).

To optimize activities and assess the achievements of learners with SEN, online visualization tools can be employed, such as clusters, mind maps, timelines, SWOT analysis, and infographics. Digital platforms such as Sway, Portfoliobox, Mahara, and portfolio tools are recommended for summative assessment stages as effective means of evaluating learners' achievements (Ovcharuk O. & Malyska I., 2019). The integration of these digital tools into inclusive learning creates an inclusive educational environment where every learner can realize their potential. They enhance educational quality by ensuring an individualized approach to learning according to a defined personal development program and support learners with SEN.

Corrective-developmental work in the context of inclusive learning aims to overcome or compensate for psychophysiological developmental disorders, develop foundational academic and social competencies, and ensure the full participation of learners with SEN in the educational process. In this context, digital technologies serve as an innovative pedagogical resource that expands the possibilities of traditional corrective methodologies.



The use of digital technologies in inclusive education for learners with SEN is based on the principles of cultural-historical developmental theory, activity-based and competency-based approaches, the ideas of Universal Design for Learning (UDL), and the principles of individualization and differentiation.

Digital technologies in corrective-developmental work with school-age learners during inclusive education perform several interrelated functions:

Diagnostic function: identifying the level of development of specific mental functions in learners with SEN;

Corrective function: targeted intervention to address impaired functions;

Developmental function: stimulating cognitive, linguistic, and socio-emotional-volitional spheres of the growing individual;

Monitoring function: tracking the dynamics of personal development in learners with SEN.

The implementation of these functions ensures a systematic impact on the cognitive, linguistic, and socio-emotional-volitional spheres of development in learners with SEN. Digital tools supporting corrective-developmental work with learners with SEN can be categorized as follows:

Digital tools for speech and language correction. This group includes specialized digital programs and mobile applications aimed at developing phonemic awareness, articulatory motor skills, lexical-grammatical speech structures, and coherent speech. Their didactic potential lies in the combination of visual, auditory, and motor stimuli, repeated practice, and task difficulty individualization. These tools enhance the effectiveness of speech therapy and integrate corrective tasks into the educational process.

Digital cognitive process trainers. Designed to develop attention, memory, thinking, perception, and executive functions. Methodologically, the use of adaptive algorithms is important, allowing for the regulation of task pace, complexity, and duration according to the learner's individual capabilities. These tools are particularly effective for children with intellectual disabilities, Attention Deficit Hyperactivity Disorder (ADHD), or Autism Spectrum Disorders (ASD).

Gamified digital environments for corrective purposes. These environments reduce anxiety, foster positive motivation, and engage learners in systematic activities. Digital game-based platforms allow corrective tasks to be implemented in the form of educational games, which is especially significant for younger school-age children.

Digital tools for socio-emotional development. Used to develop emotional intelligence, self-regulation, and social interaction skills. They are effectively applied through digital social stories, interactive social simulations, and electronic emotion diaries.

The summarized results of the interaction between digital technologies and educational resources, as well as their impact on learners with various conditions, are presented in Table 1.

Table 1

Digital Technologies as a Resource for Inclusive Education

Digital Technology	Educational Resource / Function	Type of Disability (Nosology)
Speech synthesis and speech recognition software	Audio support of learning materials, alternative communication	Visual impairment, speech disorders
Adaptive e-textbooks	Individualization of learning pace and content presentation	Intellectual disabilities, learning difficulties
Augmentative and Alternative Communication (AAC) tools	Development of communication skills	Autism spectrum disorder (ASD), severe speech disorders
Online educational platforms	Distance and blended learning opportunities	Musculoskeletal disorders, chronic illnesses
Interactive digital simulators and trainers	Development of cognitive and practical skills	Hearing impairment, learning disabilities
Augmented and virtual reality technologies	Visualization of educational content, increased learning motivation	Hearing impairment, intellectual disabilities

Digital technologies also serve as an innovative resource for optimizing the activities of teaching staff and teams providing psychological and pedagogical support.

Research findings indicate that the essential digital competencies for a 21st-century educator include: the use of technical tools, digital instruments, and resources to foster critical thinking and creativity; the establishment of effective communication and organization of learners' educational activities, particularly in inclusive settings; the use of software for data visualization; the application of digital educational resources for sharing and disseminating learning information; the use of ICT for creating educational content; the organization of distance learning; and the provision of immediate feedback through digital technologies to assess learning outcomes (Budnyk O., Kondur O., & Diakiv I., 2020).



At the same time, many countries, especially in Eastern Europe, experience difficulties in implementing inclusion because of the inability of a modern school to respond timely and adequately to transient changes – to implement new content of education, innovative technologies, new strategies of pedagogical interaction based on humanization and personally oriented learning. The need for solving these and many other issues will highlight the development of appropriate strategies for teacher training and skills improvement to create an inclusive environment (Chervinska I. & Budnyk O., 2024)

The use of digital tools for monitoring students' individual progress, developing personalized learning programs, storing, and analyzing data enhances the validity of pedagogical decisions and facilitates interdisciplinary collaboration among specialists. Moreover, the digital environment expands opportunities for professional communication and the professional development of educators in the field of inclusive education.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, digital technologies in inclusive education should be regarded as a comprehensive innovative resource that integrates technological, pedagogical, and social components. Their implementation contributes not only to the modernization of the educational process but also to the formation of an inclusive culture within educational institutions, oriented toward respect for diversity and the promotion of educational equity.

In summary, digital technologies function as an innovative resource for the development and optimization of inclusive education due to the following factors: ensuring accessibility of educational content, implementing the principles of individualization and Universal Design for Learning (UDL), enhancing the effectiveness of pedagogical support, and expanding opportunities for interdisciplinary collaboration. Systematic and pedagogically balanced implementation of these technologies creates conditions for the qualitative transformation of inclusive educational environments aimed at improving the educational outcomes of students with special educational needs. This necessitates a reconsideration of the professional training system for future educators and the retraining or professional development of teachers and teacher assistants working with students with special educational needs, through the application of innovative digital technologies.

Digital technologies in inclusive education within general secondary schools serve as a powerful innovative resource, providing accessibility, individualization, effective communication, and pedagogical support for students with special educational needs. Their targeted and pedagogically informed use promotes the realization of the principles of equality, social justice, and quality education.

Further research should focus on the empirical study of the effectiveness of specific digital tools in corrective and developmental work and the development of models for digital inclusive educational environments.

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KEY ASPECTS OF ORGANIZING AN EDUCATIONAL AND UPBRINGING ENVIRONMENT

Abstract. The article identifies the features and key aspects of organizing an educational environment in educational institutions in the context of the war with Russia. The concepts of "educational space," "educational environment," "educational setting," and "educational environment" are considered. The factors influencing the formation of the educational environment in educational institutions are specified. The key aspects of organizing an educational environment include purposefulness in the process of its organization, comprehensiveness, systematicity, and consistency in organizing the academic environment, influence on the personality, taking into account its individual and age characteristics, cooperation and partnership interaction between schools, parents, students, the public, and the use of various forms of organizing the educational environment.

To identify the key aspects of organizing an educational environment in educational institutions. To achieve the set goal, methods of analysis and synthesis, abstraction, and generalization were used, which made it possible to analyze the key aspects of organizing an educational environment in educational institutions and ways of their implementation.

The article considers the concept of "educational environment" in relation to the concepts of "educational space", "educational environment," and "educational environment." It points out the features and key aspects of its development and active nature. It is noted that the educational environment will be educational only through the interaction and co-creation of all participants in this process. The effectiveness of its organization is indicated, which depends on purposefulness, systematicity, consistency, diversity of forms and methods, and transparency in the educational process. It has been established that an educational environment contributes to the development and formation of personality, influences subjectivity in its organization, freedom of decision-making by individuals, and dialogue in interaction with participants in the educational process.

Keywords: educational environment, educational space, educational environment, participants in the educational process, development, educational interaction.

КЛЮЧОВІ АСПЕКТИ ОРГАНІЗАЦІЇ ВИХОВУЮЧОГО ОСВІТНЬОГО СЕРЕДОВИЩА

Анотація. У статті визначено особливості та ключові аспекти організації виховуючого середовища в закладах освіти за умов війни з росією. Розглянуто поняття «освітній простір». «освітнє середовище», «виховне середовище», «виховуюче середовище». Конкретизовано чинники формування виховного середовища в закладах освіти. До



ключових аспектів організації виховуючого середовища віднесено цілеспрямованість у процесі його організації, комплексність, системність і послідовність у організації виховуючого середовища, вплив на особистість із урахування її індивідуальних та вікових особливостей, співпраця та партнерська взаємодія школи, батьків, учнів, громадськості, використання різноманітних форм організації виховуючого середовища.

Мета статті - визначення ключових аспектів організації виховуючого освітнього середовища в закладах освіти. Для досягнення поставленої мети були використані методи аналізу та синтезу, абстрагування, узагальнення, що дало змогу проаналізувати ключові аспекти організації виховуючого освітнього середовища в закладах освіти та шляхи їх реалізації.

У статті розглянуто поняття «виховуюче середовище» у співвідношенні до понять «освітній простір», «освітнє середовище», «виховне середовище». Вказано на особливості та ключові аспекти його розвитку та діяльнісний характер. Відзначено, що освітнє середовище буде носити виховуючий характер тільки за умов взаємодії, взаємоторчості всіх учасників цього процесу. Вказано, на результативність його організації, яка залежить від цілеспрямованості, систематичності та послідовності, різноманітності форм і методів, наскрізності в освітньому процесі. З'ясовано, що виховуюче середовище сприяє розвитку і формуванню особистості, впливає на суб'єктність під час його організації, свободу ухвалення особистостями рішень, діалогічності у процесі взаємодії з учасниками освітнього процесу.

Ключові слова: виховуюче середовище, освітній простір, освітнє середовище, учасники освітнього процесу, розвиток, освітня взаємодія.

INTRODUCTION

The problem formulation. There is a war going on in Ukraine. The state's future depends on the generation studying, forming, and being educated in modern schools. Therefore, the problem of creating an educational environment for patriots of Ukraine is relevant.

M. Stelmakhovich (2011, p. 41) noted that the primary goal of national education is "the acquisition of social experience by the younger generation, the inheritance of the spiritual achievements of the Ukrainian people, the achievement of a high culture of interethnic relations, and the formation in young people, regardless of their nationality, of the personal traits of citizens of the Ukrainian state, developed spirituality, physical perfection, and moral, artistic, aesthetic, legal, labor, and environmental culture."

Sofia Rusova (1923, p. 132) emphasized the creation of a unified, active school, which acts "not only as the main means of spreading public education, but also as the center where public consciousness is born, nurtured, and best strengthened, where the foundation is laid for the state unification of all inhabitants of a single territory, and where their national consciousness is built."

Therefore, the task of teachers is to create conditions in which primary school students develop their abilities, respond creatively to challenges, and feel their connection to society and a free Ukraine, as indicated in the State Standard for Primary Schools (2018). To this end, it is necessary to organize an educational environment in the classroom that includes a system of conditions, relationships, and interactions that contribute to the development, socialization, and formation of the student's personality.

Analysis of recent research and publications. The problem of organizing education, the educational process, and the academic environment is always relevant. G. Vashchenko, V. Sukhomlinsky, A. Makarenko, K. Ushinsky, and others have studied it. Among contemporary researchers studying the educational environment that would contribute to the upbringing of individuals, it is worth mentioning I. Bekh, O. Vyshnevsky, V. Gusak, M. Isaev, N. Kostrytsia, V. Meleshko, M. Olyar, O. Pysarchuk, M. Stelmakhovich, and others.

V. Sukhomlinsky repeatedly emphasized the role of the environment in shaping a child's personality. In his work "Pavlysh Secondary School," he noted that the environment is everything that surrounds a child, the community in which they live and interact. It is necessary to distinguish between the internal environment of the student community and the external environment (Sukhomlinsky, 1977). "Education through the environment, the atmosphere created by the students themselves, things that enrich the spiritual life of the community, is, in our opinion, one of the most subtle areas of the pedagogical process" (Sukhomlinsky, V., 1977. Vol. 4. P. 89). When organizing the educational environment, it is crucial to take into account that it is "not something static and unchanging, but something that is created, renewed, and improved by the students themselves" (Sukhomlinsky, V., 1977. Vol. 3. P. 304).

K. Ushinsky attached particular importance to defining the goal of education. He wrote: "Entrusting the pure and impressionable souls of children to education, entrusting it to instill in them their first and therefore deepest traits, we have every right to ask the educator what goals he will pursue in his work and to demand a clear and categorical answer to this question" (Ushinsky K., 2010. p. 263).

THE PURPOSE OF THE RESEARCH: To identify the key aspects of organizing an educational environment in educational institutions.

RESEARCH METHODS

To achieve the set goal, methods of analysis and synthesis, abstraction, and generalization were used, which made it possible to analyze the key aspects of organizing an educational environment in educational institutions and ways of implementing them.

RESULTS OF THE RESEARCH

To define the concept of "educational environment," it is necessary to analyze such concepts as "educational space," "educational environment," and "educational setting." In modern pedagogical theory and practice, there is no consensus on the concepts of "educational environment" and "educational space." We believe that "When we talk about educational space, we mean a set of conditions that are interconnected in a certain way and can



influence a person's education" (Kilenchenko O., 2010). At the same time, when analyzing the concept of "educational space," it should be noted that it does not necessarily include the person learning. Educational space is a system of interconnected educational institutions, online resources, cultural and social conditions that create opportunities for continuous education.

The "educational environment" concept also reflects the interrelated conditions that enable education. These include: material and technical resources (classrooms, equipment, ICT), methodological support, pedagogical technologies, and the social and psychological atmosphere in the group. However, it is local, with the mandatory presence of the student studying in the educational environment, their mutual influence, and interaction. "Therefore, when we talk about the educational environment, we mean the impact of educational conditions on the student (as well as the impact of the student on the conditions in which learning takes place)" (Kilenchenko O., 2010).

In other words, we consider the educational environment to be the "microclimate" of the school or classroom where students are directly taught, and the "educational space" to be the "macroenvironment," which includes not only classroom learning but also standards, Internet resources, museums, extracurricular clubs, libraries, etc.

