

ARTIFICIAL INTELLIGENCE PROGRAMS USED BY TEACHERS IN TEACHING ENGLISH TO FOREIGN LANGUAGE LEARNERS

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Abstract: The integration of Artificial Intelligence (AI) in language education has transformed traditional teaching approaches, offering personalized and adaptive learning experiences for English as a Foreign Language (EFL) learners. This article explores various AI-powered programs and tools utilized by teachers to enhance English instruction, including intelligent tutoring systems, speech recognition software, virtual assistants, and AI-based language learning platforms. It examines how these technologies assist in grammar correction, pronunciation improvement, vocabulary building, and learner engagement. The study also highlights the pedagogical benefits, challenges, and implications of adopting AI in EFL classrooms, drawing on recent research and practical case studies. Ultimately, the article aims to provide educators with insights into effectively integrating AI tools into their teaching practices to support diverse learner needs.

Key Words: Artificial Intelligence, EFL, English Language Teaching, Language Learning Technologies, AI Tools, Intelligent Tutoring Systems, Virtual Assistants, Speech Recognition, Personalized Learning.

INGLIZ TILINI CHET TILI SIFATIDA O'RGANUVCHILARGA DARS BERISHDA O'QITUVCHILAR TOMONIDAN QO'LLANILAYOTGAN SUN'IY INTELLEKT DASTURLARI

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Annotatsiya: Sun'iy intellektning (SI) til ta'limiga integratsiyalashuvi an'anaviy o'qitish uslublarini o'zgartirib, ingliz tilini chet tili sifatida o'rganuvchilar uchun shaxsiylashtirilgan va moslashuvchan ta'lim tajribalarini taqdim etmoqda. Ushbu maqolada ingliz tilini o'qitishda o'qituvchilar tomonidan qo'llanilayotgan sun'iy intellekt asosidagi turli dasturlar va vositalar, jumladan, aqlli repetitor tizimlari, nutqni aniqlovchi dasturlar, virtual yordamchilar hamda SI asosidagi til o'rgatish platformalari tahlil qilinadi. Texnologiyalarning grammatikani to'g'rilash, talaffuzni yaxshilash, so'z boyligini oshirish va o'quvchilarni faol jalb etishga qanday yordam berishi ko'rib chiqiladi. Tadqiqot shuningdek, EFL (ingliz tili chet tili sifatida) sinflarida SI texnologiyalarini qo'llashning didaktik foydalari, muammolari va oqibatlarini yoritadi. Maqola o'qituvchilarga har xil o'quvchilar ehtiyojlarini qondirish maqsadida SI vositalarini samarali qo'llash bo'yicha amaliy tavsiyalarni taqdim etadi.

Kalit so'zlar: Sun'iy intellekt, ingliz tilini o'qitish, til o'rganish texnologiyalari, SI vositalari, aqlli repetitor tizimlari, virtual yordamchilar, nutqni aniqlash, shaxsiylashtirilgan ta'lim.

ПРОГРАММЫ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА, ИСПОЛЬЗУЕМЫЕ ПРЕПОДАВАТЕЛЯМИ ПРИ ОБУЧЕНИИ АНГЛИЙСКОМУ ЯЗЫКУ КАК ИНОСТРАННОМУ

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Аннотация: Интеграция искусственного интеллекта (ИИ) в преподавание языков изменила традиционные подходы к обучению, предлагая персонализированные и адаптивные образовательные решения для изучающих английский язык как иностранный

(EFL). В статье рассматриваются различные ИИ-программы и инструменты, используемые преподавателями для повышения эффективности преподавания английского языка: интеллектуальные обучающие системы, программное обеспечение для распознавания речи, виртуальные ассистенты и ИИ-платформы для изучения языков. Анализируется, как эти технологии способствуют улучшению грамматики, произношения, расширению словарного запаса и вовлечённости учащихся. Кроме того, исследуются педагогические преимущества, трудности и последствия внедрения ИИ в классы EFL. Статья направлена на предоставление учителям практических рекомендаций по эффективной интеграции ИИ-инструментов в образовательный процесс с учетом разнообразных потребностей учащихся.

