

Impact of ai-based educational tools on strengthening assertive communication in english language classes

Impacto de las herramientas educativas basadas en IA en el fortalecimiento de la Comunicación Asertiva en las clases de Inglés

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AUTORES:

¹ María José Sandoval-Pérez

² Yanine Carbo Silva

³ Marta Cecilia Alvarez Peña

⁴ Vicente Javier Coello-Vásquez

DIRECCIÓN PARA CORRESPONDENCIA: msandoval@utb.edu.ec

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ABSTRACT

The development of assertive oral communication is still a major difficulty in English as a Foreign Language (EFL) instruction, especially in higher education settings where students are expected to communicate effectively, responsibly, and confidently. Artificial

¹ Universidad Técnica de Babahoyo, Centro de Idiomas CENID, Babahoyo, Ecuador, msandoval@utb.edu.ec, <https://orcid.org/0000-0003-1858-7121>

² Universidad Técnica de Babahoyo, Centro de Idiomas CENID, Babahoyo, Ecuador, ycarbo@utb.edu.ec, <https://orcid.org/0000-0002-1385-0659>

³ Universidad Técnica de Babahoyo, Centro de Idiomas CENID, Babahoyo, Ecuador. malvarezp@utb.edu.ec, <https://orcid.org/0000-0001-7698-8965>

⁴ Universidad Técnica de Babahoyo, Centro de Idiomas CENID, Babahoyo, Ecuador, vcoellov@utb.edu.ec, <https://orcid.org/0000-0001-8544-1304>

intelligence (AI) has become a potential educational tool in recent years that can change language learning environments by offering individualized, interactive, and low-risk oral practice possibilities. This study presents a qualitative literature review, synthesizing contemporary research on the impact of AI-based teaching technologies on the development of assertive communication in English as a Foreign Language (EFL). Peer-reviewed studies, extracted from internationally renowned academic databases and published between 2021 and 2025, were examined. The results show a growing application of AI-based teaching tools, such as conversational chatbots, intelligent tutoring systems, adaptive learning platforms, and automated feedback systems, thereby improving performance in oral skills, reducing speaking anxiety, and fostering communicative confidence. These improvements in student mood and active participation are recognized as essential elements for effective communication. Furthermore, the findings show that AI-enhanced learning environments work best when integrated into learner-centered, communicative pedagogical frameworks and reinforced by active teacher mediation. For successful implementation, ethical issues related to algorithmic bias, data privacy, and equitable access to technology remain crucial. Overall, the study concludes that AI-based educational tools represent a valuable pedagogical approach to fostering assertive communication in English classes, provided their integration is pedagogically sound, ethically responsible, and context-sensitive

Keywords: *Speaking abilities, educational technology, assertive communication, AI-based learning tools, English as a foreign language.*

RESUMEN

El desarrollo de una comunicación oral asertiva sigue siendo una dificultad importante en la enseñanza del inglés como lengua extranjera (EFL), especialmente en entornos de educación superior, donde se espera que los estudiantes se comuniquen de forma eficaz, responsable y segura. La inteligencia artificial (IA) se ha convertido en los últimos años en una herramienta educativa con potencial que puede transformar los entornos de aprendizaje de idiomas al ofrecer posibilidades de práctica oral individualizadas, interactivas y de bajo riesgo. El presente estudio desarrolla una evaluación bibliográfica cualitativa, sintetizando

