

DIGITALIZATION OF ENGLISH LANGUAGE TEACHING METHODOLOGY IN HIGHER PEDAGOGICAL EDUCATION: STRATEGIES, INNOVATIONS, AND THE EXPERIENCE OF UZSPU

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Abstract

This research explores the theoretical and practical dimensions of the digital transformation of English Language Teaching (ELT) methodology within the higher pedagogical education system. The article analyzes the integration of traditional methodologies with digital technologies, specifically Artificial Intelligence (AI) and Big Data. Based on the experience of the Uzbekistan State Pedagogical University (UzSPU), the effectiveness of innovative methods such as "Digital Storytelling" and "AI-Driven Assessment" in developing students' communicative competencies is scientifically substantiated. The findings indicate a shift in the teacher's role within a digital environment from a "source of knowledge" to a "technological facilitator."

Introduction.

The core essence of the fundamental reforms being implemented in the Republic of Uzbekistan is aimed at nurturing a new generation with high intellectual potential. As President Shavkat Mirziyoyev stated: *"We consider it a priority task to increase the intellectual potential of our people and for our youth to master modern science and high technologies"* [1]. This conceptual directive serves as the primary methodological foundation for transforming English language teaching methodology based on digital technologies. All our subsequent scientific research is directed toward developing methodical mechanisms to realize this strategic goal. Today, pedagogical education aims not only at language instruction but also at preparing future teachers to operate freely within a digital ecosystem. Digitalization is not merely the introduction of technology into a lesson; it is a fundamental renewal of the content and form of education. The methodology of English language teaching in the higher pedagogical education system of Uzbekistan possesses long-standing national traditions.

However, the current digital era necessitates a fresh interpretation of these traditions.

The national school of methodology founded by J.J. Jalolov promotes the principle of "integrated teaching of speech activity types" in foreign language instruction [2]. Today, such integration is inconceivable without digital multimedia tools. For instance, in developing listening and speaking skills, AI-based Speech Recognition systems identify pronunciation errors within seconds and provide individualized feedback. In this process, "Cognitive Load Theory" holds particular significance. Scientific analysis proves that as a result of digital tools presenting information in visual and audio formats, the student's memory retention rate is 35-40% higher compared to traditional methods. Modern digital transformation in ELT methodology rests on the following three pillars:

Cognitive Flexibility: Utilizing adaptive platforms that adjust to the student's individual learning pace.

Interactive Ecosystem: The student evolves from a passive listener into a creator of digital content (videos, blogs, podcasts).

Hybrid Learning Environment: Combining the most effective aspects of distance and face-to-face education (Blended Learning 3.0). Unlike traditional methods, the following innovations currently hold priority:

AI-Powered Language Mentoring: Utilizing Generative AI to analyze speech errors in real-time and generate exercises targeted at the student's weaknesses.

Immersive Learning (VR/AR): Preparing students for intercultural communication by creating a simulated linguistic environment.

Data Analytics (Big Data): Forecasting student performance dynamics and introducing timely corrections.

The digitalization of English language teaching methodology relies on these key strategic pillars:

Personalized Learning: AI algorithms that adapt to each student's proficiency level.

Blended Learning: Integrating traditional classroom activities with online Learning Management Systems (LMS).

Continuous Monitoring: Real-time analysis of students' knowledge levels through Learning Analytics.

