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**| RESEARCH ARTICLE**

# AI-CiciBot as Conversational Partners in EFL Education, focusing on Intelligent Technology Adoption (ITA) to Mollify Speaking Anxiety

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**| ABSTRACT**

This study examines the role of AI-CiciBot as a conversational partner in mitigating speaking anxiety among Indonesian EFL (English as a Foreign Language) students. The aim is to explore the integration of intelligent technology adoption (ITA) into classrooms to enhance language learning and reduce anxiety during speaking activities. The primary gap addressed in this research is the lack of technology-based solutions for oral language practice in Indonesia, where traditional curricula emphasize reading and writing over speaking. This study aims to fill the gap by introducing AI-CiciBot, a novel AI-powered conversational tool that provides a supportive, low-pressure environment for students to practice speaking English. The study uses a mixed-methods approach, combining quantitative data from pre-test and post-test scores and qualitative insights from student interviews. The research tools include a questionnaire and an AI-CiciBot platform for speaking practice. IBM SPSS Statistics analyzed the data, focusing on students' speaking performance and anxiety levels before and after using AI-CiciBot. Findings in this study show a significant improvement in students' speaking skills and a reduction in anxiety. The mean score for pre-tests was 49.17, which increased to 90.47 in post-tests, indicating AI-CiciBot's effectiveness. Interviews revealed that students initially hesitant to engage in speaking activities due to fear of judgment became more confident and willing to participate after practicing with the AI bot. This study contributes to the field of EFL education by demonstrating the potential of AI-driven tools like AI-CiciBot to address speaking anxiety and improve oral proficiency. It also highlights the importance of ITA in encouraging students to embrace AI-based learning solutions. To maximize learning outcomes, future research should investigate the long-term impact of AI-CiciBot on students' speaking proficiency and its integration with human instructors.

**| KEYWORDS**

Artificial Intelligence, ChatBot, EFL, Speaking skills and Intelligence Technology Adoption (ITA).

**| ARTICLE IN01FORMATION**

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## 1. Introduction

Learning English as a Foreign Language (EFL) has become an important competency in today's education system (Erazo, 2024)., especially for students from countries where English is not a national language, such as Indonesia. The most concerning impact is that students frequently have difficulty with speaking activities, which prevents them from practicing and improving their English pronunciation. A phenomenon known as Foreign Language Anxiety (FLSA) is one of the main obstacles to successfully learning English as a foreign language (Faqihi, 2024). The issue is that the Indonesian EFL curriculum typically prioritizes reading and writing over speaking skills. When faced with the prospect of interactive speaking activities, students often experience severe anxiety due to their irrational fear of public judgment, reprimands, or humiliation. The lack of qualified conversation partners and native English-speaking teachers in many Indonesian schools exacerbates this problem.

According to (Yang et al. 2024; Fathi et al., 2024) statements, the main obstacle is that there is no technology-based solution to the problem of speaking anxiety in the classroom. Although many schools in Indonesia have used the technology for reading and

writing practice, the use of artificial intelligence for oral language practice remains largely unexplored. This study introduces AI-CiciBot, a powerful tool that Indonesian classrooms can readily implement to address this need. Students can practice English without fear of judgment or criticism, thanks to the application. Integrating AI into the classroom opens exciting new possibilities for addressing this issue. AI-CiciBot and similar conversational agents provide students with a safe space to practice English without worrying about what others think of their progress.

AI-CiciBot is an interactive conversational assistant application that seeks to help students improve their language skills by acting like a human partner (Muthmainnah et al., 2024). Incorporating Intelligent Technology Adoption (ITA) into the classroom (Adel, 2024) allows students to better adapt to AI-CiciBot and other technology solutions, which is especially helpful for students who struggle with mental barriers such as boredom, lack of motivation, and struggle to enjoy English or learn a new language. To help Indonesian EFL students overcome their fear of public speaking and improve their oral communication skills, this study investigates the feasibility of using AI-CiciBot as a conversational companion.