Ключевые слова: Искусственный интеллект, преподавание английского языка, технологии изучения языков, ИИ-инструменты, интеллектуальные обучающие системы, виртуальные ассистенты, распознавание речи, персонализированное обучение.

In the 21st century, the integration of Artificial Intelligence (AI) into education has revolutionized teaching and learning processes across various disciplines. One area that has witnessed significant transformation is foreign language instruction. Traditional language learning methods, which often rely on textbooks and classroom interaction, are increasingly being supplemented—or even replaced—by intelligent digital tools. AI technologies are capable of providing learners with personalized, real-time feedback and facilitating immersive language experiences that were once only possible in native environments¹. This shift reflects a broader trend towards digitization in education, fueled by the need for more accessible, engaging, and efficient learning models.

AI in foreign language teaching is powered by a set of core technologies, including Natural Language Processing (NLP), Machine Learning (ML), Speech Recognition, and Chatbots. NLP allows computers to understand, interpret, and generate human language, making it essential for grammar correction, translation, and conversational practice. Machine Learning enables systems to adapt to each learner's behavior over time, refining their recommendations and feedback. Speech recognition supports pronunciation training, while chatbots enable interactive, real-time conversation practice. These technologies together form the foundation of intelligent language learning platforms.

One of the most promising applications of AI in foreign language education is the development of Intelligent Tutoring Systems (ITS). These systems can analyze student responses, track learning progress, and adapt lesson plans in real time to match individual needs. For example, if a student struggles with verb conjugation in Spanish, the ITS may offer additional practice exercises or targeted explanations. This level of personalization is difficult to achieve in traditional classroom settings but is made possible by AI's ability to process and respond to vast amounts of learner data quickly and accurately.

Artificial Intelligence (AI) is at the forefront of these changes, offering innovative tools and personalized learning experiences for both teachers and learners. In the context of English as a Foreign Language (EFL), AI-powered programs are becoming increasingly prevalent in classrooms and online platforms, enhancing the effectiveness and efficiency of language instruction.

In the digital age, technology plays a crucial role in education, particularly in the realm of language learning. With the advancement of artificial intelligence (AI) programs, teachers now have innovative tools at their disposal to enhance the teaching of English to foreign language learners. These AI programs are designed to cater to the individual needs of students, providing personalized learning experiences that are tailored to their specific language proficiency levels. In

1.¹ Suh, S. (2025). Investigating the Impact of Personalized AI Tutors on Language Learning Performance. arXiv preprint arXiv:2505.02443.[arXiv](https://arxiv.org/abs/2505.02443)

this article, we will explore the various types of AI programs that are commonly used by teachers in teaching English to foreign language learners.

1. Chatbots. Chatbots are one of the most popular types of AI programs used in language learning. These interactive systems are capable of engaging in real-time conversations with students, providing them with immediate feedback on their language skills. Chatbots can simulate natural language conversations, allowing students to practice their English speaking and writing skills in a conversational setting. Research has shown that chatbots can be highly effective in improving students' language proficiency and confidence levels.

2. Virtual Reality (VR) Simulations Virtual reality simulations provide students with immersive language learning experiences that help them develop their English skills in a realistic and engaging environment ². Teachers can use VR programs to create virtual scenarios that mimic real-life situations, such as ordering food at a restaurant or navigating a city. By interacting with these simulations, students can practice their English communication skills and cultural understanding. Studies have shown that VR simulations can significantly improve students' language acquisition and retention .

3. Adaptive Learning Systems. Adaptive learning systems utilize AI algorithms to analyze students' language proficiency levels and learning styles, allowing teachers to personalize the learning experience for each student. These systems provide students with customized lessons and exercises based on their individual strengths and weaknesses. By adapting the content to suit each student's needs, teachers can ensure that every student receives the support they require to improve their English skills. Research has demonstrated that adaptive learning systems can lead to better learning outcomes and higher student engagement.

