FRANSUZ TILINI O‘RGANISHDA TALAFFUZ KO‘NIKMALARINI TAKOMILLASHTIRISHNING INNOVATSION USULLARI

Bagautdinova Ilmira Salavatovna
Tayanch doktorant (PhD)
O‘zbekiston davlat jahon tillari universiteti Toshkent shahri
is.bagautdinova@uzswlu.uz
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Annotatsiya. Maqola O‘zbekistonda kasbiy ta’limning raqamli transformatsiyasini o‘rganishga bag‘ishlangan. Fransuz tilini o‘rganishda fonetik ko‘nikmalarni monitoring qilish va rivojlantirishni avtomatlashtirish uchun axborot-kommunikatsiya texnologiyalarini (AKT) qo‘llash maqsadga muvofiqligi asoslandi. Ilmiy yangilik talabalarning talaffuz kompetensiyasini mehnat bozorining dolzarb talablariga muvofiq takomillashtirish uchun raqamli tizimlardan foydalanish modelini ishlab chiqishdan iborat.
Kalit so‘zlar: raqamli ta’lim muhiti, kasbiy ta’lim, fonetik kompetensiya, fransuz tili, AKT, monitoringni avtomatlashtirish, O‘zbekiston mehnat bozori.

ИННОВАЦИОННЫЕ МЕТОДЫ В СОВЕРШЕНСТВОВАНИИ ПРОИЗНОСИТЕЛЬНЫХ НАВЫКОВ ПРИ ИЗУЧЕНИИ ФРАНЦУЗСКОГО ЯЗЫКА

Аннотация. Статья посвящена исследованию цифровой трансформации профессионального образования в Узбекистане. Обоснована целесообразность применения информационно-коммуникационных технологий (ИКТ) для автоматизации мониторинга и развития фонетических навыков при изучении французского языка. Научная новизна заключается в разработке модели использования цифровых систем для совершенствования произносительной компетенции студентов в соответствии с актуальными требованиями рынка труда.
Ключевые слова: цифровая образовательная среда, профессиональное образование, фонетическая компетенция, французский язык, ИКТ, автоматизация мониторинга, рынок труда Узбекистана.

INNOVATIVE METHODS IN IMPROVING PRONUNCIATION SKILLS WHEN LEARNING FRENCH

Abstract. This article examines the digital transformation of vocational education in Uzbekistan. It justifies the use of information and communication technologies (ICT) to automate the monitoring and development of phonetic skills in the study of French. The scientific novelty lies in the development of a model for using digital systems to improve students’ pronunciation skills in line with the current demands of the labour market.
Keywords: digital learning environment, vocational education, phonetic competence, French, ICT, automated monitoring, Uzbekistan’s labour market.

Introduction. Against the backdrop of the global digital transformation of higher education, the issue of enhancing the professional competences of future specialists is taking on strategic importance. In accordance with Decree No. UP-60 of the President of the Republic of Uzbekistan dated 28 January 2022 “On the Development Strategy for New Uzbekistan for 2022–2026”, the priority task for higher education is to radically improve the quality of training through the introduction of digital technologies and the harmonisation of national standards with the CEFR international descriptors.

The digital transformation of the modern educational paradigm marks a fundamental shift from the linear delivery of learning content to a model of dynamic management of individual learning pathways. Against the backdrop of the globalisation of vocational education, the introduction of ICT-based learning management systems enables the transformation of the educational environment: from the passive storage of teaching materials to the predictive monitoring of students’ academic progress [6. 2022: P.2914]. This technological evolution is becoming a critical factor in scaling up vocational education in Uzbekistan, where it is necessary to maintain high standards of training quality whilst significantly increasing student intake and adapting to the demands of the labour market [3. 2026: P.28].

Traditional methods of educational assessment are often characterised by their sporadic nature and subjectivity, which makes it difficult to identify gaps in learning in a timely manner. The scientific novelty of this study lies in overcoming these limitations by integrating predictive analytics tools directly into the LMS (Learning Management System) architecture. The proposed model ensures continuous data collection and analysis, enabling the prompt adjustment of study programmes in real time, based on objective metrics of the acquisition of specific professional skills [5. 2022: P. 87].

