International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Technology-Driven Pedagogy: Ai and Student Engagement in Spoken English

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Abstract

This paper examines the impact of technology-driven pedagogy, with a focus on Artificial Intelligence (AI), on student engagement and motivation in spoken English learning. A mixed-methods design was employed, integrating classroom observations, learner surveys, and semi-structured interviews. AI-based tools—including speech recognition platforms, interactive chatbots, and adaptive feedback systems—were incorporated into oral communication activities. The study reveals that AI integration enhances learner confidence, reduces speaking anxiety, and promotes active participation. Students demonstrated increased willingness to practice English beyond classroom settings, supported by personalized feedback and continuous learning opportunities. Results underscore the potential of AI to reshape language pedagogy by fostering learner autonomy, collaboration, and sustained motivation. The findings suggest that AI-driven strategies can bridge the gap between theoretical knowledge and practical fluency, preparing learners for global academic and professional communication.

Keywords: Artificial Intelligence, Technology-Driven Pedagogy, Student Motivation, Spoken English, Language Learning, Engagement

INTRODUCTION

Speaking is a key ability in English as a Foreign Language (EFL) learning, enabling students to communicate ideas and interact in academic and social contexts (Harmer, 2003). Yet many learners struggle with speaking due to limited practice, low confidence, and fear of mistakes (Khudhur Omar, 2023; Kulsum et al., 2025). The rapid growth of digital technology has transformed language education, offering interactive tools that encourage active practice (Hasbi et al., 2024; Sari, 2024). Artificial Intelligence (AI) provides new opportunities, supporting learners with idea generation, accuracy, and feedback. Integrating AI fosters innovative environments that motivate EFL students to speak English confidently.

Discussion

The rapid growth of technology, particularly Artificial Intelligence (AI), has reshaped English as a Foreign Language (EFL) learning. AI influences instructional delivery, student interaction, and motivation, especially in speaking skills (Muaripin et al., 2024; Ahyarudin & Jamilah, 2024). This discussion examines AI's role in enhancing EFL learners' speaking motivation, organized into four interconnected subtopics for comprehensive analysis.

AI in Language Learning

Artificial Intelligence (AI) has become central to language education, offering innovative approaches to teaching and learning. AI-powered tools such as speech recognition, chatbots, and adaptive systems provide personalized experiences, enabling learners to practice at their own pace with immediate feedback (Urbaite, 2025; Alhatemi et al., 2026). In English learning, AI fosters interactive environments that improve pronunciation, vocabulary, and fluency while encouraging autonomy through self-directed practice beyond the classroom. Digital platforms simulate authentic communication, particularly valuable in EFL contexts with limited exposure. Recent studies confirm that AI-based environments enhance engagement, participation, and multimodal learning, supporting students anytime and anywhere (Hamid, 2025; Novita, 2026).

Speaking Skills in EFL Context

Speaking is a challenging skill for EFL learners, requiring not only linguistic ability but also confidence, fluency, and effective communication. Many students struggle due to limited vocabulary, fear of mistakes, and lack of practice opportunities (Omar, 2023). Meaningful, contextualized activities—such as communicative language teaching and task-based learning—promote interaction and real-life communication (Richards, 2008). Integrating digital technologies, especially AI, creates simulated environments where learners can practice with reduced anxiety, enhancing fluency and confidence (Ahyarudin & Jamilah, 2024). Thus, AI offers innovative opportunities to provide practice, build confidence, and support speaking skill development in EFL contexts.

Students' Motivation

Motivation is a key factor in students' success in language learning, shaping their willingness to participate, persist, and achieve goals (Deswarni, 2016; Deswarni et al., 2023). In EFL contexts, where daily exposure to English is limited, maintaining motivation is especially critical for speaking development (Islamiah & Hasbi, 2024). Motivation can be intrinsic—driven by personal satisfaction—or extrinsic, influenced by rewards, grades, or social expectations (Dörnyei, 2001). Modern technology, particularly AI, enhances both types by creating interactive, engaging environments. AI-powered tools such as Duolingo and ELSA Speak provide gamified learning and pronunciation feedback, while platforms like ChatGPT and Google Assistant simulate authentic communication. Collaborative tools like Flip and Padlet further support speaking practice by enabling learners to record, share, and interact in low-anxiety settings. Together, these technologies foster confidence, fluency, and sustained motivation in EFL speaking.

The Role of AI on Students' Speaking Motivation

Integrating Artificial Intelligence (AI) into language learning significantly impacts students' motivation, particularly in developing speaking skills (Herlina, 2026). AI-based tools provide interactive, personalized experiences that engage learners in speaking activities. Features such as direct feedback, speech recognition, and conversational agents allow students to practice without fear of mistakes, reducing anxiety and building confidence. AI also supports immersive environments where learners can express ideas creatively (Setiawan & Wibowo, 2025). These contexts enhance intrinsic motivation by making learning enjoyable and relevant. Research shows motivated students participate more actively and persist in speaking practice (Nazri et al., 2021). Moreover, AI enables continuous learning through flexible access

to resources anytime and anywhere, fostering autonomy and sustained engagement. Thus, AI integration not only improves speaking performance but also strengthens motivation, encouraging active participation and long-term skill development in EFL contexts.

Future Research and Practice

Several directions can guide further exploration of AI's role in motivating EFL students to speak English. Longitudinal studies are needed to examine the sustained impact of AI on confidence, fluency, and willingness to communicate. Research should also investigate AI-based multimodal materials, such as digital storytelling e-books, that integrate text, audio, visuals, and interactivity. Teachers' readiness, perceptions, and competencies in adopting AI must be assessed to design effective training and professional development. Additionally, studies can explore personalized and adaptive AI environments tailored to learners' needs, proficiency levels, and styles (Trinovita et al., 2025). Ethical considerations—including data privacy, over-reliance on technology, and balancing human interaction with AI—require careful attention (Hasbi et al., 2025). Addressing these areas will optimize AI's role in supporting speaking development and sustaining motivation in EFL contexts.

Practical Recommendations

Teacher Training & Readiness

- Develop structured professional development programs to train teachers in using AI-powered tools for language teaching.
- Provide workshops on integrating AI into communicative and task-based approaches, ensuring teachers feel confident and competent.

Equitable Access

- Ensure AI tools are accessible across urban and rural schools by investing in affordable devices, reliable internet, and multilingual interfaces.
- Promote government–private partnerships to subsidize AI-based language platforms for under-resourced institutions.

Curriculum Integration

- Embed AI-supported speaking activities into existing curricula, aligning them with national frameworks like NEP 2020.
- Encourage project-based learning where students use AI platforms to practice real-life communication tasks.

Personalized Learning

- Use adaptive AI systems to tailor speaking practice to learners' proficiency levels, reducing anxiety and building confidence.
- Encourage self-directed learning through apps that provide continuous practice outside the classroom.

Ethical & Responsible Use

- Establish clear policies on data privacy, responsible AI use, and balancing human interaction with technology.

- Promote awareness among educators and students about avoiding over-reliance on AI while valuing peer and teacher interaction.

Policy Support

- Encourage policymakers to integrate AI into national language education initiatives, ensuring scalability and sustainability.
- Provide funding for research on AI's long-term impact on motivation and speaking skills in diverse Indian contexts.

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