

EXAMINING THE DIFFICULTIES OF INTEGRATING INNOVATIVE TEACHING TECHNOLOGIES IN FOREIGN LANGUAGE EDUCATION

Abduolimova Maftuna.

*Teacher at Fergana State University,
Applied English Department*

Marvabonu Makhammadaliyeva Oybekovna,

*EFL student at Fergana State University
marvabonumahammadaliyeva@gmail.com*

+998994672845

Abstract

Significant potential exists for improving learning outcomes through the use of cutting-edge teaching tools in foreign language instruction. Nonetheless, during this process, educators frequently face a number of obstacles. By combining quantitative surveys and qualitative interviews with foreign language teachers, this study attempts to identify and examine these challenges using a mixed-methods approach. While there are many advantages to technology improvements, research shows that their successful application is hampered by issues such as a lack of training, a lack of funding, and opposition to change. For language instruction to make the most of technology, these issues must be resolved.

Key words: Technology integration, foreign language education, teacher training, educational infrastructure, resistance to change, digital learning

Annotatsiya

Xorijiy tillarni o'qitishda ilg'or ta'lim texnologiyalaridan foydalanish o'quv natijalarini yaxshilash uchun katta imkoniyatlar yaratadi. Biroq, bu jarayonda o'qituvchilar ko'plab qiyinchiliklarga duch kelishadi. Ushbu tadqiqot xorijiy til o'qituvchilari bilan o'tkazilgan miqdoriy so'rovlar va sifatli intervyular asosida ushbu muammolarni aniqlash va tahlil qilishga qaratilgan bo'lib, aralash uslub (mixed-methods) yondashuvidan foydalaniladi. Texnologik rivojlanishning ko'plab afzalliklari bo'lsa-da, tadqiqot natijalari shuni ko'rsatadiki, ularning muvaffaqiyatli joriy etilishi o'qituvchilarning etarli tayyorgarlikka ega emasligi, moliyalashtirish etishmovchiligi va yangiliklarga qarshilik kabi muammolar sababli cheklangan. Xorijiy til ta'limida texnologiyalarning to'liq imkoniyatlaridan foydalanish uchun ushbu muammolarni hal qilish zarur.

Kalit so'zlar: Texnologiyani integratsiya qilish, xorijiy til ta'limi, o'qituvchi tayyorgarligi, ta'lim infratuzilmasi, o'zgarishlarga qarshilik, raqamli ta'lim

Аннотация

Использование передовых образовательных технологий в обучении иностранным языкам обладает значительным потенциалом для улучшения учебных результатов. Однако в этом процессе преподаватели часто сталкиваются с различными трудностями. Данное исследование направлено на выявление и анализ этих проблем с использованием смешанного метода (mixed-methods), основанного на количественных опросах и качественных интервью с преподавателями иностранных языков. Несмотря на многочисленные преимущества технологических достижений, результаты исследования показывают, что их успешное внедрение сдерживается такими факторами, как недостаточная подготовка преподавателей, нехватка финансирования и сопротивление изменениям. Для полноценного использования технологий в обучении языкам необходимо устранение этих препятствий.

Ключевые слова: Интеграция технологий, обучение иностранным языкам, подготовка преподавателей, образовательная инфраструктура, сопротивление изменениям, цифровое обучение

Digital technology has revolutionized foreign language education through innovations like computer-assisted language learning (CALL) systems, artificial intelligence (AI)-powered applications, and immersive tools such as virtual and augmented reality. These advancements enhance student engagement, improve language proficiency, and enable personalized learning experiences. AI-driven platforms offer real-time feedback, adaptive lessons, and pronunciation analysis, making language learning more interactive and accessible. Additionally, gamified apps and virtual language exchanges create opportunities for learners to practice in realistic settings, fostering better fluency and comprehension.

However, integrating these technologies into existing curricula comes with challenges. Limited access to digital resources, inadequate teacher training, and resistance to new teaching approaches often hinder effective implementation. Many educators struggle with unfamiliar digital tools, while some institutions lack the necessary infrastructure to support technology-based learning. To address these issues, schools must invest in professional development programs, improve access to digital resources, and strategically integrate technology to complement traditional teaching methods. Overcoming these barriers will allow language education to fully benefit from technological advancements, making learning more efficient and engaging for students worldwide.