In the context of digitalisation, the development of linguistic competences—in particular, the phonetic component when learning French—presents a particular challenge. Traditional classroom methods do not always allow for individualised articulation correction for each student in large groups. Consequently, the integration of ASR (Automatic Speech Recognition) technologies into a university’s digital ecosystem is becoming an essential prerequisite for training competitive professionals [2. 2026: P. 204].

The aim of this study is to develop and provide a theoretical justification for a model of a digital ecosystem based on an LMS, designed to optimise the process of developing professional competences. To achieve this aim, the following tasks are addressed: systematising the functional capabilities of modern Learning Management Systems (LMS) in the context of professional training; identifying key determinants for the objective monitoring of competence acquisition levels; and designing an algorithm for the adaptive adjustment of the educational process based on predictive analytics data.

Main Body. The theoretical foundation of this study is based on a comprehensive approach to the study of the mechanisms underlying the acquisition of phonological systems in the process of foreign language learning. The object of the study is the process of developing students’ phonetic competence in the context of learning French as a foreign language. Within this process, the focus is on transforming theoretical knowledge of the sound structure of the language into stable articulation skills. The subject of the study is the set of methods and tools for digital pronunciation correction, implemented using Automatic Speech Recognition (ASR) technologies.

The methodological basis of this work consists of two fundamental concepts of applied linguistics. Firstly, there is R. Lado’s theory of linguistic interference [1. 2023: P. 2], which allows the occurrence of phonetic errors to be interpreted as the result of the influence of the phonological system of the native (Uzbek) language on the target (French). According to Lado, the most challenging areas of learning arise at points where articulation positions do not coincide, which requires the development of specific corrective strategies. Secondly, the study draws on the monitor hypothesis and S. Krashen’s theory of second language acquisition [4. 2019: P. 85], which emphasises the importance of providing learners with the opportunity to receive regular ‘comprehensible input’ and immediate feedback.

The scientific novelty of this approach lies in viewing phonetics not as an abstract set of rules, but as a complex psychophysical skill. Phonetic activity is distinctly ‘mechanical’ in nature, requiring high-frequency repetition and sensorimotor consolidation. In this regard, the integration of modern ICT is viewed as a tool for optimising the training cycle, providing the intensive practice necessary for the automation of articulatory movements and the overcoming of interference barriers [7. 2025: P.3]

To achieve the set objective and address the research questions, a set of complementary methods was applied to ensure the comprehensiveness and reliability of the results obtained. The choice of methods was dictated by the interdisciplinary nature of the work, which lies at the intersection of linguistics, pedagogy and information technology.

The first stage of the work involved a theoretical analysis of the academic literature on the phonology of the French language and recent advances in the field of ASR technology. During this analysis, approaches to studying the articulatory characteristics of the French language were systematised, and the technological capabilities of ASR (Automatic Speech Recognition) algorithms for assessing pronunciation accuracy were identified. This enabled the formation of a conceptual framework for the development of a digital correction model.

A contrastive analysis approach was employed to identify areas of potential phonetic difficulty. As part of this approach, a comparison was carried out between the phonological systems of French and Uzbek. Particular attention was paid to identifying deficient sound units — elements of French phonetics that have no direct equivalents in the Uzbek language (in particular, the system of nasal vowels and specific labialised sounds). This method provided a scientific basis for selecting specific exercises for digital correction, focusing on the ‘high-risk’ areas where the likelihood of interference is greatest.

The research hypothesis was empirically tested through a pedagogical experiment. An ICT tool based on ASR technology was introduced into the educational process. During the experiment, the students were divided into two groups:

1. A control group, which was taught using traditional methods based on auditory perception and imitating the teacher’s pronunciation.

2. An experimental group, in whose learning process a digital correction tool was used, providing instant visualisation and assessment of the accuracy of articulation.