This paper introduces AI-CiciBot, an AI-powered conversational agent, with the express purpose of addressing speaking anxiety in English as a Foreign Language (EFL) classes through targeted and personalized interactions. The collaboration between AI-ChatBot and human intelligence is believed to provide a nuance of AI-enhanced adaptive learning, as AI-ChatBot adjusts its dialogue based on the student's current skill level, providing instant feedback and mapping out a unique path to mastery. In addition, students can improve their communication skills with self-awareness, supported by an AI system with an algorithm that can identify when the learner is feeling anxious or hesitant and then change the way the discussion flows so that the learner feels comfortable trying a new language. Hence, this study highlights Intelligent Technology Adoption (ITA) as a framework that can help students overcome their speaking anxiety and embrace AI-based solutions. ITA works by increasing the user's confidence and reducing their fear of being embarrassed when speaking in English. CiciBot's artificial intelligence goes beyond language correction by incorporating psychological components to relieve anxiety, which sets it apart from standard learning systems.

This study aims to provide an important addition to the literature on teaching English as a Foreign Language (EFL), especially in Indonesia, by introducing AI-CiciBot as a Conversation Agent and a new approach to improve speaking practice in EFL education through the use of AI-CiciBot in the classroom. Students can practice English in a fun and engaging way with AI-CiciBot because AI-CiciBot acts like a native speaker. The interaction between students and Cici Bot can reduce Foreign Language Speaking Anxiety (FLSA), which can be reduced by the implementation of Intelligent Technology Adoption (ITA) and AI-CiciBot, which is the main contribution of this study. Students can practice public speaking with adaptive technology and emotion-sensitive features without worrying about being evaluated negatively. In addition, improving English Speaking Skills with the implementation of AI-CiciBot can help Indonesian EFL classes fill the gap in speaking competence. Since it is available for classroom use, students will have more opportunities to practice speaking, even as the technical benefits go beyond improving language skills and AI-CiciBot promotes a more holistic learning experience by helping students' mental health by reducing anxiety and increasing confidence in addition to improving their language skills.

This research makes a substantial contribution to the field of artificial intelligence (AI) in teaching English as a foreign language (EFL) by demonstrating how an intelligent conversational companion called AI-CiciBot can help Indonesian students overcome their fear of public speaking. The importance of Intelligent Technology Adoption (ITA) in removing barriers to language acquisition through the use of AI-based solutions is emphasized, providing a new approach to closing the speaking skills gap in Indonesian schools.

## 2. Literature review

### *2.1 LAnxiety in L2 Learners*

In the current literature, there is no shortage of definitions of anxiety. People often understand anxiety as an unpleasant emotional state characterised by emotions of fear and anxiety (Yu, 2024). Anxiety, with all its negative associations, is a major component of any sort of learning. Emotional factors largely govern the process of learning a new language, thereby linking it to that endeavour. This connection spawned a new term, "foreign language anxiety."

One definition of foreign language anxiety is "the subjective feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (Chen et al., 2024). This multi-faceted condition is complex (Masuwd et al., 2024). (Fu and Li, 2024) pioneered the identification of FLA as a distinct phenomenon, defining it as "a distinct complex of self-perceptions, feelings, and behaviours relating to classroom language learning arising from the uniqueness of the language learning process." They drew on both statistical and anecdotal evidence to theorise about language learning anxiety. There are three interconnected components to this hypothesis of foreign language anxiety: test anxiety, fear of a negative evaluation, and communication anxiety. According (Husin and Khamis, 2024). communication apprehension is defined as "a type of shyness characterised by fear or anxiety about communicating with people. "Apprehension about others' evaluation, avoidance

of evaluative situations, and the expectation that others would evaluate oneself negatively" is what we mean when we talk about anxiety over negative criticism. Last but not least, a type of performance anxiety stemming from a fear of failure describes test anxiety, which encompasses all of the assessments associated with learning a new language. This paradigm has prompted numerous investigations into the impact of worry about learning a foreign language on language acquisition (Chen, 2024).

