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Exploring AI Gliglish to Enhance English Speaking Skills among Secondary School Students in Thailand: A Classroom Action Research Study on Confidence and Proficiency

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*Fasya Putri Radhiyya, Dewi Kesuma Nasution, Pirman Ginting[123]
[123]Universitas Muhammadiyah Sumatera Utara
Corresponding Author: fasyaradhiyya@gmail.com

A B S T R A C T

Speaking proficiency is a crucial skill for global communication, yet many Thai secondary school students struggle with fluency and confidence due to limited exposure to authentic language use and traditional grammar-focused instruction. Existing research on AI-assisted language learning highlights its potential, but studies on AI Gliglish in Thai classrooms remain scarce. AI Gliglish is an AI-powered English learning platform designed to provide real-time speech assessment, feedback, and interactive conversation practice. This study investigates the effectiveness of AI Gliglish in enhancing students' speaking proficiency and confidence using a Classroom Action Research approach. Data were collected from 30 Grade 7 students at Muslim Satun Wittaya School, Thailand, through pre-test, post-test, interviews, and classroom observations. Findings indicate a 19.25% improvement in speaking scores, increased student participation, and reduced speaking anxiety. The Paired Sample T-Test (Sig. 0.001 < 0.05) confirms a statistically significant impact. These results suggest that AI Gliglish effectively enhances speaking skills, supporting its integration into English language education to foster engagement, fluency, and confidence.

Keywords: *Artificial Intelligence, AI Gliglish, Speaking Skills, Speaking Proficiency, Confidence.*

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INTRODUCTION

The ability to speak English has become a vital skill for global communication, especially in education, business, and technology. Despite its importance, many secondary school students in Thailand continue to face significant challenges in mastering English speaking skills. Key obstacles include low self-confidence, limited academic resilience, and minimal exposure to authentic English usage (Kao, 2024). The lack of real-world English interaction limits students' ability to develop fluency and confidence, as they are primarily exposed to English in controlled, grammar-focused classroom settings rather than in natural, communicative contexts.

Students often experience anxiety when communicating in English, which hampers their willingness to engage in conversations (Lee & Chiu, 2023). This issue is exacerbated by traditional teaching methods that prioritize grammatical accuracy over meaningful communication. In many Thai schools, English instruction heavily emphasizes grammar, reading, and writing, while speaking receives minimal focus (Tipprachaban, 2022). As a result, students have limited opportunities to engage in spontaneous conversations, reinforcing their hesitation and lack of fluency. Research has shown that limited authentic language exposure

significantly contributes to students' speaking difficulties, as they struggle to apply their theoretical knowledge in real-life communication (Ghafar, 2023).

To address these challenges, AI-powered learning tools have been explored as a means to provide students with authentic, interactive, and personalized speaking practice. AI Gliglish, a speech recognition-based language learning platform, aims to bridge this gap by offering real-time feedback, conversation simulations, and interactive exercises that mimic real-world language use (Gimadieva, 2024). Unlike traditional classroom settings, AI Gliglish allows students to practice speaking English in an immersive and supportive environment, reducing anxiety and encouraging more frequent engagement. Given its ability to provide authentic language exposure and individualized feedback, AI Gliglish presents a promising solution to help Thai secondary school students improve both their fluency and confidence in speaking English.

According to the (EF Education First, 2023), Thailand ranks low in English proficiency compared to neighboring countries. This low ranking highlights a systemic issue within the Thai education system, where students struggle particularly with speaking skills. One of the core challenges is the lack of immersive and practical English-speaking environments. In most Thai schools, English instruction heavily emphasizes grammar, reading, and writing, while speaking receives minimal focus (Tipprachaban, 2022). This imbalance limits students' ability to develop fluency and confidence in spoken English, as supported by (Lee & Chiu, 2023), who found that traditional methods focusing on accuracy over communication hinder students' speaking development.

Another critical factor affecting students' English-speaking abilities is psychological barriers, particularly low self-confidence. Research by (Kao, 2024) indicates that Thai students often experience anxiety and fear of making mistakes when speaking English, which significantly hampers their willingness to participate in speaking activities. This fear is exacerbated by a classroom culture that emphasizes correctness over communication, leading students to prioritize avoiding errors rather than practicing fluent conversation. (Ghafar, 2023) supports this view, emphasizing that self-confidence is a key predictor of success in language learning.

Socio-cultural influences also play a role in shaping students' attitudes toward speaking English. In many Thai communities, opportunities to use English outside the classroom are limited, reducing students' exposure to authentic language use. This lack of real-world practice reinforces students' dependence on rote learning methods and further diminishes their confidence in speaking English. Additionally, the limited number of qualified English-speaking teachers in Thailand compounds the issue, making it difficult for students to receive proper speaking instruction (Tipprachaban, 2022).

