IMPROVING LANGUAGE ACQUISITION EFFECTIVENESS FOR STUDENTS THROUGH CUTTING-EDGE TECHNOLOGIES: THE ROLE OF ARTIFICIAL INTELLIGENCE

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Abstract: This article explores the impact of artificial intelligence (AI) technologies on enhancing language acquisition among students. Utilizing AI-powered tools such as gpt chat, chatbot gpt, gemini chatbot, chatbot ai, qweni ai, gemini ai, adaptive learning platforms, and speech recognition systems, the research evaluates improvements in learner engagement, proficiency, and retention. As well as results of AI integration significantly boosts learning outcomes, offering promising avenues for future educational practices.

Key words: artificial intelligence, language acquisition, AI-powered tools, students, learning platforms, proficiency, learner engagement, AI integration, learning outcomes, utilizing, gpt chat, chatbot gpt, gemini chatbot, chatbot ai, qweni ai, gemini ai.

Аннотация. Эта статья исследует влияние технологий искусственного интеллекта (ИИ) на повышение эффективности изучения языков среди студентов. В рамках исследования используются инструменты на базе ИИ, такие как GPT-чаты, чатботы GPT, чатбот Gemini, чатботы AI, Qweni AI, Gemini AI, платформы адаптивного обучения и системы распознавания речи. В работе оценивается улучшение вовлеченности учащихся, уровней владения языком и сохранения знаний. Также показано, что интеграция ИИ значительно повышает результаты обучения, открывая перспективные направления для будущих образовательных практик.

Ключевые слова: искусственный интеллект, изучение языков, инструменты на базе ИИ, студенты, платформы для обучения, уровень владения языком, вовлеченность учащихся, интеграция ИИ, результаты обучения, использование, GPT-чаты, чатбот GPT, чатбот Gemini, чатбот AI, Qweni AI, Gemini AI.

Annotatsiya. Mazkur maqola sun’iy intellekt (SI) texnologiyalarining talabalar orasida til o‘rganishga ta’siriga bag‘ishlangan. Ilmiy tadqiqotda GPT chatlar, GPT chatbot, Gemini chatbot, AI chatbotlar, Qweni AI, Gemini AI, moslashuvchan o‘qitish platformalari va nutqni tanish tizimlari kabi SI qo‘llangan o‘qitish vositalari foydalanilgan. Tadqiqotda o‘quvchilarning ishtirokida, bilish darajasida va bilimni saqlashda yaxshilanishlar baholangan. Shuningdek, SI integratsiyasining ta’lim natijalarini sezilarli darajada yaxshilashi va kelgusidagi ta’lim amaliyoti uchun unumli yo‘nalishlarni ochishi ko‘rsatilgan.

Kalit so‘zlar: sun’iy intellekt, til o‘rganish, SI asosidagi vositalar, talabalar, o‘qitish platformalari, bilish darajasi, o‘quvchi ishtirokini oshirish, SI integratsiyasi, ta’lim natijalari, qo‘llanilishi, GPT chatlar, GPT chatbot, Gemini chatbot, AI chatbot, Qweni AI, Gemini AI.

Introduction. Language acquisition has traditionally depended on classroom instruction, textbooks, and rote memorization, which often limit learner engagement and personalized feedback. Recent advancements in artificial intelligence (AI) have introduced innovative solutions that can tailor learning experiences to individual needs, providing real-time feedback

and immersive practice environments.[1] AI-driven language learning tools have shown potential in improving motivation, engagement, and proficiency, but empirical evidence remains limited. This study aims to evaluate the effectiveness of AI-based technologies in enhancing language acquisition among students.

Literature Review. The integration of cutting-edge technologies, particularly artificial intelligence (AI), has garnered considerable interest in the field of language education. Researchers have explored how AI-driven tools can facilitate more personalized, engaging, and effective language learning experiences.

AI and Personalized Learning. One of the key advantages of AI in language education is its ability to tailor learning experiences to individual students' needs[2]. Chen and Hsieh highlight that AI-powered platforms, such as adaptive learning systems, can analyze learners' performance in real-time and adjust content accordingly. This personalization enhances learner motivation and accelerates proficiency gains. Similarly, Li and Zhang emphasize that AI algorithms can identify learners' weaknesses and provide targeted practice, thereby improving overall learning outcomes. AI in Enhancing Speaking and Listening Skills. Speech recognition technology has been employed to improve pronunciation and listening comprehension. Wang and Liu demonstrate that AI-powered speech recognition tools enable learners to practice speaking in realistic scenarios, receiving immediate feedback on pronunciation accuracy[3]. Studies show that such interventions can significantly boost speaking confidence and accuracy[4].

Methods. A total of 150 students enrolled in intermediate-level language courses at a university participated in the study. Participants were randomly assigned to an experimental group (AI-assisted learning) and a control group (traditional instruction). The study employed a quasi-experimental design with pre- and post-intervention assessments. Quantitative data were collected through standardized language proficiency tests, while qualitative data were obtained via student surveys and interviews.

The experimental group used AI-powered platforms, including chatbots for conversational practice, speech recognition tools for pronunciation training, and adaptive learning systems that personalized content based on individual performance. The control group followed conventional classroom methods without AI integration.

Procedure: The intervention lasted 10 weeks, with students engaging with the AI tools for at least 3 hours per week. Language proficiency was assessed at baseline and after the intervention using standardized tests measuring vocabulary, grammar, listening, and speaking skills.

Results. The AI group demonstrated an average score increase of 20% across all language skill assessments. The control group showed a 7% improvement. Statistical analysis confirmed that the AI group's gains were significantly greater ($p < 0.01$). Qualitative Survey responses indicated that students in the AI group felt more motivated, confident, and engaged. Many highlighted the immediate feedback and personalized learning pathways as key benefits.

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Discussion. The findings suggest that AI technologies significantly enhance language acquisition by providing personalized, immediate feedback and creating engaging learning environments. AI-driven tools adapt to individual learner needs, enabling targeted practice and reducing frustration associated with generic instruction. Limitations include the need for technological infrastructure and potential issues related to learner motivation without human interaction. Future research should explore long-term retention and the integration of AI with other emerging technologies.

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