Similar to this study, Grabau et al. (2024) examined American students studying Japanese and discovered that students who were more worried performed worse academically than their less anxious peers. Huang and Tsai's (2024) research examined the effect of worry about learning a foreign language on English language acquisition among northern Taiwanese high school seniors. In a classroom setting, the results demonstrated that students' anxiety levels and language proficiency were both affected by a modestly challenging exam. Additionally, her study found that helping kids deal with anxiety had no effect on their language skills. Not only that but Satake et al. (2024) discovered that Japanese learners' performance can be negatively affected by foreign language fear and that this worry becomes more significant as the instructional level of the learners grows.

To examine the impact of language anxiety on language processing, (Fišer, 2023) conducted an alternative study with undergraduate EFL students from Croatia. The research showed that, compared to students who did not experience as much anxiety when speaking a second language, those who do tend to hesitate more frequently and use less continuous speech. Academics in this field started to take an interest in studying the relationship between anxiety and language abilities after developing this model of foreign language anxiety and seeing how well it explained the phenomenon. A new concept, anxiety about speaking a foreign language, has developed due to the heightened focus on oral communication abilities among linguistic abilities.

### *2.2 AI can serve as a tool for learning new languages.*

Lai and Lee (2024) assert that interaction theory, which emphasizes how language learners collaborate to communicate and engage with other speakers, provides the strongest support for conversational AI capabilities. Unfortunately, opportunities for language learners to practice speaking and receive feedback are generally limited. The lack of opportunities for students to practice speaking the target language in context is another problem (Köse et al. 2024). Language learning integrated with conversational AI is now a more appropriate and cost-effective method, thanks to recent advances in machine learning, ASR, and NLP technologies. They facilitate native-like conversations in the target language and provide students with access to learning materials. Anxiety about failing to master a new language is a persistent problem (Zhai et al. 2024), but conversational AI can help alleviate this burden. Positive emotions such as hope, pride, and satisfaction play a significant effect on language learners' motivation and performance, according to Qiao and Zhao (2023). Teachers should work to alleviate their students' concerns about speaking a foreign language both inside and outside the classroom.

Many language scholars have proposed that practice, repetition, and positive feedback from instructors are therapies and approaches that can alleviate or overcome language anxiety (Ding, 2024). Conversational AI also allows for more adaptive interactions between language learners and the system (Hug et al., 2024). They can also receive feedback and scaffolding in a safer environment than in a traditional classroom. Interaction theory also highlights the role of language instructors in student-teacher interactions and feedback provision. The responsibilities of a language instructor include "being a facilitator of learning, monitoring and collecting data on student performance, and intervening when groups need help with tasks. Teachers must also be able to foster an environment where students feel comfortable asking questions and working together to find answers while offering helpful criticism and suggestions. In recent decades, a number of language scholars have advocated for a rethinking of the changing role of educators, one of which is to consider the potential for integrating technology into the classroom. As a result of technological advances, language learning has become more rewarding, and the learning environment has changed. To account for these changes, it is important to rethink the role of educators (Sperling et al., 2024).

Altinay et al. (2024) predict that artificial intelligence will change the way teachers teach. AI will replace human workers by automating tedious and laborious tasks for educators. This category includes activities such as attendance, grading, and monitoring student progress. Automation will reduce the routine workload of educators. As a result, educators will have more time to devote to data-driven decision-making in the classroom, informed by AI-augmented student data, enabling more personalised and adaptive learning. It is important to note that Al Yakin et al. (2024) argue that the focus of AI in education (AIEd) should be on educational enhancement rather than artificial intelligence, and we should give intelligence to instructors, not tools.

### *2.3 AI-ChatBot in EFL class*

A growing body of research on artificial intelligence conversational partners, such as chatbots, suggests that they can help EFL learners overcome some of the more common challenges, such as shyness and lack of confidence when speaking in front of an audience. To address this important issue in the EFL classroom, many studies have looked at how conversational agents can act as conversation partners and provide feedback. By simulating natural speech in real time, conversational AI helps students hone their

public speaking skills. These systems use technologies such as automatic speech recognition (ASR) and natural language processing (NLP) to enable students to learn to speak in a less intimidating, simulated setting (Jinming and Daniel, (2024). Studies by Akpan et al. (2024) show that students can practice communicating with AI chatbots without the stress of real-world interactions.

