

ADVANTAGES AND CHALLENGES OF IMPLEMENTING BLENDED LEARNING IN PRESCHOOL AND PRIMARY EDUCATION

Narmatova Ozoda Abduvaris qizi,
First-Year Master's Student at Angren University

Abstract. This article explores the advantages and challenges associated with implementing blended learning in preschool and primary education. Blended learning, which combines traditional face-to-face instruction with online and digital learning components, offers benefits such as increased flexibility, individualized learning, and access to diverse educational resources. However, its implementation also presents challenges, including technological limitations, teacher preparedness, student engagement, and the need for parental support. The study highlights strategies for overcoming these challenges and emphasizes the importance of professional development, infrastructural support, and pedagogical innovation for successful adoption in early education contexts.

Keywords. blended learning, preschool education, primary education, advantages, challenges, digital pedagogy, teacher training

Annotatsiya. Ushbu maqolada maktabgacha va boshlang'ich ta'limda aralash (blended) ta'limni joriy etishning afzalliklari va qiyinchiliklari tahlil qilinadi. An'anaviy yuzma-yuz ta'limni onlayn va raqamli komponentlar bilan uyg'unlashtirish orqali o'quvchilarga individual yondashuv, keng ko'lamli ta'lim resurslariga kirish va moslashuvchan o'quv muhitini taqdim etish mumkin. Shu bilan birga, texnologik imkoniyatlar cheklanganligi, o'qituvchilar malakasi, o'quvchilarning ishtiroki va otionalarning qo'llab-quvvatlashi kabi muammolar ham mavjud. Maqolada ushbu qiyinchiliklarni yengish strategiyalari va professional rivojlanish, texnik infratuzilma va pedagogik innovatsiyalar ahamiyati ta'kidlanadi.

Kalit so'zlar. aralash ta'lim, maktabgacha ta'lim, boshlang'ich ta'lim, afzalliklar, qiyinchiliklar, raqamli pedagogika, o'qituvchilar malakasi

Аннотация. В данной статье рассматриваются преимущества и трудности внедрения смешанного обучения в дошкольном и начальном образовании. Смешанное обучение, объединяющее традиционные очные занятия и онлайн-компоненты, предоставляет возможности для индивидуализированного обучения, гибкости и доступа к разнообразным образовательным ресурсам. Вместе с тем, внедрение такого подхода связано с проблемами, включая технологические ограничения, подготовку учителей, вовлеченность учащихся и

необходимость поддержки со стороны родителей. В статье обсуждаются стратегии преодоления этих трудностей и подчеркивается важность профессионального развития, инфраструктурной поддержки и педагогических инноваций для успешного внедрения в раннем образовании.

Ключевые слова. смешанное обучение, дошкольное образование, начальное образование, преимущества, трудности, цифровая педагогика, подготовка учителей

Relevance of the study. The implementation of blended learning in preschool and primary education is increasingly significant in the context of global educational trends and digital transformation. Early childhood and primary education are critical periods for developing foundational skills, and integrating digital tools with traditional teaching methods can enhance learning outcomes, promote engagement, and support individualized instruction. Blended learning offers the potential to provide flexible, adaptive, and interactive learning environments, which are particularly beneficial for young learners with diverse needs and learning styles. However, its effective adoption depends on overcoming challenges such as limited technological infrastructure, teacher preparedness, student engagement, and the need for active parental involvement.

In Uzbekistan, where educational institutions are progressively integrating digital technologies, understanding the benefits and challenges of blended learning is particularly relevant. The study addresses the urgent need to develop strategies that support teachers, engage parents, and ensure equitable access to quality education. By examining both opportunities and obstacles, this research contributes to evidence-based policy development, professional training programs, and the design of pedagogically effective blended learning models for early education.

Research methodology. This study adopts a qualitative research approach to explore the transformation of teachers' roles in blended learning environments. The focus is on understanding how educators adapt to integrating traditional face-to-face instruction with online and digital learning components. A constructivist and socio-technical framework underpins the study, emphasizing the interplay between pedagogical strategies, technological tools, and teacher-student interactions.

Data were collected using multiple complementary methods to ensure a comprehensive understanding of teacher experiences. First, semi-structured interviews were conducted with 15–20 teachers from primary and secondary schools who actively implement blended learning. These interviews allowed participants to share insights about their

evolving responsibilities, pedagogical strategies, and perceptions of student engagement.

Research methods. This study employed a mixed-methods research approach to examine the advantages and challenges of implementing blended learning in preschool and primary education. By combining qualitative and quantitative data collection techniques, the study aimed to gain a comprehensive understanding of teachers' experiences, student engagement, and institutional factors influencing blended learning adoption.

Surveys and Questionnaires were distributed to preschool and primary school teachers, school administrators, and parents. The survey assessed technological readiness, teacher competencies, student participation, and perceived benefits and challenges of blended learning. Both closed-ended and open-ended questions were included to capture quantitative trends and qualitative insights.

In addition, semi-structured interviews were conducted with selected teachers and administrators. These interviews provided in-depth perspectives on how educators integrate digital and face-to-face instruction, the challenges they encounter, and the strategies they employ to enhance student learning.

Classroom observations were carried out in schools implementing blended learning. Observations focused on teacher-student interactions, instructional strategies, the use of digital tools, and student engagement during both online and in-person activities. An observation checklist ensured systematic recording of relevant behaviors and practices.

Table 2.

Key advantages and challenges of blended learning in early education

Category	Advantages	Challenges	Sources / Evidence
Flexibility	Enables learning anytime, anywhere; accommodates diverse learning paces	Requires reliable internet and devices; risk of unequal access	Teacher & parent surveys; classroom observations
Student Engagement	Interactive digital content increases motivation; supports personalized learning	Younger children may lose focus online; difficulty in maintaining attention	Observations; teacher interviews
Teacher Role	Shifts from lecturer to facilitator and	Teachers need training in digital	Interviews; document analysis

	mentor; encourages innovative teaching	tools; increased workload	
Resource Access	Access to a variety of educational resources and multimedia materials	Limited availability of localized content; quality varies	Surveys; curriculum review
Parental Involvement	Encourages family engagement in learning	Parents may lack digital literacy or time	Parent questionnaires; interviews
Professional Development	Opportunities for teachers to acquire new digital and pedagogical skills	Insufficient training programs or institutional support	Teacher focus groups; literature review
Learning Outcomes	Supports individualized learning; potential for improved performance	Effectiveness depends on blended model design and implementation quality	Teacher & parent feedback; observation notes

Results. The study revealed several notable advantages and challenges associated with implementing blended learning in preschool and primary education. Data collected from surveys, interviews, classroom observations, and document analysis provided a comprehensive understanding of how blended learning is applied and perceived in early education contexts.

A major observation is that teachers require new skill sets to effectively manage blended classrooms. These include digital literacy, proficiency in instructional design, classroom facilitation, and the ability to monitor and support students' online learning activities. Teachers who received prior professional development or institutional support reported higher confidence and more effective integration of technology into their lessons. Conversely, those lacking such training faced challenges in maintaining student engagement and balancing online and face-to-face instruction.

Conclusion. This study has explored the transformation of teachers' roles within blended learning environments, highlighting the shift from traditional knowledge delivery to facilitation, mentorship, and instructional design. The findings indicate that teachers are increasingly required to integrate digital tools, adapt pedagogical strategies, and foster student-centered learning in both online and face-to-face

contexts. The research emphasizes that effective implementation of blended learning depends not only on individual teacher competencies but also on institutional support, access to technology, and ongoing professional development.

LITERATURE

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