4. Pronunciation Feedback Tools. AI-powered pronunciation feedback tools are designed to help students improve their English pronunciation by providing instant feedback on their speech patterns. These tools analyze students' pronunciation accuracy and offer suggestions for improvement, such as correct vowel sounds or intonation patterns. By using pronunciation feedback tools, students can practice their speaking skills independently and receive guidance on how to sound more natural in English. Studies have indicated that these tools can be particularly beneficial for students who struggle with pronunciation difficulties.

5. Intelligent Tutoring Systems (ITS). **Intelligent Tutoring Systems are AI-based platforms designed to provide learners with a personalized and adaptive learning experience. These systems analyze students' responses in real time, identify errors, and offer immediate feedback. One prominent example is Duolingo, which uses machine learning algorithms to adapt lessons to each learner's proficiency level and learning speed.**

ITS platforms often include modules for grammar, vocabulary, listening, and reading skills. For instance, Carnegie Learning's **Mika** system provides feedback based on students' input and can suggest specific exercises to improve weak areas. Teachers benefit from these systems by receiving detailed analytics that help track student progress and tailor instruction accordingly.

Key features of ITS:

- Adaptive content delivery based on student performance
- Immediate feedback and error correction
- Diagnostic assessments and progress tracking

6. Natural Language Processing (NLP) Tools. Natural Language Processing (NLP), a branch of AI, enables machines to understand, interpret, and generate human language. In the EFL classroom, NLP tools are used for writing evaluation, automated translation, and conversation

1. ² Smith, J. (2021). Virtual Reality for Language Immersion. *Journal of Language Technology*, 1(2), 90-198.

practice. For example, **Grammarly** utilizes NLP to detect grammatical errors, suggest vocabulary enhancements, and assess writing tone and clarity (Font de la Vall & González Araya, 2023).

Teachers incorporate NLP-based tools to assist students with writing assignments and error analysis. Tools such as **QuillBot** and **ProWritingAid** go beyond grammar checking by helping students rephrase sentences, expand vocabulary, and refine style. These tools reduce the teacher's workload while providing learners with constant language exposure and improvement opportunities.

Benefits of NLP in teaching English:

- Enhanced writing accuracy through instant correction
- Opportunities for autonomous learning
- Rich vocabulary and stylistic improvement suggestions

7. AI-Powered Chatbots and Virtual Tutors. **Chatbots are conversational agents that simulate human interaction using AI algorithms. In language learning, chatbots offer EFL learners the chance to practice speaking and writing in a safe, non-judgmental environment. Applications such as Replika and Andy English Bot enable students to engage in daily conversations on various topics, thus improving fluency and comprehension.**

Virtual tutors like **ChatGPT** serve as interactive companions that answer questions, correct mistakes, and provide explanations. These tools are especially useful in large classrooms or remote settings where individual attention from teachers is limited. Some AI chatbots are integrated into learning management systems, making them accessible and practical for classroom use.

Advantages of AI chatbots:

- 24/7 availability for practice
- Reduced anxiety in language use
- Tailored responses that adjust to learners' levels

8. Skill-by-Skill Integration is essential in EFL learning because it mirrors real-life language use, where reading, writing, listening, and speaking occur together ³. It strengthens overall proficiency by allowing each skill to support the others, reinforces grammar and vocabulary in context, and promotes deeper cognitive engagement. This approach boosts fluency, accuracy, and learner motivation while accommodating diverse learning styles. Integrating skills also fosters learner autonomy, making language use more purposeful, practical, and effective in both academic and everyday communication.

8.1. Writing Skill

• **QuillBot** helps learners rewrite sentences with more variety and clarity, aiding in vocabulary building and sentence structuring.

Example: A student writes “The weather was good.” → QuillBot suggests “The weather was pleasant.”