The capacity of AI to alleviate public speaking anxiety is one of its most notable contributions to language acquisition. A significant barrier to EFL teaching is the detrimental impact on students' language performance, particularly when it comes to speaking the target language. Learners can relax while practicing with the help of AI-powered chat systems that offer patient, non-judgmental interactions. For example, Bashori et al. (2022) explored how speech-enabled AI helped students overcome nervousness, allowing them to engage in multiple conversations without fear of being judged, thus gradually building their confidence. Additional research by Walter (2024) highlights the importance of AI in facilitating a safe space that encourages students to open up and share ideas.

These AI systems can not only have natural conversations with humans but also provide in-depth feedback. Personalized feedback is something that AI can do, according to various studies. For example, Fathi et al. (2024) built systems that used AI to assess how well students were doing and then provided them with personalized comments on things like grammar, vocabulary, and pronunciation. With the help of AI's ability to provide both implicit and explicit cues, students were able to practice public speaking in real time without the pressure of a classroom. There are significant barriers to using conversational AI in the EFL classroom despite its many benefits. Studies have highlighted technical challenges such as the tendency for ASR systems to misunderstand learner input and the inability of AI systems to respond emotionally, which can cause learners to lose interest once the novelty of the system wears off. AI-integrated systems, which do not have a human teacher, often exacerbate these problems, requiring collaboration between teachers and AI to maintain student engagement and provide relevant learning experiences.

Recent research on AI in the EFL classroom suggests that AI works best when used in conjunction with a human instructor. Teachers in this type of collaborative learning environment can concentrate on more complex communication activities while students complete repetitive language tasks, such as pronunciation exercises, with the help of AI. To better meet the needs of their students, (Dimitriadou and Lanitis (2023) investigated the potential use of artificial intelligence (AI) in organizing classroom activities. This partnership between AI and human educators not only improves learning effectiveness but also addresses AI's shortcomings in terms of developing fully immersive learning spaces. However, there are still obstacles to overcome when combining conversational AI with human supervision, although AI-CiciBot and similar technologies show great potential in reducing students' fear of public speaking and increasing their active participation in English as a Foreign Language (EFL) classes. To maximize learning outcomes and maintain students' motivation in AI-based EFL teaching, teacher-AI collaboration is essential, which will be explored in depth in this study.

## 3. Methodology

This study used a mixed research method to examine the experiences of Indonesian EFL students who struggle with public speaking anxiety. In this study, the researchers used both qualitative and quantitative data. They felt that collecting data from various approaches produced more reliable results and reduced the possibility of bias. We collected quantitative data using questionnaires and obtained qualitative data through face-to-face interviews.

### *3.1 Participants*

We conducted this study at SMP Negeri 4 Polewali Mandar, which has a population of 240 people for the 2024 academic year and consists of 8 study groups. This study included 30 students in semester 1 of the 2024 academic year. On average, students follow this program every year. Every week, students spend hours learning English. The English preparation program uses an integrative approach to teaching English. Each student works with a different teacher and has 2-3 hours of reading and writing instruction. In the main course, students often complete speaking assignments according to the instructions in the textbook.