Analyzing the concept of "educational environment," we note that it is the environment in which a child lives, with its complex system of stimuli for development, which is often difficult to perceive and define, both in terms of planned interactions and spontaneous, unorganized influences, both positive and negative (Izdebska, 1967, p. 155). We define it as a system of conditions and influences (social, cultural, natural, informational) where the educational process occurs in an objective reality, regardless of its real impact on the child. At school, pedagogical conditions play a significant role (cooperation, co-creation, support, partnership, democratic communication style). In contrast, in the family, such conditions include moral guidelines, and in society, cultural, historical, and national traditions.

The educational environment is more active, a purposeful space surrounding the child, the sphere of their life activity. It includes a system of conditions, relationships, and influences that surround the child and contribute to their socialization and moral, intellectual, and creative development. It must be pedagogically thought out and aimed at forming values, norms of behavior, and developing the student's personality.

In other words, the educational environment is a broader concept and includes conditions, while the academic environment is its practical implementation (i.e., it reflects a targeted educational influence).

It should be noted that the educational environment of the class is a component of many educational systems. As M. Gagarin notes, "The educational environment is one of the main components of the educational system of a general secondary education institution, which enables its (the system's) existence, effective functioning, and interaction of the subjects of the educational system (system-forming activities, communication, relations between participants in the educational system, management, self-management)" (Gagarin M., 2021). In other words, various factors influence the development of the individual. As scientific and pedagogical research shows, the main factors in the formation of the educational environment include:

1. Social factors can be divided into macrofactors, mesofactors, and microfactors. Macrofactors include the influence of the educational environment of the world, the state, etc. Mesofactors include the influence of the nation, region, school, and specific information environments. Microfactors include the impact of social groups that directly affect particular individuals: the class and school community, relationships between students and teachers, communication style, and the influence of family and friends.
2. Cultural influences include national traditions, spiritual values, art, and cultural events.
3. Educational factors include curriculum content, teaching methods, teaching and learning technologies, and the organization of educational and extracurricular activities.
4. Natural factors are determined by environmental conditions and ways of interacting with nature.
5. Information factors include the influence of the media, the Internet, and digital resources.
6. The emotional climate in the classroom determines psychological and pedagogical factors, the use of an individual approach, and the development of motivation.

However, it should be noted that the educational environment's development is influenced by how children interact. V. Orzhechovska and T. Fedorchenko (2014, p. 14) note that participants in the educational system master the environment to ensure the viability and development of the system.

The educational environment's effectiveness depends on the schoolchildren's activities in its organization.

The key aspects of the educational environment include:

1. Purposefulness. The process of organizing the educational environment is created with a clear goal in mind — the education and development of the personality of the younger schoolchild. Education is critical during the "war for Ukraine's independence — the struggle for independence, sovereignty, territorial integrity, and inviolability of Ukraine against the aggression of the Russian Federation" (2025). The educational environment of the classroom should be aimed at implementing national-patriotic education, which should be the foundation of the entire educational process. Therefore, "the goal of national-patriotic education is to develop self-sufficient citizens who are patriots of Ukraine, humanists, and democrats, ready to fulfill their civic and constitutional duties, to inherit the spiritual and cultural heritage of the Ukrainian people, to achieve a high culture of relations, forming an active civic position, and affirming the national identity of citizens based on the spiritual and moral values of the Ukrainian people and national identity" (Concept of National Patriotic Education in the Ukrainian Education System, 2022).

K.D. Ushynsky attached particular importance to defining the goal of education. He wrote: "Entrusting the pure and impressionable souls of children to education, entrusting it to instill in them the first, and therefore the deepest, traits,



, we have every right to ask the educator what goals he will pursue in his work and to demand a clear and categorical answer to this question" (Ushinsky K., 2010, p. 263). To solve it, several tasks must be solved. G. Vashchenko wrote back in 1947 that: "The educational process includes universal, national, and individual tasks. Universal human tasks are revealed in the New Testament and the works of the best European educators; individual tasks arise from the natural characteristics of each young person and their abilities; national tasks are dictated to us by the past and present of the people. All these tasks are organically linked" (Vashchenko G., 2010, p. 394).

2. Complexity. The educational environment is the practical implementation of the academic environment and therefore should include external and internal factors that influence primary school students. The popular thesis about education being carried out only in the educational process is one-sided. Schoolchildren are educated to be conscious, self-sufficient, and creative in organizing extracurricular educational activities through the cooperation of teachers, students, parents, and the community. Comprehensiveness in education means combining different areas, methods, and forms of academic work into a system aimed at the harmonious development of primary school students. It focuses on the simultaneous development of the following areas of a child's personality: national, civic and patriotic, intellectual, moral, labor, aesthetic, and physical.

3. Systemic and consistent organization of the educational environment. Systemic organization is a mandatory aspect in organizing the academic environment as a holistic, coordinated system where all elements and influences are interconnected and aimed at achieving a single goal—the formation of a harmonious personality in the student. Systematicity is closely related to the planning of the educational process. After all, it is through the definition of a system of actions, measures, interrelationships, and interactions with other educational systems that an educational influence on the child's personality is exerted.

An important aspect is adherence to consistency and a step-by-step approach in the process of creating and developing an educational environment in the classroom, which means a step-by-step, logically coordinated, and well-founded interaction between teachers, students, parents, and the community, where each subsequent stage is based on the previous one, contributing to the gradual development of students.

"At the same time, it should be borne in mind that Ukraine has an ancient and magnificent culture and history, as well as experience of statehood, which are a powerful source and solid foundation for the education of children and young people. They have already entered the educational and general educational space, but current social processes require their rethinking, which opens up new opportunities for the educational sphere" (Concept of National Patriotic Education in the Ukrainian Education System, 2022).

4. The influence on the personality of primary school pupils is a key aspect of the organisation of the educational environment, because it is at this age that a child's basic moral, intellectual and social qualities are formed, their self-awareness is shaped, and their character traits, values and behavioural skills are formed. Primary school is a sensitive period for implementing national-patriotic education and forming historical memory (Kilichenko O., Nakonechna L., 2022). It should be noted that influencing the development of a child's personality does not mean that the child is not critical in this process.

They must be active participants and co-creators of this process.

Today, unfortunately, we see Russia's attempt to enslave the minds and erase the national identity of Ukrainian children through indoctrination and militarization.

The ideological indoctrination widely used by Russia today is a deliberate process of instilling in children specific worldview ideas, political views, and beliefs, which they assimilate as their own, acting dogmatically and uncritically in accordance with them. It should be noted that this process is widely used both with children who have been forcibly taken from temporarily occupied territories and with children through social networks.

When organizing the educational environment, it is imperative to consider children's characteristics, abilities, needs, and motivations according to age and regional affiliation.

5. A key aspect of the educational environment is the functioning triangle of "school-parents-student." There must be constant interaction between the student's family and the school. Today, almost every class has children with special educational needs, children who are internally displaced persons, and children whose parents have been killed or seriously injured. Teachers should organize the educational process so that parents become partners with the school and the teaching staff in jointly implementing tasks.

The Concept of National Patriotic Education in the Ukrainian Education System (2022) points out the need to actively involve families in the education process.

6. An important aspect is the use of various forms of organizing the educational process in extracurricular activities, subject to the following requirements:

- The forms should be accessible, engaging, and emotionally rich so that students' creativity, independent initiative, and self-expression can flow during the process.
- Consistency in the educational process: the knowledge acquired in class is the basis for its deepening and expansion in extracurricular educational work.
- It is not necessary to overload students with educational activities.
- It is not necessary to use many visual aids, various clothing, or educational and information technologies.
- It is necessary to use various forms and methods of educational work.



- When organizing educational work, it is necessary to adhere to the age characteristics of children in terms of the duration of the forms of work. In particular, in grades 1-2, educational activities are held for 10-15 minutes, major holidays for up to 30 minutes; in grades 3-4, they are held for 20-30 minutes, major holidays for up to 45 minutes.
- Active involvement and co-creation of children in the preparation for the organization and conduct of educational activities.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

When choosing forms and methods to organize the educational environment effectively, it is vital to be familiar with the basic classifications. We believe that the following classification is optimal in modern conditions:

- a) considering the number of participants in the educational process (forms are individual, group, and mass).
- b) taking into account the location of the educational process (school: classroom, gym, auditorium, school library, school museums, and extracurricular: libraries, parks, theaters, etc.).
- c) taking into account the time of the event (during and after school hours). Among extracurricular activities, the following should be highlighted: circles of friends, oral magazines, literary and musical compositions, quizzes, discussions, projects, themed holidays and events, game technologies (quests, business and role-playing games, situational modeling).

The following extracurricular activities are special in creating an educational environment in modern conditions: volunteer initiatives, excursions, and hikes. Developing the Internet is worth using media education and digital forms: creating multimedia presentations, children's blogs, and interactive comics. Thus, the educational environment contributes to the development and formation of personality, influences subjectivity in its organization, freedom of decision-making by individuals, and dialogue in interaction with participants in the educational process.

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SOCIAL-EMOTIONAL LEARNING AS A FACTOR IN CREATING A SAFE AND SUPPORTIVE EDUCATIONAL ENVIRONMENT IN PRIMARY SCHOOL

Abstract. The article provides a thorough analysis of the problem. The essence of the concepts of "social-emotional learning", "safe educational environment", "supportive educational environment" is revealed. The role of social-emotional learning in creating a safe and supportive educational environment in primary school is determined.

It was found that the integration of socio-emotional learning into the educational process meets the requirements of the New Ukrainian School, promotes the formation of self-regulation, empathy, cooperation skills and responsible decision-making, significantly increases the academic performance of students, reduces the level of conflict and improves psychological well-being.

The results of scientific and theoretical analysis and practical examples of effective strategies for developing socio-emotional competencies of primary school students are presented: "emotional minutes", morning meetings, positive discipline, partnership interaction with parents, digital tools of emotional support. It is noted that the introduction of elements of socio-emotional learning in primary school contributes to the harmonious combination of pedagogical, psychological and social factors, ensuring the formation of a holistic personality adapted to modern challenges.

The purpose of the study is to theoretically substantiate and determine the role of social-emotional learning as a key factor in creating a safe and supportive educational environment in elementary school.

Research methods - analysis and synthesis method, systemic method, generalization method. It was concluded that the systematic implementation of socio-emotional learning increases the psychological resilience of primary school students, improves the quality of interaction in the educational environment, and provides conditions for their successful academic and social adaptation in the face of modern challenges.

Ключові слова: socio-emotional learning, socio-emotional skills, principles of socio-emotional learning (self-awareness, self-regulation, social awareness, interaction skills, responsible decision-making), educational environment, safe educational environment, supportive educational environment, primary school students.

СОЦІАЛЬНО-ЕМОЦІЙНЕ НАВЧАННЯ ЯК ЧИННИК СТВОРЕННЯ БЕЗПЕЧНОГО ТА ПІДТРИМУВАЛЬНОГО ОСВІТЬОГО СЕРЕДОВИЩА В ПОЧАТКОВІЙ ШКОЛІ

Анотація. У статті здійснено ґрунтовний аналіз означеної проблеми. Розкрито сутність понять «соціально-емоційне навчання», «безпечне освітнє середовище», «підтримувальне освітнє середовище». Визначено роль соціально-емоційного навчання у створенні безпечного та підтримувального освітнього середовища у початковій школі.

З'ясовано, що інтеграція соціально-емоційного навчання у освітній процес відповідає вимогам Нової української школи, сприяє формуванню саморегуляції, емпатії, навичок співпраці й відповідального прийняття рішень, суттєво підвищує академічні результати здобувачів освіти, знижує рівень конфліктності та сприяє покращенню психологічного благополуччя.

Представлено результати науково-теоретичного аналізу та практичні приклади ефективних стратегій створення безпечного та підтримувального освітнього середовища в початковій школі, а також розвитку соціально-емоційних компетентностей здобувачів початкової освіти: «емоційні хвилинки», ранкові зустрічі, позитивна дисципліна, партнерська взаємодія з батьками, цифрові інструменти емоційної підтримки. Відзначено, що впровадження елементів соціально-емоційного навчання у початковій школі сприяє гармонійному поєднанню педагогічних, психологічних та соціальних чинників, забезпечуючи формування цілісної, адаптованої до сучасних викликів особистості.

Мета дослідження – теоретично обґрунтувати та визначити роль соціально-емоційного навчання як ключового чинника створення безпечного й підтримувального освітнього середовища в початковій школі.

Методи дослідження – метод аналізу й синтезу, системний метод, метод узагальнення.



Зроблено висновки, що системне впровадження соціально-емоційного навчання підвищує психологічну стійкість здобувачів початкової освіти, покращує якість взаємодії в освітньому середовищі та забезпечує умови для їхньої успішної академічної й соціальної адаптації в умовах сучасних викликів.

Keywords: соціально-емоційне навчання, соціально-емоційні навички, принципи соціально-емоційного навчання (самоусвідомлення, саморегуляція, соціальна обізнаність, навички взаємодії, відповідальне прийняття рішень), освітнє середовище, безпечне освітнє середовище, підтримувальне освітнє середовище, здобувачі початкової освіти.

INTRODUCTION

The problem formulation. The realities of the modern world, the rapid transformation of Ukrainian society, and the struggle of Ukrainians for Freedom and Independence in the Russian-Ukrainian war, which has been ongoing on the territory of Ukraine for the fourth year, as well as learning amid air-raid alerts, necessitate awareness of the importance of developing social and emotional skills of the individual, also known as life skills (Tsiuniak, O. P., Dovbenko, S. Yu., 2022, pp. 66–69). The consequences of war—particularly stressful situations, uncertainty, experiences of loss, and changes in the familiar educational environment—create barriers to learning and social interaction for all participants in the educational process.

In this context, social and emotional learning (SEL) acquires particular significance, as it is aimed at developing skills of self-regulation, empathy, effective communication, and constructive conflict resolution. Therefore, there is a need for scientific and theoretical substantiation of social and emotional learning as a key factor in creating a safe and supportive educational environment in primary school, in which learners feel protected, are able to trust adults and peers in interaction, and have opportunities for holistic development of their social and emotional competencies, contributing to successful academic and social adaptation.