investigaciones contemporáneas sobre el impacto de las tecnologías de enseñanza basadas en IA en el desarrollo de la comunicación asertiva en el uso del idioma inglés como lengua extranjera (EFL). Para lo cual se examinaron investigaciones revisadas por pares, extraída de bases de datos académicas de renombre mundial y publicadas entre los años 2021 y 2025. Los resultados muestran una creciente aplicación de herramientas de enseñanza basadas en IA, como los chatbots conversacionales, los sistemas de tutoría inteligente, las plataformas de aprendizaje adaptativo y los sistemas automatizados de retroalimentación, mejorando así el rendimiento en las destrezas orales, reduciendo la ansiedad al hablar y fomentando la confianza comunicativa. Estos avances en el estado de ánimo y la participación activa de los estudiantes se reconocen como elementos esenciales para una comunicación eficaz. Por otra parte, los hallazgos muestran que los entornos de aprendizaje potenciados por IA funcionan mejor cuando se integran en marcos pedagógicos comunicativos centrados en el alumno y se refuerzan con la mediación activa del profesorado. Para una implementación exitosa, las cuestiones éticas relacionadas con el sesgo algorítmico, la privacidad de los datos y el acceso equitativo a la tecnología siguen siendo cruciales. En general, el estudio concluye que las herramientas educativas basadas en IA representan una valiosa vía pedagógica para fomentar la comunicación asertiva en las clases de inglés, siempre que su integración tenga una base pedagógica, sea éticamente responsable y sensible al contexto.

Palabras clave: *Habilidades orales, tecnología educativa, comunicación asertiva, herramientas de aprendizaje basadas en inteligencia artificial, inglés como lengua extranjera.*

INTRODUCTION

One of the most enduring issues in teaching English as a foreign language (EFL) is the development of effective oral communication skills, especially in higher education settings where students are expected to interact appropriately, critically, and confidently in academic and professional contexts (Huang, Hew & Fryer, 2024). Beyond linguistic accuracy, assertive communication which is defined as the capacity to communicate ideas, opinions, and feelings in a clear, confident, and courteous manner while interacting

meaningfully with others is becoming more and more important in modern language instruction (Kasneci et al., 2023). However, a lot of EFL students face affective obstacles that prevent them from developing assertive oral communication, such as speaking anxiety, a fear of being judged negatively, and a lack of opportunities for real-world interaction.

Ouyang & Jiao (2021) mention that the quick development of artificial intelligence (AI) in recent years has opened up new avenues for resolving these issues in language instruction. By providing individualized, interactive, and low-risk settings for language practice, AI-based educational tools such as conversational chatbots, intelligent tutoring systems, adaptive learning platforms, and speech recognition technologies have started to change conventional teaching methods (Zhang et al., 2025). According to research, these tools can lower affective barriers, boost learner engagement, and encourage more autonomy all of which are directly linked to assertive communicative behavior in EFL settings.

Xiao (2025) claims that the integration of AI into English language training is consistent with communicative and learner-centered pedagogical approaches that prioritize engagement, meaningful language use, and the development of socio-affective competencies. By providing immediate feedback, customized pacing, and opportunities for repeated practice without social pressure, AI-based solutions have the potential to assist students in gaining confidence and control over their oral performance. However, Simatupang & Heryono (2026) claim that the pedagogical effectiveness of these technologies will depend on how they are integrated into instructional design and mediated by teachers, as well as ethical concerns like algorithmic bias, data privacy, and equitable access.

Even with the increasing amount of research on AI in education, a thorough examination of the ways in which AI-based teaching tools support persuasive communication in English language instruction is still lacking (Tilfarlıoğlu & Polat, 2025). Fewer studies directly connect improvements in speaking performance, motivation, or anxiety reduction to persuasive communication as a multifaceted construct with affective, linguistic, and interactional components.

The current study attempts to close this gap by synthesizing recent empirical and review-based research on the effects of AI-based educational tools on assertive communication in EFL contexts that was published between 2021 and 2025. This article explores how various AI applications affect learners' oral performance, affective factors, and communicative confidence through a qualitative bibliographic review. It also addresses the pedagogical contexts in which these tools best facilitate assertive communication. By doing this, the study hopes to further the current scholarly conversation on technology-mediated language learning and offer guidance to researchers and educators who are interested in the ethical and pedagogically sound integration of AI in English language instruction

METHODOLOGY

In order to synthesize current scientific evidence on the connection between AI-based educational tools and the development of assertive communication in English language learning contexts, this study uses a qualitative, descriptive, and interpretative bibliographic review design. To guarantee rigor, relevance, and reproducibility, a transparent and methodical search approach was used.