To address these challenges, educators and policymakers have explored integrating technology into English language instruction. Among various technological solutions, Artificial Intelligence (AI) has emerged as a promising tool for enhancing language learning. AI-driven applications offer personalized and adaptive learning experiences that cater to individual student needs, providing real-time feedback and opportunities for practice without the fear of social judgment (Fitria, 2021). These features are particularly beneficial for students who struggle with confidence and fluency, as AI can create a safe environment for practice (Polakova & Klimova, 2024).

One such AI-based tool is AI Gliglish, an innovative language learning platform designed to improve English speaking skills through interactive and immersive experiences. AI Gliglish leverages speech recognition, automatic feedback, and conversation simulations to create a supportive learning environment (Gimadieva, 2024). These features allow students to practice speaking English in a structured yet flexible manner, helping them overcome psychological barriers and build confidence (Ericsson & Johansson, 2023).

The effectiveness of AI Gliglish lies in its ability to provide immediate, personalized feedback, enabling students to identify and correct errors in real-time. This feature not only

improves students' pronunciation and fluency but also encourages repeated practice, which is crucial for language acquisition (Han & Lee, 2024). Furthermore, AI Gliglish offers various conversation scenarios that mimic real-life interactions, helping students develop practical speaking skills applicable beyond the classroom (Rusmiyanto et al., 2023).

The positive impact of AI-driven language learning tools like Gliglish has been supported by numerous studies. For instance, (Crompton et al., 2024) found that the use of AI-based applications in South Korean schools significantly improved students' speaking fluency and pronunciation within three months. Similar results were observed in studies focusing on the use of conversational AI in language learning, where students reported increased confidence and motivation to practice speaking (Rukiati et al., 2023).

In the context of Thai secondary schools, integrating AI Gliglish into English instruction has the potential to address the core challenges hindering students' speaking development. By providing a non-judgmental and adaptive learning environment, AI Gliglish can help students practice speaking more frequently and with greater confidence. This, in turn, can lead to measurable improvements in speaking proficiency and overall language competence (Shikun et al., 2024).

Ultimately, the integration of AI Gliglish aligns with broader educational goals of fostering 21st-century skills, including communication, critical thinking, and technological literacy (Maslej et al., 2024). As education systems worldwide continue to embrace technology-driven solutions, leveraging AI tools like Gliglish can play a crucial role in transforming English language education in Thailand, empowering students to become more confident and proficient English speakers.

Artificial Intelligence (AI) Technology in Language Education

AI technology has shown significant potential in improving language education by fostering personalized and engaging learning experiences. Studies have demonstrated that AI applications, such as chatbots and virtual tutors, effectively enhance students' speaking skills by offering immediate feedback and tailored practice (Polakova & Klimova, 2024). AI Gliglish, in particular, has been recognized for its ability to simulate real-life conversations, enabling students to practice in authentic contexts and receive constructive feedback (Gimadieva, 2024).

(Vartiainen & Tedre, 2023) explain that AI enables personalisation of learning by providing a more flexible and tailored learning experience. In the context of language learning, AI can provide adaptive and immediate feedback-based speaking practice. (Kökver et al., 2024) found that natural language processing in AI can assist in detecting students' errors, allowing teachers to provide more accurate feedback and support the development of their speaking skills.

Advantages and Challenges of Using AI in English Language Learning

The integration of AI in language education offers numerous benefits, including personalized learning, real-time feedback, and increased student engagement (Bai & Wang, 2023). AI tools can create immersive and interactive environments that make language learning enjoyable and effective (Qu & Wu, 2024). However, challenges such as inadequate teacher training and limited technological infrastructure can hinder the effective implementation of AI in classrooms (Rintaningrum, 2023).

(Darwin et al., 2024) found that although AI provides many advantages in language learning, challenges such as dependence on technology and lack of training for teachers remain barriers to its effective implementation. (Singh et al., 2023) highlighted that users' perception of AI greatly affects its success. If students and teachers have a positive understanding of this technology, then the likelihood of successful implementation of AI in language learning is greater.