Analysis of recent research and publications. The issue of developing social and emotional skills has been discussed by foreign scholars (D. Goleman, A. Duckworth, L. Darling-Hammond, R. Davidson, C. Dweck, A. J. Lee, K. Kasel, M. Kohlberg, M. Rosenberg, C. Steiner-Adair, and others). The problematics of social and emotional learning has become one of the most popular worldwide as a response to changes in labor market requirements and the social demand for the importance of developing social and emotional skills for education and life success. Daniel Goleman, the author of *Emotional Intelligence* and one of the leading popularizers of the concept of emotional intelligence, studied how emotional literacy affects success and relationships and emphasized the importance of developing emotional skills in educational institutions. Karen Kessel, Executive Director of the organization engaged in research and implementation of social and emotional learning in schools CASEL (Collaborative for Academic, Social, and Emotional Learning) actively promotes SEL, develops standards, and provides practical resources for teachers and administrators. Richard Davidson is a neuroscientist who studies the relationship between emotions, the brain, and learning, as well as how the emotional environment affects brain development in children and adults. Linda Darling-Hammond is an educational researcher who focuses on integrating social and emotional practices into the educational process and studies how teacher preparation in the field of SEL contributes to creating a supportive school environment.

The prospects and possibilities of implementing social and emotional learning in the New Ukrainian School have been addressed in the works of T. Vodolazka, L. Hrynevych, O. Hloba, T. Drozhzhyna, O. Matviienko, and M. Khymych. N. Duzhyk examines the basic concepts of social and emotional learning and its main objectives. The impact of social and emotional learning on the modern educational process in higher education institutions of Ukraine is studied by V. Panchenko.

AIM AND TASKS RESEARCH

The purpose of the study is to theoretically substantiate and determine the role of social and emotional learning as a key factor in creating a safe and supportive educational environment in primary school.

RESEARCH METHODS

Research methods include analysis and synthesis, the systemic method, and the method of generalization.

RESULTS OF THE RESEARCH

Creating a safe and supportive educational environment in primary school is one of the key objectives of modern Ukrainian education. The Law of Ukraine “On Education” (2017) defines the safety of the educational environment as one of the main requirements for organizing the educational process, emphasizing the need to ensure psychological comfort and prevent violence, discrimination, and any forms of humiliation of learners’ dignity (Law of Ukraine “On Education”, Article 1).

The Concept of the “New Ukrainian School” (2016) emphasizes the importance of developing emotional intelligence, cooperation skills, self-regulation, and non-violent communication as components of forming key competencies of learners (Concept of the “New Ukrainian School”, 2016). The State Standard of Primary Education (2018) contains a requirement for the purposeful development of social and emotional skills as a basis for effective interaction and successful adaptation of pupils within the group (State Standard of Primary Education).

However, the experience of organizing the educational process in primary school indicates the presence of a number of problems that complicate the creation of a safe and supportive educational environment. These include an insufficient level of development of social and emotional skills among primary school learners, manifested in difficulties with self-regulation, constructive conflict resolution, and establishing positive interaction with peers. In addition,



there is a need to establish effective interaction between school and family, since the consistency of educational influences and shared responsibility of adults ensure the sustainability of a child's social and emotional development and contribute to the formation of a supportive educational environment.

It should be noted that the psychological consequences of war for children are no less threatening than the physical ones. Children who experience military conflict are significantly more likely to face anxiety disorders, depression, and post-traumatic stress disorder (Sliusarevskyi, 2022). Studies by H. Rozlutska (2023) and O. Yatsyna (2022) confirm that war-related psychotraumas have a significant negative impact on pupils' mental health: the duration of the conflict correlates with the intensity of psychological symptoms such as irritability, apathy, and loss of interest in learning activities.

In this context, social and emotional learning becomes especially relevant and is viewed as a comprehensive pedagogical technology aimed at developing the ability to recognize and regulate one's own emotions, build positive relationships, make responsible decisions, and interact constructively with others.

The concept of social and emotional learning entered educational discourse relatively recently but has quickly gained relevance in international practice. Within the CASEL framework (Collaborative for Academic, Social, and Emotional Learning), the key components of social and emotional competence are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2025). The development of these competencies underlies most SEL programs and determines their effectiveness in creating a safe, supportive, and learning-conducive educational environment. A number of international studies (CASEL, OECD) confirm that social and emotional learning significantly improves academic outcomes, reduces conflict levels, and contributes to improved psychological well-being.

In contemporary scientific and pedagogical sources, social and emotional learning is considered an innovative approach aimed at developing so-called "soft skills" among learners, including effective communication, empathy, emotional self-management, understanding others' feelings, teamwork, as well as creative and critical thinking.

T. Vodolazka notes that social and emotional learning is a process of forming knowledge, skills, and value orientations that ensure effective recognition and regulation of emotions, establishment of positive interpersonal relationships, and responsible decision-making in interaction with the social environment (Vodolazka, T., 2024, pp. 68–71). N. Duzhyk understands social and emotional learning as an approach to education focused on developing learners' skills that influence self-awareness, communication abilities, emotion regulation, empathy, and decision-making (Duzhyk, N., 2020, pp. 186–192).

Under the conditions of implementing the New Ukrainian School reform, general secondary education institutions are beginning to systematically integrate elements of social and emotional learning into everyday practice, which corresponds to the competency-based approach and societal demand for educating individuals capable of cooperation, tolerance, and self-regulation. We believe that such integration contributes to the formation of a safe and supportive educational environment, which is especially important in modern socio-psychological conditions, particularly in wartime.

Based on the theoretical analysis of the outlined problem, we identify a number of innovative strategies for creating a safe and supportive educational environment in primary school, the implementation of which demonstrates their effectiveness and practical significance.

In our opinion, an important strategy is the integration of social and emotional learning into the content of all subjects and educational areas. The practical experience of primary school teacher Liubov Hrytsyshyn of the Knyahynitskyi Lyceum of the Rohatyn City Council convincingly demonstrates the effectiveness of this approach. For example, Liubov Bohdanivna offers primary school learners "emotional minutes" before reading a text, during which pupils identify their emotional state using a "feelings scale." In language and literature lessons, while discussing literary works, she poses questions that encourage younger pupils to identify and analyze the emotions of characters: "What did the character feel? Why? How would you act in their place?" This promotes the development of empathy and reflection.

In the teacher's practical activities, the implementation of the mathematics educational area is often combined with the development of social skills: pair work involves role distribution, mutual support, and joint problem-solving. After completing the task, Liubov Bohdanivna initiates discussion during which pupils analyze how they interacted in pairs, what helped them understand each other, which cooperation strategies were most effective, and express their feelings about the collaborative process. Obviously, this contributes to the development of reflective skills, empathy, and the ability to resolve conflicts constructively.

Equally important is the strategy of implementing positive discipline instead of authoritarian approaches, which increases the level of trust between the teacher and learners. L. Hrytsyshyn implements this strategy through jointly formulating classroom rules with pupils, concluding "cooperation agreements," and conducting constructive individual conversations that help primary school learners understand the consequences of their actions and develop responsibility and mutual support skills.



In our conviction, modeling a benevolent psychological atmosphere is a key strategy for creating a safe and supportive educational environment in primary school. In the practice of L. Hrytsyshyn, this strategy is realized through morning meetings during which pupils have the opportunity to share their mood, discuss positive events, express support for one another, and establish friendly contact at the beginning of the school day. The teacher uses exercises for identifying emotions (“Mood Colors,” “My Emotional Tree,” etc.) and short interaction circles that create an atmosphere of safety, trust, and support.

In light of the outlined problem, partnership interaction with parents is essential. L. Hrytsyshyn actively involves parents in joint projects (“Kindness Week,” “Together for Emotional Well-being,” “Marathon of Good Deeds,” “Warmth of Family Hearts,” “Partnership for the Child”), conducts consultations and informational meetings on the development of emotional literacy of primary school pupils. Experience shows that pupils whose parents actively participate in joint activities adapt more quickly to changes in the educational process, more easily establish positive relationships with peers and teachers, regulate their emotions and behavior more effectively, and demonstrate higher motivation for learning.

It is also worth noting that the Ministry of Education and Science of Ukraine initiated the online course “How to Cope with Changes in Life: Social and Emotional Learning through Play” with the aim of supporting children and adults in the new conditions of wartime reality (MES of Ukraine, 2023b). The use of interactive and digital teaching methods makes it possible to continue social and emotional learning even during temporary interruptions of face-to-face education, ensuring continuity in the development of emotional resilience and social interaction skills among learners. Such methods include online platforms for games and exercises aimed at developing emotional intelligence (ClassDojo, Mood Meter, Seesaw), interactive surveys and quizzes (Kahoot!, Quizizz), video conferencing for group discussions and reflection (Zoom, Google Meet), as well as digital simulators and simulations that model social situations and teach constructive conflict resolution.

Thus, the analysis of scientific literature and the practical experience of primary school teacher L. Hrytsyshyn of the Knyahynitskyi Lyceum of the Rohatyn City Council indicate that creating a safe and supportive educational environment in primary school requires a comprehensive approach. The implementation of social and emotional learning, modeling a benevolent psychological atmosphere, active partnership with parents, and the organization of a physically safe space form conditions for the development of emotional literacy, responsibility, cooperation skills, and self-regulation among primary school learners.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Thus, based on the above, we can conclude that social and emotional learning is a key factor in creating a safe and supportive educational environment in primary school. The formation of social and emotional competencies of primary school learners—skills of self-regulation, empathy, responsible interaction, and constructive conflict resolution—contributes to a positive classroom microclimate, psychological stability, and motivation for learning.

We believe that effective implementation of social and emotional learning is possible under the following pedagogical conditions: systematic and consistent implementation; integration of SEL into various school subjects; teacher preparation for the implementation of SEL programs; and the use of active teaching methods focused on developing emotional and social competencies of learners.

The conducted analysis does not exhaust all aspects of the researched problem. We see prospects for further research in a deeper study of the effectiveness of various models of social and emotional learning in primary school and their impact on the psychological safety of all participants in the educational process.

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INFORMATIONAL AND DIDACTIC ASPECTS OF USING MUSEUM PEDAGOGY RESOURCES IN SCHOOL GEOGRAPHY EDUCATION

Abstract. The article explores the informational and didactic aspects of using museum pedagogy resources within the system of school geographical education. The purpose of the study is to theoretically substantiate and identify the informational and didactic aspects of utilizing museum pedagogy resources in school geography education. The research objectives are as follows: to analyze scientific approaches to museum pedagogy as a component of the modern educational space; to define the essence and structure of informational and didactic aspects of using museum resources in geography teaching; to characterize the didactic potential of museum information for the development of students' geographical competencies; and to substantiate the features of effective integration of museum resources into school geography education.

The didactic potential of museums as a special educational environment has been justified, combining subject-expositional, informational, and digital resources to form students' holistic geographical understanding. Theoretical approaches to museum pedagogy as an interdisciplinary field based on constructivist learning models, activity-based, and competency-based approaches have been analyzed. The possibilities for integrating museum resources into the content of



school geography courses have been determined to deepen knowledge of natural complexes, cultural landscapes, regional characteristics, and socio-economic processes.

Particular attention is given to the informational resources of museums (exhibits, collections, archival materials, multimedia, and digital platforms) and their didactic adaptation to the age and cognitive characteristics of students. The didactic functions of museum resources in geography education are characterized as cognitive, motivational, developmental, value-oriented, and integrative. Forms and methods of applying museum pedagogy in the educational process are proposed (lesson-excursions, integrated lessons, educational projects, research activities, virtual tours) to facilitate the development of subject-specific and key competencies in students.

It has been demonstrated that the systematic use of museum resources in school geography education enhances learning motivation, stimulates cognitive activity, promotes the development of spatial thinking, ecological culture, and civic consciousness. The importance of museum pedagogy for implementing the regional component of educational content, particularly in mountainous areas, and for forming sustainable educational practices has been emphasized.

Keywords: museum pedagogy; school geography education; museum informational resources; didactic potential; educational environment; regional component; cultural landscapes; geographical competencies; integrated learning.

ІНФОРМАЦІЙНО-ДИДАКТИЧНІ АСПЕКТИ ВИКОРИСТАННЯ РЕСУРСІВ МУЗЕЙНОЇ ПЕДАГОГІКИ В ШКІЛЬНІЙ ГЕОГРАФІЧНІЙ ОСВІТІ

Анотація. У статті розкрито інформаційно-дидактичні аспекти використання ресурсів музейної педагогіки в системі шкільної географічної освіти. Мета дослідження полягає в теоретичному обґрунтуванні та визначенні інформаційно-дидактичних аспектів використання ресурсів музейної педагогіки в географічній освіті. Визначено завдання дослідження: проаналізувати наукові підходи до музейної педагогіки як складової сучасного освітнього простору, описати сутність та структуру інформаційно-дидактичних аспектів використання музейних ресурсів у навчанні географії, охарактеризувати дидактичний потенціал музейної інформації для формування географічної компетентності здобувачів шкільної освіти, обґрунтувати особливості ефективної інтеграції музейних ресурсів у шкільний курс географії.

Обґрунтовано дидактичний потенціал музеїв як особливого освітнього середовища, що поєднує предметно-експозиційні, інформаційні та цифрові ресурси для формування цілісних географічних уявлень. Проаналізовано теоретичні підходи до музейної педагогіки як міждисциплінарного напрямку, що ґрунтується на конструктивістській моделі навчання, діяльнісному та компетентнісному підходах. Визначено можливості інтеграції музейних ресурсів у зміст шкільних курсів географії з метою поглиблення знань про природні комплекси, культурні ландшафти, регіональні особливості та соціально-економічні процеси.

