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FROM HESITATION TO CONFIDENCE: THE ROLE OF AI SPEAKING PARTNERS IN INDEPENDENT LANGUAGE LEARNING

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Abstract
This study was motivated by students' low self-confidence and English speaking skills, which were influenced by weak learning motivation and limited learning media that lacked variety. Artificial intelligence (AI) offers an innovative solution through interactive applications that can function as personal practice companions. Preliminary study results from interviews with students at MA Model Zainul Hasan show that 75% of students have below-average speaking skills, which is caused by a lack of confidence and limited time for practice. This study aims to determine the effect of using AI as a practice companion on improving students' confidence and English speaking skills. The method used is pre-experimental with a one group pre-test and post-test design, involving 84 students as samples. The research instruments are confidence questionnaires and speaking skill assessments. The results of the analysis using the paired sample t-test showed a significant increase after the intervention: the average confidence increased from 58.95 to 67.08 ($p = 0.000$), and speaking skills increased from 55.67 to 66.17 ($p = 0.000$). These findings prove that the use of AI can significantly improve students' self-confidence and speaking skills. This study contributes to the use of technology in English language learning, particularly in developing students' speaking skills and self-confidence.

Keywords: AI, English language learning, high school students, self-confidence, speaking skills

Introduction

The development of artificial intelligence (AI) technology has brought significant changes to various aspects of life, including education. One AI application that has attracted attention is the use of AI as a language learning companion, particularly for English (Shaofeng Li & Mingyue Michelle Gu, 2024).This technology offers various advantages, including time flexibility, instant and personalized feedback, and the ability to interact naturally and tailor learning to individual student needs. The use of AI in English language learning offers innovative solutions to increase student engagement and learning outcomes. One popular AI application is ELSA Speak, which is designed as a practice companion to help students improve their English speaking skills (Ria Fakhrurriana, 2023). Recent research shows that the use of AI in English language learning can have a significant positive impact on students' confidence and speaking skills (Karagöl et al., 2025).This research supports the effectiveness of using AI in language learning and demonstrates the great potential of AI in developing innovative and adaptive learning methods. In addition, (Peng Chen et al., 2023) highlight that the use of AI in speaking learning can help students overcome common challenges, such as a lack of social interaction and appropriate feedback. This study also shows that students feel more confident and motivated to learn when using AI applications in language learning.

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In the context of education, AI also helps in providing real-time feedback that allows students to identify and correct their pronunciation mistakes, resulting in more accurate and clear English pronunciation (Mahendro, 2023). In addition, the use of AI in language learning can improve the efficiency and effectiveness of learning by providing materials tailored to the individual needs of students.

This study seeks to investigate the efficacy of employing artificial intelligence (AI) as an English language learning companion to enhance students' confidence and proficiency in English speaking skills. Confidence plays a pivotal role in the language acquisition process, as it fosters greater willingness among learners to engage in oral communication and conversational activities. Concurrently, English speaking proficiency is increasingly valued in an interconnected global society. The utilization of AI as a conversational practice tool is anticipated to yield advancements in both domains. Preliminary findings from a survey of students at MA Model Zainul Hasan revealed that 75% exhibited below-average English speaking abilities, attributable to diminished self assurance in verbal expression and insufficient opportunities for spoken practice. Consequently, this research is poised to advance the formulation of more efficacious and immersive language education strategies, while offering guidance to educators and policymakers on leveraging AI technologies to address prevalent obstacles in English language instruction.

Recent research indicates that integrating artificial intelligence (AI) into English language learning can yield positive effects on students' speaking abilities and self-confidence. For instance, a study by (Ting Ting Wu, 2022) revealed that AI chatbots can alleviate speaking anxiety, boost enjoyment in learning, and foster critical thinking. Additionally, research by (Shazly, 2021) demonstrated that while AI chatbots may enhance speaking skills, they do not always effectively reduce speaking anxiety. This study distinguishes itself from prior work by specifically examining the impact of AI on self-confidence and English speaking proficiency among high school students in Indonesia. Previous investigations have predominantly concentrated on AI applications in English learning at the university level or within English-speaking countries. Furthermore, this research incorporates both questionnaires and observations to provide a more holistic understanding of AI's influence