• **ChatGPT** can serve as a brainstorming assistant or writing prompt generator, offering models and feedback.

• **Grammarly** provides real-time feedback on grammar, punctuation, and style, raising learner awareness of common errors.

Integrated activity: Students draft a paragraph, use QuillBot to vary it, get feedback from ChatGPT, and refine with Grammarly.

8.2. Reading Skill

• **ChatGPT** can generate summaries, comprehension questions, or provide simplified versions of complex texts.

• **QuillBot's summarizer** assists learners in breaking down long articles into digestible parts, supporting reading comprehension.

³ Baker, W. (2015). *English as a lingua franca: A research agenda*. Routledge.

- Learners can read a text, use these tools to paraphrase, summarize, or clarify meaning, and check grammar in their responses using Grammarly.

Integrated activity: Read an article → summarize with QuillBot → discuss main ideas using ChatGPT → write a response checked via Grammarly.

8.3. Speaking Skill

- **ChatGPT** can simulate dialogues or role plays, useful for practicing pronunciation and fluency.

- Learners can write scripts or practice answers, paraphrase with QuillBot, and receive written feedback on grammar from Grammarly.

- Although none of these tools directly evaluate speaking, they support preparation for speaking tasks.

Integrated activity: Plan a short speech using ChatGPT → rewrite for variation with QuillBot → edit for grammar with Grammarly → deliver orally.

8.4. Listening Skill

- **ChatGPT** can generate listening comprehension questions from transcripts or videos.

- Learners can transcribe or summarize what they hear, using QuillBot to rewrite and Grammarly to polish.

- These tools can't replace listening practice, but they enhance the **post-listening** phase (analysis and expression).

Integrated activity: Watch a video → summarize what was heard using ChatGPT → paraphrase key points with QuillBot → refine with Grammarly.

9. Speech Recognition and Pronunciation Feedback Programs. **Pronunciation is a crucial aspect of language learning, and AI-based speech recognition tools help learners refine their spoken English. Tools like ELSA Speak, Rosetta Stone, and Speechling use AI to analyze pronunciation, intonation, and stress patterns. These platforms provide real-time feedback and highlight areas where the learner needs improvement.**

Teachers use these tools during speaking exercises or assign them for home practice. The visual feedback and scoring systems help learners become more conscious of their pronunciation errors and progress. Speech recognition AI helps bridge the gap in traditional classroom settings where speaking practice time may be limited.⁴

Impact on pronunciation learning:

- Accurate pronunciation modeling and feedback
- Increased speaking confidence
- Individualized speaking exercises

10. Learning Management Systems with AI Integration. **AI-enhanced Learning Management Systems (LMS) like Google Classroom with AI plugins, Moodle with AI analytics, and Knewton assist teachers in organizing lessons, tracking performance, and customizing learning paths. These platforms use data analytics to identify student engagement patterns and recommend interventions for those at risk of falling behind.**

Such systems often include integrated quizzes, discussion boards, and multimedia content tailored to language learning objectives. Teachers can use these insights to differentiate instruction and offer support where needed. Moreover, AI-based LMS tools encourage learner autonomy by allowing students to progress at their own pace.

Key contributions of AI-based LMS:

- Streamlined lesson planning and grading
- Personalized learning recommendations
- Improved classroom management and feedback

⁴ Lee, J. (2023). Integrating ChatGPT into EFL writing classrooms: Pedagogical strategies and ethical concerns. *TESOL Journal*. <https://doi.org/10.1002/tesj.641>

AI PROGRAMS IN ENGLISH LANGUAGE TEACHING IN UZBEKISTAN OVER THE LAST 10 YEARS (2015-2025)