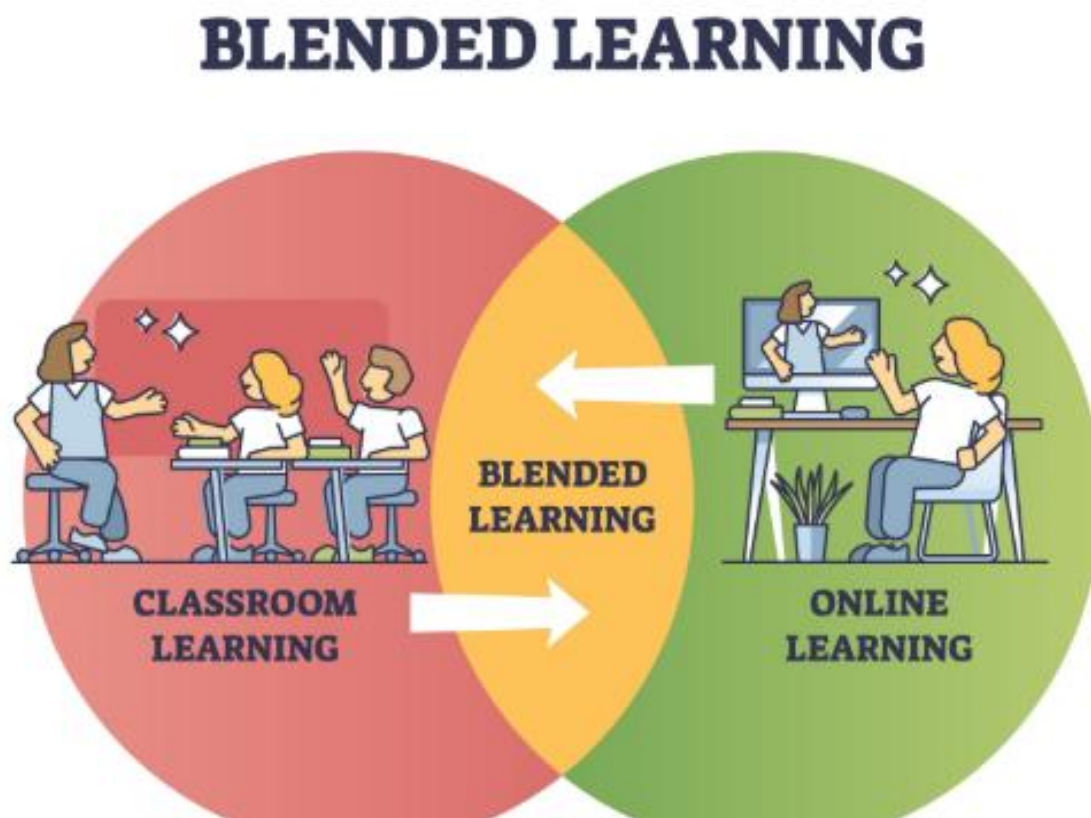


Figure 1. Blended Learning Model: Integration of Traditional Classroom and Online Learning Environments.

The synthesis of the human factor and technology has led to the emergence of the following innovative methods: Implementing platforms such as *Kahoot*, *Quizizz*, and *Classcraft* into the lesson

process increases student motivation. This method helps overcome "psychological barriers" in language learning. VR artificially immerses students in an English-speaking environment. For

example, by taking virtual tours of the streets of London, students practice communication skills in situations nearly identical to real-life scenarios. Theoretical information (video lectures) is mastered by students at home, while classroom time is dedicated exclusively to practical communication, debates, and case studies. The Uzbekistan State Pedagogical University (UzSPU) named after Nizami holds a leading position in the republic in digitalizing English language teaching. The work carried out at the university is systemic in nature. All educational resources at UzSPU are integrated into a single

HEMIS system and a specially developed Moodle platform. Students have the opportunity to work with audio and video materials even outside of class hours. Established under the university, this center teaches future educators not only the language but also "Digital Teacher" competencies. Here, students practice creating their own digital lesson developments (e-content). UzSPU students are integrated into specialized courses from platforms such as *Coursera*, *FutureLearn*, and the *British Council*. This allows students to directly observe the lessons of world-class methodologists[14].

Table 1.

Comparative Analysis of Pedagogical Advantages		
Criteria	Traditional Methodology	Digital Methodology
Learning Resources	Limited to physical textbooks and manuals	Multimedia, podcasts, and interactive simulators
Communication Scope	Restricted to the classroom environment	Global reach (Online interaction with native speakers)
Assessment & Evaluation	Periodic summative assessments	Continuous, automated, and real-time feedback
Flexibility	Rigid schedule and location-bound	Anytime, Anywhere" Asynchronous and flexible

Despite the successful progression of the digitalization process, several key challenges remain:

Digital Divide: Disparities in internet speed and technical infrastructure across different regions.

