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Advancing children's media literacy: A framework for training future educators

Fomentar la alfabetización mediática infantil: Un marco para la formación de futuros educadores

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Abstract

This study analyzes the training of future educators for the development of media literacy in children, recognizing this competence as a key factor in creativity, critical thinking, and social participation in the digital era. A mixed experimental design was implemented with 78 pre-service teachers divided into an experimental group (n=40) and a control group (n=38). The research combined theoretical methods (analysis, synthesis, and systematization), empirical techniques (questionnaires, observation, and case studies), and statistical validation using the Kolmogorov–Smirnov λ-criterion. The pedagogical model developed integrates external training elements and internal motivational, cognitive, and practical factors that strengthen teachers' readiness to guide media education in early schooling. Results revealed significant improvements in the experimental group's levels of readiness—especially in motivation, conceptual understanding, and practical application of media literacy strategies—confirming the

effectiveness of the proposed system. The study concludes that media literacy training should be a central component of teacher education programs to prepare educators capable of fostering critical, informed, and responsible media engagement among children.

Keywords: media literacy, teacher education, media pedagogy, digital competence, experimental design, higher education.

Resumen

El estudio analiza la formación de futuros docentes para el desarrollo de la alfabetización mediática en niños, entendida como una competencia esencial para la creatividad, el pensamiento crítico y la participación social en la era digital. Se aplicó un diseño experimental mixto con la participación de 78 estudiantes de pedagogía, distribuidos en un grupo experimental (n=40) y un grupo control (n=38). La investigación combinó métodos teóricos (análisis, síntesis y sistematización), técnicas empíricas (cuestionarios, observación y estudio de casos) y validación estadística mediante el criterio λ de Kolmogórov–Smirnov. El modelo pedagógico propuesto integra factores externos de formación y componentes internos de tipo motivacional, cognitivo y práctico, que fortalecen la preparación de los futuros educadores para incorporar la educación mediática en el aula. Los resultados evidenciaron mejoras significativas en el grupo experimental en cuanto a motivación, comprensión conceptual y aplicación práctica de estrategias de alfabetización mediática, confirmando la eficacia del sistema diseñado. Se concluye que la alfabetización mediática debe constituir un eje transversal en la formación inicial docente, con el fin de promover en los niños una relación crítica, informada y responsable con los medios de comunicación.

Palabras clave: alfabetización mediática, formación docente, pedagogía mediática, competencia digital, diseño experimental, educación superior.

Introduction

Education plays a fundamental role in shaping citizens' personalities and fostering their ability to participate critically and responsibly in society. Within this context, **media literacy** emerges as a key set of skills and knowledge that enables individuals to evaluate media content, interpret messages analytically, and engage meaningfully with the information environment that surrounds them. In professional, academic, and everyday life, people are constantly exposed to a vast flow of media messages. Therefore, the capacity to detect false or manipulated information, distinguish reliable from unreliable sources, and separate objective facts from disinformation has become an essential competence of modern citizenship. For this reason, educators themselves must possess a high level of media literacy, allowing them to critically assess, decode, and respond to media content, while fostering the same reflective abilities in their students to counteract manipulation and harmful information influences.

The importance of developing media literacy and an informed information culture has been widely recognized by international organizations. Key policy frameworks such as the **European Parliament Resolution "Media Literacy in the Digital World"**, the **European Council's "Digital Education Plan"**, and UNESCO's **"Grunwald Declaration on Media Education"** highlight the centrality of these competences in twenty-first-century education systems. Among these, UNESCO has played a leading role in promoting and supporting media and information literacy worldwide. Through the Grunwald Declaration and subsequent initiatives, UNESCO has identified media and information literacy as an integral component of lifelong education, emphasizing free and equitable access to knowledge as a foundation for social inclusion, individual empowerment, and sustainable development.

According to UNESCO experts, **media education** encompasses multiple technological and communicative dimensions, including graphic, audiovisual, and digital media (Wilson et al., 2011). It enables individuals to understand and critically analyze how mass communication operates within social contexts, to master media tools for effective interaction, and to develop an awareness of the cultural, political, and commercial

forces shaping media production and consumption. Media literacy thus involves skills of critical reflection, analysis, and creation of media texts; identification of sources and underlying interests; interpretation of values and meanings; and the ability to produce and disseminate media responsibly. Through these capacities, media education becomes a cornerstone of democratic participation and the formation of informed, autonomous citizens in the digital age.

Literature Review

As evidenced by the analysis of scientific publications, **media literacy** has become a topic of increasing interest among researchers and educational leaders worldwide. In the United States, it is widely recognized that media literacy represents a key twenty-first-century skill essential for every individual. This is reflected in the program *Learning for the 21st Century*, which identifies media literacy as a higher-order competency fundamental to human development and success (Mistry, 2020).