AI Gliglish in Speaking Skills Improvement

AI Gliglish is a neural network-based platform designed to support English speaking practice. It offers various features that enhance language learning. One of its main features is **speech recognition**, which detects and analyzes pronunciation errors while providing real-time corrections. According to (Han & Lee, 2024), speech recognition technology helps learners improve their pronunciation accuracy by offering immediate feedback, which reinforces correct articulation and fluency. Additionally, the **automatic feedback** feature delivers instant evaluations on grammar, vocabulary, and sentence structure. (Polakova & Klimova, 2024) emphasize that timely feedback is crucial for language acquisition, as it allows learners to identify and correct errors promptly, leading to better retention and understanding. To help students practice real-life conversations, AI Gliglish includes **conversation simulations** with contextual dialogue scenarios. (Gimadieva, 2024) notes that simulated dialogues help learners develop pragmatic competence and conversational fluency by engaging them in authentic language use within controlled environments. It also offers **interactive exercises** tailored to individual proficiency levels, allowing for personalized learning experiences. (Fitria, 2021) highlights that adaptive learning systems, which adjust content based on learner performance, can significantly enhance engagement and facilitate personalized learning experiences. Students' progress is monitored through the **progress tracking** feature, which highlights improvements and identifies areas that need more focus. According to (Crompton et al., 2024), progress tracking tools motivate learners by visualizing their development and helping them set realistic goals for continuous improvement.

(Alamsyah et al., 2024) stated that AI Gliglish not only serves as a speaking practice tool, but also as psychological support for students. By providing a friendly learning environment and without social pressure, AI Gliglish can help reduce students' anxiety when speaking English. (Ericsson, 2023) added that students who used the AI in speaking practice experienced a significant increase in their confidence after a few months of regular practice. Most importantly, AI Gliglish creates a supportive learning environment that helps build confidence, enabling students to practice speaking without the fear of negative judgment. (Ghafar, 2023) argues that non-judgmental practice environments are essential for reducing language anxiety, thereby increasing students' willingness to communicate and improving their speaking proficiency.

Self-Confidence in English Language Learning

Confidence is a critical factor in language learning. Research highlights that students with higher self-confidence are more willing to engage in speaking activities and demonstrate better language proficiency (Ghafar, 2023). AI tools like Gliglish help build this confidence by providing a non-judgmental environment for practice, reducing anxiety and encouraging active participation (Rukiati et al., 2023).

(Ghafar, 2023) highlighted that confidence in speaking English is closely related to the level of active participation in class. Students who feel confident are more likely to speak without fear, which ultimately improves their speaking skills. (Hao & Chen, 2021) found that co-operative learning can increase students' confidence in speaking English, especially when they feel supported by peers. (Saidah, 2024) pointed out that academic self-confidence is crucial in language learning, especially in the post-pandemic context where many students have decreased motivation to learn.

Proficiency in English Language Learning

Speaking proficiency involves fluency, accuracy, and appropriate language use in various contexts. AI-based platforms like Gliglish have been shown to improve these aspects by offering personalized and adaptive learning experiences (Han & Lee, 2024). Real-time feedback and immersive practice help students refine their speaking skills, enhancing both confidence and proficiency.

This study aims to explore the effectiveness of AI Gliglish in improving the English speaking skills of secondary school students in Thailand, focusing on enhancements in students' confidence and proficiency. By integrating AI Gliglish into classroom activities, the research seeks to determine how AI-driven personalized learning can address common challenges in English language education and support students in developing better speaking skills.

METHOD

This study employs a Classroom Action Research (CAR) design, as proposed by (Burns, 2010), which consists of five iterative stages: Exploring, Planning, Acting, Observing, and Reflecting. This research was conducted in a real classroom setting at Muslim Satun Wittaya School, Satun, Thailand, to provide practical insights into the use of AI Gliglish for enhancing students' speaking proficiency and confidence.

The subjects of this study were 30 secondary school students from Grade 7, selected through purposive sampling. These students were identified as having low to moderate proficiency in English speaking skills based on their previous academic performance and teacher recommendations. By conducting the study in a real classroom setting, the research aimed to provide practical and actionable insights for English language educators on the effectiveness of AI Gliglish in improving speaking proficiency and confidence.

Table 1. Research Stages

Stage	Activities Included
Exploring	Pre-test, Initial Interview (Identifying students' challenges)
Planning	Developing AI Gliglish-based learning strategies
Acting	Conducting speaking practice sessions using AI Gliglish
Observing	Monitoring student engagement, participation, and confidence levels
Reflecting	Post-test, Final Interview (Evaluating progress and effectiveness)

Participants

The participants of this study were 30 secondary school students from Muslim Satun Wittaya School, Thailand, specifically from Grade 7. They were selected using purposive sampling based on the recommendation of the school's Master of English, who identified students that met the research criteria. The selection criteria included students with low to moderate English-speaking proficiency, particularly those struggling with fluency, pronunciation, and confidence.

Most participants spoke Thai or Malay as their first language, with limited exposure to English outside the classroom. English was primarily learned as a foreign language in a formal school setting, where instruction focused heavily on grammar and writing rather than speaking practice. This lack of authentic language exposure contributed to students' difficulties in oral communication. Classroom observations and preliminary interviews further revealed that many students experienced speaking anxiety, fearing mistakes and peer judgment, which hindered their willingness to participate in conversations.

