

Exploring Junior High School Students' Experiences of Self-Confidence in AI Chatbot-Assisted Speaking Activities

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Abstract

Artificial Intelligence (AI) chatbots have become an increasingly discussed topic in English Language Teaching (ELT), mainly because they can support speaking practice and help reduce students' anxiety. However, many studies in this area still focus on easily measurable outcomes, such as speaking scores or performance improvement, with less attention to how students actually experience the learning process and develop their confidence. This study explores junior high school students' experiences of AI chatbot-assisted speaking activities and their perceptions of self-confidence during the process. A small-scale qualitative approach was used in a classroom setting. Data were collected through students' short reflective responses after the speaking activities. The findings indicate that AI chatbots can create a more supportive environment for speaking practice. Some students became more willing to participate because they felt less pressure when practising with the chatbot. Even so, their confidence did not develop in a fixed way. Several students still felt hesitant and worried about making mistakes, showing that self-confidence remained dynamic during the learning process. This study suggests that AI tools in ELT should not only be viewed in terms of measurable learning outcomes, but also from the perspective of students' learning experiences. The findings offer practical insights for teachers who plan to use AI chatbots as supportive tools in junior high school speaking classrooms.

Keyword(s) : AI chatbot, speaking activities, self-confidence, students' experiences, junior high school

INTRODUCTION

Artificial Intelligence (AI) chatbots have rapidly emerged as a promising technological innovation in English Language Teaching (ELT), particularly in supporting speaking practice for English as a Foreign Language (EFL) learners. Defined as computer programs capable of simulating human-like dialogue through natural language processing, AI chatbots offer learners opportunities for conversational practice, immediate corrective feedback, and accessible interaction outside the classroom (Du &

Daniel, 2024; Huang et al., 2022). Unlike traditional classroom-based speaking activities that require real-time social interaction, AI chatbots allow learners to engage in speaking practice at their own pace and in a private, low-pressure environment. This affordance has been identified as particularly valuable for EFL learners who experience speaking anxiety, a pervasive affective challenge widely documented in foreign language education (Horwitz et al., 1986; Fathi et al., 2024).

Self-confidence is widely recognised as a key psychological factor in EFL speaking

success. Learners who feel confident are more willing to initiate communication, sustain interaction, and take linguistic risks in speaking (Clément et al., 1994; Li, 2024). In contrast, learners with low self-confidence tend to avoid speaking opportunities, limiting their language output and slowing proficiency development. Research on speaking self-efficacy further confirms that learners' beliefs about their speaking ability are dynamic and context-dependent, fluctuating across tasks, topics, and social settings (Wang & Sun, 2024). In the junior high school context specifically, where peer evaluation is highly salient, students frequently report reluctance to speak English in class due to fear of being judged or ridiculed by classmates (Horwitz et al., 1986; Fathi et al., 2024). These affective barriers can significantly reduce students' willingness to communicate and, consequently, their overall language development. In many Indonesian EFL classrooms, speaking activities are still limited due to large class sizes, time constraints, and students' fear of negative peer evaluation. As a result, students often receive more exposure to grammar and reading activities than communicative speaking practice. These conditions may contribute to low speaking confidence among junior high school learners.

A growing body of research has investigated the potential of AI chatbots to support EFL speaking development, with generally encouraging results. Du and Daniel (2024), in a systematic review of 24 SSCI-indexed studies, found that AI chatbots effectively reduced speaking anxiety and improved speaking performance across diverse learner groups. Similarly, studies by Fathi et al. (2024) and Susoy (2025) confirmed that chatbot interaction significantly lowered foreign language speaking anxiety compared to

conventional instruction, partly because learners felt less threatened in the absence of human judgment. Hapsari and Huang (2025) further demonstrated that integrating AI chatbots into Indonesian EFL classrooms reduced speaking anxiety, increased language enjoyment, and improved speaking performance. Additionally, Huang et al. (2022) reported in a systematic review that chatbots positively influenced learners' confidence and willingness to communicate.