The first experimental studies on media education in schools were also initiated in the United States, focusing on the use of television programs as teaching tools. One of the most influential initiatives was the *Pioneer Media Now* curriculum developed by educators in Iowa, aimed at familiarizing teachers with media issues, genres, and equipment, while introducing students to the world of media. Friesem et al. (2014) analyzed the program's content, which comprised seven modules addressing media evaluation, interpretation, aesthetics, and presentation. Similarly, Vinney (2024) emphasizes that media literacy enables individuals to understand and assess media messages critically, allowing them to make informed choices about what they read, watch, and listen to. According to this author, media literacy involves the application of critical thinking to the signs, messages, and symbols transmitted through various media platforms.

The proliferation of portable technologies and the widespread accessibility of the Internet, which allow constant exposure to media content, further underscore the need to strengthen media literacy skills. Beyond its technological dimension, media literacy intersects with fields such as media arts, health education, multiculturalism, and responsible citizenship. Thoman and Jolls (2004) describe it as a new type of literacy and a transformative mechanism for learning in a global, multimedia environment, where students must be prepared to navigate a dynamic, complex, and highly digitalized world.

In the United Kingdom, growing attention to media literacy has been evident since the 1960s. Professor Masterman (1989) highlighted the importance of introducing media literacy education at both primary and secondary school levels. Media educator Bowker (1991) later expanded on this perspective, emphasizing the need to study the typology of genres, authorial perspectives, technologies of media creation, and audience dynamics. He identified essential goals for both adult and child education, particularly the promotion of critical autonomy and a reflective stance toward mass media —the capacity to critically evaluate all media texts, whether electronic or printed.

In France, media literacy has also become a core educational objective. The Ministry for Europe and Foreign Affairs (2004) established as a priority the development of citizens' ability to analyze, interpret, and evaluate messages, in order to prevent manipulation and passive media consumption. In the French context, media literacy is closely linked to other forms of learning such as oral and written communication, personal experience, and direct practice.

At the European level, both the European Parliament & Council of the European Union (2018) have emphasized the strategic role of media literacy. The *Media Literacy in a Digital World* resolution (European Parliament, 2008) underscores the importance of fostering critical awareness toward media as a means of educating citizens capable of responsibly forming judgments, interpreting information within political, economic, cultural, and social contexts, and creating or selecting appropriate media for communication. Similarly, the European Union's *Audiovisual Media Services Directive* asserts that to

access and use information safely and responsibly, citizens must acquire sound media literacy skills, including the ability to create and evaluate media content critically.

Media literacy is also central to UNESCO's educational framework, which defines it as a set of competencies enabling learners to access, evaluate, and share information and media content ethically, critically, and effectively across formats and platforms (Wilson et al., 2011).

In summary, the review of scholarly literature and policy documents reveals that media exerts a profound influence on the education and socialization of the younger generation, functioning as both a tool of informal learning and a medium for distance education. Consequently, the preparation of future educators to cultivate media literacy among children emerges as an urgent and necessary educational priority.

Purpose of the article: training future educators for the formation of media literacy in children.

Methodology

To achieve the stated objectives, a set of complementary research methods was employed. The **theoretical methods** included systematization, analysis, generalization, and synthesis of information from diverse sources to examine the current state of research on media literacy in both theory and practice. Comparison, specification, and abstraction were applied to substantiate the structure and content of future educators' training. The **empirical methods** comprised diagnostic tools—such as questionnaires, interviews, discussions, and dialogues—to identify the features of media literacy formation among pre-service teachers. **Observational techniques** (including structured observation, educational games, project-based activities, and the case study method) were used to implement the experimental tasks. Finally, methods of **mathematical statistics** supported the quantitative and qualitative interpretation of results and the establishment of their statistical significance.

Within the framework of this study, **media literacy** was regarded as a key indicator of personal development and the ability to interact effectively with media. The **ascertaining stage** of the experiment aimed to determine the initial state of readiness of future educators to promote media literacy among children.

A total of **78 pre-service teachers** participated in the experimental research. They were divided into two groups: an **experimental group (EG)** of 40 students and a **control group (CG)** of 38 students. During the ascertaining stage, the baseline level of readiness for fostering media literacy in children was diagnosed. A **questionnaire survey** was administered to assess the perceived relevance of the topic. The results showed that 82% of participants considered the development of media culture in children highly relevant, 8% disagreed—arguing that children already spend excessive time with digital devices—and 10% found it difficult to respond. Additionally, 97% of respondents acknowledged the importance of introducing media education in schools, while 3% admitted lacking awareness of the issue. Despite the frequent use of terms such as "media culture," "media literacy," and "media education" in academic literature, most students associated them exclusively with mobile technologies and computers, overlooking the critical dimension of information processing. Nevertheless, all participants expressed interest in integrating media education into the school curriculum.