Особливу увагу приділено інформаційним ресурсам музеїв (експозиціям, колекціям, архівним матеріалам, мультимедійним і цифровим платформам) та їх дидактичній адаптації до вікових і пізнавальних особливостей учнів. Охарактеризовано дидактичні функції музейних ресурсів у географічній освіті: пізнавальну, мотиваційну, розвивальну, ціннісно-орієнтаційну та інтегративну. Запропоновано форми і методи використання музейної педагогіки в освітньому процесі (уроки-екскурсії, інтегровані заняття, навчальні проєкти, дослідницька діяльність, віртуальні тури), що сприяють формуванню предметних і ключових компетентностей. Доведено, що системне використання музейних ресурсів у шкільній географічній освіті підвищує навчальну мотивацію, активізує пізнавальну діяльність, сприяє розвитку просторового мислення, екологічної культури та громадянської свідомості. Наголошено на значенні музейної педагогіки для реалізації регіонального компонента змісту освіти, зокрема в умовах гірських територій, та формування сталих освітніх практик.

Ключові слова: музейна педагогіка; шкільна географічна освіта; інформаційні ресурси музею; дидактичний потенціал; освітнє середовище; регіональний компонент; культурні ландшафти; географічні компетентності; інтегроване навчання.

INTRODUCTION

The problem formulation. In today's globalized world, there is a pressing need to identify sociocultural mechanisms capable of stabilizing the political, socio-economic, educational, and cultural spheres of society. Undoubtedly, the foundation of such mechanisms should be the universal cultural heritage, as culture ensures both the reproduction and transformation of social life in all its manifestations. Society has assigned libraries, museums, and other cultural and leisure institutions the task of affirming cultural heritage as a moral basis for politics, economics, and social institutions.

Sociocultural institutions are increasingly becoming cultural and information centers where visitors not only familiarize themselves with artifacts of historical, scientific, and aesthetic value, but also obtain necessary information on a wide range of issues, including social, legal, professional, and educational matters.

Analysis of Recent Research and Publications. Museum activities are studied within various fields of scientific knowledge, including history, sociology, cultural studies, museology, archaeology, psychology, and others. In Ukrainian pedagogical science, aspects of museum pedagogy and local history education have been explored by I. Chervinska, O. Karamanov, L. Masol, N. Filipchuk, and O. Savchenko, who emphasize the significance of the museum environment for the formation of students' value orientations and cognitive interests.

Certain aspects of the use of museum and local history resources in geographical education are addressed in the works of L. Dubyna, N. Kovalchuk, and T. Shyian, which focus on the regional component of educational content and the development of geographical competence. Issues related to the role of museums, museum typology, and the theoretical understanding of their social functions are examined in the studies of T. Belofastova, I. Dovzhuk, T. Lysenko, N. Terentyeva, and others.



Problems of museum pedagogy and the educational potential of museums are also discussed in the works of foreign scholars. The theoretical foundations of museum pedagogy are presented in the studies of E. Hooper-Greenhill, G. Hein, J. Falk, and L. Dierking, who substantiate the constructivist nature of museum learning and its importance for shaping the cognitive experience of school-age learners. At the same time, the information-didactic dimension of using museum resources in school geography remains insufficiently systematized and requires further theoretical consideration.

THE AIM AND RESEARCH TASKS

The aim of the research is to provide a theoretical substantiation and to identify the information-didactic aspects of using museum pedagogy resources within the system of school geographical education.

The research tasks include: analyzing scientific approaches to museum pedagogy as a component of the modern educational space; determining the essence and structure of the information-didactic aspects of using museum resources in geography teaching; characterizing the didactic potential of museum information for the formation of students' geographical competencies; and substantiating the features of effective integration of museum resources into school geographical education.

RESEARCH METHODS

To achieve the stated aim, a set of complementary research methods was employed: theoretical methods (analysis, synthesis, and generalization of scientific and pedagogical sources on museum pedagogy and geographical education); empirical methods (pedagogical observation, questionnaires, and analysis of educational practices related to the use of museum resources); and analytical-interpretative methods (systematization and generalization of the obtained results).

RESULTS OF THE RESEARCH

The resources of museums, as centers for preserving historical, cultural, and natural landscape exhibits of the Ukrainian Carpathian region and as genuine hubs of spirituality and culture, function as pedagogical tools for teaching and development in geography lessons.

The implementation of these objectives is facilitated by intensifying cooperation between educational institutions and regional museums, supporting and modernizing existing museums, and expanding the educational mission of school museums. These initiatives are supported by the Decree of the President of Ukraine "On the Preservation and Popularization of Hutsul Culture", which emphasizes the need to expand museum networks (museums of folk art and everyday life of Hutsulshchyna, house-museums, private museums, museums dedicated to prominent figures, etc.); to prepare thematic exhibitions devoted to traditions and folk crafts of Hutsulshchyna; to organize objects of the nature reserve fund and conduct restoration works on cultural heritage sites; to publish catalogs, booklets, and scholarly works on the spiritual and material culture of the Hutsuls; and to produce television, video, and audiovisual materials about traditions and folk crafts of Hutsulshchyna (Decree of the President of Ukraine "On the Preservation and Popularization of Hutsul Culture," 1995; 2009).

The dictionary-reference book on museology states that "museum pedagogy studies the educational aspects of museum communication." It should be noted that as a field of scientific knowledge, museum pedagogy is a relatively new and knowledge-intensive concept. Museum pedagogy as an innovative scientific field emerged at the intersection of art studies, local history studies, museology, geography, pedagogy, and psychology (Kliuchko, 2013).

Museum pedagogy focuses on researching innovative forms, methods, and technologies for leveraging the educational potential of museums to ensure the holistic development of the growing individual and to integrate museum resources with the educational content of school subjects (history, geography, biology, literature, etc.).

In recent years, museum pedagogy has gained particular prominence, marking a new stage in realizing the educational and developmental potential of museums. It is increasingly viewed as a new branch of pedagogical science with an interdisciplinary nature, situated at the intersection of museology, social pedagogy, and leisure pedagogy.

Museum pedagogy is considered from two perspectives: as a theory that reflects the process of communication within the museum; and as an educational institution used to implement various mediating and educational tasks related to serving visitors (exhibition projects, information support, guided tours, creative workshops) (Law of Ukraine "On Museums and Museum Affairs," 1995). Thus, as a socio-scientific and applied discipline, museum pedagogy examines phenomena, facts, and processes through the prism of museum exhibits and museum activities.

As noted by O. Karamanov, it can be observed that "museum pedagogy is dynamically, albeit with considerable delay, spreading and developing in Ukraine: work with museum audiences of different ages is becoming more active, new interdisciplinary projects are being developed, engaging education-pedagogical programs are being created, and general secondary schools, kindergartens, as well as higher education institutions are being involved in cooperation with museums" (Karamanov, 2010).

The current stage of general secondary education development in Ukraine is characterized by increased attention to the competency-based learning paradigm, the integration of formal and non-formal education, and the active use of the cultural and educational potential of the sociocultural environment. In this context, the issue of incorporating museum pedagogy resources into school geography education becomes particularly relevant as an effective means of forming subject-specific and key competencies in students.

By its nature, geographical education is interdisciplinary and practice-oriented, as it integrates knowledge about natural, socio-economic, cultural, and historical processes. Museum resources, natural science, historical-geographical,



ethnographic, and local history create conditions for the direct exploration of spatial phenomena and processes, the formation of a holistic worldview, and the development of research skills and spatial thinking in students.

At the same time, in school geography practice, the use of museum resources is often episodic and lacks systematic didactic justification. The information-didactic aspects of integrating museum pedagogy into the educational process remain insufficiently developed, particularly regarding the selection, structuring, interpretation, and pedagogically appropriate use of museum information in accordance with the goals and learning outcomes of geography education. This determines both the scientific and practical relevance of the chosen topic.

In contemporary scientific and educational discourse, museum pedagogy is regarded as an interdisciplinary field integrating pedagogy, cultural studies, museology, learning psychology, and communication theory. Its formation and development are driven by transformations in the educational space, including the shift from a knowledge-based to a competency-based paradigm, the expansion of formal education boundaries, and the strengthening role of non-formal educational institutions. An analysis of scientific approaches to museum pedagogy as a component of the modern educational space includes the cultural, competency-based, activity-oriented, constructivist, information and communication, and integrative approaches.

Within the cultural approach, museum pedagogy is viewed as a means of engaging students with cultural heritage and shaping value orientations. The museum is perceived as a sociocultural space where historical memory, regional identity, and cultural meanings are transmitted. The educational potential of museums lies in the opportunity for direct interaction with authentic cultural objects, which fosters an emotional and value-based attitude toward knowledge. In the context of geography education, the cultural approach facilitates understanding regional space as part of national and global cultural heritage, particularly through museums of the Ukrainian Carpathians that represent unique landscape and ethnocultural features.

The competency-based approach emphasizes developing students' ability to apply acquired knowledge in real-life situations. From this perspective, museum pedagogy serves as an effective tool for developing subject-specific and key competencies, including geographical, informational, civic, environmental, and cultural competencies. The museum environment creates conditions for active learning, research practices, project-based work, and interdisciplinary integration, thus organically fitting into the modern educational space as a resource for implementing the competency-based learning model.

According to the activity-oriented approach, learning is considered a process of active cognitive engagement. In museum pedagogy, this approach is realized through interactive forms of work: examining exhibits, solving problem-based tasks, participating in educational projects, and modeling geographical processes. The museum space functions as a learning and research environment where students not only perceive information but also independently construct knowledge. This is particularly important for geography education, as it enables the development of spatial thinking and research skills.

The constructivist approach is based on the idea that students actively construct knowledge based on their own experiences. In this context, museum pedagogy is viewed as an environment that stimulates individual comprehension and interpretation of information. Museum exhibits act as open texts allowing multiple levels of interpretation depending on students' cognitive experiences. This ensures personalized learning, the development of critical thinking and reflection, and meets the requirements of the modern educational space.

The information and communication approach focuses on the use of digital technologies in museum pedagogy. Modern museums actively employ virtual tours, multimedia exhibitions, and digital archives, expanding access to museum resources and integrating the museum environment into the school's digital educational space. In geography education, this enables the integration of museum materials with cartographic services, geographic information systems, and interactive models, enhancing visualization and cognitive value.

The integrative approach involves combining formal, non-formal, and informal education. In this aspect, museum pedagogy acts as a bridge between school education and the sociocultural environment, promoting interdisciplinary integration, particularly between geography and history, biology, ecology, and cultural studies. For implementing regional approaches, integration allows museums to be viewed as comprehensive educational resources reflecting natural, social, and cultural dimensions of regional development.

Thus, the analysis of scientific approaches to museum pedagogy confirms its multidimensional nature and significant potential as a component of the modern educational space. The integration of cultural, competency-based, activity-oriented, constructivist, information and communication, and integrative approaches ensures systematic use of museum resources in school geography education and contributes to the formation of a holistic worldview in students.

The Essence and Structure of the Information-Didactic Aspects of Using Museum Resources in Geography Teaching. In the context of modern school geography education, the use of museum resources becomes particularly significant as a means of implementing regional development objectives. However, the effectiveness of such use depends not only on the availability of museum materials but also on their pedagogically grounded integration into the educational process, which necessitates defining the essence and structure of the information-didactic aspects of museum pedagogy.

The essence of the information-didactic aspects of using museum resources in geography teaching lies in the purposeful organization of educational interaction between students, teachers, and the museum environment in order to transform museum information into educational content aligned with the goals, objectives, and learning outcomes of geography education. In this context, museum resources are regarded not as auxiliary illustrative materials but as full-fledged sources



of geographical knowledge that ensure the concretization of theoretical concepts through real objects and contribute to the formation of spatial representations and geographical thinking. The use of museum resources in geography lessons and local history excursions facilitates the integration of natural, socio-economic, and cultural knowledge, significantly influencing the development of students' research skills and cognitive independence. Thus, information-didactic aspects serve as a system-forming factor in integrating museum pedagogy into geography education.

The structure of the information-didactic aspects of using museum resources in geography teaching is multi-component and includes the informational, didactic, interpretative, and technological components, each performing a specific pedagogical function.

The informational component is associated with the selection and use of museum information as a source of geographical knowledge. It includes material (exhibits, collections, models), documentary (maps, archives, photographs), and digital resources (virtual exhibitions, multimedia databases). In geography education, this component supports the study of natural conditions, resources, population, and economic activities based on regional material, particularly within museum environments characterized by high levels of natural and cultural representativeness.

The didactic component defines the pedagogical conditions and principles for integrating museum resources into the learning process. It involves aligning museum information with curricula, lesson topics, students' age characteristics, and expected learning outcomes. This component is implemented through defining learning objectives and tasks, selecting teaching methods and forms (excursion lessons, inquiry-based lessons, project-based learning), and using museum materials as the basis for educational situations and problem-solving tasks.

The interpretative component ensures the comprehension and pedagogical interpretation of museum information. It is oriented toward active cognitive engagement, analytical work with exhibits, establishing cause-and-effect relationships, and formulating generalized conclusions. In geography education, this component is realized through problem-based questions, research tasks, and interdisciplinary connections with history, biology, and ecology. Through interpretation, museum objects acquire didactic meaning and become tools for forming geographical concepts and patterns.

Under these conditions, modern museum pedagogy reaches a broader level of research and methodological development, addressing forms, methods, and techniques intended not only for students but for all categories of museum audiences. This is evidenced by the research of N. Filipchuk "Formation and Development of the Educational and Enlightenment Activities of Museums of Ukraine (Late 19th – Early 21st Century)" (Filipchuk, 2020).

The technological component is related to the use of digital tools and modern educational technologies to expand the possibilities of museum pedagogy. It includes virtual tours, interactive exhibitions, multimedia presentations, digital maps, and geographic information services. In geography education, this component ensures accessibility to museum resources regardless of spatial constraints, promotes individualized learning, and integrates the museum environment into the school's digital educational space.

The informational, didactic, interpretative, and technological components function in close interaction, forming an integrated system of information-didactic aspects of using museum resources in geography education. Their comprehensive implementation ensures a transition from passive perception of museum information to active construction of geographical knowledge and competencies.

Thus, defining the essence and structure of the information-didactic aspects of using museum resources in geography teaching allows museum pedagogy to be viewed as a systemic educational resource integrated into the modern educational space. This provides a theoretical foundation for further methodological justification and practical implementation of museum-oriented geography education.

