



AI APPLICATIONS SUPPORTING SPEAKING SKILL DEVELOPMENT

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Abstract

Artificial intelligence now enables language education to create entirely new methods for teaching students how to speak. This study investigates how AI-based tools function as speaking development resources through their theoretical and analytical assessment of current research in applied linguistics educational technology and second language acquisition theory. The article demonstrates how educators can achieve better outcomes for their students through systematic implementation of artificial intelligence applications because these tools provide increased opportunities for authentic speaking practice and deliver customized feedback based on performance data which traditional educational methods cannot provide.

Keywords: Artificial intelligence, speaking skills, language learning technology, automatic speech recognition, oral communicative competence, intelligent tutoring systems, second language acquisition.

Аннотация

Интеграция искусственного интеллекта в языковое образование открывает качественно новые возможности для развития навыков устной речи учащихся. В данной статье рассматриваются теоретические и аналитические аспекты приложений на основе ИИ как инструментов для развития навыков устной речи, опираясь на современные исследования в области прикладной лингвистики, образовательных технологий и теории усвоения второго языка. В статье утверждается, что приложения ИИ,



систематически интегрированные в педагогические рамки, значительно повышают частоту, аутентичность и качество возможностей для практики устной речи, одновременно предлагая персонализированную, основанную на данных обратную связь, недоступную в традиционных условиях обучения в классе.

Ключевые слова: искусственный интеллект, навыки говорения, технологии обучения иностранным языкам, автоматическое распознавание речи, устная коммуникативная компетенция, интеллектуальные обучающие системы, усвоение второго языка.

Annotatsiya

Sun'iy intellektning til ta'limiga integratsiyasi o'rganuvchilarning og'zaki nutq kompetentsiyasini rivojlantirishda sifat jihatidan yangi imkoniyatlar ochdi. Ushbu maqolada amaliy tilshunoslik, ta'lim texnologiyalari va ikkinchi til o'zlashtirish nazariyasi sohasidagi zamonaviy ilmiy tadqiqotlarga tayanib, sun'iy intellektga asoslangan ilovalarning nutq ko'nikmalarini rivojlantirish vositasi sifatidagi nazariy va analitik jihatlari ko'rib chiqiladi. Maqolada sun'iy intellekt ilovalari pedagogik tizimga muntazam ravishda integratsiya qilingan taqdirda, nutq amaliyoti imkoniyatlarining tezligi, autentikligi va sifatini sezilarli darajada oshirishi, shu bilan birga an'anaviy sinf sharoitida mavjud bo'lmagan shaxsga yo'naltirilgan, ma'lumotlarga asoslangan teskari aloqani ta'minlashi asoslab beriladi.

Kalit so'zlar: sun'iy intellekt, nutq ko'nikmalari, til o'rganish texnologiyalari, nutqni avtomatik tanish, og'zaki kommunikativ kompetentsiya, intellektual o'qitish tizimlari, ikkinchi tilni o'zlashtirish.

INTRODUCTION

The development of speaking competence remains one of the most pedagogically complex and practically significant challenges in foreign language education. Oral production requires learners to coordinate phonological resources and lexical resources and syntactic resources and pragmatic resources at the same



time which creates heavy cognitive demands on them and creates important teaching responsibilities for instructors [1]. The traditional classroom setting has faced limitations since its fixed schedule and its student capacity and its uneven distribution of speaking chances to students have made it difficult to deliver essential speaking practice which students need to become effective speakers [2]. The introduction of artificial intelligence into educational technology systems marks a fundamental change in how existing educational challenges can be solved. AI-powered language learning applications have transitioned from experimental tools into standard teaching resources which enable students to experience real-life communication while their learning mistakes are precisely identified and their educational materials are customized according to their training needs [3].

METHODOLOGY AND LITERATURE REVIEW

The present study uses a qualitative literature-based research method. The investigation uses theoretical and analytical sources from applied linguistics and instructional technology and second language acquisition to study the research topic. Azimov studied how Russian educational systems use computer technology for teaching foreign languages which showed that digital resources can help students practice communication skills outside school yet he warned against using these resources without proper teaching methods [5]. Polat developed a framework to assess how educational institutions should implement new teaching techniques because he showed that educational systems need to integrate technological advancements into their complete teaching frameworks to achieve essential student learning results rather than temporary student interest [6]. The first perspective connects to the Uzbek scholars who study educational matters in their post-Soviet system which focuses on implementing reforms while keeping strict methodological standards. Yo'ldoshev studied how digital tools advanced English language education in Uzbekistan which showed that these technologies became more common in higher education yet he found that educational systems face difficulties when they need to implement digital resources that students with lack of experience in self-study must use for their learning [7]. Mirzayev studied how digital resources affect language instruction in Uzbekistan because he



showed that teachers need to change from their traditional role through which they deliver information to their students into a new role which requires them to create educational environments for their students [8].