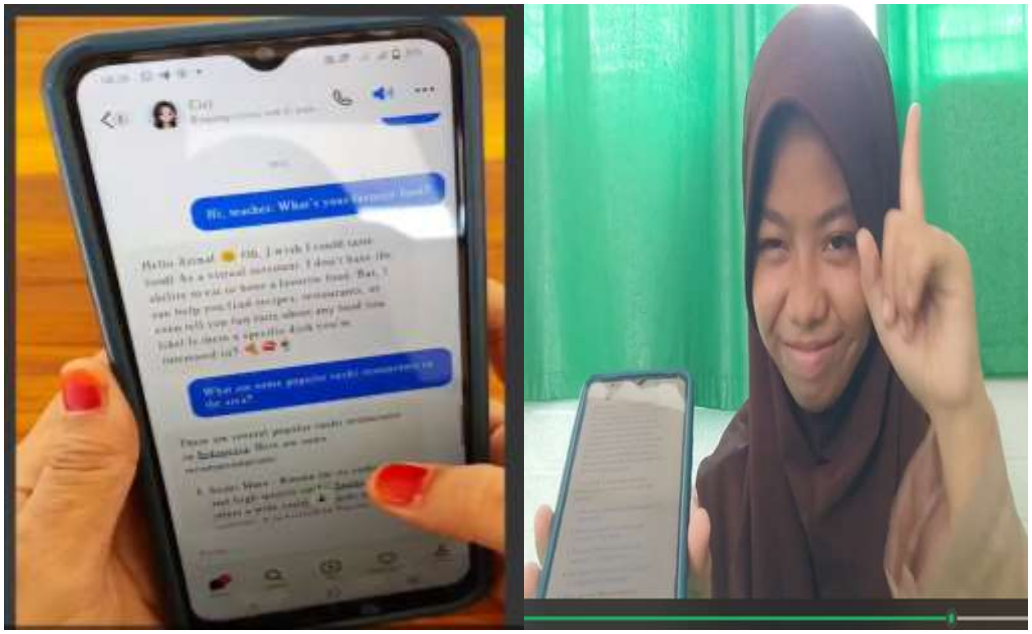

Figure 1. Students practice using Ai-CiCi Bot to speaking

### *3.2 Data Analysis*

In this study, we utilized IBM SPSS Statistics (Version 23) for statistical analysis of the data collected from the pre-test, post-test, and AI-Cici Bot to investigate its impact on students' EFL speaking abilities. First, we compared the pre-test and post-test scores of the experimental group in the pre-experimental class without a control class; second, we analyzed the results of the questionnaire data, and then we conducted interviews with six students with low, medium, and high score categories.

## 4. Results and discussion

### *4.1 Speaking in the Indonesian classroom using AI CiciBot*

The table displays the pre- and post-test scores of students who used AI-CiciBot to practice public speaking and overcome their fear, along with descriptive statistics. The data consists of minimum, maximum, mean, and standard deviation scores for both tests. We collected the data from a sample of 30 students in Table 1.

Table 1: The mean score of Pretest and Post tests statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Pretest | 30 | 35.00 | 65.00 | 49.1667 | 9.19926 |
| Posttest | 30 | 74.00 | 99.00 | 90.4667 | 7.27648 |
| Valid N (listwise) | 30 | | | | |

Before using AI-CiciBot, students' pre-test scores varied from 35.00 to 65.00, indicating their initial speaking ability and nervousness level. On average, students performed quite poorly in speaking activities, as indicated by the mean score of 49.17. Students' anxiety levels and performance were inconsistent, as indicated by the standard deviation of 9.20, indicating a large difference in their initial speaking ability.

The post-test scores, which ranged from 74.00 to 99.00 (mean = 90.47) after AI-CiciBot intervention, showed a statistically significant improvement. AI-CiciBot significantly improved students' anxiety and speaking skills, as evidenced by the significant increase in mean scores. Students' performance became more consistent with less variation in speaking ability after the AI intervention, as shown by the reduced standard deviation for the post-test (7.28 vs. 8.24 in the pre-test). Overall, the results showed that AI-CiciBot helped students with their speaking performance and anxiety levels, as the mean score increased from 49.17 in the pre-test to 90.47 in the post-test. The standard deviation decreased from 9.20 to 7.28, indicating that students improved more

consistently. This is in line with the consistent beneficial impact of AI on students' speaking ability and anxiety levels.

Table 2: One Sample Test for students speaking anxiety by using AI Cici Bot

| | Test Value = 0 | | | | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig. (2-tailed) | Mean Difference | Lower | Upper |
| Pretest | 29.274 | 29 | .000 | 49.16667 | 45.7316 | 52.6017 |
| Posttest | 68.097 | 29 | .000 | 90.46667 | 87.7496 | 93.1837 |

Table 2 shows the findings of the one-sample t-test used to compare the level of public speaking anxiety in students before and after they used AI-CiciBot. The results show the t-statistic, degrees of freedom (df), significance (p-value), mean difference, and 95% confidence interval for the pre-test and post-test scores. The test value was set to 0. The t-value for the pre-test was 29.274, and there were 29 degrees of freedom. There was a statistically significant difference between the students' pre-test scores and zero, as indicated by the significance value (p = 0.000). The 95% confidence interval was between 45.73 and 52.60, with a mean difference of 49.17. This indicates that before using AI-CiciBot, students usually experienced significant public speaking anxiety.