The didactic potential of museum information and resources in forming students' geographical competencies is significant. In modern school geography education, museum resources are considered a multifunctional educational environment that integrates cognitive, value-based, and activity-oriented components of learning. The didactic potential of museum information is determined by its authenticity, visual nature, interdisciplinarity, and regional orientation, creating favorable conditions for effective formation of students' geographical competencies. The didactic aspect is conditioned by the need for pedagogical selection and structuring of museum materials in accordance with the goals, content, and expected learning outcomes of geography education. This involves the purposeful integration of museum resources into curricula, thematic planning, and the system of learning tasks.

In studying the geography of the Ukrainian Carpathian region, museum exhibitions can be used to address didactic tasks such as forming concepts of physical-geographical regions, natural resources, environmental problems of mountainous areas, settlement patterns, and traditional economic activities. For example, when studying the topic "Mountainous Countries of Europe," materials from regional museums help concretize abstract concepts through local examples.

A special role in this process is played by the principle of visualization, realized through authentic museum objects, and the principle of connecting learning with real life, actualized through the regional context. Thus, the museum environment becomes a didactic space where educational objectives are combined with students' real geographical experience.

The informational aspect of using museum pedagogy resources in school geography education involves engaging museum exhibits, collections, archival materials, and digital resources as multidimensional sources of geographical information. The museum environment of the Ukrainian Carpathians represents unique examples of natural and cultural heritage, enabling the disclosure of geographical knowledge in spatial, temporal, and regional dimensions.

Natural science exhibitions (mineralogical collections, herbariums, zoological collections) facilitate the study of the physical-geographical features of the Carpathian region, including mountain system structures, altitudinal zonation, climatic conditions, and biodiversity. Ethnographic and local history museums (such as the Museum of Folk Art of



Hutsulshchyna and Pokuttia, and museums of Boikivshchyna and Lemkivshchyna) contain information resources illustrating the interaction between the natural environment and human economic activity, as well as the formation of traditional nature management practices (Velykochyi, 2013).

Thus, museum information functions not as fragmentary illustrative material but as a full-fledged source of geographical knowledge that ensures the regionalization of educational content and contributes to the development of students' spatial thinking.

The substantive potential of museum information includes material, documentary, and digital resources reflecting natural, socio-economic, and cultural characteristics of territories. In geography education, these resources serve as sources of empirical geographical knowledge that complement and concretize textbook material. Natural collections (rock, soil, flora, and fauna samples), cartographic materials, statistical data, and photographic documents enable students to directly engage with the spatial features of geographical objects and processes. This contributes to a deeper understanding of physical-geographical patterns and the formation of concepts about regional natural complexes and their dynamics.

Work with museum exhibits contributes to the development of geographical thinking, the ability to identify cause-and-effect relationships, and the capacity to make generalizations based on empirical observations, thereby fostering geographical competence.

Subject-specific geographical competence implies students' ability to operate with geographical concepts, patterns, and spatial representations. Work with museum resources ensures its formation through:

- visualization of complex geographical processes by means of exhibitions and models;
- concretization of abstract concepts on the basis of real objects;
- opportunities for spatial analysis of natural and socio-economic phenomena.

Museum resources contain a substantial amount of cartographic material (historical maps, diagrams, territorial plans), which creates favorable conditions for the development of cartographic literacy. Students learn to read and analyze different types of maps, correlate cartographic representations with real objects, and trace spatial changes in natural and social processes over time. This is particularly important for geographical education, as spatial thinking constitutes its core component.

The formation of research and information competencies can be effectively achieved through the study of museum resources, which create favorable conditions for organizing students' research activities. Analysis of exhibits, work with archival materials, statistical data, and digital museum resources promote the development of skills in information search and selection, critical evaluation of sources, interpretation of obtained data, and formulation of conclusions. In the course of such activities, information competence necessary for working with various types of geographical information is formed.

Museum information, particularly exhibitions with an environmental focus, contributes to the awareness of regional environmental problems and human responsibility for environmental preservation. In geography education, this ensures the formation of environmental competence, which includes understanding interconnections within natural systems, awareness of the consequences of economic activity, and readiness for environmentally responsible behavior. At the same time, museum resources contribute to the formation of civic competence through comprehension of the spatial organization of society, regional identity, and cultural heritage. An important component of the didactic potential of museum information is its ability to enhance students' learning motivation. The authenticity of museum exhibits, the possibility of direct contact with objects of study, and engagement in active cognitive activity foster a positive attitude toward learning geography.

The museum environment promotes the development of a value-based attitude toward natural and cultural heritage, the formation of environmental culture, and regional self-awareness. As noted, "more than 120 museums of Prykarpattia possess significant potential for the artistic-aesthetic, moral-spiritual, socio-cultural, and axiological development of students from remote and hard-to-reach mountainous areas. Research activities in museums and students' familiarization with museum exhibitions and collections contribute to the formation of a holistic understanding of the surrounding world through interaction with monuments of history and culture, as well as to the development of a value-laden, emotionally colored attitude toward national heritage" (Chervinska & Chervinskyi, 2019).

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

As a result of the theoretical analysis and the generalization of empirical examples of using museum resources in school geography education, it has been established that museum pedagogy is an important component of the modern educational space and is capable of significantly enhancing the quality of students' geographical competence formation. Under conditions of competency-oriented learning, the museum environment functions as an effective information-didactic resource that ensures the integration of educational content with real objects of natural and cultural heritage. It has been demonstrated that the information-didactic aspects of using museum resources in geography education are comprehensive in nature and include informational, didactic, interpretative, and technological components. Their interaction ensures the systematic acquisition of geographical knowledge, the development of spatial thinking, the formation of research skills, and the cultivation of a value-based attitude toward the environment. Museum information presented in the form of exhibits, collections, archival materials, and digital resources expands the learning context and promotes understanding of geographical phenomena in their natural and socio-cultural conditioning.



The analysis of the didactic potential of museums in the Carpathian region has shown that natural science, local history, ethnographic, and environmental education museums create favorable conditions for the formation of subject-specific, interdisciplinary, and key competencies in students. In particular, work with museum resources contributes to the development of physical-geographical, socio-geographical, regional, environmental, and information-digital competencies, which correspond to the requirements of the State Standard of Basic Secondary Education.

Further scholarly reflection is required on the issue of the digital transformation of museum pedagogy, particularly regarding the use of virtual museums, augmented and blended reality, and interactive cartographic services in geography education. It is also advisable to study the impact of digital museum resources on students' motivation, the level of formation of geographical and digital competencies, as well as on the development of critical and spatial thinking.

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DIGITAL IMAGE OF THE MODERN EDUCATION MANAGER

Abstract. The article examines the digital image of the contemporary education manager as a significant intangible managerial resource that determines the effectiveness of managerial decisions, the level of trust among teaching staff, parents, and other stakeholders, and influences the formation of corporate culture and the reputational capital of educational institutions. The aim of the study is to examine the specifics of forming the digital image of a modern education manager, identify the key factors that influence its effectiveness, and analyze the use of digital tools for the effective implementation of the integration approach in the educational process.

The interrelationship between digital image, reputation, and digital brand is analyzed, forming a hierarchical system of the manager's digital identity, in which the digital image serves as a communicative component, reputation reflects the outcomes of professional activity, and the digital brand represents an integrated manifestation of value-based and strategic leadership. A system of indicators for assessing the digital image is outlined, encompassing communicative-managerial, reputational-trust, motivational-corporate, and strategic-innovative parameters, allowing the evaluation of the managerial effectiveness of education managers in the digital environment. It is demonstrated that the digital image has a bidirectional relationship with the corporate culture of the institution, reflecting its values while simultaneously shaping a culture of openness, trust,



innovation, and professional interaction, which ensures sustainable organizational development. The practical significance of the study lies in the development of an algorithm for digital image formation, applicable in the work of educational leaders and in enhancing managers' digital competence, contributing to the efficiency of management processes and the strengthening of the institution's corporate image.

Keywords: digital image, digital brand, future education manager, management resource, corporate culture, digital communication, reputation, educational leadership, professional image.

DIGITAL-ІМІДЖ СУЧАСНОГО МЕНЕДЖЕРА ОСВІТИ

Анотація. У статті розглядається digital-імідж сучасного менеджера освіти як важливий нематеріальний управлінський ресурс, що визначає ефективність управлінських рішень, рівень довіри педагогічного колективу, батьків та інших стейкхолдерів, а також впливає на формування корпоративної культури та репутаційний капітал закладу освіти. Мета дослідження - вивчити особливості формування digital-іміджу сучасного менеджера освіти, визначити ключові чинники, які впливають на його ефективність, проаналізувати особливості використання цифрових інструментів для ефективності впровадження інтеграційного підходу в освітній процес.

Проаналізовано взаємозв'язок між поняттями digital-імідж, репутація та digital-бренд, які утворюють ієрархічну систему цифрової ідентичності управління, де digital-імідж виступає комунікативним компонентом, репутація – результатом професійної діяльності, а digital-бренд – інтегрованим проявом ціннісного та стратегічного лідерства. Виокремлено систему індикаторів оцінювання digital-іміджу, що охоплює комунікативно-управлінські, репутаційно-довірчі, мотиваційно-корпоративні та стратегічно-інноваційні параметри, які дозволяють оцінювати рівень управлінської ефективності менеджера освіти в цифровому середовищі. Доведено, що digital-імідж перебуває у двосторонньому взаємозв'язку з корпоративною культурою закладу, відображаючи її цінності та водночас формуючи культуру відкритості, довіри, інноваційності та професійної взаємодії, що забезпечує стійкий розвиток освітньої організації. Практичне значення статті полягає у розробленні алгоритму формування digital-іміджу, який може застосовуватися у діяльності керівників закладів освіти та у системі підвищення цифрової компетентності управлінців, сприяючи ефективності управлінських процесів та зміцненню корпоративного іміджу організації.

Ключові слова: digital-імідж, digital-бренд, майбутній менеджер освіти, управлінський ресурс, корпоративна культура, цифрова комунікація, репутація, освітнє лідерство, професійний імідж.

INTRODUCTION

The problem formulation. Problem formulation. In the contemporary context of educational development, a key factor in the effective management of educational institutions is the ability of a leader to create and maintain their own digital image – a set of digital manifestations of professional, communicative, and reputational competence in the virtual environment. Information technologies, social media, and online platforms are increasingly used not only for organizational activities but also for communication with the institution's staff, learners, parents, employers, and the broader public. Accordingly, the formation of a positive digital image becomes an integral component of the professional preparation and continuous development of education managers.

The relevance of the research is determined by the main tendencies of the modern educational system. The digitalization of the educational environment necessitates that managers master new forms of communication and managerial practices involving digital tools. Moreover, society increasingly assesses the effectiveness of educational institutions based on the visibility and accessibility of information about their leaders in the digital space. Thus, the digital image becomes a factor of reputational success. Ignoring this aspect may lead to decreased trust in managerial decisions and negatively affect interaction within the institution and with external stakeholders.

Analysis of recent research and publications. Analysis of academic sources indicates that the concept of a digital image is researched at the intersection of pedagogy, educational management, and digital technologies. Issues related to the digitalization of education and digital identity in pedagogy have been explored by V. Osadchyi and I. Serdiuk (2019); O. Liashenko, O. Spirin, S. Lytvynova, O. Pinchuk, O. Ovcharuk & A. Sukhikh (2024). The significance of the digital environment for educational management has been addressed by N. Bitar & N. Davidovich (2024); Y. Yampol (2024), M. Rostoka (2025). The impact of social networks on educational leadership was investigated by A. Daly, Y. Liou, M. Fresno, M. Rehm & P. Bjorklund (2019); D. Forbes (2017) and M. Ohara (2023). The correlation between digital competencies and the image-related characteristics of education managers was identified by S. D. Myller, H. Konzag, J. Nielsen & H. Sandholt (2024); O. Hrytsenchuk, O. Ovcharuk & O. Kravchyna (2025); M. Jing, Z. Guo, X. Wu, Z. Yang & X. Wang (2025), among others.

However, there remains a need for a comprehensive approach to studying the digital image of education managers in order to increase the effectiveness of managerial activity.

AIM AND RESEARCH TASKS

The purpose of the study is to examine the peculiarities of forming the digital image of a modern education manager, to determine the key factors influencing its effectiveness, and to analyze the use of digital tools for the effective implementation of an integrative approach in the educational process. The research is aimed at revealing the relationship between the manager's digital competencies and their image-based influence in the professional educational environment, in response to the current challenges of educational digitalization and to enhance the quality of institutional management.

RESEARCH METHODS: method of generalization, method of analysis, modeling, systems approach.



RESULTS OF THE RESEARCH

The concepts of “image,” “reputation,” and “brand” of a manager are closely interconnected and form a hierarchical system. Within this system, the image functions as a communicative tool of initial perception, reputation constitutes an outcome of managerial performance, and the brand represents an integrated manifestation of value-based and professional leadership in the educational space.

According to the sociologist E. Goffman, image is “the art of impression management” (Statinova & Radchenko, 2001). The image of an education manager represents an external and communicative portrayal of the leader, encompassing managerial style, digital presence (such as the institution’s website, social media, and public speeches), professional language, and rhetoric.

The reputation of an education manager is the assessment of their activity by the staff, learners, external stakeholders, and educational authorities. Reputation is shaped by factors such as the quality of managerial decisions, institutional educational outcomes, the level of academic integrity, and ethical and fair governance.

The brand of an education manager represents a personal managerial brand that extends beyond the boundaries of the institution, providing the manager with trust and authority within the professional community. Key attributes of a personal brand include recognition, expertise, strategic thinking, and value-based leadership.

The constructed image together with performance outcomes forms the reputation of the individual. Reputation combined with personal values and a strategic approach ultimately shapes the personal brand.

Under conditions of pervasive digitalization, the digital image becomes decisive for the self-presentation of education managers. The digital image is a contemporary form of image realization that influences the formation of reputation and indirectly the personal brand of an education manager.

Thus, a conceptual chain may be formulated as follows: **Digital image** \subset **Image** \rightarrow **Reputation** \rightarrow **Brand**

The digital image serves as a starting point under conditions of educational digitalization and often constitutes the first channel of stakeholder contact and initial perception. It is formed within the digital environment through targeted online communication, digital representation of professional activity, and managerial practices on institutional websites, social networks, and during public online engagements.