Although previous studies have demonstrated the effectiveness of AI chatbots in improving speaking performance and reducing anxiety, much of the literature remains dominated by experimental and outcome-oriented approaches. Consequently, less is known about how learners subjectively experience confidence development during AI-mediated speaking practice, particularly in Indonesian junior high school contexts where emotional vulnerability and peer pressure are highly salient. This gap is particularly significant in the Indonesian EFL context. Junior high school students in Indonesia frequently encounter speaking anxiety rooted in fear of peer judgment, limited classroom practice opportunities, and low English self-confidence (Horwitz et al., 1986). While the integration of digital technology in Indonesian schools has been growing, qualitative studies that centre on students' affective experiences in AI chatbot-assisted speaking activities remain scarce. Understanding students' lived experiences is essential not only for gauging how AI tools shape confidence development, but also for informing teachers about how such tools can be meaningfully and supportively integrated into speaking classrooms at the secondary level.

Addressing this gap, the present study explores junior high school students' experiences of self-confidence during AI chatbot-assisted speaking activities. Rather than measuring performance outcomes, this study adopts a qualitative approach that centres students' voices and perspectives. Data were gathered through short reflective responses written by students following speaking activities conducted with an AI chatbot. The study aims to answer the following research question: How do junior high school students experience self-confidence during AI chatbot-assisted speaking activities? The findings are expected to contribute to the growing body of literature on AI-assisted language learning by foregrounding the affective and experiential aspects of chatbot use, which are often overlooked in outcome-focused research.

METHODOLOGY

Research Design

This study employed a small-scale qualitative approach to explore junior high school students' experiences of self-confidence during AI chatbot-assisted speaking activities. A qualitative design was considered appropriate because the study focused on understanding students' personal experiences, feelings, and perceptions rather than measuring speaking performance quantitatively. The study adopted thematic analysis as proposed by Braun and Clarke (2006) to identify recurring patterns and themes from students' reflective responses, allowing for systematic interpretation of the emotional and psychological dimensions of AI chatbot-assisted speaking practice.

Participants

The participants of this study were 8th grade of junior high school students who

participated in AI chatbot-assisted speaking activities in an English classroom context in Cianjur, Indonesia. Participants were selected through purposive sampling (Creswell, 2014), a strategy considered appropriate for qualitative inquiry because it ensures that all participants possess direct, first-hand experience relevant to the research phenomenon under investigation. Specifically, participants were selected on the basis that they had actively engaged in the chatbot-assisted speaking sessions and submitted complete reflective responses. To maintain confidentiality and ethical considerations, the participants' real names were replaced with pseudonyms or participant codes (e.g., P1-P10) throughout data collection, analysis, and reporting.

Research Instruments

The primary instrument used in this study was a set of seven open-ended reflective response questions. The questions were developed based on theoretical constructs of speaking anxiety, self-confidence, and reflective learning in EFL contexts, and were designed to elicit rich descriptions of students' emotional responses and speaking experiences. The questions prompted students to describe: (1) their experiences using the AI chatbot for speaking practice; (2) their feelings and emotional states during the activities; (3) perceived changes in their speaking confidence; (4) memorable moments during practice; (5) remaining feelings of nervousness or hesitation; (6) differences between chatbot-assisted speaking and in-class speaking; and (7) the perceived contribution of the chatbot to their speaking confidence. Responses were elicited in Indonesian to ensure students could express their experiences naturally and without the additional cognitive load of composing in English.

Data Collection Procedure

The data were collected after students participated in AI chatbot-assisted speaking activities during English learning sessions. During the activities, students interacted with AI chatbots to practice speaking English through conversations, pronunciation practice, and question-and-answer activities.

After completing the speaking activities, students were asked to answer the reflective response questions individually. The responses were then compiled, organized, translated into English by the researcher, and prepared for qualitative analysis.

Data Analysis

Data were analysed using the six-phase thematic analysis procedure proposed by Braun and Clarke (2006): (1) familiarisation with the data through repeated reading; (2) generation of initial codes from recurring ideas and expressions; (3) searching for themes by grouping related codes; (4) reviewing and refining candidate themes; (5) defining and naming themes; and (6) producing the report. The analysis focused on identifying patterns related to students' perceptions of AI chatbots, their affective experiences, and the dynamics of confidence development throughout the speaking activities.