To evaluate the **readiness levels** of future educators to foster media literacy, specific **components, criteria, and indicators** were identified. Each component included corresponding criteria that reflected key aspects of the phenomenon, as well as measurable indicators used to assess them. Based on the findings from the ascertaining stage, it was concluded that structured preparation for developing media literacy in children was necessary. This phase also allowed the identification of pedagogical conditions forming part of a broader system that integrates both external learning elements and internal personal factors to ensure the effective and holistic development of students in higher education settings.

To verify the **reliability** of the results, the **Kolmogorov–Smirnov λ-criterion** was applied during the ascertaining stage.

The **formative stage** of the experiment sought to confirm the effectiveness of the developed pedagogical system, which combines external training elements and internal motivational, cognitive, and practical components that contribute to future educators' readiness to foster media literacy in children. Comparative analysis of empirical data from the EG and CG made it possible to trace the dynamics of improvement in readiness levels.

The comparative results demonstrated that the introduction of the proposed system in the EG significantly enhanced students' preparedness, producing more positive outcomes than those observed in the CG. These findings revealed measurable progress in the experimental group's motivation, conceptual understanding, and ability to apply media literacy strategies, while the control group showed no notable change.

To statistically confirm the effectiveness of the experimental system, the **Kolmogorov–Smirnov λ-test** was again applied at the formative stage. The statistical hypothesis (H_1) posited that differences between the distributions of readiness levels in the EG and CG were significant. The empirical value obtained ($\lambda\_emp = 1.31$) exceeded the critical value ($\lambda\_cr = 1.15$), thereby confirming H_1 and validating the experiment's outcomes with a confidence level of $p = 0.99$.

Based on these findings, the study concludes that the proposed system—comprising a combination of pedagogical conditions, a specialized training course, and an experimental methodology—proved effective for enhancing pre-service teachers' readiness to cultivate media literacy in children. This confirms the **efficacy and feasibility** of implementing the developed framework in higher education institutions as a means of improving teacher preparation for media education.

Results and Discussion

The content of concept of "media literacy" and the importance of the formation of media literacy in children for modern society.

Media literacy has combined traditional literacy and skills related to technological platforms and new media, that is, it has integrated the communicative development of humanity: from alphabetic traditional writing to digital information and electronic media (Mateus, 2021). The importance of media literacy was first directly addressed in the United States and Canada. The Wisconsin Association of Better Broadcasters in the 1930s sought to teach citizens to be more critical consumers of media and, by increasing media literacy, to protect students from the negative effects of media. (Leaning, 2017). The first media literacy program, "Understanding New Media," revealed the basic laws related to the sensory effects of various media (Day, 1999).

Media literacy is not limited to the study of the features of different media, i.e., media education, but focuses on the analysis, understanding, and critical reflection of media messages, dealing with the economic, social, political, cultural, and technological contexts in which these messages are distributed, created, and perceived. In order to develop the skills, habits, and knowledge necessary for understanding media messages, for creating and navigating an oversaturated media environment, media literacy is treated as a pedagogy of inquiry (Martins & Finger, 2024).

A European Union report states that media literacy reduces students' vulnerability to fake news by enabling them to identify it (McDougall et al., 2018). There is a scientific consensus on the contribution of media literacy to the conscious and responsible exercise of citizenship. The term "media literacy" refers to the perspective of active student participation and promotes a reflexive and skeptical, distanced relationship with media content (Neira et al., 2024). Media literacy, as a field of pedagogical approach and learning, is

at the intersection of two academic disciplines: educational sciences and communication sciences (called "information and communication sciences" in France) (Caro, 2018). In this approach, the student is treated as an autonomous and informed subject, capable of taking an active part in his/her learning, and media literacy here is an educational project aimed at the evolution of social relations, individual realization, emancipation of groups and communities, and social criticism.

Media literacy is regularly presented as a project in the public, educational, and social dimensions, aimed at strengthening citizenship through the development of political awareness and critical thinking of the individual.

Education in new technologies and media should play an encouraging, liberating role, helping to prepare students to acquire political awareness and act as citizens of a democracy, to think critically about the content of the media independently (Feijoo et al., 2021).

Selection of research approaches, taking into account the specifics of the problem under study, as well as the goal set in the work. Techniques and rules of work in mobile services and social networks. The main tasks of media pedagogy for the preparation of future educators in order to form media literacy in children.