Since the study involved AI-assisted learning, an additional criterion for selection was students' familiarity with basic digital technology. All participants had access to AI-based learning tools and were comfortable using smartphones, tablets, or computers for educational purposes. This ensured that technical barriers would not interfere with their engagement with AI Gliglish.

Understanding these background factors was crucial for interpreting the results, as students' prior language experiences, confidence levels, and technological readiness could influence their responsiveness to AI-assisted speaking practice.

Instruments

To gather comprehensive data for the study, three key instruments were utilized: pre-tests and post-tests, interviews, and classroom observations. The speaking tests conducted before and after the intervention evaluated students' fluency, pronunciation, and overall speaking ability, offering measurable insights into their progress. Interviews, carried out before the pre-test and after the post-test, provided qualitative data regarding students' confidence, learning experiences, and perceptions of using the AI tool Gliglish. Additionally, classroom observations helped capture real-time student engagement, participation, and interaction with the AI platform, contributing to a holistic understanding of the learning process.

Procedures

The research was conducted through two structured cycles, each comprising two meetings, totaling four sessions. In Cycle 1, the process began with an initial exploration via interviews to identify students' challenges in speaking English, followed by planning AI-integrated lessons, implementing those sessions, observing student engagement, and reflecting on outcomes to inform the next cycle. Cycle 2 refined the instructional approach based on Cycle 1 insights, introduced more complex speaking tasks with AI Gliglish, and concluded with a post-test and follow-up interviews. This cyclic process ensured a continuous loop of action and reflection to optimize learning and assess the effectiveness of the intervention..

Data analysis

The study employed a mixed-methods approach to data analysis, combining quantitative and qualitative strategies. Quantitative analysis focused on comparing pre-test and post-test results using descriptive statistics to identify measurable improvements in speaking fluency, pronunciation, and accuracy. Meanwhile, qualitative analysis involved coding and interpreting data from student interviews and classroom observations to uncover recurring themes related to confidence, motivation, and engagement. This dual analysis method enabled a comprehensive evaluation of AI Gliglish's impact on students' English-speaking proficiency and classroom dynamics.

FINDINGS AND DISCUSSION

Findings

The use of AI Gliglish has been proven to enhance Thai students' speaking skills by boosting both confidence and proficiency. The study results showed a 19.25% improvement in students' speaking scores, with significant progress in fluency, pronunciation, and grammatical understanding. The number of students who felt confident in speaking increased from 6 to 21 after using AI Gliglish, mainly due to its instant feedback and repeated practice without fear of judgment. Additionally, its conversation simulations and automatic corrections allowed students to quickly identify and fix mistakes, reducing pauses in speech and fostering independent learning habits that contributed to overall proficiency improvement.

AI Gliglish also creates an interactive and supportive learning environment, helping students overcome speaking anxiety while developing fluency, pronunciation, and grammatical accuracy. Before the intervention, 27 students reported anxiety when speaking English, but after using AI Gliglish, this number decreased to 9, as the platform provided a pressure-free practice space. The real-life conversation simulations trained students to speak more spontaneously, while phonetic feedback helped them correct pronunciation in real time. Additionally, the AI's automatic grammar corrections

improved their understanding of sentence structures, proving that AI-assisted learning effectively enhances overall speaking skills.

These improvements were further confirmed through interviews and classroom observations, which revealed how students' confidence and participation increased alongside their test scores. Before using AI Gliglish, many students hesitated to speak due to fear of making mistakes, with one stating, "*I often pause a lot while speaking because I don't know the right words.*" After repeated practice, they reported, "*I can speak more smoothly now. Sometimes I still pause, but I don't hesitate as much.*" Similarly, a student who initially felt anxious speaking in front of others shared, "*I feel very anxious when speaking in front of the class. My hands even shake sometimes.*" However, after the intervention, they expressed, "*I still feel a little nervous, but I'm getting used to it. AI Gliglish helped me practice without feeling judged.*" These findings align with the test results, confirming that AI Gliglish not only enhances measurable speaking proficiency but also fosters confidence, reduces anxiety, and encourages active participation in language learning.

Discussion

The classroom observations conducted during the two cycles of this study provided valuable insights into students' engagement, participation, and confidence development while using AI Gliglish. In the first cycle, observations focused on monitoring student participation, engagement, and confidence levels as they interacted with the AI-assisted learning tool for the first time. Initially, many students exhibited hesitation in speaking activities, often relying on short responses and displaying signs of nervousness, such as avoiding eye contact or pausing frequently. However, as the sessions progressed, students showed increased willingness to participate, encouraged by the non-judgmental feedback and interactive nature of AI Gliglish. By the end of the first cycle, students demonstrated greater engagement, although some still struggled with fluency and pronunciation due to lingering anxiety.