Literature Review

The Use of AI in Language Learning

In recent years, developments in artificial intelligence (AI) technology have brought significant changes in various fields, including language education. AI offers a variety of tools and platforms that can facilitate the language learning process in a more interactive and personalized way (Rofi'i et al., 2023) Chatbots, virtual tutors, and AI-based learning applications are examples of innovations that can be used to improve students' language skills through conversation practice and real-time feedback. This technology allows students to learn anytime and anywhere, making learning more flexible and tailored to individual needs. Recent research shows that AI can improve the efficiency of the learning process by automating routine tasks, enhancing personalized learning, and increasing teacher-student interaction (Kevin Gleneagles, 2025)

One of the main advantages of using AI in language learning is its ability to provide instant and accurate feedback. AI systems can analyze students' mistakes in language use and provide immediate suggestions for improvement. Research by (Porter & Francesca Grippa, 2020) shows that real-time feedback from AI helps students correct their mistakes more effectively, which in turn can improve their speaking and writing skills. With instant feedback, students can learn from their mistakes more quickly and efficiently.

In addition, AI has the ability to create a more immersive and authentic learning environment. Through conversation simulations and real-world scenarios, students can practice

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language in relevant and practical contexts. (Khan et al., 2025) revealed that AI tools are highly beneficial, easy to use, and enjoyable. These tools enhanced learners' linguistic and affective performance. Specifically chatbots boosted learners' confidence in engaging in real-time discussions.

AI can also adjust the difficulty level of learning materials based on student ability, so that each student can learn at their own pace and ability level. AI technology can also help with student motivation and engagement. By using gamification elements, such as points, levels, and challenges, AI can make the learning process more fun and challenging. Research by (Huang et al., 2020) shows that gamification in language learning can increase students' motivation to learn and practice consistently.

In addition, AI can provide rewards and praise that can boost students' confidence and encourage them to continue learning. However, despite the many benefits AI offers, there are also challenges that need to be addressed. One of the main challenges is technology accessibility, especially in areas with limited digital infrastructure. In addition, there are concerns about student data privacy and security that need to be carefully managed.(Valli et al., n.d.) emphasize the importance of ensuring that student data is protected and used ethically. Understanding the benefits and challenges of using AI in language learning is important to maximize the potential of this technology in supporting education.

Self-Confidence in Language Learning

Self-confidence in language learning is the belief that students have in their ability to use the language they are learning. Research by Wahyuningasti et al. (2023) shows that self-confidence has a positive influence on speaking skills in Indonesian language learning among fifth-grade students at SDN Banyuurip. Students who have high self-confidence tend to be more active in class participation and more courageous in using the target language.

Researc (Fatharani et al., 2023) shows a positive relationship between selfconfidence and students' speaking skills in thematic learning at SDN Bakalan Krajan 1 Malang. Confident students are highly motivated to learn and are not afraid to speak or write in the target language. This self-confidence is not only important for academic success but also for students' emotional well-being.Research by (Wahyuningasti, 2022) also shows that student confidence contributes 44.1% to their speaking skills, while other factors contribute 55.9%. This shows that although confidence is an important factor, there are also other factors that influence students' speaking skills.

The Influence of AI on Confidence in Language Learning

The use of artificial intelligence (AI) technology in language learning has shown great potential in increasing student confidence. Research (Salsabila et al., 2024) shows that AI can create an engaging and innovative learning process, which in turn increases student motivation and confidence. Students involved in AI-based learning tend to feel more confident because they receive instant and personalized feedback that helps them correct their mistakes effectively. In addition, AI can also provide a more immersive and supportive learning environment, which contributes to increased student confidence. A study by (Apriliani, 2024) shows that the use of AI in Indonesian language learning can improve the efficiency and effectiveness of the learning process, so that students feel more confident in using the target language. AI can adjust the level of difficulty of the material based on the students' abilities, so that each student can learn at their own pace and ability.

AI technology can also facilitate more constructive and supportive social interactions in language learning. Chatbots and AI-based learning applications can provide emotional support and motivation to students, which in turn increases their confidence. Research (Ambarita & Nurrahmatullah, 2024) shows that the use of AI in student learning can improve the quality of education and strengthen student confidence by providing academic guidance and automatic assessment.