The selection of research approaches was carried out by us in accordance with the goal set for the work. The scientific and methodological basis of the study is based on the following main approaches, which are analyzed below:

- The systemic approach allowed us to consider the phenomenon of media literacy as an integrative quality of the personality, which provides the ability and readiness to effectively use media resources.
- The structural-functional approach determines the structural components of media literacy and ensures their interconnection.
- The activity approach, focusing on real professional activity, provides a practical orientation to learning.
- The competency approach takes into account the individual characteristics of the personality, forms subject and key competencies, and includes the development of mechanisms for the formation of professional and general competencies that ensure the performance of professional activities.
- The personally oriented approach ensures the development and self-development of the student's personality, his self-education in the conditions of information development of society (Flandoli & Eguiguren, 2021).
- The cultural competence approach is part of a pedagogically specific approach based on practices of questioning (which are dynamic) and questioning media content and media, emphasizing the importance of using and understanding media as part of culture. Media literacy develops in the context of a rapidly changing media landscape and is non-static in this approach (Polanco-Levicán & Salvo-Garrido, 2022).

Future educators should know the rules of proper user behavior in services and networks and inform children about them. Therefore, let's consider the techniques and rules of working in social networks and mobile services that can be useful for both children and educators. Consider Facebook, Flickr, Instagram, and others.

Facebook – you can deactivate your account if you are going to go offline. This procedure, that is, deactivating the account, will not lead to its deletion. The user can reactivate it by reconnecting it and restoring all connections with their friends. When they are offline, no one can view the content, send private messages, or leave notes on the wall.

Flickr is a social service designed for reusing and storing photos and videos.

Instagram is a social network that developed due to the connection of various social networks, including Facebook and X, although its primary purpose was as a platform for exchanging photos among Internet users.

Google Locator, Foursquare – a set of identical websites, services that determine and record GPS coordinates, use the capabilities of geolocation technology, record the location of a mobile phone, photo metadata, or the place where the photo was taken, and store this data themselves (Knysh et al., 2024).

Educators should constantly involve parents in solving emerging problems. Often, the “technological gap” of generations becomes an obstacle in this matter – children are much more capable and know more than their parents. Recently, in the USA and Great Britain, many parents have registered on the same social networks that their children visit. This allows them to understand who their child communicates with and how they behave online. The main condition is contact; there is a need to establish respectful, trusting relationships with the child, because new services appear, technologies are constantly developing, and young people usually master them the fastest. Therefore, there is a need in the field of education to create services that study new services that inform the educational community; the a need to develop digital literacy of those involved in the educational process.

Let's reveal the main tasks and principles of media pedagogy for training future educators to form media literacy in children:

- The ability to create media to improve the quality of life in communities, the reproduction of the child's life values, healthy and competent self-expression of the individual, strengthening solidarity and friendly interpersonal relationships, which are the key foundations for the individual.
- The formation of media information literacy which is a set of knowledge and skills that allow the individual to safely and effectively use media. This includes a conscious choice of decision-making regarding the use of media information systems and all the possibilities of new communication technologies, understanding the nature of services and content, which allows you to protect yourself from dangerous or harmful informational influences.
- Critical thinking and reflection as psychological mechanisms for interacting with the media based on orientation in the media space, self-regulation, and conscious consumption of media products, understanding of one's own media needs, proper and multifaceted assessment, and its critical and complete analysis of the form, content, source, and quality of information, taking into account the perception of various media.
- Formation of media immunity in the individual – the ability to resist destructive media and informational influences, an aggressive media environment, which, when consuming media products, provides psychological well-being and media awareness, the ability to protect oneself from potentially harmful information, to choose the right information, taking into account hidden and direct influences.
- Creation of specialized aspects of media culture: musical and auditory media culture, visual media culture, media-mediated mass media, aesthetic taste developed in art forms, modern trends in media art, etc.

The key resources of the educational space are media literacy and media competence of the educator. They contribute to increasing the effectiveness of student learning. Only a media-competent educator is properly able to teach children of the new generation. Throughout the entire professional activity, the development of media literacy in the educator should occur, that is, constantly.

The system of training future educators to form media literacy in children was based on methodological principles that are part of the educational process. Among such principles are: the principle of fundamentality of education, the principle of modeling in the educational process of future professional activity of educators, the principle of activity in activity, the principle of integration, and the principle of pedagogical reflection (Rivera-Rogel et al., 2025).

We relied on a system of didactic general principles and specific principles: In particular, on the following general principles: systemic, scientific, consistent, visual and specific principles: unity of upbringing and life, integrativity, orientation on universal human values of education, variability and flexibility, multiculturalism and openness, creativity, problem solving, unity of self-education and learning, creation of an intellectual, emotional positive background of learning.