The second cycle focused on assessing student improvement through classroom engagement and AI-assisted conversations. At this stage, students displayed more confidence in expressing themselves, with noticeable reductions in hesitation and speaking anxiety. The integration of AI Gliglish into structured speaking exercises allowed students to engage in more extended conversations, showing significant progress in fluency and pronunciation accuracy. Compared to the first cycle, students were more proactive in initiating discussions and responding to prompts with greater ease. Additionally, their ability to self-correct grammatical errors based on AI feedback suggested an improved understanding of sentence structure. These observations, combined with findings from interviews and speaking tests, further validated the effectiveness of AI Gliglish in fostering both confidence and proficiency in English-speaking skills.

The findings from these observations are further supported by the results of student interviews, which provide deeper insights into the changes in their confidence and speaking skills after using AI Gliglish. To gain a deeper understanding of the impact of AI Gliglish on students' confidence and speaking proficiency, interviews were conducted before and after the intervention. These interviews offer valuable insights into how students experienced changes in their learning process.

Table 2. Comparison of Interview Results Before Intervention and Interviews after Intervention

Category	Pre-Intervention Responses	Post-Intervention Responses	Improvement
Confidence in Speaking	6 students confident	21 students confident	+15 students
Fluency	4 students fluent	20 students fluent	+16 students
Speaking Anxiety	27 students anxious	9 students anxious	-18 students

Pronunciation	7 students good pronunciation	23 students improved pronunciation	+16 students
Grammar Understanding	5 students understand grammar	19 students improved grammar	+14 students
Speaking Practice Frequency	10 students practice outside class	25 students practice regularly	+15 students

The findings from the pre-intervention and post-intervention interviews demonstrate a significant improvement in students' confidence, fluency, and overall speaking proficiency after using AI Gliglish. Below are the key observations:

Confidence in Speaking : Before using AI Gliglish, only 6 students expressed confidence in speaking English. However, after practicing with the AI tool, 21 students reported feeling more confident. This suggests that the structured feedback and continuous practice provided by AI Gliglish played a vital role in boosting students'confidence.

❌Before : "*I'm not confident at all. I feel scared of making mistakes and being laughed at by my friends.*"

✅After: "*I feel more confident now. Even if I make mistakes, I just keep speaking and learning from them.*"

Fluency Enhancement : Initially, only 4 students could speak fluently without many pauses. Interview after intervention results show that 20 students improved their fluency. This indicates that regular exposure to AI-based speaking exercises helped students reduce hesitation and improve sentence construction.

❌Before : "*I often pause a lot while speaking because I don't know the right words to say.*"

✅After: "*I can speak more smoothly now. Sometimes I still pause, but I don't hesitate as much as before.*"

Reduction in Speaking Anxiety : One of the biggest improvements was seen in students' anxiety levels when speaking English. Before the intervention, 27 students admitted feeling anxious, while interview after intervention results showed that only 9 students still experienced anxiety. This suggests that repeated exposure and supportive feedback from AI Gliglish helped students become more comfortable speaking English.

❌Before : "*I feel very anxious when speaking English, especially in front of the class. My hands even shake sometimes.*"

✅After: "*I still feel a little nervous, but I'm getting used to it. AI Gliglish helped me practice without feeling judged.*"

Pronunciation Improvements : At the pre-intervention stage, only 7 students felt their pronunciation was good. After the intervention, 23 students reported improvements. AI Gliglish's pronunciation feedback appears to have helped students identify and correct their common pronunciation errors.

❌Before : "*My pronunciation is bad. I don't know if I'm saying the words correctly or not.*"

✅After: "*I think my pronunciation has improved. AI Gliglish helped me correct my mistakes, especially difficult words.*"

Better Grammar Understanding : Initially, only 5 students understood basic grammar concepts when speaking. After using AI Gliglish, 19 students reported an improvement in their grammar application. This suggests that the AI feedback helped students recognize and correct grammar mistakes in real time.

❌Before : "*I always get confused when speaking because I don't know the right grammar to use.*"

✅ After: "*I feel better at using grammar while speaking now. AI Gliglish gives me corrections, and I try to apply them.*"

Increase in Speaking Practice : Before the intervention, only 10 students practiced speaking English outside the classroom. After using AI Gliglish, 25 students developed a habit of practicing regularly. This increase in speaking frequency shows that AI-based learning tools can encourage self-directed learning.