The literature search was conducted using internationally recognized academic databases, including Scopus, Web of Science, ERIC, ScienceDirect, SpringerLink, and Google Scholar. These databases were selected due to their extensive coverage of applied linguistics research and educational technologies, as well as their solid academic standing. A variety of keywords and Boolean operators, including the following, directed the search process: “artificial intelligence” and “English language learning,” “AI-based educational tools” and “oral communication,” “chatbots” and “assertive communication,” “AI” and “EFL speaking skills.”

The number and variety of the review was established by the following inclusion criteria: (a) English-language studies; (b) research on the pedagogical application of AI in English language education; (c) peer-reviewed journal articles and systematic reviews published between 2021 and 2025; and (d) studies that addressed communicative, affective, or interactional dimensions related to assertiveness, confidence, or oral participation. Research

unrelated to language acquisition or communication skills, conference abstracts without full texts, and opinion pieces lacking theoretical or empirical support were among the exclusion criteria.

In order to determine relevance, a preliminary corpus of publications was screened by title and abstract after the identification stage. The full text of a few chosen articles was then reviewed. Thematic content analysis was used to examine the final sample in order to find recurrent themes, pedagogical trends, and conceptual connections between the use of AI and assertive communication. The classification of findings into pedagogical affordances, affective outcomes, and implementation challenges was made possible by this analytical process.

RESULTS

The synthesis of the chosen literature shows a solid and growing consensus about the beneficial effects of AI-based teaching tools on the growth of communicative confidence and assertive communication in EFL learners. In both empirical and review-based research, assertive communication is viewed as a multifaceted result that incorporates affective regulation, linguistic performance, and interactional competence all of which are significantly enhanced by AI-mediated learning environments (Çakmak, 2022).

The pedagogical benefits of conversational artificial intelligence, particularly chatbots designed for language practice, are among the most noteworthy findings in the reviewed literature. By providing low-stakes, nonjudgmental, and psychologically pleasant environments for oral communication, these devices effectively mediate speaking practice in EFL contexts (Huang et al., 2022). Empirical studies claim that human-chatbot interaction greatly improves L2 speaking skills and reduces speaking anxiety. This fosters an atmosphere that promotes more confident and combative speech (Çakmak, 2022). Additionally, it has been demonstrated that prolonged interaction with conversational chatbots increases learner engagement and motivation to communicate, facilitating improved idea articulation and greater initiative in spoken communication tasks (Fryer et al., 2022).

The function of AI-generated feedback is closely related to these results. Automated feedback systems greatly improve learners' self-regulation and metacognitive awareness during oral production because of their immediacy, consistency, and personalization (Zhang, et al., 2025). AI-driven feedback mechanisms promote higher levels of self-efficacy and communicative control essential components of assertive communication by empowering students to recognize, analyze, and fix linguistic errors on their own (Zawacki-Richter et al., 2019; Fryer et al., 2022). Learners are more prepared to start and maintain conversations in English as they become more comfortable controlling their spoken output.

Intelligent tutoring tools and adaptable learning platforms further improve assertive communication by enabling differentiated training. These systems dynamically adjust task complexity, feedback intensity, and interaction pace based on individual learner profiles, competence levels, and performance patterns (Tilfarlıoğlu & Polat, 2025). Students feel more in charge of their education and are better prepared to speak English confidently and purposefully as a result of this modification. According to research, students in environments aided by adaptive AI participate more actively in speaking assignments and voice their thoughts more assertively and clearly (Huang et al., 2024; Ali, 2024).