Experimental research on the effectiveness of the developed system, which reflects a complex of learning elements that ensure all aspects of student learning in higher education institutions in the process of forming their readiness for the formation of media literacy in children, the feasibility of implementing pedagogical conditions, a special course, the effectiveness of the experimental methodology, and the framework for training future educators.

As an indicator of the level of development of a person who has the ability to interact effectively with the media, we consider media literacy within the framework of our study. This means using media skills to process, transmit, store, search, and present information.

As a social phenomenon, media literacy is aimed at creating a new reality and a new living environment, which allows future educators to use advanced achievements of technology and science and become active participants in the educational information environment.

Determining the state of readiness of future educators for the formation of media literacy in children was the goal of the ascertaining stage of the experiment.

78 students – future educators participated in the experimental work. The work of two groups was organized: experimental (EG) – 40 students and control (CG) – 38 students, within the framework of the experiment in which the state of manifestation of the specified phenomenon was studied.

At the ascertaining stage of the experiment, the basic level of readiness of future educators for the formation of media literacy in children was diagnosed.

Students were offered a questionnaire survey to identify the relevance of our research.

EG and CG students equally confirmed that it is advisable to form media culture in children because it is important for today, 82% of respondents. We received a negative answer from 8% of respondents, who motivated their answer by the fact that children spend too much time with gadgets. 10% of students chose the option "Difficult to answer".

The majority of students are aware of the need to introduce media education in schools. There were 97% of such respondents. 3% of the surveyed respondents answered that they are not aware, because they simply do not want to consider this problem in detail in children.

During conversations with students, it was found that with the widespread use of the terms "media culture", "media literacy", "media education" in the literature, students do not have a complete and clear understanding of these concepts, associate them with mobile technologies, computers, without taking into account a critical understanding of information.

However, all future educators who participated in the study expressed interest in implementing media education in the educational process.

To analyze the readiness of future educators to form media literacy in children, we analyzed the levels of readiness and determined the indicators, components, and criteria of the phenomenon under study.

We defined the readiness of a future educator to form media literacy in children as a systemic formation, which is complex and includes motivational, cognitive, and activity components.

The motivational component includes the future educator's positive attitude toward the formation of media literacy in children, their interests, and values in media education.

The cognitive component involves familiarity with modern media, knowledge of media education, and knowledge of the requirements for organizing the media education process.

The activity component includes diagnosing the creative abilities of the individual, the ability of the future educator to plan creative media activities for children, and compliance with ethical norms in the use of media.

It is these components that ensure the readiness of a future educator to successfully form media literacy in children.

Each of the presented components has its own criteria that reflect the key aspects of the identified problem, and also has indicators that these criteria specify for measuring important aspects of the problem under study.

Let us consider in detail each of the criteria and indicators that determine the readiness of an educator to develop media literacy in children.

The motivational component includes a value criterion that contains the following indicators: positive motivation for the professional activity of a future educator regarding the formation of media literacy in primary school children; the value attitude of the future educator to media literacy, media culture, interest in the use of media technologies; interest in media technologies, understanding of the importance of media education for both adults and children, and ways of using them.

The cognitive component covers the organizational criterion aimed at the formation of knowledge about media education in future educators, their impact on children, and their awareness of modern media. Indicators of the organizational criterion of readiness include in their content knowledge about the concepts of "media competence", "media literacy", "media culture", "media education", the dangers that modern media pose to society, compliance with the rules of communication in the modern environment, professional knowledge of the program requirements for organizing the media education process by future educators.

The activity component is implemented through the performance criterion, which is aimed at the development of practical skills and abilities that are necessary for future educators in solving specific tasks. Indicators of the effective readiness criterion include: the ability of future educators to design creative activities for children and form media literacy in them using media technologies, the ability to adhere to the rules of integrity in using media and communication, and the ability to diagnose creative manifestations in a child.

The identified components, criteria, and indicators of the readiness of future educators to form media literacy in children made it possible to characterize certain levels of readiness (high, medium, low).

Results of the ascertaining stage of the study. Let us present the obtained results of the ascertaining stage of the study.

The generalized results of the readiness levels of future educators at the ascertaining stage of the experiment to form media literacy in children are presented in Table 1 and Figure 1.

Table 1.
Levels of readiness of future educators at the ascertaining stage of the experiment, to form media literacy in children according to all criteria (in %)

Criteria	Levels					
	Sufficient		Satisfactory		Low	
	EG	CG	EG	CG	EG	CG
Value	13	14	22	19	65	67
Organizational	12	14	21	22	67	64
Performance	12	14	20	23	68	63
Σ (arithmetic mean data)	12	14	21	21	67	65

Table 1 shows that according to the **Value Criterion**, 13% of EG respondents and 14% of CG respondents showed a sufficient level, 22% of EG students and 19% of CG respondents showed a satisfactory level, and a low level was recorded in 65% of EG respondents and 67% of CG respondents in future educators.