❌ Before : "*I rarely practice speaking outside the classroom, only when I have homework.*"

✅ After: "*Now I use AI Gliglish almost every day. It's easy to access and helps me practice more.*"

The post-intervention interview findings suggest that AI Gliglish has been an effective tool in enhancing students' English speaking skills. Despite some areas needing improvement, such as understanding AI feedback and grammar accuracy, the overall progress indicates that AI-assisted learning significantly boosts students' confidence and proficiency in speaking. These findings align with previous studies on conversational AI in language learning, where students similarly reported increased confidence and motivation to practice speaking (Rukiati et al., 2023). Future implementations could refine AI feedback explanations and incorporate more interactive elements to further enrich students' learning experiences.

Beyond the qualitative findings from the interviews, the results of the pre-test and post-test offer a clearer picture of students' improvement in speaking skills. Data analysis using SPSS highlights measurable progress in fluency, pronunciation, and grammatical accuracy across the two cycles.

Table 3. Progress in fluency, pronunciation, and grammatical accuracy across the two cycles

Statistics

PRETEST

N	Valid	30
	Missing	0
Mean		75.33
Median		70.00
Std. Deviation		15.698
Minimum		40
Maximum		100

Source: Processed data with SPSS 29.00

The pre-test results, as presented in the table above, indicate the initial speaking proficiency of the 30 participating students before the intervention. The minimum score recorded was 40, while the maximum score reached 100, reflecting a considerable gap in students' speaking abilities. The mean score of 75.33 suggests that, on average, students had moderate proficiency in speaking English, though with significant variations across individuals. This is further supported by the standard deviation of 15.698, indicating a relatively high dispersion of scores, which suggests that some students struggled more than others in fluency, pronunciation, and grammatical accuracy. These findings highlight the need for targeted intervention to bridge the skill gap and improve overall speaking performance.

Table 4. The post-test results

Statistics

POSTEST

N	Valid	30
	Missing	0
Mean		89.83
Median		90.00
Std. Deviation		7.368
Minimum		70
Maximum		100

Source: Processed data with SPSS 29.00

The post-test results, as presented in the table above, demonstrate a significant improvement in students' speaking proficiency after the intervention using AI Gliglish. The minimum score increased from 40 in the pre-test to 70, while the maximum score remained at 100, indicating a shift towards higher overall performance. The mean score of 89.83 suggests that, on average, students achieved a higher level of speaking proficiency compared to the pre-test, with most students scoring closer to the upper range. Additionally, the standard deviation decreased to 7.368, showing that the variation in students' scores was reduced, meaning that their proficiency levels became more consistent. These findings indicate that the AI-assisted learning approach effectively enhanced students' confidence, fluency, and accuracy in speaking English, as reflected in their improved test performance.

Table 5. Paired Sample T-Test

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	PRETEST - POSTEST	-14.500	15.163	2.768	-20.162	-8.838	-5.238	29	<0.001	<0.001

To determine the impact described in the study title, a Paired Sample T-Test was conducted. Based on the results of the paired samples t-test display in the table, the results indicate that the significance value (Sig. 2-tailed) is 0.001, which is lower than the threshold of 0.05 (0.001 < 0.05). This statistically significant result confirms that there is a meaningful difference between the pre-test and post-test scores, suggesting that the intervention had a significant effect. These findings provide strong evidence that the treatment applied to each variable contributed to measurable improvements, aligning with the study's objective of enhancing students' speaking proficiency through AI-assisted learning.

Table 6. Comparison of speaking test results of cycle 1 and cycle 2

Criteria	Cycle 1	Cycle 2
Number of Students	30	30
Number of Values	2.260	2.695
Average Value	75.33	89.83
Highest Value	100	100
Lowest Value	40	70
Percentage	75.33%	89.83%

The comparison between pre-test and post-test results across the two cycles highlights a significant improvement in students' speaking proficiency. In the first cycle, the total score was 2,260, with an average score of 75.33% and a minimum score of 40, indicating that many students initially struggled with fluency, pronunciation, and grammatical accuracy. However, after the implementation of AI-assisted learning in the second cycle, the total score increased to 2,695, with an average score of 89.83% and a higher minimum score of 70. This upward trend suggests that students not only improved their speaking abilities but also gained more confidence in using English. The increase in percentage from 75.33% to 89.83% further reinforces the effectiveness of the intervention, demonstrating that structured AI-based practice significantly contributed to the students' overall language development.

(De Jong, 2022) emphasises that improved speaking skills have far-reaching impacts on students' social and economic integration. This supports the findings of this study which show that AI Gliglish helps to increase students' confidence in speaking, which in turn can have a positive impact on their academic and professional future. (Tang et al., 2021) revealed that collaborative learning strategies, such as group discussions and task-based learning, can significantly improve students' speaking skills. This is in line with the findings of this study that AI Gliglish, with its interactive features, can help students practice speaking in more natural situations.