The research on AI speaking tools has progressed through multiple stages of analysis which now demonstrate advanced analytical capabilities. The review conducted by Golonka et al. examined technology types which showed their effectiveness in foreign language learning and discovered that speaking-oriented technologies with automatic speech recognition showed positive results for pronunciation accuracy and oral fluency when learners received immediate, corrective feedback [3]. Liakin, Cardoso, and Liakina studied how automatic speech recognition impacts English learning of suprasegmental features and found that ASR-based feedback tools helped learners identify and fix stress mistakes better than they could do through independent self-checking [9]. The critical analysis of AI in language teaching by Hockly presented a balanced view which recognized AI speaking tools capacity to change education while showing the essential role of teachers and the danger of dependence on automated feedback systems which fail to capture all authentic spoken language varieties [10].

RESULTS AND DISCUSSION

The literature review process leads to multiple distinct analytical findings which demonstrate how AI applications enable users to develop their speaking abilities. First and most fundamentally, AI tools address the problem of practice scarcity that structurally limits speaking development in conventional classroom settings. As Godwin-Jones established, personalised AI-driven environments can provide learners with virtually unlimited speaking practice opportunities calibrated to their current proficiency level [2]. This pedagogical significance exists because research in second language acquisition demonstrates a proven relationship between speaking fluency and the quantity of substantial oral practice which learners receive. Conversational AI agents create systems which enable learners to maintain extended spoken dialogues for their speaking practice needs because these systems provide interactional practice opportunities throughout the day



without requiring learners to face social situations that cause them anxiety during their classroom activities.

Second, the literature consistently identifies automatic speech recognition as the technical engine underlying the most pedagogically effective AI speaking applications. The study results from Liakin et al. proved that ASR-based systems deliver immediate phonological feedback which becomes impossible to achieve during large class sessions [9]. The feedback system provides specific details about errors which include stress placement errors and vowel quality deviations and consonant cluster reductions. The specialized phonetic expertise required by human instructors becomes unnecessary because well-trained ASR models produce this particular level of feedback. The AI speaking tools used in classrooms create new types of corrective input which accelerate phonological development that traditional methods cannot achieve. Golonka et al.'s broader review corroborated this point, finding that speaking technologies incorporating real-time feedback consistently outperformed passive or output-only practice modalities in terms of measurable gains in pronunciation accuracy [3].

Third, the literature reveals that the pedagogical value of AI speaking tools is not uniformly distributed but depends critically on the quality of their integration into broader instructional frameworks. Polat's insistence on the systemic embedding of technological innovations within sound pedagogical designs [6] finds direct application here: AI speaking applications that are used as isolated exercises without connection to curriculum goals, communicative tasks, or instructor guidance produce weaker learning outcomes than those integrated into coherent instructional sequences. Mirzayev's analysis of the Uzbek context reinforced this point from a local perspective, noting that the effectiveness of digital tools in speaking instruction depends heavily on the pedagogical literacy of the instructor and the degree to which learners have developed the autonomous learning habits necessary to exploit AI feedback productively [8]. Hockly's critical perspective adds an important corrective to uncritically optimistic assessments, reminding researchers and practitioners that AI feedback models are trained on specific spoken corpora that may not adequately represent regional accents, non-standard varieties, or the speech of learners whose L1 phonology differs substantially from the training data [10]. This limitation does not invalidate AI speaking tools but



requires that their outputs be mediated by pedagogically informed instructors capable of contextualising automated feedback within a more nuanced understanding of communicative competence. Chapelle's evaluative framework, which foregrounds interactional authenticity as a core criterion for assessing language learning technologies [1], provides a useful instrument for practitioners seeking to select and evaluate AI speaking applications: tools that simulate genuinely communicative interaction, require meaningful oral output, and provide contextually sensitive feedback are more likely to support the development of authentic speaking competence than those that reduce spoken language to pronunciation drill. Yo'ldoshev's documentation of innovative technology use in Uzbek English language teaching further suggests that the motivational dimension of AI speaking tools — their novelty, interactivity, and capacity for immediate reward — should not be dismissed as superficial but recognised as a genuine pedagogical asset, particularly for learners whose prior speaking instruction has been predominantly passive and receptive [7]. Azimov's caution regarding methodological grounding [5] nevertheless remains salient: motivational engagement with AI tools is a precondition for, not a substitute for, the deeper processing and reflective practice that produce durable gains in speaking competence.

CONCLUSION

The analytical review presented in this article demonstrates that AI applications represent a substantively significant development in the pedagogical toolkit available for speaking skill instruction. The convergent findings of international, Russian, and Uzbek scholarship establish that AI tools — through automatic speech recognition, conversational simulation, personalised feedback, and adaptive content delivery — address structural limitations of conventional classroom-based speaking instruction that have resisted resolution through purely methodological means. The most pedagogically valuable AI speaking applications are those that provide real-time phonological feedback, simulate authentic communicative interaction, and are systematically integrated into instructor-mediated instructional frameworks rather than deployed as self-contained substitutes for planned teaching. The limitations of these tools,



particularly those related to the representativeness of training corpora and the risk of uncritical reliance on automated feedback, are real but manageable through informed pedagogical practice.

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