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Digital Literacy And Its Role In The Educational Environment For The Development Of Children's Creative Skills

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ABSTRACT

The article examines the phenomenon of digital literacy as a key component of the modern educational environment, influencing the development of creative skills in children. Digital literacy is understood as a set of knowledge, abilities, and competencies necessary for the effective use of digital technologies in both academic and everyday activities. Particular attention is paid to the relationship between digital tools and the development of creativity, critical thinking, and the ability for self-expression. An analysis of domestic and international research shows that digital literacy serves not only as a means of adapting children to the demands of the 21st century but also as a crucial factor in stimulating their creative potential.

Keywords: Digital literacy; creativity; educational environment; children; creative skills; digital technologies.

INTRODUCTION

The development of children's creative abilities is today regarded as one of the priorities of educational policy and pedagogical science. In the context of the rapid digitalization of society, where information and communication technologies have become an integral part of life, there arises an objective need for the integration of digital literacy into the educational process. This is due to the fact that digital literacy functions not only as a technical competence but also as a fundamental element in shaping the key skills of the 21st century-critical thinking, the capacity for innovation, and creativity [Gershunsky, p. 45].

Modern schoolchildren, belonging to Generations Z and Alpha, are immersed in the digital environment from an early age. Their interaction with electronic devices and online resources is not episodic but continuous, significantly influencing their cognitive processes, modes of thinking, and ways of perceiving information. In this regard, traditional pedagogical models based on the reproductive character of learning are losing their effectiveness. They are being replaced by educational strategies that rely on the active use of digital tools as means of knowledge acquisition and self-expression [Ferrari, p. 27].

Digital literacy acquires particular significance in the context of developing creative skills. The use of digital technologies provides children with unique opportunities to experiment with forms and methods of expressing ideas: from creating multimedia stories and animations to programming and engaging with interactive platforms. Such activities combine imagination with technological capabilities, fostering the development of divergent thinking and forming a sustainable motivation for creativity.

At the same time, it is important to emphasize that digital literacy in the educational environment should be understood not only as the ability to use devices or software but also as the capacity to critically evaluate information, employ digital resources for research, and

create original content. Only in this case does digital literacy become the foundation not of passive consumption but of active and creative transformation of the educational experience [UNESCO, p. 15].

Thus, the relevance of the present topic is determined by the need for a deeper understanding of the role of digital literacy as a tool for developing children's creative skills. This requires an analysis of its pedagogical potential, an exploration of the possibilities of its integration into the learning process, and an identification of the conditions under which digital literacy becomes a factor in the personal and cognitive development of students.

LITERATURE REVIEW

1. The Concept of Digital Literacy

In academic literature, digital literacy is interpreted as a complex and multidimensional phenomenon that includes not only the mastery of technical skills in working with computers and the Internet but also the ability to critically reflect, analyze, and create digital content. According to UNESCO, digital literacy is defined as "a set of knowledge, skills, and attitudes necessary for the safe, productive, and responsible use of digital technologies in educational and social environments" [UNESCO, p. 15].

Research conducted by C. Hague highlights that digital literacy is multi-layered: it integrates technical competencies (working with devices and software), cognitive skills (the ability to analyze and critique information), and social abilities (effective interaction and communication within the digital space) [Hague, p. 39]. Thus, digital literacy functions not only as a tool but also as a socio-cultural phenomenon that determines the quality of children's participation in the educational process.

2. The Relationship Between Digital Literacy and Creativity

Contemporary researchers emphasize the close connection between digital literacy and the development of creativity. According to M. Resnick, digital technologies create conditions for children not only to perceive but also to actively construct new knowledge and representations, which constitutes the foundation of creative thinking [Resnick, p. 58].

Mishra and Koehler (2009), in their TPACK (Technological Pedagogical Content Knowledge) model, stress that the pedagogical integration of digital tools into the learning process enables children to connect diverse areas of knowledge, experiment with multiple forms of expression, and produce original products [Mishra & Koehler, p. 1021]. In this sense, digital literacy is inseparably linked to divergent thinking, providing students with new channels for self-expression such as programming, digital art, multimedia projects, and educational games.

3. Educational Environment and Digital Technologies

The modern educational environment is increasingly acquiring a digital character, which expands opportunities for both teachers and students. According to J. Voogt and N. Roblin, digital technologies promote "learning through inquiry," enabling children to experiment, model processes, and develop their own projects within collaborative online formats such as virtual laboratories, cloud-based services, and shared multimedia platforms [Voogt & Roblin, p. 413].

The digital educational environment not only enhances access to diverse sources of knowledge but also develops students' research skills, critical thinking, and their ability to work under conditions of uncertainty. Importantly, the digital environment fosters the development of interdisciplinary competencies, allowing learners to integrate humanistic and technical knowledge into a single creative project.

DISCUSSION

1. The Role of Teachers in Developing Digital Literacy

The teacher remains a central figure in the process of integrating digital literacy into the educational environment. Despite the accessibility of technologies, it is the teacher who sets the direction of their use, transforming digital tools from instruments of consumption into instruments of knowledge and creativity. Contemporary scholars emphasize that the effectiveness of technology depends directly on the professional readiness of teachers to integrate it in a pedagogically meaningful way [Mishra & Koehler, p. 1021]. It is essential that the teacher acts as a facilitator who not only explains the functionality of programs and applications but also stimulates children's capacity for independent inquiry, critical thinking, and creative self-expression.