CONCLUSIONS

This study demonstrates that the integration of AI Gliglish significantly enhances Thai secondary school students' speaking confidence and proficiency. The findings indicate a substantial improvement in fluency, pronunciation, and grammatical accuracy, as evidenced by the increase in average scores from 75.33% (pre-test) to 89.83% (post-test) and the statistically significant Paired Sample T-Test result (*Sig. 0.001 < 0.05*). Classroom observations showed greater student engagement, while interviews revealed reduced speaking anxiety and increased willingness to communicate in English. The interactive and supportive nature of AI Gliglish, with its real-time feedback and structured practice, played a key role in fostering self-improvement.

These results have important implications for English language teaching practices in Thailand, particularly in addressing the lack of authentic speaking practice and students' confidence issues. To integrate AI Gliglish or similar AI-driven tools effectively, teachers should incorporate structured AI-assisted speaking sessions into their lesson plans, ensuring that students have regular and guided opportunities to practice speaking in a low-anxiety environment. Additionally, teachers should provide training on AI tools to help students navigate features such as real-time feedback, pronunciation correction, and conversation simulations. Encouraging blended learning approaches, where AI-assisted practice complements traditional classroom activities, can maximize the benefits of both personalized feedback and direct teacher guidance.

Furthermore, school administrators and policymakers should consider investing in digital infrastructure to support AI-enhanced language learning. Providing professional development programs for teachers on AI integration will ensure that they can effectively utilize these tools in their classrooms. Future research could explore long-term impacts and broader applications of AI-assisted learning across different proficiency levels and educational settings to further validate its role as a sustainable and scalable approach in English language education.

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REFERENCES

Alamsyah, A., Faozan, A., Hasbi, M., Astawa, N. L. P. N. S. P., Fauzi, A. R., Utomo, H. Y., Devi, A. P., Nor, H., Adimarta, T., Kristanto, Mandasari, B., Dewi, R. F., Nisa, B., Hartati, E., Pricilia, G. M., Saputra, R. M., Purnami, I. A. O. P., Nisa, I. K., Mangendre, Y., … Rohqim, A. I. F. (2024). *Talking With AI: Be Confident in Speaking English with Gliglish*. https://www.researchgate.net/publication/382337213

Bai, B., & Wang, J. (2023). The role of growth mindset, self-efficacy and intrinsic value in self-regulated learning and English language learning achievements. *Language Teaching Research*, *27*(1), 207–228. https://doi.org/10.1177/1362168820933190

Burns, A. (2010). Doing Action Research in English Language Teaching. In *Doing Action Research in English Language Teaching*. https://doi.org/10.4324/9780203863466

Crompton, H., Edmett, A., Ichaporia, N., & Burke, D. (2024). AI and English language teaching: Affordances and challenges. *British Journal of Educational Technology*, *55*, 2503–2529. https://doi.org/10.1111/bjet.13460

Darwin, Rusdin, D., Mukminatien, N., Suryati, N., Laksmi, E. D., & Marzuki. (2024). Critical thinking in the AI era: An exploration of EFL students' perceptions, benefits, and limitations. *Cogent Education*, *11*(1), 1–18. https://doi.org/10.1080/2331186X.2023.2290342

De Jong, N. H. (2022). Assessing Second Language Speaking Proficiency. *Annual Review OfLinguistics*, *9*, 541–560. https://doi.org/10.1146/annurev-linguistics-030521

EF Education First. (2023). *EF English Proficiency Index 2023*. EF Education First. https://www.ef.com/assetscdn/WIBIwq6RdJvcD9bc8RMd/cefcom-epi-site/reports/2023/ef-epi-2023-english.pdf

Ericsson, E., & Johansson, S. (2023). English speaking practice with conversational AI: Lower secondary students' educational experiences over time. *Computers and Education: Artificial Intelligence*, *5*, 1–14. https://doi.org/10.1016/j.caeai.2023.100164

Fitria, T. N. (2021). The use technology based on artificial intelligence in english teaching and learning. *ELT Echo : The Journal of English Language Teaching in Foreign Language Context*, *6*(2), 213–223. https://doi.org/10.24235/eltecho.v6i2.9299

Ghafar, Z. N. (2023). The Influence of Self-Confidence on English Language Learning: A systematic Review. *International Journal of Applied Educational Research (IJAER)*, *1*(1), 55–68. https://doi.org/10.59890/ijaer.v1i1.452

Gimadieva, E. (2024). Revealing educational potential of neural network Gliglish as a linguo-information technology in teaching oral communication to students at university. *Philology and Culture*, *76*(2), 272–280. https://doi.org/10.26907/2782-4756-2024-76-2-272-280

Han, J., & Lee, D. (2024). Research on the development of principles for designing elementary English speaking lessons using artificial intelligence chatbots. *Humanities and Social Sciences Communications*, *11*, 1–15. https://doi.org/10.1057/s41599-024-02646-w

Hao, Y., & Chen, Y. (2021). The Role of Self-Confidence in English Language Learning: A Study of EFL Learners. *International Journal of Language Studies*, *15*(2), 45–60.