The t-value for the post-test was 68.097, with 29 degrees of freedom and a p-value of 0.000, which is much higher and shows statistical significance. With a 95% confidence interval ranging from 87.75 to 93.18, the mean difference was 90.47. These results indicate that students' speaking performance and anxiety levels improved significantly after the implementation of AI-CiciBot. The overall positive effect of AI-CiciBot in this study in reducing students' speaking anxiety and improving their speaking ability is supported by statistically significant findings in both tests and a large increase in the mean difference from pre- to post-test.

### *4.2 Survey the use of AI CiciBot for speaking skill*

The results of the study are described in Table 3, the results of descriptive statistical data obtained from a survey asking EFL students about their experiences using AI-CiciBot as a conversation partner, with a focus on how well AI-CiciBot helped them overcome their fear of public speaking. We present the data using the minimum, maximum, mean, and standard deviation scores for each question with a sample of 30 students.

Table 3: Descriptive statistics of the students questionnaire of AI-CiciBot

| Students' statements | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| 1. How familiar are you with the concept of using AI (e.g., AI-CiciBot) as a conversational partner in language learning? | 30 | 4.00 | 5.00 | 4.6333 | .49013 |
| 2. Do you believe that AI-CiciBot can help reduce your anxiety when practicing speaking in English? | 30 | 4.00 | 5.00 | 4.8000 | .40684 |
| 3. In comparison to a human partner, how comfortable do you feel practicing English conversation with an AI chatbot like AI-CiciBot? | 30 | 4.00 | 5.00 | 4.6000 | .49827 |
| 4. In your opinion, how effective is AI-CiciBot in providing real-time feedback during English speaking practice? | 30 | 4.00 | 5.00 | 4.7667 | .43018 |
| 5. Does using AI-CiciBot help you improve your pronunciation in English? | 30 | 3.00 | 5.00 | 4.5667 | .62606 |
| 6. How frequently do you experience speaking anxiety when practicing English with a human partner? | 30 | 3.00 | 5.00 | 4.6000 | .62146 |
| 7. Has using AI-CiciBot decreased your anxiety when practicing English-speaking skills? | 30 | 3.00 | 5.00 | 4.8000 | .48423 |
| 8. Do you find that AI-CiciBot's responses are accurate and relevant to the conversation? | 30 | 4.00 | 5.00 | 4.7000 | .46609 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 9. | How personalized does AI-CiciBot's feedback feel in relation to your individual needs in learning English? | 30 | 4.00 | 5.00 | 4.7333 | .44978 |
| 10. | Do you prefer practicing English conversation with AI-CiciBot over practicing with a teacher or peer? | 30 | 3.00 | 5.00 | 4.6333 | .66868 |
| 11. | Does AI-CiciBot provide clear and understandable feedback on your speaking mistakes? | 30 | 4.00 | 5.00 | 4.8000 | .40684 |
| 12. | After practicing with AI-CiciBot, do you feel more confident speaking English? | 30 | 4.00 | 5.00 | 4.7667 | .43018 |
| 13. | How do you rate AI-CiciBot's ability to adapt to your level of English proficiency? | 30 | 3.00 | 5.00 | 4.7000 | .59596 |
| 14. | Do you think AI-CiciBot helps you focus more on improving specific language skills (e.g., vocabulary, grammar)? | 30 | 4.00 | 5.00 | 4.7000 | .46609 |
| 15. | Would you recommend AI-CiciBot to other students for practicing English conversation? | 30 | 3.00 | 5.00 | 4.6667 | .60648 |
| 16. | How do you feel about the lack of emotional interaction (e.g., empathy) in conversations with AI-CiciBot? | 30 | 4.00 | 5.00 | 4.7000 | .46609 |
| 17. | How well does AI-CiciBot help you build confidence in using English outside the classroom? | 30 | 4.00 | 5.00 | 4.5667 | .50401 |
| 18. | Have you noticed any improvement in your willingness to speak English after using AI-CiciBot? | 30 | 4.00 | 5.00 | 4.4333 | .50401 |
| 19. | How would you rate AI-CiciBot's ability to help you practice speaking English in a low-pressure environment? | 30 | 3.00 | 5.00 | 4.3000 | .70221 |
| 20. | Do you think using AI-CiciBot alongside human teachers would enhance your overall English learning experience? | 30 | 3.00 | 5.00 | 4.5333 | .62881 |
| Valid N (listwise) | | 30 | | | | |