Zhang et al. (2025) mentioned that AI-based pronunciation tools and speech recognition technologies are also important for promoting assertive communication. These tools allow students to self-monitor and improve their oral production by providing objective, real-time feedback on pronunciation, fluency, and intelligibility. Increased confidence and decreased communicative inhibition are directly linked to improvements in phonological accuracy and speech fluency, which enable more assertive participation in oral interactions (Simatupang & Heryono, 2026)

Even though the results are generally positive, the literature also points out significant limitations that affect the overall outcomes. The limited ability of existing AI systems to capture the socio-emotional and pragmatic subtleties inherent in human communication, unequal access to AI technologies, and ethical concerns about data privacy and algorithmic bias are all persistent challenges (Ouyang & Jiao, 2021; Kasneci et al., 2023). Additionally, a number of studies warn against relying too much on AI tools, stressing that pedagogically

sound integration and knowledgeable teacher mediation are crucial to their efficacy in promoting assertive communication. In order to contextualize the use of AI, encourage thoughtful discussion, and make sure that communicative practices continue to be significant, moral, and socially grounded, educators are still crucial.

Table 1

Synthesis of Empirical Evidence on AI-Based Educational Tools and Assertive Communication in EFL Contexts

Author(s)	Study type	AI-based educational tool	Educational context	Reported effect related to assertive communication*
Çakmak (2022)	Empirical study	Chatbot–human interaction (chatbot speaking practice)	EFL learners for (classroom-based speaking)	Improved L2 speaking performance and reduced speaking anxiety, supporting more confident and assertive oral participation.
Fryer et al. (2022)	Empirical study	Conversational chatbot as task partner	University-level language course	Increases interest and improves throughout interactions; encourages oral expression and participation with confidence in spoken responsibilities.
Huang et al.	Systematic review	Chatbot-supported	Multiple EFL/ESL	Overall favorable patterns in motivation,

Author(s)	Study type	AI-based educational tool	Educational context	Reported effect related to assertive communication*
(2022)		language learning	settings (review)	interaction, and affective results (such as decreased anxiety), which tangentially reinforce assertive communication practices.
Aliakbari et al. (2025)	Empirical study	AI chatbots for EFL conversation practice	EFL learners (conversational proficiency)	Improved conversational proficiency and interactive performance, enabling clearer expression of ideas and increased communicative confidence.
Zhang et al. (2025)	Empirical study	Intelligent learning companions (AI companions)	EFL learners (oral English expression)	Enhanced oral expression ability (fluency/production outcomes), facilitating clearer, more confident and assertive oral expression.

Author(s)	Study type	AI-based educational tool	Educational context	Reported effect related to assertive communication*
Simatupang & Heryono (2026)	Empirical study	AI-supported English instruction within technology-enhanced TBLT	EFL instruction (task-based learning)	Evidence of enhanced performance through AI-supported activities; encourages confidence and interaccional practice during communicative tasks (assertive participation as a result of task engagement).
Tilfarlıoğlu & Polat (2025)	Systematic review	AI applications for speaking skill development (multiple tools)	Multiple contexts (review)	Synthesizes evidence that AI supports speaking development and affective factors (confidence/anxiety), which are prerequisites for assertive communication in oral interaction.
Xiao (2025)	Empirical study (RCT)	AI-driven speech recognition	EFL learning (listening/affect; speech tech)	Reduced anxiety and improved flow experience; affective gains that can transfer to more confident,

Author(s)	Study type	AI-based educational tool	Educational context	Reported effect related to assertive communication*
				assertive participation in communicative classroom tasks.
Kasneci et al. (2023)	Conceptual/critical review	Large language models (ChatGPT)	Education (general/higher ed focus)	Identifies opportunities and risks (bias, ethics, overreliance). Relevant as a mediating factor: responsible integration conditions the quality of assertive communication outcomes.
Ouyang & Jiao (2021)	Conceptual paper	AI in education (paradigms)	Education (general)	Provides a theoretical lens to interpret AI impacts; not direct evidence on assertiveness, but supports framing for discussion and implementation.
Zawacki-Richter et al. (2019)	Systematic review	AI applications in education	Higher higher education (review)	Foundational mapping of AI-in-HE research; supports contextualization and

Author(s)	Study type	AI-based educational tool	Educational context	Reported effect related to assertive communication*
				research gap framing (not a direct assertiveness measure).

Note: The sources that are mentioned in the manuscript's reference list and/or covered in the Results/Discussion sections are included in this updated table.