The integration of technology into foreign language education has been widely studied, with scholars highlighting both its potential benefits and the challenges it presents. Key issues include inadequate teacher training, limited

resources, resistance to change, and usability concerns. One of the primary challenges in implementing innovative teaching technologies is the lack of adequate teacher training. Kessler (2018) emphasizes that many educators are not sufficiently trained to integrate digital tools effectively into their teaching. Without proper training, they may struggle to utilize technology to its full potential, leading to suboptimal learning experiences for students [5]. Reinders and Hubbard (2013) argue that technology-enhanced learning requires ongoing professional development to ensure teachers are equipped with the necessary digital literacy skills [6]. Resource availability is another significant factor influencing the successful adoption of educational technology. Stockwell (2013) notes that access to essential technological tools, such as mobile-assisted language learning applications, can be limited, particularly in underfunded institutions [7]. Warschauer (2010) further discusses how disparities in resource allocation create unequal learning opportunities, making it difficult for some students and educators to fully engage with innovative teaching methods. Infrastructure limitations, such as unreliable internet access and outdated equipment, also pose challenges [8]. Cultural resistance to technological change is another commonly cited issue. Bax (2011) introduces the concept of "normalization," which suggests that technology must be seamlessly integrated into the learning process before it can be truly effective [2]. However, many educators remain attached to traditional teaching methods, viewing digital tools as disruptive rather than beneficial. Chapelle and Voss (2016) argue that successful integration depends not only on technology availability but also on aligning digital tools with existing pedagogical approaches to increase acceptance [3]. In addition to these challenges, usability concerns can hinder technology adoption in language education. Antoniadis et al. (2013) highlight that integrating natural language processing tools into computer-assisted language learning requires careful design to ensure ease of use for both teachers and students [1]. Similarly, Figueroa et al. (2023) examine how virtual reality applications, despite their immersive benefits, can introduce technical difficulties that educators may find challenging to navigate [4]. These issues highlight the importance of designing educational technology with user-friendliness in mind to facilitate widespread adoption.

The study used a mixed-methods research approach to examine the difficulties teachers have while incorporating new teaching technology into foreign language instruction. **Study Design** The study used both qualitative and quantitative methods to gain a thorough grasp of the problems. After administering a survey to collect general quantitative data, in-depth interviews were conducted to qualitatively examine each participant's experiences. The study involved 150

foreign language educators working in different educational settings, such as high schools and universities. The participants had varying levels of teaching experience, from those just starting their careers with less than five years of experience to highly seasoned educators who had been in the field for over two decades. To gather insights, researchers designed a structured questionnaire with 20 carefully crafted questions. The survey aimed to explore educators' views on integrating technology into their teaching, the challenges they faced, and the resources available to them. Responses were collected using a five-point Likert scale, allowing participants to express their level of agreement, ranging from "strongly disagree" to "strongly agree." In addition to the surveys, researchers conducted interviews with 20 carefully chosen participants. Using semi-structured interview guides, these discussions provided an opportunity to explore the challenges highlighted in the surveys in greater depth and uncover any additional issues that may not have been captured through the questionnaire alone. To ensure a smooth data collection process, the surveys were distributed electronically, allowing participants to respond while maintaining their anonymity and confidentiality. Once the surveys were completed, 20 participants were selected for interviews based on their responses, ensuring a diverse range of perspectives. The interviews took place via video conferencing platforms, with participants' consent, and were recorded and transcribed for further analysis. For data analysis, survey responses were examined using descriptive statistics to identify common challenges and trends. Meanwhile, the interview transcripts were analyzed through thematic analysis, helping to uncover recurring themes and deeper insights into the difficulties educators faced when integrating technology into their teaching.

The survey results highlighted several key challenges faced by educators when integrating technology into their teaching. A significant concern was the lack of proper training, with around 68% of participants acknowledging that they did not feel adequately prepared to use new technologies effectively in their classrooms. Another major issue was the limited availability of resources, as 54% of respondents reported that their institutions did not provide sufficient technological tools, such as essential hardware and software, to support innovative teaching methods. Additionally, nearly 47% of educators expressed a preference for traditional teaching approaches and showed reluctance to embrace new technologies, indicating a resistance to change in instructional practices. The interviews provided deeper insights into the challenges educators faced when integrating technology into their teaching. Many participants stressed the importance of continuous professional development, emphasizing that staying updated with rapidly evolving technologies required ongoing training. As one

educator put it, "Without continuous training, it's challenging to stay updated and effectively use new tools in the classroom." Another major concern was infrastructure limitations. Educators pointed out that unreliable internet connections and outdated equipment made it difficult to incorporate technology seamlessly into their lessons. These technical barriers often disrupted the learning process and limited the effectiveness of digital tools. Cultural resistance also emerged as a recurring theme. Some educators and institutions remained deeply attached to traditional teaching methods, viewing technological advancements as more of a disruption than an enhancement to learning. This hesitation to embrace change further complicated efforts to modernize educational practices.