We propose to conceptualize the digital image of a modern education manager as an integrated phenomenon encompassing professional, communicative, reputational, and digital dimensions simultaneously. This approach integrates the traditional professional image of a leader with their digital presence across social media, professional platforms, and corporate online resources. Such an approach allows for a comprehensive analysis of interactions among image components and their impact on managerial effectiveness in the context of educational digitalization.

In contemporary educational practice, the digital image performs multiple functions:

- representational, contributing to positive stakeholder perception (staff, learners, stakeholders, society);
- communicative, providing effective interaction through digital channels (networks, platforms);
- motivational, stimulating the development of digital competencies among subordinates;
- innovative, manifested in the application of new digital tools in managerial practice.

We agree with O. Berezyuk that a modern education manager “must possess innovative methods and technologies for the effective implementation of distance, blended, asynchronous and synchronous, cloud-based learning, flipped and virtual classrooms, e-learning platforms, gamification, digital storytelling, and the organization of educational management systems” (Berezyuk, 2025, p.222).

Overall, the digital image combines the personal qualities of the education manager, their professional competencies, and digital skills. These components together create a holistic and effective professional profile within the digital educational environment.

Researchers distinguish the following structural components of the digital image:

- professional component, reflecting the level of managerial competencies, strategic thinking, and the ability to make effective decisions in the digital environment;
- communicative component, enabling effective interaction with staff, learners, and external stakeholders through digital channels;
- reputational component, encompassing trust in the manager, positive assessment of their activity, and professional authority including within the digital space;
- digital component, reflecting the manager’s ability to use digital tools, platforms, and media resources to enhance both the educational process and managerial activity.

The interaction of these components forms an integral digital image that affects managerial effectiveness and the image of the educational institution as a whole.

Consequently, the digital image of a modern education manager represents a complex characteristic integrating professional competencies, digital skills, and reputational aspects of leadership. As is known, managerial resource refers to the totality of elements possessed by a leader or organization enabling successful governance, implementation of change, and achievement of goals. The source of managerial resource is the individual, endowed with knowledge, skills, and experience in management (Humennyk et al., 2012). The digital image of an education manager may be considered as an intangible managerial resource enhancing managerial decision-making and the development of institutional corporate culture. For an education manager, such a resource facilitates innovation,



reduces communication barriers, strengthens institutional culture, and ensures sustainability of managerial processes. In the digital era, leadership is exercised not only through decisions but also through digital content.

Indicators of the digital image as a managerial resource reflect the quality of digital managerial communication, the degree of trust and motivation within the staff, the observance of digital norms, and the ability of the manager to ensure strategic development under digitalization. The systematization of indicators of the digital image of an education manager as a managerial resource by managerial effects is presented in Table 1.

Table 1.

Indicators of the digital image of an education manager as a managerial resource

Indicator	Content	Manifestation	Managerial Effect
Communicative	effectiveness of managerial communication in the digital environment	transparency of managerial decisions; accessibility of the manager through digital channels; promptness of response to inquiries; clarity and comprehensibility of managerial messages; consistency between official and informal digital communications	reduction of information barriers and rumors
Reputational	volume of reputational capital	digital trust within the staff; stability of positive digital perception; frequency of supportive reactions (comments, reposts, participation in discussions)	increased legitimacy of managerial decisions
Corporate	influence on corporate culture	staff engagement in digital initiatives; readiness for change; support of managerial innovations; staff identification with institutional values	increased internal motivation of the staff
Regulatory	quality of digital governance	adherence to norms of digital ethics; absence of public digital conflicts; consistency of digital behavior; alignment of digital actions with managerial role	stability and predictability of governance
Strategic	value of managerial activity	participation in digital educational projects; initiation and support of innovation; expansion of professional digital networks; recognition in the professional digital environment	enhanced competitiveness of the institution

The integral indicator of the managerial effectiveness of the digital image as a resource is determined by the consistency between the digital representation of the education manager and their actual managerial actions, the stability of a positive digital reputation, and the ability of the digital image to support the achievement of the strategic goals of the educational institution.

The digital image of an education manager functions both as a mirror reflection and as an instrument for shaping the corporate culture of the institution. Through their digital image, the leader sets norms of digital communication, establishes a culture of transparency, stimulates digital activity among the staff, and maintains an innovative climate. Inconsistency between the declared digital image and the actual corporate culture of the educational institution leads to a loss of trust. Conversely, a strong corporate culture reinforces the authenticity of the digital image, reduces reputational risks, and ensures coherence of communication.

In our publication (Shuryhin et al., 2025), we substantiated that digital literacy and corporate culture are deeply interconnected elements of contemporary professional preparation of students of pedagogical specialties, including education managers. Therefore, the level of digital literacy significantly affects the effectiveness of the digital image constructed by an education manager, and hence the success of the corporate culture within the educational institution.

The formation of the digital image of an education manager occurs through systemic digital communication, public managerial activity, and adherence to digital ethics, which together ensure trust, managerial effectiveness, and sustainable development of the educational institution. We have systematized the most common examples of constructing the digital image of an education manager through various information channels with descriptions of actions and resulting managerial effects (Table 2).

In addition, an educational manager should publicly support colleagues' projects through reposting educational initiatives and expressing public gratitude. In this way, the manager is presented as a motivational and human-centered leader, while simultaneously increasing the digital activity of the staff.

During digital engagement, an education manager must adhere to high standards of digital ethics: appropriate language, absence of manipulative content, and respect for privacy. It should be noted that the issue of ethical use of the digital environment is important in our information society. The specifics of digital ethics and the description of ethical challenges generated by the development of digital technologies have been explored in the works of N. Bostrom (Bostrom, 2020), A. Toffler (Toffler, 1970), F. Fukuyama (Fukuyama, 2018), as well as philosophers A. Borgmann (Borgmann, 1999) and H. Dreyfus (Dreyfus, 2001), who critically assessed the ethics of social networks.

Today, the most popular social networks for communication in Ukraine are YouTube – over 25 million users, Facebook – approximately 17 million, Instagram – over 16 million, TikTok – 11 million, LinkedIn – over 3 million, and X (Twitter) – about 1.5 million (Nepliach, 2025; Yudin, 2024); global statistics are provided by Statcounter GlobalStats. A detailed analysis of the main ethical challenges associated with the digital environment has been carried out in the work (Kravchenko, Kyzymenko, Krasilnikova & Husieva, 2025).

Table 2.

Examples of constructing the digital image of an education manager

Channel	Action	Type of Digital Image	Managerial Effect
Institution's website	public video/text addresses; explanations of managerial decisions (staffing, academic, organizational); open reports on institutional performance	open, responsible, strategically thinking manager	increased trust and reduced resistance to change
Social media (LinkedIn, Facebook, Instagram, etc.)	running a professional page rather than a formal account; publishing managerial commentary on educational events; highlighting the achievements of colleagues and learners; constructive interaction in comments	modern, communicatively competent manager	formation of loyalty and a positive digital environment
Online events and public speaking	regular participation in webinars, online conferences, professional meetings; presenting managerial cases; showcasing institutional experience; providing expert commentary	expert, innovative, change-oriented leader	increased authority beyond the institutional level
Internal communication	transparent governance: structured digital organization of meetings via Zoom/Google Workspace/Microsoft Teams/Webex; implementation of open calendars; transparent access to shared documents	effective, organized, fair manager	strengthened managerial discipline and accountability
Crisis communication	response to crisis situations in the digital environment (negative information, conflict): prompt publication of an official position; use of appropriate language; proposing solutions to the problem	responsible, ethically mature, stress-resistant manager	preservation of reputational stability
Personal expert content	publication of analytical posts/professional essays; commentary on educational reforms; presentation of authorial managerial approaches; reflection on managerial decisions	thoughtful, strategic, academically oriented manager	formation of a personal digital brand

Undoubtedly, by adhering to digital ethics, an education manager contributes to the formation of a safe digital environment.

Thus, the digital image of an education manager should be interpreted as the external and communicative image of a leader, which includes management style, digital presence (institutional website, social media, public communication, etc.), professional rhetoric, and openness to innovation.

The digital image of an education manager is formed as a result of purposeful digital managerial activity. The formation of the digital image of an education manager is a step-by-step management process aimed at increasing management efficiency and trust within the digital educational environment. A visualization of this process using AI is presented in Fig. 1.



Fig. 1. Algorithm for the Formation of the Digital Image of an Education Manager

At the first stage, value-oriented and strategic positioning is carried out, meaning the definition of the managerial mission, values, and the desired digital image of an education manager, taking into account the development strategy of the educational institution.



At the second stage, an audit of digital presence is conducted by analyzing existing digital channels and content for their compliance with the managerial role and the norms of digital ethics.

During the third stage, professional digital communication takes place – the systematic use of official digital channels to present managerial decisions, institutional achievements, and strategic priorities.

The next stage involves the formation of digital managerial interaction, which ensures management transparency, accessibility of the manager, and feedback through digital tools. At the subsequent stage, public expert activity is intensified through participation in professional online events and the presentation of managerial experience, with the aim of strengthening reputational potential. An important stage is the formation of digital ethics – the transfer of ethical norms of human communication, such as politeness, tactfulness, mutual respect, and tolerance, from the real to the virtual environment. At the final stage, monitoring and correction are carried out through the analysis of digital feedback and the adjustment of the digital image in accordance with managerial results and the strategic goals of the institution.

A properly formed digital image of an education manager serves as an effective tool for enhancing trust, managerial legitimacy, and the sustainable development of an educational institution.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

In the modern context of education digitalization, the digital image of an education manager acquires the status of an important intangible managerial resource that influences the effectiveness of managerial decisions, the level of stakeholders' trust, and the competitiveness of the educational institution. The digital image, reputation, and digital brand of an education manager constitute a hierarchically interconnected system in which the digital image functions as an initial communicative factor, reputation represents the outcome of managerial activity, and the digital brand serves as an integrated manifestation of value-based and strategic leadership.

The formation of the digital image of an education manager is a step-by-step managerial process that includes value-oriented strategic positioning, professional digital communication, managerial interaction, and continuous monitoring and correction. An effective digital image of an educational manager is in a bidirectional relationship with the corporate culture of the educational institution, both reflecting its values and norms and actively influencing the development of a culture of openness, trust, and innovation.

The prospects for further research lie in the development of instruments for empirical diagnostics of the digital image of an education manager and in studying its impact on the quality of educational management, the educational process, and the performance of educational institutions.

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CONFERRAL OF PROFESSIONAL QUALIFICATIONS UPON FUTURE TEACHERS IN HIGHER EDUCATION INSTITUTIONS: A COMPETENCE-BASED APPROACH, IMPLEMENTATION EXPERIENCE, AND CHALLENGES

Abstract. The article analyzes contemporary approaches to the conferral of professional qualifications upon future teachers in the higher education institutions of Ukraine. It examines the regulatory and legal framework, models for assessing learning outcomes, and key components of the certification of graduates in pedagogical specialties. The challenges faced by higher education institutions in the context of modernizing higher education standards in the field of Secondary Education, implementing a competence-based approach, and meeting the growing labor market demand for the training of a new generation of proactive teachers are outlined. The paper proposes directions for improving conferral procedures with due regard to international trends and the needs of educational practice. It also presents the experience of developing a procedure for the conferral of a professional qualification upon graduates of the educational-professional program Secondary Education (Mathematics and Informatics) within the specialty Secondary Education (Mathematics) at Yuriy Fedkovych Chernivtsi National University. It is proposed to assess the level of formation of professional competencies in higher education applicants using the following tools: portfolio of achievements, self-presentation, interview with simulation of practical work situations. The requirements for the design of a portfolio of achievements are described and the structure of self-presentation is determined. A methodology for assessing the stages of the procedure for assigning professional qualifications to future teachers of mathematics and computer science is developed and criteria for assessing the level of formation of the necessary competencies in higher education applicants to perform the labor functions of a teacher of mathematics and computer science are determined. When determining the tools for assessing competencies, our experience of expert activity in the certification procedures for mathematics teachers and the results of discussions on this issue with various groups of stakeholders were taken into account.

Keywords: mathematics teacher, computer science teacher, certification, learning outcomes, competence, professional qualification, professional standard, labor functions, competence-based approach.



ПРИСВОЄННЯ ПРОФЕСІЙНОЇ КВАЛІФІКАЦІЇ МАЙБУТНІМ УЧИТЕЛЯМ У ЗАКЛАДАХ ВИЩОЇ ОСВІТИ: КОМПЕТЕНТІСНИЙ ПІДХІД, ДОСВІД РЕАЛІЗАЦІЇ ТА ВИКЛИКИ

Анотація. У статті проаналізовано сучасні підходи до присвоєння професійної кваліфікації майбутнім учителям у закладах вищої освіти України. Розкрито нормативно-правові засади, моделі оцінювання результатів навчання та ключові компоненти атестації випускників педагогічних спеціальностей. Окреслено виклики, з якими стикаються заклади вищої освіти в умовах модернізації стандартів вищої освіти за спеціальністю «Середня освіта», впровадження компетентнісного підходу та зростаючих вимог ринку праці до підготовки нової генерації проактивних учителів. Запропоновано напрями вдосконалення процедур присвоєння кваліфікації з урахуванням міжнародних тенденцій та потреб освітньої практики. Описано досвід розробки процедури присвоєння професійної кваліфікації випускникам освітньо-професійної програми «Середня освіта (Математика та інформатика)» за спеціальністю «Середня освіта (Математика)» у Чернівецькому національному університеті імені Юрія Федьковича. Запропоновано проводити оцінювання рівня сформованості у здобувачів вищої освіти професійних компетентностей з використанням інструментів: портфоліо досягнень, самопрезентація, інтерв'ю з симуляцією практичних робочих ситуацій. Описано вимоги до оформлення портфоліо досягнень та визначено структуру самопрезентації. Розроблено методику оцінювання етапів процедури присвоєння професійної кваліфікації майбутнім вчителям математики та інформатики та визначено критерії для оцінювання рівня сформованості у здобувачів вищої освіти необхідних компетентностей для виконання трудових функцій вчителя математики та інформатики. При визначенні інструментарію оцінювання компетентностей було враховано наш досвід експертної діяльності у процедурах сертифікації вчителів математики та результати обговорень даного питання з різними групами стейкхолдерів.