Xiao (2025) mentioned that assertive communication is operationalized here as communicative confidence and the ability to convey ideas effectively and appropriately in oral interaction, often reflected through speaking performance, reduced fear, enhanced engagement, and improved oral expression outcomes.

The discussion section critically analyzes how these empirical findings contribute to contemporary theoretical perspectives on communicative competence, affective factors, and technology-mediated language learning after the synthesis shown in Table 1. In addition to the implications for instructional design, teacher mediation, and the ethical integration of AI in English language education, special attention is paid to the pedagogical circumstances in which AI-based tools most successfully improve assertive communication.

DISCUSSION

AI-based educational tools significantly contribute to the development of assertive communication in English as a Foreign Language (EFL) contexts, according to the findings compiled in the Results section and summarized in Table 1. From a pedagogical standpoint, these findings are consistent with modern models of communicative competence that stress affective, pragmatic, and interactional aspects of language use in addition to linguistic accuracy. Artificial intelligence-supported technology-mediated learning environments

seem to be especially responsive to assertive communication, which is defined as the capacity to express ideas with confidence, respect, and purpose.

Chatbots and virtual speaking agents are examples of conversational AI systems that reliably reduce students' speaking anxiety and fear of getting a bad score, which are widely recognized as major barriers to oral participation in EFL classes (Table 1). These findings support the affective filter theory, which contends that enhanced motivation and reduced fear promote language acquisition. By offering low-risk, judgment-free places for interaction, AI-mediated dialogues enable students to perform communicative actions, negotiate meaning, and voice viewpoints more assertively than in typical teacher-fronted settings (Fryer et al., 2022; Kasneci et al., 2023).

Table 2

Pedagogical Pathways Linking AI-Based Educational Tools and Assertive Communication in EFL Contexts

Dimension	AI-Based Tool	Pedagogical Function	Contribution to Assertive Communication
Affective	Conversational chatbots	Anxiety reduction; safe interaction	Increased willingness to speak and express opinions confidently
Cognitive	AI-generated feedback systems	Error awareness; self-regulation	Clearer message formulation and communicative control
Interactional	Virtual speaking agents	Simulated dialogue practice	Improved turn-taking and pragmatic awareness
Linguistic	Speech recognition tools	Pronunciation and fluency monitoring	Greater intelligibility and reduced fear of negative

Dimension	AI-Based Tool	Pedagogical Function	Contribution to Assertive Communication
Metacognitive	Adaptive learning platforms	Personalized pacing and task sequencing	evaluation Enhanced learner agency and autonomous communication