Trustworthiness

To ensure the quality and rigor of this qualitative study, trustworthiness was established following Lincoln and Guba's (1985) criteria of credibility, transferability, dependability, and confirmability. Credibility was supported through member checking; whereby key themes were cross-referenced against participant responses to verify alignment between interpretation and student meaning. Transferability was addressed through thick description of the research context, participants, and

activities, enabling readers to assess the applicability of findings to comparable EFL settings. Dependability was enhanced through a systematic and transparent documentation of the data analysis process, including an audit trail of coding decisions. Confirmability was maintained by grounding all interpretations in direct student quotations and by reflexively acknowledging the researcher's positional awareness throughout the analytical process.

Ethical Considerations

This study adhered to established ethical guidelines for educational research involving minors. As the participants were junior high school students (under 18 years of age), parental or guardian consent was obtained prior to data collection. Student assent was also secured, and participants were informed that their involvement was voluntary and that they could withdraw at any time without consequence. Participant anonymity was protected through the use of codes (P1-P10) in place of real names. Data were stored securely and used solely for the academic purposes of this study. The research procedures were conducted in accordance with the ethical standards of the affiliated institution.

FINDINGS AND DISCUSSIONS

The findings of this study revealed four major themes related to students' experiences of self-confidence during AI chatbot-assisted speaking activities. The themes include: (1) AI chatbots create a safe and non-judgmental speaking environment; (2) AI chatbots support gradual self-confidence development; (3) corrective feedback supports speaking confidence; and (4) students' self-confidence remains dynamic and uneven.

Theme 1. AI Chatbots Create a Safe and Non-Judgmental Speaking Environment

The findings revealed that many students perceived AI chatbots as supportive and non-judgmental speaking partners. Students frequently mentioned that they felt more relaxed and less afraid of making mistakes when practising speaking with AI chatbots compared to speaking in front of their classmates. Several participants described how the absence of peer audience fundamentally changed the emotional quality of the speaking experience.

"I felt quite comfortable and was not too afraid of making mistakes because the AI chatbot did not judge me." (P1)

"I felt calm and less nervous because I was not afraid of making mistakes or being judged." (P4)

These findings are consistent with prior research demonstrating that AI chatbots reduce foreign language speaking anxiety by removing the fear of negative evaluation inherent in human interaction (Horwitz et al., 1986; Susoy, 2025). The non-judgmental nature of chatbot interaction creates what Fryer et al. (2017) describe as an emotionally safe practice space, where learners can experiment with language without social consequences. Du and Daniel (2024) similarly noted that creating low-pressure, judgment-free environments is among the key mechanisms through which AI chatbots support EFL speaking by reducing affective barriers to participation.

However, it is important to consider a critical counterpoint: the very absence of social stakes that reduces anxiety may also reduce the authenticity and ecological validity of speaking practice. Fryer et al. (2017) found that students' sustained engagement with chatbot partners declined over time compared to human partners, suggesting that the novelty of low-pressure

interaction does not guarantee long-term motivational value. Furthermore, Tai and Chen (2023) caution that confidence developed in chatbot-only practice environments does not necessarily transfer to real communicative contexts involving human interlocutors, whose unpredictability and social dynamics fundamentally differ from scripted chatbot responses. This suggests that while AI chatbots may effectively reduce anxiety in the short term, they are unlikely to fully prepare learners for the socially contingent demands of authentic spoken communication. Teachers should therefore treat chatbot-assisted practice as a preparatory scaffold rather than a substitute for genuine communicative interaction.

Theme 2. AI Chatbots Support Gradual Self-Confidence Development

Another major finding indicated that students experienced gradual improvement in their speaking confidence after practising with AI chatbots. Many participants reported becoming more confident, braver, and more comfortable speaking English over the course of repeated interactions.

