

DEVELOPING PRESCHOOL TEACHERS' INNOVATIVE METHODOLOGICAL COMPETENCE THROUGH DIGITAL TOOLS

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ABSTRACT: The article explores the development of preschool teachers' innovative methodological competence through the integration of digital tools. Based on an analysis of international (UNESCO, OECD), CIS, and Uzbek studies, it is shown that digital technologies expand the methodological toolkit of educators, enhance interactivity, and improve the quality of preschool education. International research emphasizes the role of digital literacy and ICT readiness, while CIS studies highlight infrastructural and methodological challenges. In Uzbekistan, state reforms (PF-60, 2022; Resolution No. 802, 2020) create opportunities for digital transformation, but surveys reveal a gap between policy initiatives and teachers' actual readiness. The article concludes that systematic professional development, access to modern resources, and cultural adaptation of global practices are necessary to strengthen teachers' innovative competence in preschool education.

Keywords: preschool education, innovative methodological competence, digital tools, teacher training, ICT integration.

INTRODUCTION

The rapid digitalization of education has transformed the requirements for teachers' professional competencies, making the ability to apply innovative methods and digital tools an integral component of modern pedagogy. In the preschool education sector, where the foundations of children's cognitive, social, and emotional development are laid, teachers' methodological

competence plays a particularly important role. Developing innovative methodological competence through the use of digital tools not only modernizes the educational process but also increases its effectiveness, interactivity, and alignment with global standards. According to **UNESCO (2021)**, digital technologies are considered one of the key drivers of innovation in early childhood education, supporting personalized learning, interactive teaching strategies, and effective communication between teachers, children, and parents. Similarly, the **OECD (2020)** highlights that teacher readiness to apply digital instruments directly affects the quality of preschool education outcomes.

In Uzbekistan, digital transformation of education is a state priority. The Presidential Decree PF–60 “On the Development Strategy of New Uzbekistan” (January 28, 2022) and the Resolution of the Cabinet of Ministers No. 409 (July 2021) “On the Digital Education Concept” emphasize the necessity of integrating information and communication technologies (ICT) into all levels of the education system, including preschool institutions. Furthermore, the Resolution of the Cabinet of Ministers No. 802 (December 22, 2020) “On the Concept for the Development of Preschool Education until 2030” underscores the role of innovative pedagogical methods and digital tools in raising the quality and accessibility of preschool education. Statistical data confirm the urgency of this task. According to the State Statistics Committee of the Republic of Uzbekistan (2024), more than 3.1 million children are enrolled in preschool education, supported by over 150,000 teachers and educators. However, surveys conducted by the Center for Pedagogical Innovations (2023) indicate that only about 38–42% of preschool teachers demonstrate sufficient readiness to apply digital tools and innovative teaching methods in their professional practice. This skills gap highlights the necessity of systematic professional development programs focused on digital competence and methodological innovation.

Thus, strengthening preschool teachers’ innovative methodological competence through the systematic integration of digital tools is both a national

priority and an international requirement. This research aims to analyze the theoretical and practical foundations of this process, review best practices, and outline recommendations for the Uzbek preschool education system in alignment with global standards.

LITERATURE REVIEW

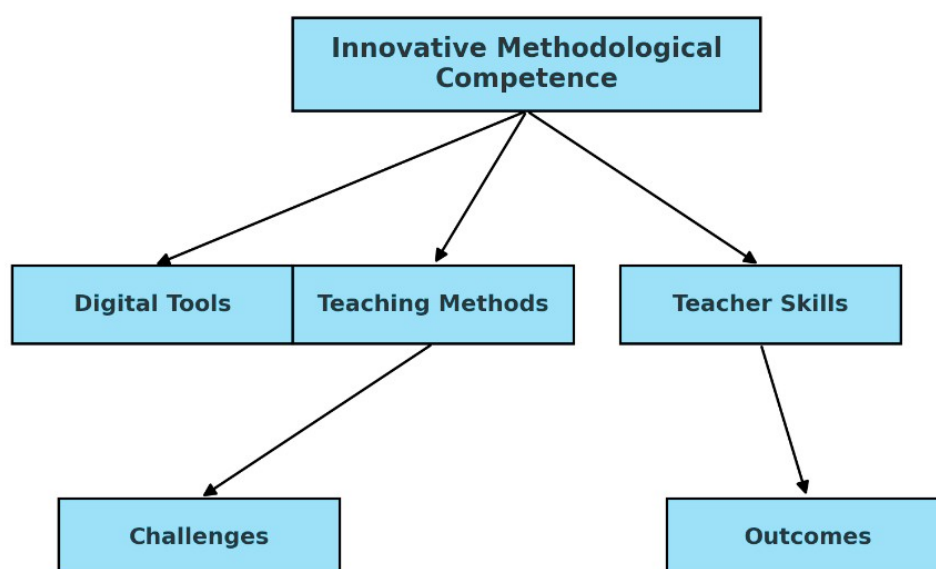
The concept of methodological competence in preschool pedagogy is generally defined as a teacher's ability to apply effective teaching strategies, select appropriate tools, and adapt methods to the developmental needs of children. With the rise of digital transformation, researchers increasingly emphasize the notion of innovative methodological competence, which integrates pedagogical knowledge with the ability to use digital tools, ICT resources, and interactive technologies (Plowman, McPake & Stephen, 2012). According to UNESCO (2021), digital technologies in early childhood education enhance personalization, interactivity, and creativity, thereby expanding the professional toolkit of preschool educators. The OECD (2020) similarly stresses that teachers' digital readiness directly affects educational outcomes, children's engagement, and the acquisition of 21st-century skills.