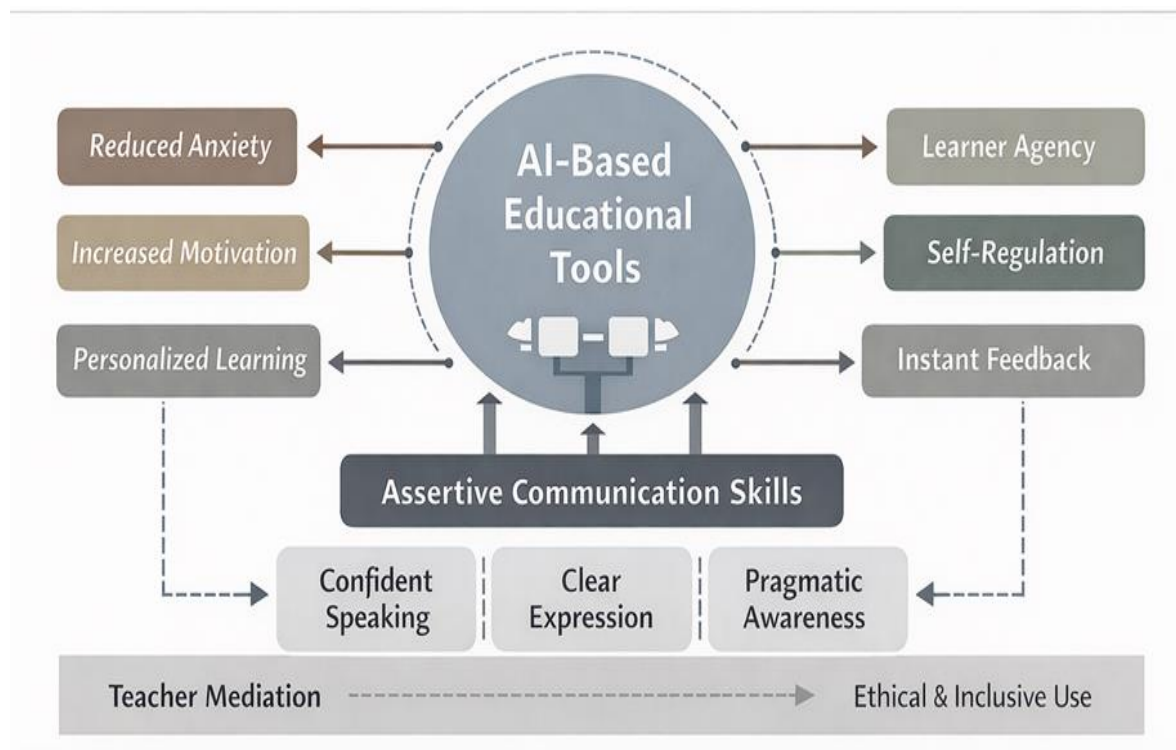
Note. This table conceptualizes the main pedagogical pathways through which AI-based educational tools contribute to the development of assertive communication in EFL learners. The dimensions presented integrate affective, cognitive, linguistic, and interactional components of communicative competence.

The concept of AI-generated feedback and adaptive learning systems reinforces the relationship between forceful communication and personalization. Immediate and customized feedback increases learners' self-regulation, metacognitive awareness, and sense of agency all necessary for assertive language usage, according to studies evaluated in Table 1 (Zawacki-Richter et al., 2019; Ouyang & Jiao, 2021). Learners are more likely to start conversations, express opinions clearly, and maintain conversations in English when they feel more in control of their oral performance and learning processes.

Additionally, research on speech recognition and automated pronouncing technologies highlights the need of fluency and intelligibility as the pillars of forceful communication. As Table 1 shows, improvements in oral fluency and pronunciation accuracy are closely associated with reduced inhibition and increased communicative confidence (Tilfarlıoğlu & Polat, 2025). These findings support the notion that assertiveness in oral communication is not just a psychological trait but also a skill based on learners' evaluations of their language competence and intelligibility.

Figure 1.

Conceptual Model of AI-Supported Development of Assertive Communication



Note. This figure depicts the holistic model linking AI-based tools to the development of assertive communication skills in EFL contexts.

Notwithstanding these pedagogical advantages, the literature also highlights important issues that need to be resolved to guarantee the ethical and successful application of AI in language instruction. Data privacy, algorithmic bias, and unequal access to AI technologies continue to be major ethical concerns, especially in higher education settings with diverse student populations, as evidenced by a number of studies compiled in Table 1 (Kasneji et al., 2023; Ouyang & Jiao, 2021). These limits suggest that rather than being neutral or generally beneficial, AI-based technologies should be viewed as instructional resources whose influence depends on contextual, institutional, and human factors.

The argument emphasizes how important it is for educators to mediate AI-supported learning. While AI technologies can improve practice, feedback, and customization opportunities, assertive communication is still a socially constructed skill that requires ethical instruction, meaningful participation, and reflection (Ali, 2024). Teacher mediation is essential to contextualize AI use, encourage critical digital literacy, and ensure that

communicative behaviors remain socially acceptable and pedagogically significant (Huang et al., 2024).