Ключові слова: учитель математики, учитель інформатики, атестація, результати навчання, компетентність, професійна кваліфікація, професійний стандарт, трудові функції, компетентнісний підхід.

INTRODUCTION

The problem formulation. The training of future teachers in Ukrainian higher education institutions takes place amid significant transformations related to the modernization of pedagogical education content, the updating of educational standards, and the strengthening of the competence-based approach. In this context, the primary task of higher education institutions is to prepare proactive professionals capable of effectively responding to the challenges of contemporary education, mastering innovative pedagogical technologies, and acquiring competencies that meet modern labor market demands and educational standards. One of the key mechanisms for confirming a graduate's readiness for professional teaching activity is the conferral of a professional qualification. This process holds not only educational but also socio-economic significance, as it determines employment opportunities and the future career trajectory of a teacher.

Despite legislative regulation and existing attestation practices in national higher education institutions, the relevance of criteria, procedures, and tools for the conferral of qualifications remains a pressing issue. The need to align national approaches with international standards, integrate the Professional Standard "Teacher of a General Secondary Education Institution" (2024) into teacher training programs, and the growing role of digital technologies and practice-oriented training necessitate an update of existing models and mechanisms for the conferral of professional qualifications.

For the first time at the level of an educational-professional program, this article describes and analyzes the procedure for the conferral of a professional qualification upon future teachers based on a professional standard using comprehensive assessment tools.

THE PURPOSE OF THE RESEARCH

The purpose of this article is to analyze the legal framework and current approaches to the conferral of professional qualifications upon future teachers in Ukrainian higher education institutions, identify the key challenges of this process, and outline possible directions for its improvement.

RESEARCH METHODS

The study employed methods of analysis, synthesis, and generalization to examine and systematize the results of scientific research and to identify leading approaches to the study of the stated problem.

RESULTS OF THE RESEARCH

The process of the conferral of professional qualifications upon higher education institutions graduates is regulated by a set of legal documents, including the Laws of Ukraine "On Higher Education" (2025), "On Education" (2025), "On Amendments to Certain Laws of Ukraine on the Development of Individual Educational Trajectories and Improvement of the Educational Process" (2024), as well as the National Qualifications Framework and Professional Standards. A professional qualification (full professional qualification) is a standardized set of competencies and/or learning outcomes acquired by an individual, recognized or awarded/confirmed by a legally authorized entity, and certified by an appropriate document, enabling the individual to perform all labor functions defined by the corresponding professional standard (Article 34 of the Laws of Ukraine "On Higher Education", 2025).

According to the aforementioned legal acts, the conferral of professional qualifications, when professional standards exist, is one of the fundamental responsibilities of higher education institutions in the training of specialists. It is essential to consider labor market demands for professional qualifications and comply with the requirements of the National Qualifications Framework and corresponding Professional Standards.



The issue of the conferral of professional qualifications upon higher education institutions students is relevant and highly debated, especially since each higher education institution, within its autonomy, develops internal regulations and procedures for the conferral of professional qualifications depending on the presence (or absence) of professional standards and in the absence of higher education standards that would regulate the procedure for each specialty. Such a situation negatively affects the improvement of educational-professional programs that provide for the conferral of professional qualifications. Each working group, guided by legislation and the internal documents of the higher education institution, drawing on the experience of academic staff and practicing professionals involved in the implementation of the educational-professional program, develops the procedure for the conferral of professional qualifications. The conferral of professional qualifications should be based on the assessment of learning outcomes against professional standards. In this process, the working group must select the appropriate model, choose effective tools aligned with professional standards for evaluating learning outcomes and confirming the graduate's key professional competencies, and develop assessment criteria, among other aspects. Naturally, many questions and discussion points arise in this process.

The relevance and complexity of the conferral of professional qualifications are confirmed by discussions and coverage on various educational platforms. For instance, a webinar titled "Current Issues of the Conferral of Professional Qualifications in Higher Education Institutions" (November 28, 2024), jointly organized by the National Agency for Higher Education Quality Assurance and the National Qualifications Agency, addressed problem areas arising in the conferral procedures of higher education institutions and emphasized the need for a transparent and separate procedure for the conferral of professional qualifications in educational-professional programs that considers the requirements of relevant professional standards.

Guidance for higher education institutions in developing procedures for the conferral of professional qualifications can be found in manuals developed by the National Agency for Higher Education Quality Assurance and the National Qualifications Agency. In particular, the National Agency for Higher Education Quality Assurance, in the methodological manual "Clarifications on the Application of Quality Assessment Criteria for Educational Programs" (Butenko et al., 2024), defined the requirements for educational-professional programs that provide for the conferral of professional qualifications, the requirements for implementing such programs, and highlighted that, unlike educational qualifications, professional qualifications cannot be automatically awarded upon completion of the educational-professional program. Each higher education institution must have defined principles and procedures for assessing the competencies of students applying for professional qualifications, including tools and mechanisms to verify the student's ability to perform all labor functions defined by the professional standard (Butenko et al., 2024, p. 11).

The "Manual for Assessors of Learning Outcomes for the Conferral of Professional Qualifications" (Kovtunets & Semihina, 2021) serves as a roadmap for higher education institutions, considering the features of learning outcomes assessment when awarding professional qualifications, as distinct from assessment for educational qualifications. The manual promotes a culture of assessment and ensures the quality of evaluating graduates' professional competencies, with particular attention to standardization and international practices of competency assessment.

Despite existing methodological support, the conferral of professional qualifications upon future teachers of general secondary education institutions requires special attention due to somewhat complex legislation and the absence of higher education standards for the specialty "Secondary Education" at the bachelor and master levels, although the Professional Standard "Teacher of a General Secondary Education Institution" exists.

Research on the conferral of professional qualifications upon future teachers has been actively conducted by scholars from the Educational-Scientific Institute "Academy of Teaching" of V.N. Karazin Kharkiv National University. For example, in the article by E. Nikolaev (Nikolaev, 2025), a detailed analysis of the legal basis for the conferral of professional qualifications upon future teachers is provided, along with the "pitfalls" encountered in this process. The article summarizes the requirements for educational-professional programs that provide professional qualifications and suggests tools for assessing graduates' readiness for professional activity. This topic was also discussed during the roundtable "Access to the Teaching Profession: How to Obtain a Professional Qualification?" (2025), which became a platform for discussing professional qualification practices in Ukraine and abroad. Attention was paid to the potential structure of qualification exams and tools for evaluating competencies acquired by future teachers.

The conferral of teacher qualifications is debated because, on one hand:

- Higher education institutions are obliged to award professional qualifications to students in the specialty "Secondary Education," as Article 58, part 3 of the Law of Ukraine "On Education" states: "Individuals who have obtained higher, pre-higher, or professional education in a pedagogical specialty (pedagogical education) shall be awarded a professional qualification by the corresponding educational institution" (Article 58 of the Laws of Ukraine "On Higher Education", 2025);
- the Professional Standard "Teacher of a General Secondary Education Institution" specifies that higher education institutions are authorized by law to award/recognize professional qualifications, and for the qualification "Bachelor Teacher (with specified subject specialties, specializations, or integrated courses)," completion of a first-level higher education program in the pedagogical specialty (or another specialty if the program provides for the conferral of the qualification) is required.

On the other hand:

- according to Article 7, part 3, and Article 32, part 2, clause 11 of the Law of Ukraine "On Higher Education", higher education institutions have the right (not the obligation) to award educational and professional



qualifications to students who successfully complete legally prescribed attestation procedures after finishing the corresponding programs;

- there are no higher education standards for the specialty “Secondary Education” at the bachelor’s or master’s levels that describe the requirements and procedures for the conferral of professional qualifications.

Until recently, many higher education institutions, guided by Article 58 of the Law “On Education”, automatically awarded professional qualifications along with educational qualifications after a single qualification exam or defense, without a separate procedure for assessing competencies and the student’s ability to perform teaching functions. However, this approach does not meet the requirements for educational-professional programs providing professional qualifications, as outlined by the National Agency for Higher Education Quality Assurance: “Unlike an educational qualification, a professional qualification cannot be automatically awarded upon completion of an educational-professional program. The professional qualification is awarded to an individual based on the assessment of acquired competencies and/or learning outcomes in accordance with the professional standard” (Butenko et al., 2024, p. 13). Consequently, during 2024-2025, Ukrainian higher education institutions began actively approving internal documents (regulations and procedures) governing the conferral of professional qualifications. Nevertheless, an analysis of these documents by E. Nikolaev concluded that “the procedures do not contain a detailed description of the key issue for which they are intended: the conditions, step-by-step procedures, specifics, and assessment of learning outcomes and competencies for the conferral of professional qualifications. Rather, the procedures provide that qualifications are awarded based on attestation results and refer to another internal document of the university regulating attestation procedures” (Nikolaev, 2025).

It is evident that a single document in a classical higher education institution cannot account for all specialties; thus, procedures generally outline requirements, conditions, and sequences for the conferral of qualifications, while specific procedures for an educational-professional program are included in the section “Form of Attestation of Higher Education Students” and in the final attestation program.

Thus, at the level of an educational-professional program, effective procedures for the conferral of professional qualifications must be specified and tested.

We describe the procedure for the conferral of professional qualifications upon graduates of the educational-professional program “Secondary Education (Mathematics and Informatics)” at the bachelor level for the specialty “Secondary Education (Mathematics)” at Yuriy Fedkovych Chernivtsi National University. The educational-professional program provides for awarding students the professional qualification “Bachelor Teacher (Mathematics, Informatics)”. The structure, content, and learning outcomes of the educational-professional program align with the labor functions and competencies defined in the Professional Standard “Teacher of a General Secondary Education Institution”. The program ensures the acquisition of the knowledge, skills, and competencies required for teaching mathematics and informatics in general secondary education institutions and is aligned with labor market needs.

According to the “Regulation on the Procedure for the Conferral of Professional Qualifications at Yuriy Fedkovych Chernivtsi National University,” the conferral of professional qualifications upon students who have successfully completed the educational-professional program occurs during the final attestation through a separate procedure and decision of the Examination Board, based on the assessment of professional competencies according to the Professional Standard “Teacher of a General Secondary Education Institution”.

Applicants for higher education are admitted to the procedure for awarding a professional qualification if they:

- Fully meet educational-professional program and individual curriculum requirements;
- Master theoretical material in accordance with the educational-professional program, acquiring the competencies required for the professional qualification and achieving the corresponding learning outcomes;
- Successfully complete practical training, consolidating and enhancing acquired competencies and learning outcomes;
- Pass the qualifying exam for the conferral of the educational qualification.

Assessment of the formation of professional competencies in higher education applicants in accordance with the requirements of the Professional Standard “Teacher of a General Secondary Education Institution” is carried out using tools for assessing acquired competencies: a portfolio of achievements, self-presentation, interviews with simulation of practical work situations. When determining the tools for assessing competencies, our experience of expert activity in the certification procedures for mathematics teachers (2023-2025) was taken into account. The use of such tools allows us to fully demonstrate the acquired competencies to higher education applicants, and the Examination Board to assess the level of acquired competencies for performing the labor functions of a teacher of mathematics and computer science in a general secondary education institution. The Examination Board includes teachers of mathematics and computer science, experts in assessing the professional competencies of mathematics teachers at the third stage of certification of pedagogical workers, and representatives of employers.

Assessment Tools:

1. **Portfolio of Achievements.** Contains students’ work during the educational-professional program, including practicum completion, structured as:

- Lesson plans in mathematics and informatics (at least one for each subject);
- Lesson plans and activity outlines;
- Instructional materials, didactic materials, publications, field-testing data, and professional blogs;
- Certificates, diplomas, awards, and grants;
- Video fragments of lessons or links to them;
- Feedback from placement schools and employment references;



- Reflections on the development of professional standard competencies.

The portfolio must be submitted to the Examination Board 10 working days before the final attestation.

2. **Self-Presentation.** Students present to the Examination Board the following:

- Personal introduction, learning outcomes, and a professional development plan highlighting standard competencies;
- Experience in professional activity, including lesson implementation, innovative approaches, working with special needs students, and the use of formative assessment;
- Collaboration with students and colleagues, joint projects, and notable practice moments;
- Achievements: instructional materials, term papers, lesson plans, extracurricular activities, presentations, publications, certificates, awards, and competitions.

The self-presentation can be delivered in oral, video, poster, or a mixed format, lasting up to 10 minutes.

3. **Interview with Simulated Work Scenarios.** The Examination Board conducts an interview with two simulated scenarios corresponding to the labor functions of the Professional Standard. The student demonstrates readiness to perform:

- Teaching mathematics and informatics (integrated courses);
- Collaborative interaction with education stakeholders;
- Organization of a safe and healthy educational environment;
- Implementation of the educational process;
- Continuous professional development.

A list of sample interview questions is provided in the final attestation program.

Methodology for Assessin.

Table 1

The portfolio is assessed based on the following criteria

Criterion	Description	Maximum Score
Completeness, Structure, and Professional Presentation	The portfolio contains all key sections and is professionally formatted and presented.	10
Quality of Portfolio Materials	Instructional materials align with the subject specialties (Mathematics/ Informatics) and reflect contemporary teaching and educational methodologies.	10
Alignment with Professional Standard Competencies	The portfolio materials demonstrate the level of development of the competencies defined in the Professional Standard.	12 (1 point for each Professional Standard competency)
Reflection	The candidate analyzes their own pedagogical activity and outlines a plan for future professional development.	8 (4 points for activity analysis; 4 points for professional development planning)

Table 2

The self-presentation is assessed based on the following criteria

Criterion	Description	Maximum Score
Completeness of the Self-Presentation	The student presents themselves, their pedagogical experience, and achievements across all key areas.	8 (2 points for each of the four key areas)
Logic, Substantiation, and Demonstration of Professional Standard Competencies	The student delivers a logical and structured presentation, demonstrating the knowledge, skills, and ability to perform the labor functions defined by the Professional Standard.	12 (1 point for each Professional Standard competency)
Alignment of Achievements with Professional Development Goals	The student clearly articulates their professional stance and a professional growth plan.	10 (5 points for the presentation of achievements; 5 points for the professional development plan)

Table 3

The interview with simulated work scenarios is assessed based on the following criteria

Criterion	Description	Maximum Score
Professional Justification	The candidate's response is grounded in pedagogical principles, the analysis of modern teaching methods and technologies, and practical experience gained during the educational program.	10



Flexibility of Thinking	The candidate demonstrates the ability to adapt to the simulated scenario, act autonomously, propose a clear course of action, and suggest alternative solutions.	10
Communication and Professional Ethics	The candidate demonstrates the ability to communicate and interact effectively with all participants in the educational process, while taking into account their cultural and personal differences.	10

The proposed procedure for the conferral of professional qualifications ensures transparency in decision-making regarding graduates' alignment with the professional standard, minimizes formalism in the assessment process through the use of clearly defined criteria and tools, and can also be integrated as a part of an higher education institutions internal quality assurance system.

