

**O‘ZBEKISTON RESPUBLIKASI OLIY TA’LIM, FAN VA
INNOVATSIYALAR VAZIRLIGI**

**MIRZO ULUG‘BEK NOMIDAGI O‘ZBEKISTON MILLIY
UNIVERSITETINING JIZZAX FILIALI**



KOMPYUTER ILMLARI VA MUHANDISLIK TEXNOLOGIYALARI
mavzusidagi Xalqaro ilmiy-texnik anjuman materiallari to‘plami
2026-yil 25-26-sentabr

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Xalqaro miqyosidagi ilmiy-texnik anjuman materiallarida zamonaviy kompyuter ilmlari va muhandislik texnologiyalari sohasidagi innovatsion tadqiqotlar aks etgan.

Globalashuv sharoitida davlatimizni yanada barqaror va jadal sur'atlar bilan rivojlantirish bo'yicha amalga oshirilayotgan islohotlar samarasini yaxshilash sohasidagi ilmiy-tadqiqot ishlariga alohida e'tibor qaratilgan. Zero iqtisodiyotning, ijtimoiy sohalarni qamrab olgan modernizatsiya jarayonlari, hayotning barcha sohalarini liberallashtirishni talab qilmoqda.

Ushbu ilmiy ma'ruza tezislari to'plamida mamlakatimiz va xorijlik turli yo'nalishlarda faoliyat olib borayotgan mutaxassislar, olimlar, professor-o'qituvchilar, ilmiy tadqiqot institutlari va markazlarining ilmiy xodimlari, tadqiqotchilari, magistr va talabalarining ilmiy-tadqiqot ishlari natijalari mujassamlashgan.

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Mazkur to'plamga kiritilgan ma'ruza tezislarining mazmuni, undagi statistik ma'lumotlar va me'yoriy hujjatlarning to'g'riligi hamda tanqidiy fikr-mulohazalar, keltirilgan takliflarga mualliflarning o'zlari mas'uldirlar.

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ARTIFICIAL INTELLIGENCE AS A MEANS OF DEVELOPING FOREIGN LANGUAGE LISTENING SKILLS

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Abstract: The revolutionary transformation of modern education is driven by the widespread adoption of artificial intelligence (AI) technologies. More and more educators, researchers, and methodologists are recognizing that AI is not just a trendy technology, but a powerful digital assistant capable of radically changing approaches to foreign language teaching, particularly the development of foreign language listening skills.

Keywords: artificial intelligence (AI) technologies, foreign language listening skills, audio materials, effectiveness of learning.

Artificial intelligence facilitates the solution of many educational problems, including those related to the development of foreign language listening skills in foreign language (English) lessons.

Among the significant challenges is the expansion of available material. One of the pressing problems of modern textbooks designed for foreign language learning is the limited and insufficient diversity of audio materials for developing students' listening skills. Research shows that many textbooks provide audio material with limited topic coverage, an insufficient number of pronunciation options, and do not take into account a variety of difficulty levels, which impacts the effectiveness of developing students' listening comprehension and perception skills [5].

In these conditions, artificial intelligence acts as a powerful tool for expanding and enriching the content of the educational process. The functionality of artificial intelligence includes the generation of large arrays of audio and text content adapted to levels of complexity and speech patterns; the parameterization of timbre, speech rate, and articulation features; and the modeling of conditions close to the natural speech environment. Personalization and adaptability mechanisms ensure the

reproduction of auditory situations that stimulate the development of foreign speech comprehension skills. [6]

Another objective is the adaptation of difficulty levels. Adaptation of the educational process to the individual student's level is achieved through the selection of educational materials with varying levels of difficulty, which correlates with the students' initial level of preparedness. The developed step-by-step learning trajectory, which provides for the gradual increase in complexity of learning tasks, is accompanied by a gradual increase in confidence in the ability to listen to speech.

The use of artificial intelligence models enables the creation of audio materials and accompanying exercises adapted to different levels of language proficiency. "The system continuously monitors the student's progress, identifying their strengths and weaknesses, as well as areas requiring additional attention. Based on this analysis, the AI creates individualized learning plans, selecting materials of the appropriate level of difficulty, learning pace, and type of tasks" [3]. The corpus of materials includes lexical units corresponding to qualification levels (A2, B1, and above), and speech synthesis with adjustable timbre, speed, and regional accents (British, American, etc.). The integration of these technologies eliminates the limitations of traditional textbooks and enhances learning personalization, contributing to increased motivation and learning effectiveness. [2]

Among the significant tasks, it is also important to highlight the automated recognition and classification of language errors. An automated neural network module records and analyzes audio signal fragments that detect distortions in students' speech perception or articulation errors. The software processes the obtained data to design customized tasks and exercises aimed at correcting identified deficiencies in audio perception.

Accent and diction parameters can also be assessed. Computer-aided learning methods provide a systematic analysis of the phonetic parameters of oral speech, including tempo, intonation organization, articulatory manifestations, and accent specificity.

The design of interactive learning tasks can also be included among the significant tasks. Platform resources provide tasks with feedback aimed at practicing listening skills. After listening to an audio recording, exercises are completed that include checking the assimilation of vocabulary, identifying the general meaning of what was heard, searching for specific information, or formulating answers to questions about the content. "Interactivity in the process of teaching listening in English plays a crucial role in improving the perception and understanding of the language." This component promotes the active participation of students, "maintains their motivation and helps them better assimilate and apply the acquired knowledge in practice" [4]. The development of tasks is carried out taking into account the objectives of the lesson and the level of preparation of students. The nature of the interactive exercises presented stimulates the development of listening competencies, increases motivation and engagement, and also ensures an increase in the effectiveness and attractiveness of language learning [1].

Furthermore, multilingual support is also essential. The ability of artificial intelligence systems to process multiple languages is realized through the configuration of functional parameters—selection of accent, diction, tempo, and timbre of oral utterance—enabling the comparison of grammatical, lexical, and phonetic characteristics across languages and speaker categories.

The introduction of intelligent technologies into the development of foreign language listening skills increases the effectiveness of learning by providing a rich, adaptive, interactive, and personalized learning experience, which deepens listening competencies, increases motivation, and improves the quality of foreign language acquisition in classroom settings for large groups.

The functional capabilities of artificial intelligence services in listening training include the generation and adaptation of audio materials; the development of variable assignments; personalization of the learning process and provision of prompt feedback; and increased motivational engagement of students. Their integration into the lesson structure allows for the optimization of listening skills development methods, making the process more flexible and compliant with the requirements of the modern educational environment. The key factor remains the use of technology, justified from the point of view of teaching methods, in combination with traditional methodological principles.

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BLOG AS AN AUXILIARY TOOL FOR TEACHING ENGLISH WRITING

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Abstract: Teaching English writing is a complex process that requires a combination of technical exercises and the development of planning and creative