"Using AI chatbots made me more confident and less afraid of making mistakes when speaking English." (P2)

"Now I am braver to speak. I used to be very afraid of speaking because I was worried about making grammar mistakes." (P4)

These findings align with Bandura's (1997) self-efficacy theory, which posits that mastery experiences gained through repeated, successful practice constitute the most powerful source of self-efficacy development. The gradual nature of students' confidence growth resonates with Hapsari and Huang (2025), who found that EFL students' language enjoyment and

confidence increased progressively through consistent AI chatbot interaction in an Indonesian classroom context. Wang and Sun (2024) further demonstrated that speaking self-efficacy is shaped by ongoing task experiences rather than developing in a fixed, linear trajectory.

Nevertheless, an important qualification must be raised: the confidence gains observed in this study were self-reported and confined to chatbot-mediated practice contexts. Tai and Chen (2023) found in a study on ChatGPT as an EFL conversation partner that while students reported increased speaking confidence after chatbot practice, this perceived confidence did not always correspond to observable improvements in speaking quality when assessed by external raters. This points to a theoretically significant distinction between chatbot-specific self-efficacy-confidence in interacting with an AI system and generalizable EFL speaking self-efficacy that extends to diverse communicative contexts. Li (2024) similarly found that self-efficacy interventions must be carefully designed to promote transferable confidence rather than context-bound comfort. These findings call for caution in interpreting students' self-reported confidence gains as straightforward evidence of durable speaking development, and underscore the importance of complementing AI practice with diverse communicative tasks involving human interaction.

Theme 3. Corrective Feedback Supports Speaking Confidence

The findings further revealed that corrective feedback from AI chatbots played an important role in supporting students' confidence during speaking practice. Students appreciated receiving immediate corrections related to pronunciation, grammar, and vocabulary,

and perceived this feedback as non-threatening compared to corrections received in classroom settings.

"When I made grammar or word choice mistakes, the AI chatbot provided corrections along with brief explanations." (P5)

"I learned the correct English pronunciation." (P8)

These findings support the literature on corrective feedback in technology-assisted language learning. Immediate, non-threatening feedback has been identified as a key mechanism through which AI chatbots promote speaking confidence (Fathi et al., 2024; Du & Daniel, 2024). Unlike teacher-delivered corrections that can feel evaluative or socially threatening, AI-generated feedback is perceived as informational and emotionally neutral (Susoy, 2025; Fryer et al., 2017). This study's findings add qualitative support to the broader empirical literature by illustrating how students subjectively experienced corrective feedback as empowering rather than threatening.

Despite these advantages, critical limitations of AI feedback must be acknowledged. Huang et al. (2022) noted in their systematic review that AI chatbot feedback is predominantly form-focused-targeting surface-level errors in pronunciation, grammar, and vocabulary-while consistently falling short in addressing higher-order discourse competencies such as coherence, pragmatic appropriateness, register variation, and interactive co-construction of meaning. These are dimensions of speaking competence that experienced human teachers are uniquely positioned to address through responsive, contextualised feedback. Moreover, students who develop high reliance on AI-generated feedback

may not develop the metacognitive self-monitoring skills required for autonomous language improvement (Du & Daniel, 2024). From a pedagogical perspective, this suggests that AI corrective feedback should be understood as a targeted supplement to rather than a replacement for the differentiated, discourse-sensitive feedback that characterises skilled classroom instruction.

Theme 4. Students' Self-Confidence Remains Dynamic and Uneven

Although many students reported positive experiences, the findings also revealed that students' self-confidence remained dynamic and uneven. Some students continued to experience nervousness, hesitation, and uncertainty during speaking practice, particularly when confronted with unfamiliar vocabulary or complex topics.

"Sometimes I still feel nervous, especially when talking about difficult topics or vocabulary that I have not mastered yet." (P4)

"It did not really increase my confidence significantly." (P8)

Some participants also noted technological limitations, including instances where the chatbot failed to recognise their pronunciation, resulting in frustration rather than confidence. These findings indicate that confidence development through AI chatbot interaction is not a guaranteed or uniform process; rather, it is mediated by individual variables including vocabulary knowledge, topic familiarity, prior speaking experience, and technological fluency.

