

USING AI-POWERED CHATBOTS TO ENHANCE SPEAKING SKILLS IN ENGLISH AS A FOREIGN LANGUAGE CLASSROOMS

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Abstract: The challenge of improving speaking skills in English as a Foreign Language (EFL) classrooms is long-standing, especially in contexts with limited teacher time and peer interaction. This research explores the integration of AI-driven chatbots designed specifically for conversational practice and its impact on learners' fluency, pronunciation, and confidence. Over a fourteen-week intervention, a cohort of eighty intermediate-level learners engaged in structured weekly sessions with chatbots capable of adapting to individual accuracy and style. Performance data, learner reflections, and instructor observations were collected to evaluate change. The findings reveal substantial improvements in learner willingness to communicate, speaking fluency, and pronunciation accuracy, coupled with enhanced confidence and motivation. However, challenges surface around the chatbot's contextual awareness, occasional misunderstanding of learner input, and learners' preference for human feedback in nuanced conversations. The study concludes with design recommendations to optimize chatbot roles in EFL speaking development and suggests best practices for classroom implementation.

Keywords: AI chatbot, speaking fluency, EFL classroom, pronunciation feedback, adaptive conversation, learner autonomy, oral competence

Introduction

Developing oral competence in English as a Foreign Language has always been an essential yet challenging objective. Classroom limitations, such as large class sizes, limited teacher-student speaking time, and shy learners, exacerbate the difficulty of fostering fluent conversations. Advances in artificial intelligence, particularly conversational chatbots powered by natural language processing, offer new possibilities for practice outside human interaction constraints. Such chatbots can engage learners in realistic dialogue, adapt to individual proficiency levels, and offer instant feedback on pronunciation and fluency. These characteristics align with communicative approaches and autonomy-supportive teaching principles.

Despite the surge in interest, there remains limited empirical evidence regarding effectiveness of chatbots for speaking development. Questions abound about sufficiency of AI feedback, effects on learner confidence, and best practices for integration into curricula. This study addresses the gap by examining how structured

chatbot use influences speaking fluency, pronunciation accuracy, and learner confidence in an intermediate EFL context.

Methodology

This mixed-method study took place at a university language center over fourteen weeks and involved eighty intermediate-level English learners divided randomly into experimental and control groups. The experimental cohort accessed an AI chatbot platform twice weekly—each session designed to stimulate 15–20 minutes of spoken conversation on varied task prompts, including role-plays, problem-solving scenarios, and open-ended discussions.

The chatbot employed speech-recognition and pronunciation scoring algorithms, offering real-time corrective feedback on stress, intonation, and articulation. It also scaffolded learners by rephrasing prompts according to their proficiency and adjusting difficulty dynamically. Learners in the control group continued standard classroom oral practice activities without chatbot support.

Data collection included pre- and post-intervention speaking assessments (analyzed by independent raters using fluency and pronunciation rubrics), weekly reflection journals, and end-of-study focus-group interviews with experimental group participants and teacher reflections.

Quantitative analyses explored changes in fluency rates (words per minute and pause durations) and pronunciation error rates. Thematic analysis of qualitative data sought to uncover shifts in confidence, engagement, and learner attitudes toward AI-produced feedback.

Results

Speaking fluency exhibited statistically significant improvement in the experimental group, with average speech rate increasing by 11% and pausing frequency decreasing notably. Pronunciation scoring illustrated a 9% reduction in segmental and suprasegmental errors among chatbot users. Control group performance remained largely unchanged over the same period.

Qualitative findings underscored chatbot-driven behavioral change: learners highlighted a newfound willingness to speak without fear of embarrassment, noting feelings of freedom to make errors. They appreciated the chatbot's nonjudgmental, on-demand environment, which allowed repeated practice without shame. Several remarked on the conversational experience's realism, expressing greater spontaneity compared to scripted classroom dialogues.

However, learners also reported occasional frustration when the chatbot misinterpreted phrasing, or seemed unable to respond meaningfully to subtle emotional or cultural content. Many still preferred human interaction for complex communicative nuances or open-ended discussions. Teachers noted that chatbot logs revealed recurring

pronunciation patterns—elements that guided in-class emphasis and remedial exercises.

Discussion

Results demonstrate that AI chatbots can effectively supplement speaking practice in EFL settings. Gains in fluency and pronunciation suggest chatbots fill a gap in opportunities for oral rehearsal, particularly valuable for learners with limited access to native speakers. The autonomous, non-threatening atmosphere engenders higher motivation and self-correction habit, contributing to long-term learning agency.

But limitations surface when it comes to deeper dialogical nuances. These are currently outside the scope of generic chatbot frameworks. The mismatch of responses or contextual misunderstandings highlights the need for hybrid learning pedals—wherein chatbots are integrated but not exclusively entrusted with speaking practice. Teacher involvement remains essential for scaffolding cultural and pragmatic language aspects.

Pedagogically, chatbots appear most effective when implemented with clear structure. When learners knew session goals and received directed reflection prompts, speaking outcomes improved. This outcome aligns with broader technology-enhanced language learning theory that emphasizes guided integration rather than mere novelty.

Conclusion

AI-powered chatbots show strong potential to enhance speaking skills in EFL classrooms, especially by providing quantity of practice that is often unachievable in traditional settings. These tools support fluency development, pronunciation accuracy, learner autonomy, and confidence.

To adapt for wider classroom integration, instructional designers should prioritize chatbots with high speech-quality input, carefully scaffolded lesson design, and combined use with human instructor guidance. Future research should examine long-term retention effects, multilingual learning settings, and evolving AI capabilities for socio-pragmatic competence.

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