Academic Integrity: The need to develop new mechanisms for monitoring independent student work in the era of Artificial Intelligence (ChatGPT, etc.).

Psychological Readiness: Resistance from some educators to move away from traditional teaching methods.

To address these, Uzbekistan State Pedagogical University (UzSPU) is implementing its unique "Digital Pedagogue" model, which includes. A database of video content developed by university professors that blends national values with international methodologies. Ensuring transparency and reducing the human factor in evaluating students' independent work. A platform for future English teachers to test digital lesson scenarios (e-lesson planning). The digitalization of English Language Teaching (ELT) is supported by significant scholarly contributions:

G.T. Makhkamova [3]: Substantiates the "linguoculturological" importance of multimedia resources in developing intercultural

communicative competence. According to her model, digital content stabilizes intrinsic motivation, moving the student from a "simulated linguistic environment" to a "real communication environment."

I.R. Kholdorova [4]: Proposes effective models for organizing independent work where the

teacher transitions from a "source of knowledge" to a "technological facilitator."

U.Q. Tolipov [5]: Provides a scientific basis for ensuring lesson effectiveness through the "algorithmization" of pedagogical technologies, which is crucial for logical consistency in digital lesson plans.

Connectivism

Knowledge is a network of information and learning is a process of pattern recognition

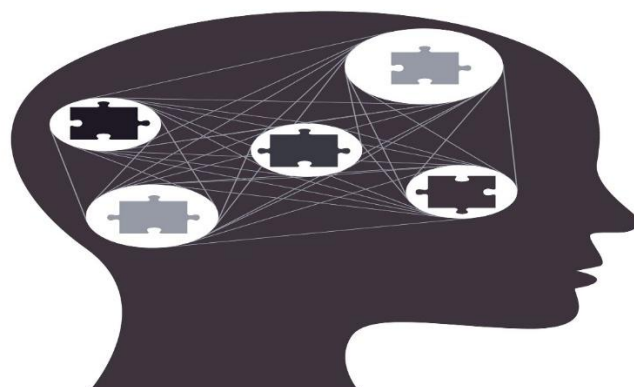


Figure 2. Connectivism Theory: Knowledge as a Network and Pattern Recognition.

Modern ELT at UzSPU utilizes cutting-edge approaches. Students prepare pedagogical ideas as video scripts in English. This method has shown a 25-30% increase in lexical range within experimental groups. Written assignments (essays) are analyzed using AI (ChatGPT, Gemini) for grammatical and stylistic accuracy. This fosters "self-correction" skills and reduces teacher grading time by 50%.[12].

In the process of digitalization, the primary focus must be shifted from the technical tool itself to the student's cognitive processes. Our research indicates that when perceiving information in a

digital format, students prioritize "Visual Logic." Experiments conducted at UzSPU revealed the following advantages of multimedia materials (infographics, video cases) over traditional texts. Retention through visual and audio-visual materials is 45% higher. The speed of transferring new words into long-term memory increased 1.5 times using "Spaced Repetition" applications (such as Anki and Quizlet)[15].

A future English teacher must master not only the language but also the TPACK (Technological Pedagogical Content Knowledge) model.