2. Integration of Digital Technologies into the Learning Process

The systematic introduction of digital tools into the learning process opens new horizons for creativity. The use of programs for creating animations, musical compositions, visual designs, or interactive maps transforms lessons into creative laboratories. This approach stimulates divergent thinking, encourages children to search for non-standard solutions, and helps them see connections across different fields of knowledge [Voogt & Roblin, p. 413]. Importantly, digital tools do not replace traditional teaching methods but complement them, creating a synergistic effect. Thus, the integration of technology becomes a key factor in the development of interdisciplinary competences and innovative activity among students.

3. Emotional and Motivational Aspects

The digital environment is organic to modern children, significantly influencing their engagement in the learning process. Digital projects are perceived not as external requirements but as natural components of their activity. This fosters positive motivation for learning, grounded in interest, self-expression, and the experience of success. The emotional component is equally important: participation in digital creative projects contributes to the development of empathy, collaboration, and collective interaction skills [Resnick, p. 61]. Hence, digital literacy in the educational environment shapes not only the cognitive but also the affective dimensions of creativity.

4. Challenges and Risks of Digitalization

Alongside obvious advantages, the digitalization of education entails a number of risks. These include information overload, fragmented perception, gadget dependency, and reduced concentration and criticality of thinking. Furthermore, digital inequality caused by differences in access to resources can exacerbate social stratification [UNESCO, p. 18]. These challenges require a rethinking of pedagogical strategies: the focus should shift not only to the acquisition of technical skills but also to the development of critical digital literacy, which includes the ability to filter information, evaluate its credibility, and use it constructively.

Final Remark

The discussion thus demonstrates that digital literacy is a key factor in shaping children's creative skills. However, its effectiveness depends on a set of conditions: professional teacher preparation, systemic integration of technologies into the learning process, the creation of emotionally safe and motivating environments, and the overcoming of risks and limitations associated with digitalization.

RESULTS

The analysis of observations and conducted research confirmed the significant impact of digital literacy development on children's creative and social competences. The findings can be grouped into several key areas:

1. Development of Creative Thinking

Students who were actively engaged in digital projects-such as creating multimedia stories, designing educational games, or preparing interactive presentations-demonstrated higher levels of originality, flexibility, and fluency of thought. The use of digital tools enabled children to experiment with visual, auditory, and textual elements, creating original products that stimulated divergent thinking and the ability to generate innovative ideas.

2. Formation of Collaborative Skills

Participation in digital group projects contributed to the development of collaboration skills, including role distribution, negotiation, and joint problem-solving strategies. It was noted that the digital environment (online platforms, collaborative editors, and cloud technologies) created conditions for more dynamic interaction among participants, enhanced trust, and fostered a culture of collective creativity. Thus, digital literacy functions not only as a cognitive but also as a social competence.

3. Increased Learning Motivation and Research Skills

The integration of digital technologies into the learning process had a positive effect on students' motivation. Children showed increased interest in tasks that allowed them to take initiative, select their own formats for presenting results, and employ modern multimedia tools. Moreover, there was a noticeable improvement in research skills: students more frequently turned to digital sources,

critically evaluated information, and sought to create original content independently.

4. Emotional and Personal Development

Participation in digital projects also influenced children's emotional development. An increase in self-confidence, self-expression, and empathy was observed. The ability to present the outcomes of their work in digital formats (such as videos, animations, or games) amplified their sense of personal significance and strengthened a positive attitude toward the learning process.

In summary, the results of the study demonstrate that digital literacy is a powerful instrument not only for fostering creative abilities but also for developing communication, research, and personal qualities in children. This confirms its pivotal role within the educational environment of the 21st century.

CONCLUSION

The study has demonstrated that digital literacy occupies a strategically important place in the educational environment and is directly linked to the development of children's creative skills. It represents not only a technical competence associated with the use of information and communication technologies but also a cultural and social phenomenon that shapes students' capacity for self-expression, innovative thinking, and productive collaboration.

The analysis of theoretical sources and practical observations allows us to conclude that digital literacy:

• fosters the development of divergent thinking and the ability to generate original ideas;

• enhances students' research activity through the use of digital resources for cognitive purposes;

• cultivates social and communicative skills in children, including teamwork, negotiation, and openness to alternative viewpoints;

• positively influences the emotional sphere of learners by strengthening self-confidence, initiative, and readiness for self-expression.

At the same time, the integration of digital literacy into the educational process is associated with several challenges.

Among these are digital inequality, differences in access to resources, information overload, and risks of excessive dependence on technology. These factors necessitate the development of new pedagogical strategies aimed at fostering students' critical engagement with digital information, equipping them to use technology constructively, and encouraging them to create their own educational and creative products.

Thus, digital literacy should be regarded as a fundamental component of modern education, ensuring learners' preparedness for life in a rapidly changing society. Its development requires:

• the systemic integration of digital technologies into the learning process;

• targeted teacher training in the use of digital tools for fostering creativity;

• the creation of learning environments oriented toward project-based, research-driven, and artistic-creative activities;

• the implementation of interdisciplinary approaches that integrate humanistic and technical knowledge;

• the use of digital technologies to cultivate values of cooperation, dialogue, and cultural interaction.

Future research should focus on designing diagnostic methods to assess the impact of digital literacy on creativity, as well as on exploring the potential of combining digital and traditional forms of learning. A particularly promising direction is the study of innovative technologies (VR, AR, artificial intelligence) and their role in expanding students' creative potential.

In conclusion, it should be emphasized that digital literacy is not only a factor of children's successful adaptation to contemporary realities but also a crucial instrument for shaping personalities prepared for innovation, independent thinking, and constructive activity.

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