In the context of updating regulatory approaches to the conferral of professional qualifications, clear procedural regulation of this process at the institutional level becomes particularly important. Legislation emphasizes the responsibility of higher education institutions not only for developing program content but also for defining clear and substantiated mechanisms by which the Examination Board makes decisions to confer or withhold professional qualifications, as well as for ensuring the availability of mechanisms to review such decisions. In this context, the transparency of procedures, the reasoned justification of Examination Board decisions, and the regulation of possible appeals are not merely formal requirements, but essential conditions for ensuring trust in assessment outcomes and the quality of graduate preparation.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Analysis of the regulatory framework and practices for the conferral of professional qualifications upon future teachers in Ukrainian higher education institutions demonstrates that this process is complex, multi-level, and requires clear methodological and procedural standardization. In the absence of higher education standards for the "Secondary Education" specialty, professional standards become the key reference for curriculum development, the definition of learning outcomes, and the construction of tools for assessing graduates' professional competencies. At the same time, the automatic conferral of professional qualifications without a separate assessment procedure contradicts modern approaches to quality assurance in education and does not meet the requirements of the competence-based paradigm.

The model for the conferral of professional qualifications upon future mathematics and computer science teachers, piloted at Yuriy Fedkovych Chernivtsi National University, demonstrates the possibility of combining the requirements of the professional standard with practice-oriented assessment tools, such as achievement portfolios, self-presentation, and interviews with simulated professional scenarios. This approach allows for a comprehensive assessment of a graduate's readiness to perform the professional functions of a teacher in secondary education, increases the transparency and justification of the qualification conferral procedure, and promotes the development of a culture of responsible professional growth among students.

Prospects for further research in this area are related to analyzing the outcomes of implementing similar models in various higher education institutions, developing standard recommendations for procedures for awarding professional qualifications in pedagogical specialties, and exploring the possibilities of aligning institutional procedures with national and European approaches to access to the teaching profession. Special attention should be given to studying the impact of such procedures on graduates' professional success and the quality of teaching in secondary education institutions.

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Запрошуємо до співпраці!

Вельмишановні вчителі і вихователі, організатори і керівники освіти, вчені-педагогі і дослідники з України та інших країн, що вивчають людину, її життя і розвиток.

Гори, в якій країні вони б не були, справляють приблизно однаковий вплив на їх мешканців. Гірські ландшафти і особливі кліматичні умови визначають специфіку життєдіяльності і життєзабезпечення, традиції і звичаї, спосіб господарювання і виховання дітей.

Впливи природного середовища (гір, лісу, степу, клімату того чи іншого регіону тощо) майже не враховуються в організації навчально-виховного процесу. Дуже часто ті, хто цей процес здійснює, і самі не знають особливостей формуючого впливу сил природи на становлення і розвиток людської особистості.

Групою вчених Карпатського національного університету імені Василя Стефаника (Україна) розробляється регіональний проєкт «Гірська школа. Стан. Проблеми. Перспективи розвитку».

Метою проєкту є:

- вивчення впливу гірського середовища на розвиток, навчання і виховання учнів;
- дослідження змісту, форм і методів використання вчителями і вихователями особливостей гірського довкілля з метою підвищення ефективності навчально-виховного процесу;
- узагальнення результатів вивчення впливу гірського середовища на розвиток учнів, отримання наукових знань, встановлення закономірностей формування особистості в специфічних умовах гір;
- підготовка пропозицій та рекомендацій щодо врахування особливостей гірського середовища для вчителів, вихователів, організаторів і управлінців освітою різних рівнів.

Просимо ознайомитися з нашим «Проєктом», «Орієнтовною тематикою наукових досліджень», які вміщені в попередніх виданнях, врахувати соціально-економічні та культурно-історичні умови і особливості своєї країни і спільно досліджувати цю маловивчену проблему.

Порівняльний аналіз різних напрямів наукового вивчення означених питань дасть змогу не лише поділитись досвідом урахування впливів сил природи на виховання і розвиток дітей, але й встановити певні закономірності навчально-виховної роботи в умовах гірського регіону.

Результатами напрацювань учених України та інших країн можна буде обмінятися не лише шляхом наукових публікацій, але й у процесі їх обговорення на міжнародних семінарах, симпозиумах, конференціях.

Природознавці гірських країн Європи вже об'єдналися в дослідженнях проблеми збереження і сталого розвитку гір (Альпійська, Карпатська конвенції тощо). В 78 країнах світу створено Національні Комітети Гір.

Учені – педагоги, психологи, медики, соціологи, народознавці – мають також об'єднатись у вивченні проблем взаємодії природи і людини, впливу природи на розвиток особистості як найвищої цінності держави і суспільства.

Запрошуємо до наукової співпраці.

Розробники проєкту

Welcome to cooperation!

Dear teachers and tutors, organizers and heads of educational institutions, scientists-teachers and researchers in Ukraine and other countries, studying the person, her life and development. Mountains, no matter in what country they are, make approximately identical influence on their inhabitants. Mountain landscapes and special climatic conditions determine specificity of ability to live and life-support, traditions and customs, ways of managing and children's education.

Influence of the environment (mountains, woods, steppes of a region) almost is not taken into consideration at the organization of educational process. Very often those who carries out this process, do not know themselves all features of forming influence of the natural conditions on the making and development of the human person.

The regional project «Mountain school. Condition. Problems. Prospects of development» is developed by the group of scientists of the Carpathian National University named after Vasyl Stefanyk (Ukraine).

The purposes of the project are as follows:

- Studying influence of the mountain environment on development, training and education of pupils;
- Research of the contents, forms and methods of use by teachers and tutors of features of the mountain environment aimed at increasing the efficiency of educational process;
- Summarizing of the results of studying influence of the mountain environment on development of pupils, acquiring scientific knowledge, determining the laws of the person's formation in specific conditions of the mountains;
- Preparation of offers and recommendations about taking into account features of the mountain environment for teachers, tutors, organizers and heads of educational institutions of different levels.

Will you acquaint yourself with our «Project», «Approximate subjects of scientific researches», which contains this edition, consider social – economic and cultural-historical conditions and features of your country and make common exploration of this insufficiently studied problem?

The comparative analysis of different directions of scientific studying of the defined problems will enable not only to share experience of taking into account influences of the natural conditions on education and development of children, but also will define certain laws of teaching and educational work in conditions of the mountain region.

It will be possible to exchange the results of the researches of scientists in Ukraine and other countries not only by means of scientific publications, but also during their discussion at the international seminars, symposiums and conferences.

Naturalists of the European highland countries have already united in researches of the problem of preservation and constant development of mountains (the Alpine and Carpathian conventions, etc.). The National Committees of Mountains are founded in 78 countries of the world.

Scientists – teachers, psychologists, physicians, sociologists, and ethnologists should also unite for studying problems of interaction of the nature and the person, influence of the nature on development of the person as the most value of the state and society.

We invite you to scientific cooperation.



ПОЛІТИКА ВІДКРИТОГО ДОСТУПУ

Наукове фахове видання з педагогічних наук «Гірська школа Українських Карпат» практикує політику відкритого доступу до опублікованого змісту, підтримуючи принципи вільного поширення наукової інформації та глобального обміну знаннями задля загального суспільного прогресу. Часопис видається Карпатським національним університетом імені Василя Стефаника з 2006 року.

Періодичність видання – виходить 2 рази у рік.

Наукове фахове видання з педагогічних наук «Гірська школа Українських Карпат» містить статті теоретичного й експериментально-прикладного спрямування з актуальних проблем теорії та історії педагогіки, філософії освіти, освітнього менеджменту, методик і технологій організації навчання, виховання та профорієнтації учнів у закладах освіти і позашкільних установах, освітніх інновацій, психолого-педагогічних проблем розвитку особистості школярів, фахової підготовки та професійного становлення майбутніх педагогів, неперервної педагогічної освіти, педагогічної практики, порівняльної педагогіки, соціальної педагогіки тощо. Велику увагу часопис приділяє проблематиці гірських шкіл.

Видання з педагогічних наук «Гірська школа Українських Карпат» адресоване науковцям, педагогам, докторантам, аспірантам, педагогічним працівникам гірських шкіл України та зарубіжжя, батьківській громадськості, усім тим, хто цікавиться сучасним станом розвитку педагогічної науки.

За достовірність фактів, назв, дат, покликань та літературних джерел, політики антиплагіату тощо відповідальність несуть автори. Редакційна колегія не завжди поділяє їхні погляди. Статті рецензують члени редакційної колегії.

Науковому фаховому виданню з педагогічних наук «Гірська школа Українських Карпат» присвоєно Міжнародний стандартний серійний номер ISSN 1994-4845 (Print), ISSN 2415-7147 (Online).

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Authors are responsible for the reliability of facts, names, dates, references and literature, plagiarism etc. The editorial board does not always share their views.

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ВИМОГИ

ДО СТАТЕЙ У НАУКОВОМУ ФАХОВОМУ ВИДАННІ «ГІРСЬКА ШКОЛА УКРАЇНСЬКИХ КАРПАТ» КАТЕГОРІЯ «Б»

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5. Назва статті, текст напівжирним шрифтом, усі великі літери.
6. Резюме і ключові слова (курсив) мовою статті з такими обов'язковими елементами: актуальність проблеми, мета, методи та результати дослідження (від 1800 знаків та 10 ключових слів).
7. Назва статті українською та англійською мовами, вирівнювання по середині, текст напівжирним шрифтом, усі великі літери.

8. Авторське резюме українською та англійською мовою.

9. Текст статті, де містяться такі **необхідні елементи**:

1. Вступ / **INTRODUCTION**. Постановка проблеми. **Analysis of recent research and publications**.

2. Мета дослідження / **THE PURPOSE OF THE RESEARCH**

Визначаються, виходячи з невирішених чи проблемних аспектів порушеної теми. Завдання мають бути спрямовані на узагальнення даних, формулювання концепції, певної моделі, методики, розробку та виділення методів, умов проведення дослідження тощо.

3. Методи дослідження / **RESEARCH METHODS**. Методи дослідження передбачають опис їх основного змісту, характеристик і показників, які вони фіксують, та одиниць вимірювання.

4. Результати дослідження / **RESEARCH RESULTS**. Виклад основного матеріалу дослідження з повним обґрунтуванням отриманих наукових результатів повинен містити стисле узагальнення отриманих автором даних із виділенням напрямів, тенденцій, підходів до розв'язання проблеми. Опис емпіричних результатів має містити конкретні дані, що підтверджують статистичну достовірність отриманих результатів, у вигляді таблиць, графіків, діаграм з подальшою інтерпретацією. Теоретичний аналіз не повинен обмежуватися посиланнями на авторів, які вивчали порушене питання. У статті бажано також подавати посилання на іншомовні джерела та джерела з бази **Scopus** і **Web of Science**.

5. Висновки та перспективи подальших досліджень / **CONCUSSION AND PROSPECTS FOR FURTHER RESEARCH**.

Висновки з дослідження, які стисло висвітлюють сутність отриманих результатів згідно з поставленими в роботі завданнями.

6. Список використаних джерел подається в міжнародному стилі оформлення наукових публікацій **APA**.

REFERENCES

Подається англійськомовний переклад списку використаних джерел. Переклад засобами онлайн-сервісів інтернет не допускається. Окремими файлами подається:

Довідка про автора (співавторів).

Лист - підтвердження оригінальності дослідження.

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E-mail: ifosuhcvas@gmail.com АБО inna.chervinska@cnu.edu.ua

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Articles submitted to the collection must have the required elements:

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2. Corporate e-mail of the author (authors) of the article.
3. **ORCID number** (<http://orcid.org/>) and / or **researcherID ID number** (<http://www.researcherid.com/>)
4. **UDC** number.
5. Title of the article, text in bold, all capital letters.
6. Summary and keywords (italics) in the language of the article with the following mandatory elements: relevance of the problem, purpose, methods and results of the study (from 1800 characters and 10 keywords).
7. The title of the article in Ukrainian and English, centered, text in bold, all capital letters.
8. Author's resume in Ukrainian and English.
9. The text of the article, which contains the following required elements:

1. **INTRODUCTION**. Problem statement. Analysis of recent research and publications.

2. **PURPOSE OF THE RESEARCH**

Determined on the basis of unresolved or problematic aspects of the topic. The objectives should be aimed at generalizing data, formulating a concept, a specific model, methodology, developing and highlighting methods, research conditions, etc.

3. **RESEARCH METHODS**. Research methods provide for a description of their main content, characteristics and indicators that they record, and units of measurement.

4. **RESEARCH RESULTS**. The presentation of the main research material with a full justification of the scientific results obtained should contain a brief summary of the data obtained by the author with the selection of directions, trends, approaches to solving the problem. The description of the empirical results should contain specific data confirming the statistical reliability of the obtained results, in the form of tables, graphs, diagrams with further interpretation. Theoretical analysis should not be limited to references to authors who have studied the issue raised. The article should also provide references to foreign-language sources and sources from the Scopus and Web of Science databases.

5. **CONCUSSION AND PROSPECTS FOR FURTHER RESEARCH.**

Conclusions from the study, which briefly highlight the essence of the results obtained in accordance with the tasks set in the work.

6. The list of sources is presented in the international style of scientific publications **APA**.

REFERENCES

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