With a fairly low standard deviation of 0.49 and consistent responses, it is clear that students have a good understanding of AI-CiciBot, shown in the mean score of 4.63 (on a scale of 3 to 5). There is broad agreement among students that AI-CiciBot can help reduce public speaking anxiety (mean = 4.8, SD = 0.41). Students also gave AI-CiciBot very good marks when asked how it compared to a human conversation partner in terms of comfort, indicating that AI-CiciBot was a reliable and enjoyable practice tool (mean = 4.6, SD = 0.50). Students also gave AI-CiciBot high marks for its ability to provide timely feedback (mean = 4.77, SD = 0.43), indicating that they appreciated the direct nature of the AI's comments. AI helped improve students' pronunciation (mean = 4.57, SD = 0.63), although there was slightly more diversity in responses on this item. A similar pattern emerged when we asked how often students reported feeling anxious when practicing with a human partner (mean = 4.6, SD = 0.62), indicating that there was a significant amount of nervousness around public speaking.

AI-CiciBot proved effective in reducing this anxiety, with a mean score of 4.8 (SD = 0.48). Furthermore, students believed that AI-CiciBot tailored its interactions to each learner, as evidenced by the fact that AI-CiciBot provided them with conversational responses (mean = 4.7, SD = 0.47) and personalized feedback (mean = 4.73, SD = 0.45). Although some students may still appreciate human contact, students preferred practicing with AI-CiciBot over human teachers or peers (mean = 4.63, SD = 0.67). The AI's ability to adapt to students' skill levels (mean = 4.7, SD = 0.60) and students' confidence in speaking English after using AI-CiciBot were strong. According to participants, AI-CiciBot allowed them to concentrate on honing their grammar and vocabulary skills more effectively (mean = 4.7, SD = 0.47), and the majority of them would recommend it to fellow students (mean = 4.67, SD = 0.61). It appears that students still have concerns about the lack of empathy, as they mentioned certain limitations when asked about emotional engagement during conversations (mean = 4.7, SD = 0.47).

Students gave AI-CiciBot very good marks for increasing their confidence outside of class (mean = 4.57, SD = 0.50) and making them more comfortable speaking English (mean = 4.43, SD = 0.50). On the other hand, students had mixed feelings about AI-CiciBot's ability to fully emulate low-stress learning scenarios, as their ratings of its ability to provide a low-stress practice environment were slightly lower (mean = 4.3, SD = 0.70). Finally, students strongly supported the integration of AI with traditional teaching techniques, believing that using AI-CiciBot together with a human teacher would provide a better learning experience (mean = 4.53, SD = 0.63). Students generally thought that AI-CiciBot was useful for reducing anxiety and supporting language learning, as indicated by the relatively low standard deviations across most questions.

The results of this study indicate that students' speaking anxiety is high before using AI-CiciBot. First, these children flatly refused to participate in any speaking activities. Although there are many possible explanations, research has shown that people's

reluctance to learn English has nothing to do with laziness, lack of interest, or failure to see the benefits of doing so. These students' data strongly suggests that they avoided practicing public speaking because of their low self-esteem about their speaking ability. As a result, they felt anxious about how their classmates would perceive them. Student A, an anxious student, expressed his perspective as follows: "I like English, but I don't participate in speaking because I am very bad at speaking, and my friends will laugh at me when I speak in front of the class." However, after practicing with my virtual friend Cici, I feel that speaking is fun."