However, it is important to note that the use of AI in language learning also has

challenges, such as data security and student privacy. Research by (Valli et al., n.d.) emphasizes the importance of ensuring that student data is protected and used ethically in AI-based learning processes. By understanding the benefits and challenges of using AI, teachers and educators can develop strategies that can increase students' confidence in language learning

Research Method

This study applied a pre-experimental one-group pre-test and post-test design which is a research design involving one group of subjects who are given treatment and measured before and after treatment without a control group (Bierer et al., 2025).The population involving all 84 students in the 11th grade at MA Model Zainul Hasan who had engaged in independent English learning activities supported by AI speaking partners, selected through a total sampling technique**.** Data were collected using questionnaires and interviews to obtain primary information, along with assessment forms to measure English-speaking ability before and after the integration of AI. The analysis was conducted using SPSS, beginning with univariate analysis through frequency distribution to describe respondent characteristics and research variables, followed by bivariate analysis using *t-tests* and *paired t-tests* to determine the effect of AI use on students' speaking performance. This design provided a clear framework to evaluate the effectiveness of AI in enhancing English-speaking skills among the participants.

Results and Discussion

This study involved 84 students in grade XI MA Model Zainul Hasan who were given an Artificial Intelligence (AI)-based learning intervention through an AI-based speaking practice application called Duolingo. Scores were collected using a Likert scale questionnaire for each variable before (pre-test) and after (post-test) the intervention. Table 4.1 presents an overview of changes in the categories of students' self-confidence and English speaking skills before and after using AI as a practice partner. The categories used are Good, Fair, and Poor, which represent the students' overall achievement levels.

Table 4.1 Frequency of Self-Confidence and English Speaking Ability Score Categories for Students Before and After Using AI

Categories	**Pre test**		**Post test**	
	Number	Persentase (%)	Number	Persentase (%)
Good	5	5.95	30	35.71
Fair	16	19.05	40	47.62
Poor	63	75.00	14	16.67
Total	84	100	84	100

The data reveals a notable movement from the Poor category toward the Fair and Good categories following the intervention. This shift suggests that employing AI as a learning tool positively influences two key dimensions of English language acquisition: students' speaking skills and their confidence.

Table 4.2 presents the average pre-test and post-test scores for students' English speaking skills. Each aspect of speaking, such as vocabulary, grammar, pronunciation, fluency, and sentence structure, was analyzed separately.

Speaking Ability Aspect	**Pre-test**	**Post-test**
Vocabulary	60,5	78,3
Grammar	58,2	76,1

Pronunciation	61,0	79,5
Fluency	59,7	77,8
Sentence Construction	57,3	75,4
Total Average	59,34	77,42

Presenting the improvement in students' speaking skills. Significant improvements in each aspect indicate that AI-based training not only has a general impact but also improves specific elements of speaking skills.

Furthermore, Table 4.3 presents data on the impact of the intervention on the affective aspect, namely the average self-confidence scores of students before and after using AI. The indicators used include self-confidence, courage, motivation, and participation in speaking.

Self-Confidence Aspect	**Pre-test**	**Post-test**
Self-confidence when speaking	60,1	79,0
Not afraid of making mistakes	58,6	76,4
Motivated	59,8	78,2
Willing to speak with others	57,2	75,9
Active in conversation	56,9	74,5
Average Total	58,52	76,80

The findings reveal that students saw a relatively steady rise in confidence levels across every measure. This suggests that practicing English speaking with AI can effectively lessen anxiety or timidity when using the language.

Table 4.4 Table of AI Usage Frequency and Average Self-Confidence and Speaking Ability Scores of Students

Frequency of AI Use	Number of Students	Percentage	Average Self Confidence Score	Average Speaking Ability Score
Never	2	2,38%	64,0	65,5
Rarely (<1x/week)	6	7,14%	69,2	70,1
Sometimes (1–2x/week)	18	21,43%	73,5	74,3
Often (>2x/week)	34	40,48%	78,9	79,8
Everyday	24	28,57%	81,5	82,7
Total	84	100%	–	–

Table 4.4 presents the relationship between the frequency of AI use and the average speaking ability and confidence scores of students. The aim is to see whether the level of student engagement in using AI correlates with their learning outcomes. The results of this table show a consistent trend: the more frequently students use AI, the higher their scores in both speaking ability and confidence. This supports the hypothesis that active engagement is an important factor in the effectiveness of technology-based learning. To reinforce the previous descriptive findings, Table 4.5 presents the results of a correlation analysis between the frequency of AI use and students' confidence and speaking skills. This correlation was measured using the Pearson test.