Table 3

Pedagogical Implications of AI-Based Educational Tools for English Language Teachers

Area of Practice	Implication	Relevance to Assertive Communication
Instructional design	Integration of AI-mediated speaking tasks	Encourages structured yet low-risk oral participation
Assessment	Use of AI feedback for formative assessment	Promotes reflective and confident language use
Classroom interaction	Blended AI-human interaction	Supports authentic and socially grounded communication
Teacher role	Facilitator and ethical mediator	Ensures responsible and meaningful communicative practices
Professional development	Training in AI pedagogy	Enhances teachers' capacity to foster assertiveness

Note. This table summarizes pedagogical implications derived from the discussion of AI-supported assertive communication. It emphasizes the central role of teachers in mediating AI use and aligning technological tools with communicative language teaching principles.

By converting empirical findings into useful insights for English language teachers, the pedagogical implications indicated in Table 3 summarize the conversation. This graphic shows that deliberate instructional design, formative use of feedback, and ongoing instructor mediation are all necessary for AI-based educational technology to successfully support assertive communication.

By emphasizing the role of the teacher as a facilitator and ethical mediator, Table 3 creates a conceptual link between the analytical investigation of AI-supported communication and the broader interpretative debate described in the assessment section (Çakmak, 2022). This modification makes it possible to critically analyze how frameworks for teaching communicative languages might integrate AI-enhanced methods while maintaining the social, ethical, and pedagogical aspects of the development of assertive communication (Fryer et al., 2022).

Overall, when viewed through the prism of communicative language teaching and learner-centered approaches, the incorporation of AI-based educational technologies into English language classrooms can be seen as a pedagogically meaningful technique for improving assertive communication. AI-supported activities help minimize affective barriers, promote learner autonomy, and reinforce oral confidence variables that are directly linked to assertive communication behavior, as demonstrated by the results reported in Table 1.

Huang, Hew, & Fryer (2022) support that instead than being used as stand-alone technological interventions, AI tools function best when included within instructional frameworks that prioritize interaction, reflection, and guided practice. According to this viewpoint, the value of AI lies not in automation per se, but rather in its ability to improve communication processes, enabling students to express themselves in English more responsibly, confidently, and clearly.

From the point of view of theory, the data compiled in this research supports the idea that affective control and communicative skill combine to produce forceful communication in EFL environments. Numerous researches show that AI-based teaching tools lessen speaking anxiety and fear of being judged negatively, two important affective barriers that prevent students from participating orally in foreign language classes (Çakmak, 2022; Fryer et al., 2022; Huang, Hew, & Fryer, 2024).

According to socio-cognitive and affective filter theories, these improvements in self-efficacy and decreases in anxiety allow students to converse orally with greater confidence, which promotes assertive communication behavior (Kasneci et al., 2023; Xiao, 2025).

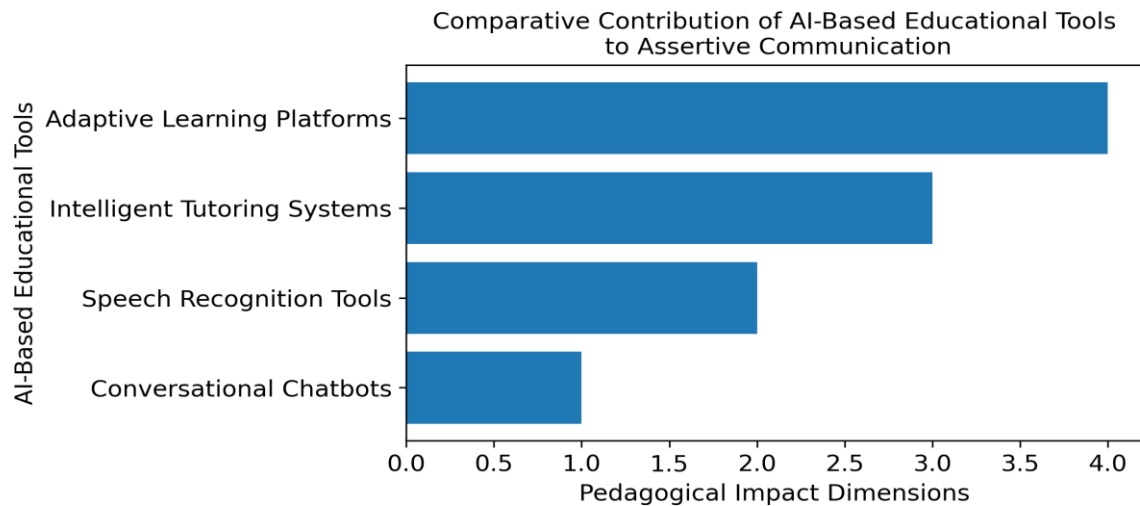
Through diversified pedagogical procedures, AI-based educational technologies support assertive communication, according to a comparative analysis of the reviewed literature. Conversational chatbots help learners to start and maintain spoken communication by offering low-risk, nonjudgmental interactional spaces (Çakmak, 2022; Huang et al., 2022).