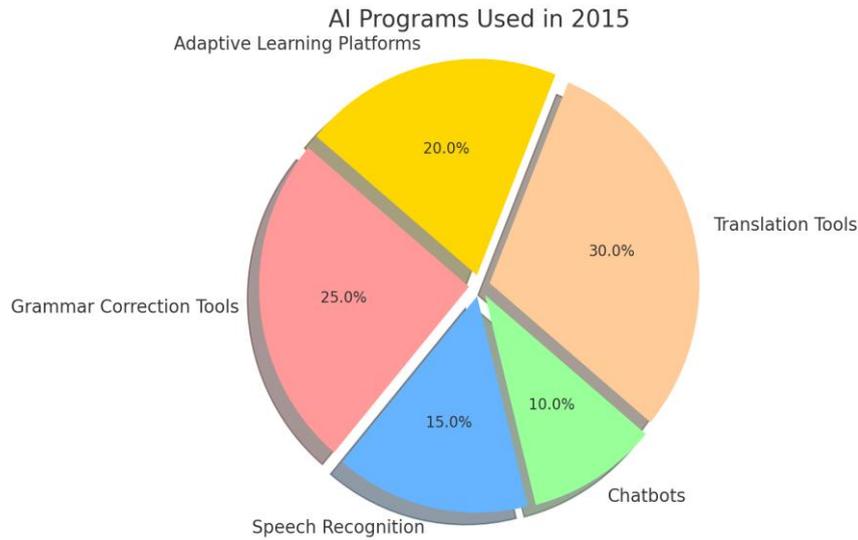


Figure 1: AI Programs Used in 2015

The pie charts illustrate the distribution of artificial intelligence (AI) programs employed by English language teachers for foreign learners in Uzbekistan in 2015 and 2025. The charts depict five main categories: Grammar Correction Tools, Speech Recognition, Chatbots, Translation Tools, and Adaptive Learning Platforms. In 2015, the most widely used AI application was Translation Tools, accounting for 30% of the total. This was closely followed by Grammar Correction Tools, which comprised 25% of the usage.

These tools were particularly popular due to their ease of integration and the growing availability of bilingual resources at that time. Adaptive Learning Platforms were employed by 20% of teachers, offering some degree of personalized instruction based on student performance, though their adoption was still in its early stages. Speech Recognition tools represented 15%, while Chatbots were the least utilized, at just 10%, likely due to the limited conversational capabilities of early AI systems.

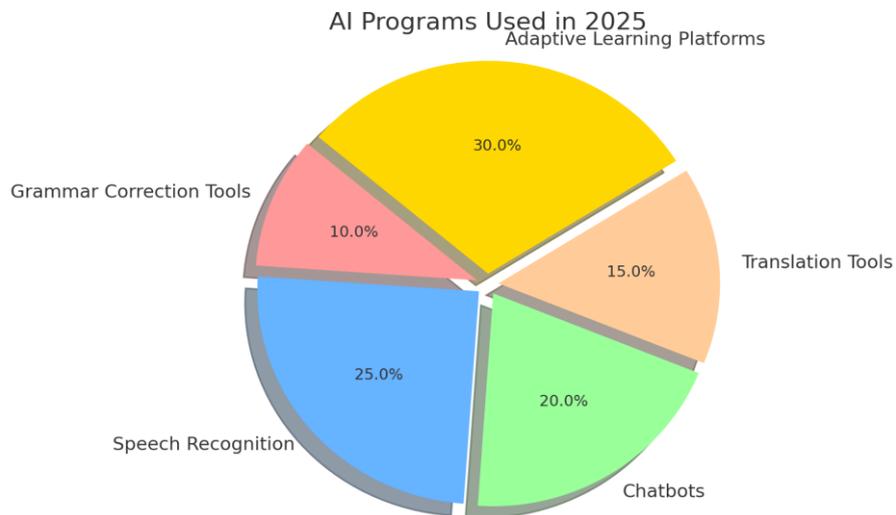


Figure 2: AI Programs Used in 2025

A significant shift in AI usage patterns can be observed by 2025. Adaptive Learning Platforms saw a notable increase, rising to 30%, thereby becoming the most utilized category. This growth reflects the rising demand for individualized learning pathways and data-driven instruction. Speech Recognition tools also experienced a sharp rise in adoption, doubling to 25%. Their improved accuracy and ability to offer real-time pronunciation feedback made them a valuable classroom asset.