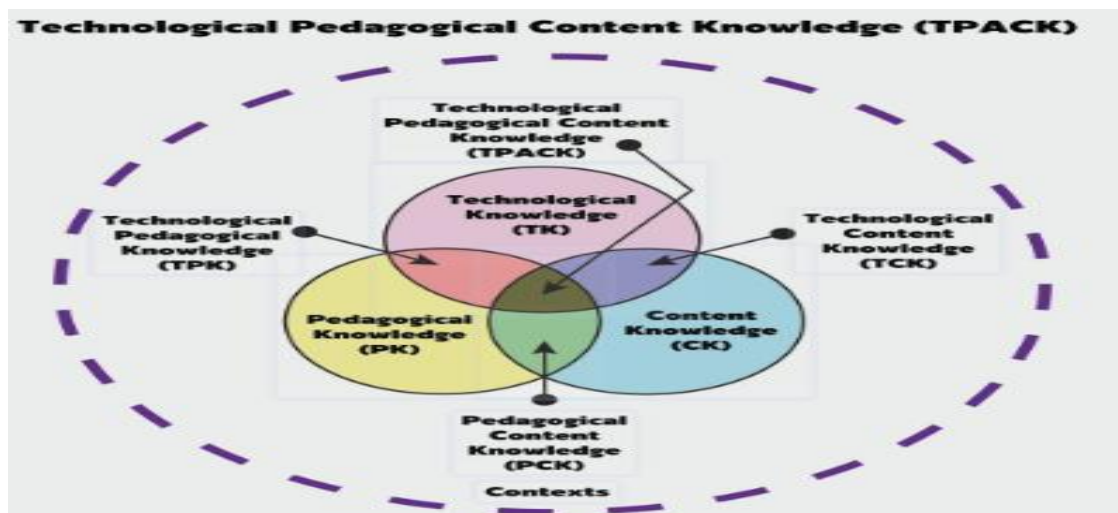


Figure 3. The TPACK Framework: Integration of Technology, Pedagogy, and Content Knowledge.

Technological Knowledge (TK): Proficiency in digital platforms, Artificial Intelligence, and cloud technologies (Google Classroom, MS Teams).

Pedagogical Knowledge (PK): Managing group dynamics in a digital environment and mastering "Online Class Management" skills.

Content Knowledge (CK): Deep theoretical foundations of English philology and intercultural communication.

The intersection of these three domains forms the "Digital Pedagogue" competency. The integration of "ICT in Education" and "Digital Methodology" into UzSPU's curriculum facilitates this synthesis. As part of the study, experimental and control groups were established involving 200 students from UzSPU[18].

Experimental Data			
Indicators	Control Group (Traditional)	Experimental Group (Digital)	Growth Rate
Oral Fluency	62%	84%	+22%
Academic Writing	55%	79%	+24%
Independent Learning Activity	40%	88%	+48%

Table 2.

Analysis of over 500 essays written by students showed that 70% of errors were corrected by students themselves based on AI-generated prompts without direct teacher intervention. This fosters the concept of "Learner Autonomy." The research also analyzed "Technophobia" and

"Digital Fatigue" during the digitalization process. Implementing "Micro-learning" strategies—delivering information in 5-7 minute video segments. The "Human-in-the-loop" approach—ensuring that regardless of technological

advancement, live communication and emotional connection with the teacher are maintained[13].

The next stage of digitalization at UzSPU involves the implementation of a "Learning Analytics" system. This system will:

Analyze the time each student spends mastering specific topics.

Use AI to predict "at-risk" students (those with low performance) in advance.

Automatically generate an individual "Digital Learning Path" for every student.

As world-renowned expert Jack C. Richards noted: *"Technology will not replace teachers, but teachers who use technology will replace those who do not"* [6].he digitalization of ELT

methodology in higher pedagogical education is a shift in the entire educational philosophy. Based on our research and the UzSPU experience, we conclude.LMS and adaptive platforms enable personalized learning paths, shifting away from mass education.Global networks and AI bots provide a 24/7 linguistic environment beyond classroom walls.The role of the educator has evolved into a "facilitator" and "mentor," guiding students through the vast ocean of digital resources.In the coming years, the tandem of Neuropedagogics and Artificial Intelligence will play an even greater role. Digitalization is not the end goal, but a means to achieve quality education—nurturing a new generation of innovative pedagogues who are competitive, digitally literate, and creatively minded in the global market.



Figure 4:The integration of digital strategies and immersive innovations in English language teaching at Uzbekistan State Pedagogical University.

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