According to the **Organizational Criterion**, 12% of EG respondents and 14% of CG respondents showed a sufficient level, 21% of EG respondents and 22% of CG respondents showed a satisfactory level, and 67% of EG respondents and 64% of CG respondents showed a low level.

According to the **Performance Criterion**, 12% of EG respondents and 14% of CG respondents showed a sufficient level, 20% of EG respondents and 23% of CG respondents showed a satisfactory level, and 68% of EG respondents and 63% of CG respondents showed a low level.

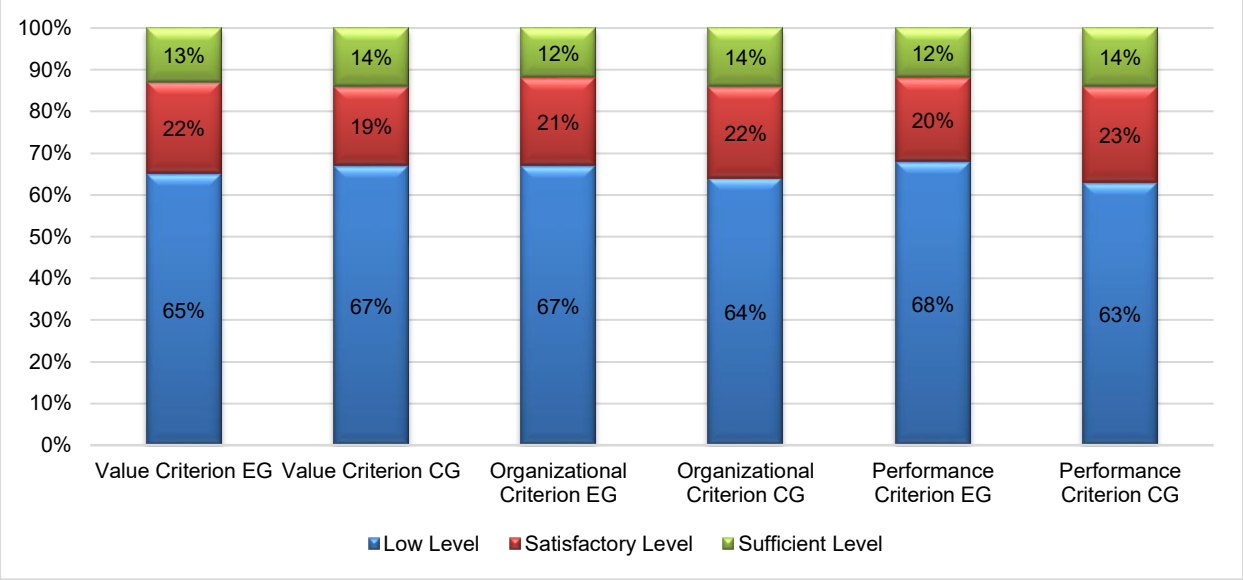

Figure 1. Readiness of future educators to develop children's media literacy: ascertaining stage results.

Based on the results of the ascertaining stage of the experiment, a conclusion was drawn about the need to prepare future educators for the formation of media literacy in children. Research at the ascertaining stage of the experiment on the levels of readiness of future educators for the formation of media literacy in children according to criteria and indicators allowed us to determine the real state of the problem and develop pedagogical conditions that are part of a system that reflects a complex of external elements of learning and internal ones that provide operational, effective, and personal aspects of student learning in higher education institutions in the process of forming their readiness for the formation of media literacy in children.

At the ascertaining stage of the experiment, to verify the reliability of the results obtained, we applied the calculation of the λ-criterion based on the Kolmogorov-Smirnov method.

The formative stage of the study. The purpose of the formative stage of the study was to verify and specify the effectiveness of the system, which reflects a complex of external elements of training and internal ones, which provide operational, effective, and personal aspects of student training in higher education institutions in the process of forming their readiness to form media literacy in children.

To teach media literacy in children, we have developed a system for training future educators for the EG in order to improve the methods, content, means, and forms of implementing pedagogical practice in higher education institutions, in order to increase the readiness of future educators to form media literacy in children. In particular, the following innovative forms were used in the EG: interactive lectures (lectures with analysis of specific situations, lecture-conversations, lecture-discussions, problem lectures, etc.); seminars and internships. Particularly effective for increasing the readiness of future educators to form media literacy in children were: problem seminars, games + discussions, master classes, individual research tasks (projects), independent and individual work (to find answers to problem tasks); educational activities.

Interactive and active teaching methods had a positive effect: "Brainstorming", "Flipped learning", "Group discussions", "Group work", case study method, case analysis, "Design thinking", role-playing games, problem tasks and topics, round table, pedagogical essay, comparison, analysis, group discussion, debates, individual electronic portfolio.