A statistical method was used to verify the effectiveness of the tool. Performance was assessed by analysing the dynamics of phonetic errors in both groups. A comparison of pronunciation accuracy indicators before and after the experiment was carried out using methods of mathematical statistics (in particular, Student’s t-test for independent samples). This made it possible to mathematically confirm the significance of differences in the rates of phonetic competence development and to establish the extent to which ASR technologies influence the reduction in the frequency and severity of phonetic errors.

The introduction of innovative ASR technologies into Uzbekistan’s educational environment faces a number of systemic barriers that require a comprehensive approach:

- Infrastructure: The main obstacle is the ‘digital divide’. Uneven access to high-speed internet and modern computer equipment between urban centres and regional educational institutions creates inequality in educational opportunities, limiting the scalability of high-tech solutions.

- Linguistic aspect: Global platforms (Duolingo) prove to be of limited effectiveness for Uzbek students due to a failure to account for the specific characteristics of the Uzbek phonetic system. These systems do not take into account the interference caused by the absence of certain French phonemes in the Uzbek language (for example, nasal vowels). Without adapting the algorithms to the specific language pair (Uzbek–French), a digital tool is unable to provide an accurate diagnosis of errors.

- Pedagogical aspect: The need to adhere to the TPACK (Technological Pedagogical Content Knowledge) model [8. 2024: P.187–190]. Successful implementation requires teachers to possess not merely basic computer literacy, but the integration of three components of knowledge: technological, pedagogical and subject-specific. A lack of competence among teachers at the intersection of these areas hinders the effective use of ICT as a teaching tool, rather than a mere supplement to the textbook.

Research findings. The study involved a comprehensive analysis of the factors influencing the effectiveness of integrating digital technologies into foreign language teaching at higher education institutions in Uzbekistan. The data obtained enable us to identify three key problem areas: infrastructure, language technology, and professional competence.

The infrastructure analysis revealed the existence of a pronounced “digital divide”. Despite a general increase in internet accessibility, 42% of respondents (students and lecturers at regional universities) noted unstable connections and poor-quality equipment in teaching rooms. This creates conditions for an intermittent learning process, reducing students’ engagement in interactive online activities.

The language technology aspect revealed a critical shortage of localised software. Testing of popular EdTech platforms demonstrated low speech recognition accuracy (ASR) when processing the accent typical of Uzbek-speaking students. The recognition error rate averages 25–30% in the early stages of learning, which leads to the formation of incorrect phonetic patterns and reduces motivation to use automated self-assessment systems.

An analysis of teaching staff competencies revealed a discrepancy between their level of technical proficiency and the extent to which technology is integrated into their teaching methods. According to the survey results, 65% of teachers use digital tools merely as an aid (such as showing presentations or playing videos), without applying them to the design of complex interactive tasks. The study confirmed a skills gap within the TPACK (Technological Pedagogical Content Knowledge) model: teachers have a good command of subject matter and technology separately, but lack the ability to synthesise them into a unified pedagogical strategy.

Thus, the results indicate that the current digital transformation is predominantly technical in nature, rather than methodological. This limits the potential of digital tools as means of transforming cognitive processes in foreign language learning.

Conclusion. This study has provided a comprehensive assessment of the current state of digitalisation in foreign language teaching at higher education institutions in Uzbekistan. Based on the data obtained, it can be concluded that, despite the active introduction of IT tools, the process of integrating technology into the educational environment remains fragmented and predominantly technical.

The main obstacles to a high-quality transformation of teaching are infrastructural instability, the poor adaptability of foreign software products to the local phonetic context, and a methodological gap in the training of teaching staff. It has been found that the lack of synergy between technological capabilities and pedagogical design (the TPACK model) undermines the potential of digital platforms, reducing them to mere visualisation tools rather than instruments of active learning.

To overcome these barriers, it is necessary to shift the focus from the quantitative expansion of the technical infrastructure to the qualitative development of teachers’ methodological competence. It is recommended that specialised EdTech solutions be developed, taking into account the linguistic characteristics of the target audience, and that programmes for the continuous improvement of teachers’ digital competences be implemented. Further research should focus on investigating the impact of adaptive intelligent systems on students’ individual learning trajectories within a digital environment.

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