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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, а комплекс 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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