This is the main way that conversational chatbots foster affective readiness. On the other hand, intelligent tutoring systems and adaptive learning platforms promote metacognitive regulation through pacing and personalized feedback, while speech recognition technologies boost linguistic confidence by increasing pronunciation accuracy and fluency (Tilfarlıoğlu & Polat, 2025; Zawacki-Richter et al., 2019; Zhang et al., 2025). These results imply that the development of assertive communication is best achieved when AI tools are strategically integrated rather than being applied separately (Ouyang & Jiao, 2021).

Despite the generally favorable results documented in the literature, a number of studies stress that technology affordances by themselves are not enough to guarantee the long-term growth of assertive communication. Persistent ethical concerns relating to data privacy, algorithmic bias, and uneven access to AI technology continue to condition the pedagogical success of AI-supported instruction (Kasneci et al., 2023; Ouyang & Jiao, 2021). Furthermore, assertive communication is still a socially created and context-dependent talent that calls for meaningful contact, pragmatic awareness, and guided reflection. The transformation of AI-supported practice into communicative competence that is both pedagogically sound and ethically responsible is thus seen to depend critically on teacher mediation (Ali, 2024; Huang, Hew, & Fryer, 2024).

Figure 2.

Comparative Contribution of AI-Based Educational Tools to Assertive Communication



Note. Comparative pedagogical contributions of AI-based educational tools to assertive communication in EFL contexts.

This conceptual graph shows how various AI-based teaching technologies support assertive communication in three different but complimentary ways: metacognitive growth (learner agency), language performance (fluency and correctness), and affective regulation (anxiety reduction). This article's analysis of empirical and review-based studies (Çakmak, 2022; Fryer et al., 2022; Huang et al., 2024; Tilfarlıoğlu & Polat, 2025; Xiao, 2025) produced the model.

CONCLUSIONS

This review of the literature demonstrates that the development of assertive communication in English as a foreign language (EFL) context is positively and significantly impacted by AI-based teaching tools. Conversational AI tools, adaptive learning platforms, and AI-driven feedback systems improve speaking performance, lower speaking anxiety, and boost learners' communicative confidence all essential elements of assertive communication, according to the analysis of recent empirical studies and systematic reviews.

The findings demonstrate that AI-supported learning environments function as low-risk, psychologically safe environments that encourage students to participate more actively in oral interactions, engage more confidently in communicative activities, and convey ideas more clearly. Instead of replacing human connection, AI tools appear to function best when integrated into communicative and learner-centered instructional frameworks that place an emphasis on interaction, reflection, and guided practice.

This review also emphasizes how important teachers are as ethical mediators and facilitators in AI-enhanced language learning. In order to ensure that technological innovation promotes meaningful communication rather than hinders it, effective use of AI necessitates deliberate instructional design, formative use of feedback, and critical digital literacy. For sustainable implementation, ethical issues with data privacy, algorithmic bias, and fair access continue to be crucial factors.

Overall, the study comes to the conclusion that, as long as their integration is pedagogically sound, ethically aware, and context-sensitive, AI-based educational tools offer a promising pedagogical pathway for enhancing assertive communication in English language classes. For English language instructors, curriculum developers, and legislators looking to use artificial intelligence to improve communicative competence in higher education EFL settings, these findings have important ramifications.

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