In international studies, several trends stand out: Plowman, McPake & Stephen (2012) explored how digital technologies reshape early childhood pedagogy, concluding that teachers' competence in ICT directly influences children's learning experiences. Blackwell et al. (2016) emphasized the importance of teacher training for the effective integration of tablets, apps, and online platforms in preschool classrooms. UNESCO (2021) and OECD (2020) highlight that digital tools contribute not only to the enrichment of teaching methods but also to inclusive education and improved communication with parents.

These works underline that innovative methodological competence is inseparable from digital literacy and continuous professional development.

In the CIS, scholars also focus on the integration of ICT into preschool education: Andreeva (2019) stresses that digital competence has become a fundamental component of teachers' methodological readiness. Yakubovich (2021, Belarus) investigated the role of ICT in developing teachers' methodological creativity and adaptability. Zhumabekova (2022, Kazakhstan) analyzed the use of digital games and online platforms to foster innovative teaching strategies, concluding that competence development requires systematic institutional support.

Despite positive trends, CIS researchers often point out a lack of infrastructure, limited access to modern technologies, and insufficient methodological support for educators.



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Structure of innovative methodological competence in preschool Education

In Uzbekistan, the issue has gained momentum with the implementation of state reforms in education. Tursunova (2021) highlights that methodological competence of preschool teachers must include digital readiness as a key professional criterion. Baybaeva (2022) examines how innovative methods

combined with digital tools enhance the effectiveness of interactive learning in preschool groups. Kholmiraeva (2023) focuses on the role of digital competence in shaping teachers' ability to create engaging and emotionally supportive learning environments. Sharipova (2022) emphasizes the integration of STEAM technologies and art-digital methods as drivers of methodological innovation in preschool pedagogy.

National policy documents, such as the Presidential Decree PF-60 (2022) and the Concept for the Development of Preschool Education until 2030 (Resolution No. 802, 2020), explicitly prioritize the digitalization of preschool education, encouraging the development of teachers' innovative competencies.

The review shows both convergence and divergence in research perspectives: Foreign scholars prioritize standardized training systems and technology-rich classrooms. CIS researchers highlight structural challenges and the need for resource allocation. Uzbek scholars stress the importance of policy-driven reforms and the adaptation of global practices to local contexts.

Despite differences, all agree that the development of preschool teachers' innovative methodological competence depends on systematic professional development, access to digital tools, and the integration of ICT into pedagogical practice.

METHODOLOGY

This study is based on a systematic review of scientific literature, policy documents, and international reports related to the development of preschool teachers' methodological competence through digital tools. The analysis covered three levels:

1. International sources (UNESCO, OECD, Plowman et al., Blackwell et al.) that explore global trends in digitalization of early childhood education.
2. CIS research (Andreeva, Yakubovich, Zhumabekova) focusing on the integration of ICT into preschool pedagogy.

3. Uzbek studies and normative acts (PF–60, 2022; Resolution No. 802, 2020; works by Tursunova, Baybaeva, Kholmiraeva) addressing national strategies for teacher competence development.

The methodological approach included comparative analysis, content synthesis, and critical discussion, allowing us to identify common trends, challenges, and prospects for enhancing preschool teachers' innovative methodological competence through digital tools in the context of Uzbekistan's educational reforms.