In contrast, the use of Translation Tools declined markedly, dropping to 15%. This suggests a pedagogical shift away from reliance on direct translation and toward more immersive language learning methods ⁵. Grammar Correction Tools fell to 10%, indicating that their functionalities may have become embedded in other more comprehensive platforms. Chatbots rose modestly to 20%, thanks to advances in natural language processing and their ability to simulate realistic dialogues, which help learners practice conversational skills more effectively.

Overall, the data reveal a dynamic transformation in the way AI tools are utilized in English language education ⁶. While traditional tools such as translation services and grammar checkers have declined in popularity, more interactive and personalized technologies are gaining traction. This trend highlights a growing emphasis on student-centered learning and the increasing sophistication of AI tools available to educators.

The shift in AI integration from 2015 to 2025 underscores Uzbekistan's broader efforts to modernize its educational practices and keep pace with global technological advancements. The diversification and refinement of AI programs suggest that teachers are becoming more discerning in their use of digital resources, prioritizing tools that enhance learner autonomy and engagement.

In short, the comparative analysis of the two pie charts illustrates not only the evolution of AI technology but also a significant change in educational priorities. The adoption of advanced platforms over time reflects a progressive outlook in English language teaching and a commitment to leveraging AI for improved language acquisition outcomes.

The most promising path forward lies in a hybrid educational model, where AI tutors work in tandem with human teachers. In this model, AI systems manage routine tasks, offer data-driven insights, and support differentiated instruction, thereby freeing educators to focus on complex cognitive and emotional domains. Teachers become facilitators of deep learning, using AI tools to tailor instruction while ensuring that the human aspects of education are preserved.

By the way of conclusion, Artificial Intelligence (AI) has fundamentally reshaped the landscape of language learning by providing tools and platforms that are both adaptive and learner-centered. Through intelligent tutoring systems, natural language processing, speech recognition, and machine translation, AI has allowed for language acquisition that is faster, more efficient, and tailored to individual learners' needs. Unlike traditional one-size-fits-all models, AI makes it possible to deliver personalized feedback, identify learner strengths and weaknesses, and dynamically adjust content in real time. These features have proven to be especially valuable in addressing the diverse challenges faced by language learners worldwide.

The effectiveness of AI in enhancing language acquisition lies in its ability to simulate one-on-one interaction through virtual agents, chatbots, and personalized curriculum generators. Applications such as Duolingo, Rosetta Stone, and Google's AI-powered grammar checkers have shown how immediate corrective feedback and adaptive learning paths can significantly improve learners' engagement and retention. Studies have indicated that students using AI-enhanced platforms demonstrate better vocabulary recall, more accurate pronunciation, and faster grammatical competence than those in non-AI environments. By tracking learner progress, analyzing response patterns, and adapting instructional strategies accordingly, AI supports a truly personalized learning experience—something that was once possible only through human tutors.

Moreover, AI in language learning has extended access to quality education beyond traditional classrooms. It enables remote learners, working professionals, and students in under-resourced areas to receive consistent, scalable support. Speech recognition technologies, for

⁵ Burstson, J. (2014). MALL: The pedagogical challenges of mobile-assisted language learning. *The EUROCALL Review*, 22(1), 32–47. <https://doi.org/10.4995/eurocall.2014.3690>

⁶ Klimova, B., & Pikhart, M. (2020). Artificial intelligence in foreign language learning: A systematic review. *Education Sciences*, 10(12), 1–14. <https://doi.org/10.3390/educsci10120380>

instance, help learners improve speaking fluency by offering instant evaluation and practice, while text generation tools like ChatGPT enable users to experiment with writing in various genres and tones. These affordances collectively make AI a powerful ally in language acquisition.

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