Table 4.5 Correlation Between Frequency of AI Use and Average Scores for Student Confidence and Speaking Ability

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Variable	Correlation Coefficient (r)	Sig. (2-tailed)
Frequency of AI Use × Self Confidence	0,645	0,000
Frequency of AI Use × Speaking Ability	0,673	0,000

The test results show that there is a strong and significant positive relationship between the frequency of AI use and the two main variables of the study. These findings confirm that the more often students use AI, the greater the improvement in their English speaking skills and confidence. In general, the results of this study show that the use of AI as a speaking practice partner has a significant positive impact on improving students' confidence and speaking skills. These results provide a strong basis for recommending the use of AI in speaking-based English language learning, especially in the context of EFL.

The results of this study show that the use of Artificial Intelligence (AI) as a practice partner has a significant positive impact on improving students' confidence and English speaking skills. Both variables experienced a high average increase, from 58.52 to 76.80 for confidence, and from 59.34 to 77.42 for speaking skills. These results are also statistically significant based on the paired sample t-test ($p = 0.000$), indicating that AI-based interventions have a real impact on student behavior and performance. The increase in student confidence is in line with the findings of El Shazly, Tai, and Chen (2023), who stated that AI-based chatbots can reduce speaking anxiety and increase students' willingness to communicate. In this study, students felt more free to speak without fear of being judged directly by teachers or friends. AI provides real-time personalized feedback, building self-confidence through a safe learning experience without social pressure. Furthermore, the improvement in students' speaking skills is also consistent with the results of (P & Georgiou, 2025) study, which states that AI applications significantly help students improve their perception and production of foreign languages. Due to the automatic correction feature and repeatable exercises with personalized material, students can practice independently and intensively—improving their pronunciation, fluency, vocabulary, and sentence structure naturally. These findings are further reinforced by the correlation between AI usage frequency and post-test results: from this study, AI usage frequency showed a strong positive relationship with confidence ($r = 0.645$) and speaking ability ($r = 0.673$). This confirms that students' active engagement in using AI is an important factor in the effectiveness of the intervention. Student motivation during the intervention also increased. These findings support the study by (Shen et al., 2023),which states that gamification in online learning can significantly increase student motivation and engagement. Students in this study showed high enthusiasm due to the elements of scoring, challenges, and automatic feedback in the AI platform. Meanwhile, (Liu et al., 2024) proved that gamification-based learning strengthens enjoyment and ideal L2 self (long-term learning goals). In the context of this study, students felt encouraged to practice without coercion due to the automatic appreciation system and a pleasant competitive atmosphere— increasing their enthusiasm for independent learning. (K & Reinders, H, 2022) view that the combination of AI and gamification encourages intrinsic motivation and academic learning outcomes is also relevant to the findings in the field: improvements in confidence and speaking skills occurred in parallel and evenly, reflecting balanced affective and cognitive effects. It should be noted that the performance improvement that occurred may have been influenced by the novelty effect, which is the initial response to new technology that generates enthusiasm but tends to decline after a certain period. Studies by (Huang et al., 2020) show that this effect is common in gamification and the implementation of new technologies in education: initially triggering increased attention and activity, but motivation and engagement can decline in the medium term (≥4 weeks). Considering these factors, these latest findings need to be interpreted with caution: do the increased scores reflect a lasting improvement in competence, or are they merely a temporary response to the novelty of the new methodology? Therefore, further research designs that include control groups and

longitudinal measurements are highly recommended to ensure the external validity of these findings. Overall, this study supports the premise that AI can be an effective and adaptive learning medium for improving students' speaking skills and confidence. The positive effects observed are not only consistent with previous studies but also illustrate the potential for AI to be developed as part of a hybrid learning model in educational institutions. However, these positive effects should be further tested over a longer time frame to determine whether they are lasting or temporary due to novelty.

Conclusion

The use of AI has a significant positive effect on improving students' speaking skills. AI as a learning medium has proven to be effective and efficient, providing flexible practice opportunities, immediate feedback, and a supportive and stress-free learning environment. AI not only has an impact on linguistic aspects, but also on the psychological aspects of students. Personalized, flexible, and stress-free learning allows students to learn with more confidence and comfort. Student motivation also increases during the learning process with AI, thanks to gamification elements, challenges, and instant feedback. This shows that AI is capable of creating a fun learning atmosphere and encouraging active participation.

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