Kao, P. C. (2024). Exploring the roles of academic expectation stress, adaptive coping, and academic resilience on perceived English proficiency. *BMC Psychology*, *12*, 1–12. https://doi.org/10.1186/s40359-024-01630-y

Kökver, Y., Pektaş, H. M., & Çelik, H. (2024). Artificial intelligence applications in education: Natural language processing in detecting misconceptions. *Education and Information Technologies*, 1–32. https://doi.org/10.1007/s10639-024-12919-1

Lee, J. S., & Chiu, M. M. (2023). Modeling EFL learners' willingness to communicate: The roles of face-to-face and digital L2 communication anxiety. *Annual Review of Applied Linguistics*, *43*, 64–87. https://doi.org/10.1017/S0267190523000090

Maslej, N., Fattorini, L., Perrault, R., Parli, V., Reuel, A., Brynjolfsson, E., Etchemendy, J., Ligett, K., Lyons, T., Manyika, J., Niebles, J. C., Shoham, Y., Wald, R., & Clark, J. (2024). *Artificial Intelligence Index Report 2024*.

Polakova, P., & Klimova, B. (2024). Implementation of AI-driven technology into education–a pilot study on the use of chatbots in foreign language learning. *Cogent Education*, *11*(1). https://doi.org/10.1080/2331186X.2024.2355385

Qu, K., & Wu, X. (2024). ChatGPT as a CALL tool in language education: A study of hedonic motivation adoption models in English learning environments. *Education and Information Technologies*, *29*, 19471–19503. https://doi.org/10.1007/s10639-024-12598-y

Rintaningrum, R. (2023). Technology integration in English language teaching and learning: Benefits and challenges. *Cogent Education*, *10*(1), 1–21. https://doi.org/10.1080/2331186X.2022.2164690

Rukiati, E., Arief Wicaksono, J., Taufan, G. T., Suharsono, D. D., & Jember, P. N. (2023). *AI on Learning English: Application, Benefit, and Threat*. *1*, 32–40.

Rusmiyanto, Hurianti, N., Fitriani, N., Tyas, N. K., Rofi'i, A., & Sari, M. N. (2023). The Role Of Artificial Intelligence (AI) In Developing English Language Learner's Communication Skills. *Journal on Education*, *06*(01), 750–757. http://jonedu.org/index.php/joe

Saidah, S. (2024). The Impact of Students' Academic Self-Confidence on the English Learning Process in the Post-Pandemic Era. *Journal of Languages and Language Teaching*, *12*(1), 341–352. https://doi.org/10.33394/jollt.v12i1.8979

Shikun, S., Grigoryan, G., Huichun, N., & Harutyunyan, H. (2024). AI Chatbots: Developing English Language Proficiency in EFL Classroom. *Arab World English Journal*, *1*, 292–305. https://doi.org/10.24093/awej/chatgpt.20

Singh, N., Pandey, A., Tikku, A. P., Verma, P., & Singh, B. P. (2023). Attitude, perception and barriers of dental professionals towards artificial intelligence. *Journal of Oral Biology and Craniofacial Research*, *13*(5), 584–588. https://doi.org/10.1016/j.jobcr.2023.06.006

Tang, S., Irby, B. J., Tong, F., & Lara-Alecio, R. (2021). The Effects of Cooperative, Collaborative, and Peer-Tutoring Strategies on English Learners' Reading and Speaking Proficiencies in an English-Medium Context: A Research Synthesis. *SAGE Open*, *4*, 1–17. https://doi.org/10.1177/21582440211060823

Tipprachaban, B. (2022). Challenges Of Using English As A Medium Of Instruction (Emi) In Thailand. *PUPIL: International Journal of Teaching, Education and Learning*, *6*(2), 01–12. https://doi.org/10.20319/pijtel.2022.62.0112

Vartiainen, H., & Tedre, M. (2023). Using artificial intelligence in craft education: crafting with text-to-image generative models. *Digital Creativity*, *34*(1), 1–21. https://doi.org/10.1080/14626268.2023.2174557