The implementation of the EG system in higher education institutions for the formation of educators' readiness to form media literacy in children was carried out during the year within the framework of the implementation of the special course "Features of training future educators to form media literacy in children" and pedagogical conditions and independent media activities in the process of pedagogical practice of future educators.

Pedagogical conditions are part of a system that reflects a complex of external elements of learning and internal ones that provide operational, effective, and personal aspects of students' learning in the process of forming their readiness to form media literacy in children.

The conducted scientific and theoretical analysis of the system of readiness of future educators to form media literacy in children and the results of the diagnostics allowed us to speak about the effectiveness of precisely such pedagogical conditions that will contribute to the effectiveness of increasing the formation of this readiness:

- Awareness by future educators of the importance of the process of forming media literacy in children.
- Development in future educators of the skills of forming media literacy in children in the process of educational activity by introducing integration approaches into the process of their professional training to ensure the effectiveness of the process of forming media literacy in children.

Therefore, the formative stage of the experiment will be conducted in order to promote the implementation of a model of training future educators to form media literacy in children of primary school age.

So, for the effective organization of the educational process at the formative stage of the study, the effectiveness of the system was verified and specified, which reflects a complex of external elements of training and internal ones, which provide operational, effective, personal aspects of student training in higher education institutions in the process of forming their readiness to form media literacy in children.

Methodological support of the educational process and purposeful pedagogical activity enable applicants for the educational space to develop media literacy.

Comparison of empirical data based on the results of the formative stage of the experiment, obtained in the experimental and control groups, made it possible to determine the dynamics of the readiness of future educators to form media literacy in children.

Let us present a comparative analysis of the quantitative data of the results on the degree of readiness of future educators to form media literacy in children at the stages of the ascertaining and formative stages of the experiment in Table 2 and Figure 2.

Table 2.
Levels of readiness of future educators to form media literacy in children (in%)

Criteria	Stages	Levels					
		Sufficient		Satisfactory		Low	
		EG	CG	EG	CG	EG	CG
Value	Ascertaining	13	14	22	19	65	67
	Formative	18	15	23	19	59	66
Organizational	Ascertaining	12	14	21	22	67	64
	Formative	19	15	32	23	49	62
Performance	Ascertaining	12	14	20	23	68	63
	Formative	17	15	28	24	55	61
Σ (arithmetic mean data)	**Ascertaining**	**12**	**14**	**21**	**21**	**67**	**65**
	Formative	**18**	**15**	**28**	**22**	**55**	**63**

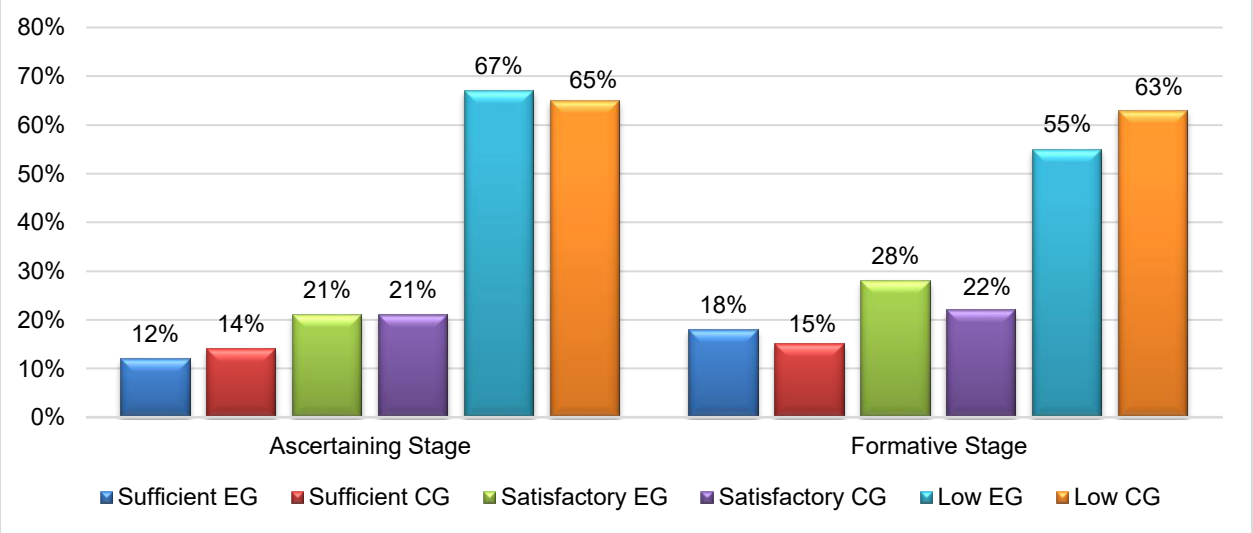

Figure 2. Comparative analysis of the levels of readiness of future educators to form media literacy in children at the ascertaining and formative stages (Σ arithmetic mean data).