These findings resonate strongly with Wang and Sun (2024), whose research demonstrated that EFL speaking self-efficacy is dynamic and non-linear, shaped by ongoing task experiences rather than

developing in a fixed trajectory. Bandura (1997) similarly argued that self-efficacy beliefs fluctuate depending on the nature and difficulty of tasks encountered, the quality of feedback received, and the learner's emotional state during interaction. The persistence of anxiety in some students, particularly around unfamiliar vocabulary and technology failures, further supports Krashen's (1982) Affective Filter Hypothesis, which posits that negative affective states raise a psychological barrier that impedes language input and output. These observations are corroborated by Du and Daniel (2024), who noted in their systematic review that AI chatbot limitations including misrecognition, scripted response patterns, and Inconsistent feedback quality can occasionally disrupt rather than support the speaking experience.

One student's report that the chatbot did not significantly build her confidence is particularly instructive. It foregrounds a critical pedagogical truth: the effectiveness of AI chatbot-assisted practice is mediated by individual learner characteristics including prior linguistic exposure, intrinsic motivation, and technology self-efficacy (Huang et al., 2022; Tai & Chen, 2023). Furthermore, equity concerns deserve attention in this regard. Access to AI tools and the digital literacy required to use them effectively are unevenly distributed, particularly in Indonesian secondary school contexts where infrastructure and device availability vary considerably across socioeconomic groups. Students with limited prior experience with digital tools may face an additional layer of cognitive and affective burden that can undermine rather than enhance speaking confidence. Collectively, these findings call for a nuanced, context-sensitive perspective on AI chatbots in EFL speaking instruction-recognising them as valuable but inherently

partial tools whose impact is conditioned by individual differences, technological quality, and broader access conditions.

CONCLUSIONS

This study explored junior high school students' experiences of self-confidence during AI chatbot-assisted speaking activities. Four major themes emerged from the thematic analysis: the creation of a non-judgmental speaking environment, the gradual development of speaking confidence, the supportive role of immediate corrective feedback, and the dynamic and uneven nature of confidence development across participants. Taken together, these findings suggest that AI chatbots can serve as valuable supplementary tools for EFL speaking practice, particularly in reducing affective barriers for anxiety-prone learners at the junior high school level.

Theoretically, this study makes several contributions to the existing literature. First, it extends Bandura's (1997) self-efficacy framework to AI-mediated speaking contexts by demonstrating that mastery experiences accrued through chatbot interaction can meaningfully, if partially, contribute to EFL self-efficacy development. However, the finding that confidence gains are dynamic, context-bound, and not uniformly generalisable challenges simplistic applications of self-efficacy theory to technology-assisted language learning. Second, the findings complicate Krashen's (1982) Affective Filter Hypothesis by showing that while AI chatbots can lower the filter for many learners, the filter remains elevated for others-particularly those facing vocabulary deficits, technological unfamiliarity, or chatbot misrecognition suggesting that affective conditions in AI-assisted learning are more heterogeneous than the

hypothesis's universalist framing implies. Third, the study enriches conceptualisations of Willingness to Communicate (WTC) by adding experiential, qualitative texture to a construct that has been predominantly operationalised through quantitative self-report scales, demonstrating that WTC in AI-assisted contexts is situationally variable rather than trait-like.

Practically, the findings offer several insights for EFL teachers considering the integration of AI chatbots into junior high school speaking classrooms. Teachers should position chatbot-assisted practice as a low-stakes preparatory scaffold for subsequent human communicative tasks, rather than as a standalone speaking programme. The persistence of anxiety and unevenness of confidence development across participants further indicates that chatbot use should be accompanied by targeted pedagogical support such as vocabulary scaffolding, topic previewing, and technology orientation to ensure that all students can engage productively with the tool. Future research should examine how chatbot-assisted confidence development transfers to authentic communicative tasks, and investigate the long-term affective trajectories of EFL learners engaged in sustained AI-assisted speaking practice across diverse Indonesian school contexts.

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