

ENHANCING SPEAKING PROFICIENCY OF UZBEK EFL STUDENTS
THROUGH GENERATIVE ARTIFICIAL INTELLIGENCE: CHALLENGES,
STRATEGIES, AND FUTURE DIRECTIONS

O'ZBEKISTONLIK EFL TALABALARINING NUTQ QOBILIYATINI
GENERATIV SUN'IY INTELLEKT ORQALI OSHIRISH: MUAMMOLAR,
STRATEGIYALAR VA KELAJAKDAGI YO'NALISHLAR

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Abstract. Speaking remains one of the most challenging skills for English as a Foreign Language (EFL) learners in Uzbekistan due to limited exposure to authentic communication and large class sizes. This study investigates the effectiveness of generative AI tools (ChatGPT, Grok, ELSA Speak, and Google Gemini) in improving speaking proficiency among Uzbek university students. A quasi-experimental mixed-methods design was employed with 160 second-year students from three major universities in Tashkent. The experimental group ($n=80$) engaged in AI-supported speaking practice for 16 weeks, while the control group ($n=80$) followed traditional methods. Results showed a significant improvement in speaking fluency, pronunciation accuracy, and confidence in the experimental group ($p < 0.001$). Qualitative findings highlighted increased willingness to communicate and reduced speaking anxiety. However, issues such as AI hallucination, lack of cultural nuance, and unequal access to technology were identified. The study proposes a practical framework for integrating generative AI into speaking instruction in the Uzbek context and offers recommendations for educators and policymakers.

Keywords: Generative AI, Speaking Proficiency, EFL, Uzbek Students, Language Learning Technology, AI-assisted Speaking Practice, Higher Education

Annotatsiya. O'zbekistonda ingliz tilini chet tili sifatida o'rganuvchilar uchun gapirish haqiqiy muloqotga cheklanganligi va sinflarning kattaligi sababli eng qiyin ko'nikmalardan biri bo'lib qolmoqda. Ushbu tadqiqot generativ AI vositalarining (ChatGPT, Grok, ELSA Speak va Google Gemini) o'zbek universitet talabalari orasida nutq qobiliyatini oshirishdagi samaradorligini o'rganadi. Toshkentdagi uchta yirik universitetdan 160 nafar ikkinchi kurs talabalari bilan kvazi-eksperimental aralash usullar dizayni qo'llanildi. Eksperimental guruh ($n=80$) 16 hafta davomida AI qo'llab-quvvatlanadigan nutq amaliyoti bilan shug'ullangan, nazorat guruhi ($n=80$) esa an'anaviy usullarga amal qilgan. Natijalar eksperimental guruhda nutq ravonligi, talaffuz aniqligi va o'ziga ishonchning sezilarli darajada yaxshilanganligini ko'rsatdi ($p < 0,001$). Sifatli topilmalar muloqot qilishga tayyorlikning ortganligini va nutq xavotirining kamayganligini ta'kidladi. Biroq, AI gallyutsinatsiyasi, madaniy nuansning yo'qligi va texnologiyalarga teng bo'lmagan kirish kabi muammolar aniqlandi. Tadqiqot generativ AI ni o'zbek kontekstida nutq o'qitishga integratsiya qilish uchun amaliy asos taklif qiladi va o'qituvchilar va siyosatchilar uchun tavsiyalar beradi.

Kalit so'zlar: *Generativ AI, Nutq qobiliyati, EFL, O'zbek talabalari, Til o'rganish texnologiyasi, AI yordamida nutq amaliyoti, Oliy ta'lim*

Introduction

The development of oral communication skills is a priority in Uzbekistan's higher education system, as stated in the "Concept of Foreign Language Teaching" (2020) and the Digital Uzbekistan-2030 Strategy. However, traditional EFL classes in Uzbekistan often prioritize grammar and reading over speaking practice due to time constraints and large student groups.

Generative Artificial Intelligence tools now offer new possibilities for creating realistic speaking scenarios, providing instant feedback on pronunciation, and simulating conversations with native-like partners. This study explores how generative AI can be effectively used to enhance speaking proficiency among Uzbek EFL learners.