The obtained comparative data indicate that the introduction of a system in the EG that reflects a complex of external elements of learning and internal ones that provide operational, effective, personal aspects of students' education in higher education institutions in the process of forming their readiness for the formation of media literacy in children and experimental methods of training future specialists provided a better result in the training of EG students and contributed to the achievement of positive dynamics in the EG more than in the CG.

The results of the study indicate positive quantitative changes in the readiness of future educators of the experimental group to the formation of media literacy in children. There were no significant changes in the control group.

In the EG, significant positive quantitative changes in the readiness of future educators for the formation of media literacy in children were observed:

The sufficient level was shown by 18% of EG respondents at the formative stage of the experiment (at the ascertaining stage, 12% of respondents were at a sufficient level).

The satisfactory level was shown by 28% of EG respondents at the formative stage of the experiment (at the ascertaining stage, 21% of respondents were at a sufficient level).

The low level was shown by 55% of EG respondents at the formative stage of the experiment (at the ascertaining stage, 67% of respondents were at a sufficient level).

There is a statistically significant positive trend in the increase in the readiness of future educators to form media literacy in children only in the experimental group.
So:

- The increase in the number of students in the experimental group with a sufficient level of training was +5.9%, and in the control group, this indicator was +1.1%.
- The increase in the number of students in the experimental group with a satisfactory level of training showed a positive impulse, which is +5.8%, and in the control group, this indicator was +1.5%.

A decrease in the number of respondents with a low level of training is observed in the experimental group, which amounted to -11.4%, and in the control group, we observe -2.5%.

Thus, the expected results of increasing readiness for the formation of media literacy in children of future educators were given by comparing the results of the study with the dynamics in the control group and the experimental group of the educational phase.

The assessment of the statistical significance of the differences was carried out on the basis of the results obtained during the training of future educators.

For statistical analysis to confirm the effectiveness of the implemented experimental system, which reflects a complex of external elements of training and internal ones that provide operational, effective, personal aspects of student training in higher education institutions in the process of forming their readiness for the formation of media literacy in children based on the results obtained during the formative experiment, the Kolmogorov-Smirnov λ-criterion was determined.

H_1 – statistical hypothesis was proposed in the formulation: the difference between the distributions of the control group and the experimental group is significant, that is, the empirical distribution of the levels of readiness we are studying is significantly different.

For the level of statistical significance at p = 0.99, the critical value is $\lambda_{cr} = 1.15$. The calculation of the λ criterion for assessing the readiness of future educators to instill media literacy in children in the control and experimental groups at the formative stage of the study was conducted using the same methods and in the same sequence as during the ascertaining stage of the experiment. At the formative stage, the empirical value $\lambda_{emp} = 1.31$ was obtained. Since $\lambda_{emp} > \lambda_{cr}$, this confirms the hypothesis H_1.

We conclude based on the results obtained about the effectiveness of the developed system, which reflects a complex of external elements of training and internal ones that provide operational, effective, and personal aspects of student training in higher education institutions in the process of forming their readiness to form media literacy in children, the feasibility of implementing pedagogical conditions, a special course, the effectiveness of the experimental methodology and framework for training future educators to form

media literacy in children, which allows us to conclude about the effectiveness of the proposed elements of the developed system.

Conclusions

The study confirmed that **media literacy** is an essential competence in the professional preparation of twenty-first-century educators. It encompasses the ability to access, analyze, evaluate, create, and communicate messages across diverse media in a critical, ethical, and responsible manner. The development of this competence not only strengthens future teachers' critical thinking and intellectual autonomy but also equips them to guide children toward reflective, informed, and conscious engagement with information in digital environments.

The experimental results demonstrated that the implementation of the proposed pedagogical system—integrating theoretical, practical, and attitudinal components—produced significant improvements in the readiness levels of the experimental group compared with the control group. The application of the Kolmogorov–Smirnov λ-criterion statistically confirmed the model's effectiveness, particularly in enhancing three key dimensions of teacher preparation: motivational, cognitive, and procedural.

In summary, the research validates the importance of integrating **media literacy** as a transversal axis within teacher education programs. It should be understood as a continuous process that promotes critical citizenship and social responsibility in the digital era. Higher education institutions are encouraged to reinforce media pedagogy within their curricula, fostering learning experiences that combine theory, practice, and critical reflection on media use. Future studies should expand this framework by exploring its long-term impact, cross-cultural applicability, and potential for adaptation to emerging technologies.

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