Students A1 and C1 were highly conscious of their social image and how their classmates would perceive them, as evidenced by their complaints. The belief that he had to produce error-free sentences was another source of his anxiety about negative criticism. After practicing with AI-CiciBot, students felt a maximum increase in their self-confidence in line with Zhang et al. (2024), Cooray et al. (2024), Tai and Chen (2024) study, anxious students are more concerned with structure than substance, and AI can help students overcome this difficulty (Nguyen and Pham 2024), which is in line with our results. Everyone in the class was worried that if they embarrassed themselves during speaking practice, their reputation as talented students would plummet. Then, students from codes D1 and B2 expressed their concerns, saying, "When speaking, I always feel like I make a lot of mistakes, and I don't like it; after knowing Cici, I feel that the mistakes I make can be overcome with Cici's help." This statement exemplifies the emotions that arise from their excessive obsession with avoiding linguistic errors. Avoiding typos also contributes to the slowness of students' speech. Students' self-confidence is clearly visible when speaking in English, despite the help of AI, which can slowly help students and act as tutors in language acquisition.

Most of these students share a common fear of negative judgment from their classmates. When asked to speak only to the teacher and not to others in the class, students who felt nervous when speaking in class were much more cooperative and open to trying new things. In addition to worrying about their classmates' opinions of them, each nervous respondent also compared their own public speaking skills with those of their classmates, as indicated by respondent codes E1 and C2. They experienced anxiety when they compared their public speaking skills to those of their classmates, who demonstrated far greater competence. Students preferred to be quiet and listen. The words here conveyed desperation and low self-confidence. The silence and lack of student participation during the speaking activity were not unexpected. After being introduced to the AI-Cici bot, the respondents actively participated in speaking exercises with their classmates.

Another thing that I noticed during my critical observation was that about thirteen students were not at all interested in participating in the speaking activity. They remained shy and did not care what I did to encourage them. However, when I gave them inspiration to speak, introduced the AI-Cicibot, and invited them to practice speaking with the AI-Cicibot, they were very excited to practice speaking. They firmly stated that they could not speak English because they lacked lexical, pronunciation, grammatical, and phonetic skills. Furthermore, they complained about how other English classes did not give them the opportunity to practice speaking. In this regard, I was surprised to find that eight students eagerly proved their abilities after interacting with Cici Bot and practicing with their classmates. I was very pleased to see them enthusiastically participate in the speaking exercises.

**5. Conclusion**

The study's findings revealed that AI-CiciBot significantly improved students' English-speaking skills while reducing their nervousness when speaking in public. Students' performance decreased due to anxiety during the speaking task before they used the ChatBot application. After interacting with AI-CiciBot, students reported increased comfort and confidence, evidenced by their significantly higher post-test scores. Students were able to overcome their fears of negative assessment and language errors because of the tool's non-pressurized environment, which allowed for structured and consistent speaking practice. Respondents found AI-CiciBot to be a useful tool for overcoming shyness when speaking in public and improving language proficiency.

However, there are several limitations to this study. The small sample size of only 30 students limits the application of the results to a broader population. Concerns about the generalizability of the results to other age groups or non-academic contexts also arise due to the sterile academic environment of this study. Despite its effectiveness in reducing anxiety, some students may miss the emotional investment and empathy of human connection, which AI-CiciBot lacks. The study suggests that AI-CiciBot may be most effective when used in conjunction with human teachers to help students learn a new language. To ensure a well-rounded education, AI can effectively handle repetitive language tasks such as vocabulary and pronunciation exercises, freeing teachers to focus more on more challenging communication activities. The study also recommends evaluating AI-CiciBot in more diverse educational contexts to see how well it performs overall. To help students with public speaking anxiety, teachers should promote artificial intelligence tools such as CiciBot.

Future studies should use longitudinal investigations to investigate the long-term impact of AI-CiciBot on students' anxiety levels and speaking proficiency. It would be beneficial to study the impact of integrating AI tools across different age groups and cultural backgrounds. Future studies could incorporate more human-like interaction qualities like emotional sensitivity and empathy into AI-CiciBot to enhance its engagement with students. Researchers should examine how AI functions in listening and writing, as well

as other aspects of language acquisition, to determine its wider application in EFL classrooms.

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