RESULTS

The analysis of theoretical and practical sources on the development of preschool teachers' innovative methodological competence through digital tools has led to several key findings: Global consensus on digitalization. International organizations (UNESCO, 2021; OECD, 2020) and scholars (Plowman, McPake & Stephen, 2012; Blackwell et al., 2016) recognize that digital technologies are essential for modern preschool education, contributing to interactive, learner-centered approaches and enhancing methodological competence. Advantages of digital integration. Literature shows that digital tools support teachers in diversifying instructional strategies, introducing gamification, fostering creativity, and improving communication with children and parents. These competencies are increasingly viewed as indicators of teachers' professional readiness. Challenges in CIS countries. Researchers such as Andreeva (2019), Yakubovich (2021), and Zhumabekova (2022) identify infrastructural limitations, lack of access to modern technologies, and insufficient methodological support as major barriers to building innovative competence among preschool educators. Progress in Uzbekistan. National reforms (Presidential Decree PF–60, 2022; Resolution No. 802, 2020) have set the foundation for digital transformation in preschool education. Uzbek scholars (Tursunova, 2021; Baybaeva, 2022; Kholmiraeva, 2023; Sharipova, 2022) emphasize that digital competence should be integrated into teacher training and

professional development as a strategic priority. Need for systemic solutions. Across all contexts, the literature highlights that developing innovative methodological competence requires not only access to technology but also structured professional training, ongoing support, and adaptation of global practices to national conditions.

In sum, the results of the literature review indicate that while the importance of digital tools for preschool teachers' competence development is universally acknowledged, Uzbekistan faces the challenge of bridging the gap between policy intentions and classroom practice by ensuring systematic professional training and resource provision.

DISCUSSION

The literature analysis demonstrates that the development of preschool teachers' innovative methodological competence through digital tools is a multi-dimensional challenge that combines pedagogical, technological, and institutional factors. While there is broad consensus on the importance of digital transformation in early childhood education, approaches to its implementation differ significantly across contexts. In countries such as Finland, Singapore, and the United States, digital competence is embedded into teacher education programs and professional development frameworks. Researchers (Plowman, McPake & Stephen, 2012; Blackwell et al., 2016) show that digital tools not only enhance methodological innovation but also foster inclusive practices and personalized learning. UNESCO (2021) and OECD (2020) emphasize that digital readiness is inseparable from the overall quality of preschool education, linking it to 21st-century skills development.

In post-Soviet countries, the integration of digital tools into preschool pedagogy is advancing, but unevenly. Scholars such as Andreeva (2019), Yakubovich (2021), and Zhumabekova (2022) note that while educators recognize the pedagogical potential of ICT, barriers such as limited infrastructure, outdated equipment, and lack of methodological guidance restrict

effective implementation. These studies underline the importance of systemic support and resource allocation to sustain competence development.

In Uzbekistan, state reforms (PF–60, 2022; Resolution No. 802, 2020) provide a strong political and strategic framework for digitalizing preschool education. Local researchers (Tursunova, 2021; Baybaeva, 2022; Kholmiraeva, 2023; Sharipova, 2022) stress that digital competence should become a central element of teacher training. However, surveys reveal that only a minority of preschool teachers demonstrate sufficient readiness to use digital tools in practice. This gap highlights the discrepancy between policy and classroom reality, where access to digital resources and methodological training remains limited.

The discussion highlights that developing innovative methodological competence among preschool teachers requires more than providing digital tools. It demands a systematic professional development strategy, cultural adaptation of global practices, and sustained institutional support to align policy initiatives with everyday pedagogical reality.

CONCLUSION

The review of theoretical sources, international practices, and regional research confirms that the development of preschool teachers' innovative methodological competence is an essential condition for improving the quality of early childhood education in the digital age. Globally, countries have demonstrated that systematic integration of ICT into teacher training and professional development fosters interactive, learner-centered, and inclusive pedagogical practices. In the CIS, progress has been recorded, but infrastructural limitations and insufficient methodological support remain key obstacles. In Uzbekistan, significant reforms (PF–60, 2022; Resolution No. 802, 2020) have created a solid foundation for digital transformation in preschool education, yet the actual readiness of teachers to apply digital tools in practice remains limited.

The findings highlight several priority directions: embedding digital competence into preschool teacher education and in-service training programs; ensuring access to modern digital resources in all preschool institutions; adapting international best practices to the cultural and educational context of Uzbekistan; aligning policy initiatives with practical support for teachers in classrooms.

Therefore, the advancement of innovative methodological competence through digital tools should be considered a **strategic priority** for the preschool education system. Its successful implementation will ensure the formation of 21st-century skills among children, improve the effectiveness of teaching, and strengthen the alignment of Uzbekistan's education system with global standards.

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