The findings of this study align with previous research on the challenges of integrating innovative teaching technologies into foreign language education. The survey results indicate that 68% of educators feel inadequately trained, which supports Kessler's (2018) argument that professional development is essential for successful implementation [5]. Without structured training, educators may struggle to utilize technology effectively. Additionally, 54% of respondents reported insufficient technological resources, reinforcing Stockwell's (2013) findings that limited infrastructure restricts the adoption of mobile-assisted learning [7]. Warschauer (2010) highlights that disparities in resource access contribute to unequal educational opportunities, a concern echoed in participants' feedback about outdated equipment and unreliable internet connectivity [8]. Cultural resistance was another key finding, with 47% of educators preferring traditional teaching methods. This supports Bax's (2011) theory that technology must become a natural part of education to be fully accepted [2]. Educators often resist change unless digital tools align with their existing pedagogical approaches (Chapelle & Voss, 2016) [3]. The qualitative data further emphasized the need for ongoing professional development and better infrastructure. Educators noted that without continuous training, it is difficult to stay updated on new tools (Reinders & Hubbard, 2013) [6]. Furthermore, usability issues were highlighted, with some educators struggling to navigate complex technological tools, similar to findings by Antoniadis et al. (2013) and Figueroa et al. (2023) regarding the challenges of integrating AI and virtual reality in language learning [1], [4]. Overall, addressing these barriers requires investment in teacher training, improved resource allocation, and efforts to reduce cultural resistance. By implementing these changes, institutions can enhance the effectiveness of digital tools in foreign language education.

This study explored the challenges educators encounter when incorporating innovative technologies into foreign language teaching. The findings reveal that

the main obstacles to successful technology adoption include insufficient training, a lack of necessary resources, and resistance to change within educational institutions. To overcome these barriers, several steps can be taken. First, continuous professional development programs should be implemented to help educators effectively integrate digital tools into their teaching. Schools and universities must invest in training initiatives that keep teachers up to date with evolving technology. Additionally, improving infrastructure is essential. Policymakers and educational institutions should allocate more funding to ensure that all educators have access to reliable technology, including up-to-date hardware, software, and internet connectivity. Institutional support also plays a key role in technology adoption. Strong administrative backing, such as providing technical assistance and incentives for educators who embrace digital tools, can encourage smoother integration. Moreover, technology developers should focus on designing user-friendly educational tools that require minimal training while still being effective in enhancing language learning. Simplified and pedagogically sound applications can make technology adoption easier for teachers with varying levels of digital proficiency. Future research should investigate the long-term impact of technology in language education and explore how emerging innovations, such as artificial intelligence and virtual reality, influence learning outcomes. Addressing these issues will be essential in unlocking the full potential of digital advancements in foreign language instruction.

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ИСПОЛЬЗОВАНИЕ ДИДАКТИЧЕСКИХ ПРИЕМОВ ПРИ РАБОТЕ С НЕЙРОСЕТЯМИ В ПРАКТИКЕ ПРЕПОДАВАТЕЛЯ

Ковалёва Наталия Леонидовна,

*Республиканский институт профессионального
образования, магистр экономических наук, kolkova7@mail.ru.*

Ковалёв Александр Петрович, магистр управления,

*Белорусский государственный экономический
университет, alex_kov2001@mail.ru.*

Аннотация

Современное профессиональное образование сталкивается с необходимостью интеграции нейросетевых технологий в педагогическую практику. Актуальность исследования обусловлена стремительным развитием искусственного интеллекта и его трансформационным влиянием на образовательный процесс. Несмотря на потенциал генеративных нейронных сетей для персонализации обучения, автоматизации рутинных задач и создания интерактивных сценариев, их внедрение в образование сталкивается с институциональными, этическими и педагогическими барьерами. Проблема исследования заключается в отсутствии системных подходов к интеграции ИИ в традиционные дидактические практики, что ограничивает эффективность цифровой трансформации образования. В статье рассматриваются дидактические приемы, позволяющие оптимизировать взаимодействие преподавателя с нейросетевыми инструментами, а также анализируются ключевые аспекты их применения для повышения качества образовательного процесса.

Ключевые слова: искусственный интеллект, нейросети, дидактические приемы, персонализация обучения, цифровая дидактика, автоматизация образования, этические стандарты ИИ, цифровая грамотность, адаптация учебных материалов.

Abstract