Research Questions:

To what extent does the use of generative AI tools improve speaking proficiency (fluency, accuracy, pronunciation, and confidence) of Uzbek students?

What are the primary benefits and limitations of using AI for speaking practice in the Uzbek educational environment?

What pedagogical strategies can maximize the effectiveness of AI-supported speaking activities?

Literature Review

Recent global research demonstrates the potential of AI in developing speaking skills. Li et al. (2023) found that AI chatbots significantly increased speaking time and reduced foreign language anxiety among Asian learners. Similarly, Huang et al. (2024) reported positive effects of generative AI on pronunciation and discourse management[1].

In the Uzbek context, studies by Karimova (2023) and Tursunova (2024) indicate that students experience high levels of speaking anxiety and limited opportunities for real communication[2]. Generative AI can address these gaps by offering personalized, judgment-free practice. However, research on the integration of AI in Uzbek EFL speaking classrooms remains scarce.

Methods

Research Design

Quasi-experimental mixed-methods design (pre-test, intervention, post-test + qualitative component).

Participants

160 undergraduate students (aged 18–22) from Tashkent State Pedagogical University, Uzbek State World Languages University, and National University of Uzbekistan.

18 EFL teachers participated in interviews and focus groups.

AI Tools and Materials

Generative AI: ChatGPT-4o and Grok for conversation simulation and role-plays[3].

Speech recognition: ELSA Speak and Google Gemini Live for pronunciation feedback.

Culturally adapted prompts: Topics related to Uzbek culture, history, reforms, and daily life.

Procedure

The intervention lasted 16 weeks (February–June 2025). Students in the experimental group practiced speaking with AI 3 times per week (20–30 minutes per session). Control group continued with conventional pair-work and teacher-led discussions. Pre- and post-tests were conducted using IELTS Speaking Band descriptors.

Data Collection and Analysis

Quantitative: IELTS Speaking scores and fluency metrics.

Qualitative: Semi-structured interviews, student reflection journals, and classroom observations.

Statistical analysis: SPSS 27 (t-tests, ANOVA). Thematic analysis for qualitative data[4].

Results

Quantitative Results

Table 1. Pre- and Post-test Speaking Scores Comparison (IELTS Band 0–9)

Criterion	Group	Pre-test	Post-test	Improvement	p-value
Fluency & Coherence	Experimental	5.1	6.8	+1.7	<0.001
Fluency & Coherence	Control	5.2	5.6	+0.4	0.087
Lexical Resource	Experimental	5.3	7.1	+1.8	<0.001
Grammatical Range	Experimental	5.0	6.7	+1.7	<0.001
Pronunciation	Experimental	5.4	7.2	+1.8	<0.001
Overall Band	Experimental	5.2	6.9	+1.7	<0.001

Qualitative Results

Students reported feeling more confident speaking with AI because “it doesn’t judge mistakes.” Teachers observed increased participation and noted that AI helped students practice complex topics they avoided in class.

Discussion

The findings support previous research showing generative AI’s effectiveness in improving speaking skills. The substantial gains in pronunciation and fluency can be attributed to immediate, personalized feedback that traditional classrooms cannot provide.

Opportunities in Uzbekistan:

Safe environment for shy students.

Unlimited speaking practice outside class hours.

Ability to create culturally relevant conversation scenarios.

Challenges:

Limited internet quality in regional universities.

AI's occasional lack of cultural sensitivity.

Risk of students memorizing AI-generated responses instead of developing genuine communication skills.

Teacher readiness to facilitate AI-enhanced lessons.

Conclusion and Recommendations

Generative AI presents a powerful tool for enhancing speaking proficiency among Uzbek EFL students. However, its successful implementation requires a balanced approach that combines technology with human guidance[5].

Practical Recommendations:

Develop institutional guidelines for AI use in speaking classes.

Provide regular training for EFL teachers on generative AI tools.

Create a national repository of culturally adapted AI speaking prompts.

Combine AI practice with real-life interaction activities (project-based learning, language clubs).

Future studies should explore the long-term impact of AI on students' communicative competence and critical thinking abilities.

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