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Exploring Students' Perceptions of AI in Self-Directed Speaking Practice: A Case Study at STKIP Taman Siswa Bima

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A B S T R A C T

The advancement of Artificial Intelligence (AI) has significantly transformed language learning, offering innovative solutions for autonomous skill development, particularly in speaking. This study aims to explore students' perceptions of AI integration, specifically through the CICI AI platform, in self-directed English speaking practice. Employing a descriptive qualitative method with a case study design, data were collected from English Education students at STKIP Taman Siswa Bima through questionnaires, semi-structured interviews, and observations. The Technology Acceptance Model (TAM) was used as the theoretical framework to examine perceived usefulness and ease of use. Findings indicate that most students perceived AI as beneficial for improving speaking confidence (M = 3.53) and motivation (M = 3.47), with overall ease of use rated highly (M = 4.0). Despite these positive perceptions, students reported several challenges, including unstable internet access (87%), difficulty in pronunciation recognition (80%), and limited contextual feedback. The study concludes that while AI facilitates flexible and personalized speaking practice, its effectiveness depends on technical stability and user readiness. These insights highlight the importance of developing AI tools that are not only user-friendly but also responsive to learners' linguistic diversity and emotional engagement in language learning.

1. Introduction

The development of information technology is currently happening very rapidly and has touched almost all aspects of human life, including the aspect of education. The transformation of learning is no longer limited to conventional classrooms, but has expanded to the digital realm with the presence of increasingly massive online learning platform, such as google meet or zoom. In this flow of digitalization, AI (artificial intelligence) is present as one of the main innovations that change the way of learning and teaching at various levels of education (Tambunan et al., 2025). AI not only plays a role in enhancing the efficiency of learning management systems, but also provides a more adaptive and personalized learning environment. One of

the aspects that is significantly affected by the presence of this technology is the learning of foreign languages, especially English. As a global language that is a bridge between the fields of science, culture, and economics, the ability to speak English is now a necessity. In the context of learning English as a foreign language (EFL), speaking skills play an important role because they show a person's real ability to use language actively (Rini & Nabhan, 2023).

In this context, the presence of AI technology offers new solutions. Applications utilizing Natural Language Processing (NLP), interactive chatbots, pronunciation trainers, and virtual tutors that provide real-time feedback are new means for students to practice speaking independently anytime and anywhere. AI enables learning that is self-directed, where students have control over when, often, and how they learn without fear of being judged by others (Tram et al., 2024). However, the successful implementation of AI in learning depends not only on technological sophistication, but also on human factors—specifically user perception. Students' perceptions of AI are the main determinants of the extent to which they are willing to accept, utilize, and engage in the learning process that uses this technology (Westberg, 2005). Positive perceptions can encourage motivation and active participation, while negative perceptions can be an obstacle to the maximum use of AI.

Such perceptions are influenced by several factors, including prior experience, perceived ease of use, perceived benefits, and the level of trust in the technology. Therefore, it is important to understand how students perceive the use of AI in learning speaking skills, as well as how those perceptions affect their motivation and engagement. This research fills that gap by focusing on how students at STKIP Taman Siswa Bima perceive the use of AI in their speaking learning, especially during independent practice. In addition, it explores the obstacles they face while engaging with such technology. The two research questions that guide this study are:

(1) How do students perceive the use of AI in speaking learning?
(2) What challenges do they face when using AI for speaking practice?

This research was conducted at the English Education Study Program of STKIP Taman Siswa Bima, with a focus on students who have used the CICI AI platform as a tool in practicing speaking skills independently. Although the use of AI in education is starting to develop, studies on students' perceptions of AI in a local context like this are still relatively minimal.

Thus, the study aims to investigate students' perceptions and experiences in using the CICI AI platform to support autonomous speaking practice. This research seeks to explore the views, experiences, and challenges felt by students in interacting with AI technology as a learning medium. With a qualitative descriptive approach, this research is expected to make a real contribution to the formulation of technology-based learning strategies that are more in line with the needs and characteristics of students, as well as a reference for the development of a more relevant and sustainable EFL curriculum (Maknun et al., 2024). In learning English as a foreign

language, speaking skills are often the most challenging aspect for students. This difficulty stems not only from the complexity of language structures, but is also influenced by psychological factors such as shyness, anxiety, and low self-confidence (Sari, 2022). Not a few students feel hesitant to speak up for fear of making mistakes or getting negative assessments from lecturers and classmates. This condition often makes them passive in class, even though speaking is one of the main indicators of language competence.

These problems show that traditional learning approaches are not fully able to answer the needs of students in building courage and independence in speaking. It is in this context that self-learning, especially Artificial Intelligence (AI), is starting to be looked at as one of the alternative solutions. AI opens up opportunities for students to practice speaking independently, flexibly, and without social pressure (Younas et al., 2025). Features such as chatbot-based Natural Language Processing (NLP), automatic pronunciation training, and virtual tutors allow the learning process to take place more personalized and adaptive. To understand how students receive and respond to the presence of this technology, this study uses theoretical foundations Technology Acceptance Model (TAM) from (Chen et al., 2024). This model explains that acceptance of a technology is influenced by two main perceptions: perceived usefulness and perceived ease of use. In the context of AI-based speaking learning independently, these two factors greatly determine whether students will actively utilize the technology or avoid it.

A number of studies show that students' perception of the benefits of using AI technology in speaking learning has a significant influence on their interest in actively using it. (An et al., 2023) In his study, it was found that students who found AI useful for improving the effectiveness of language learning—especially in providing personalized feedback—were more likely to have a high intention to continue using the technology. This is in line with the findings (Azzahra et al., 2024), which revealed that students have benefited greatly from AI in helping to improve their listening and speaking skills, especially in terms of pronunciation, clarity of speech, and the availability of stress-free self-practice. (Suciati et al., 2023) also emphasizing that students see the presence of AI in speaking learning as a flexible and innovative solution, which not only improves the efficiency of speaking practice, but also supports increased confidence in English.

On the other hand, despite its focus on writing skills, (Phan, 2023) also reinforces the importance of benefit perception by showing that students are more motivated to use AI technology when they see a direct contribution to improving learning outcomes. Meanwhile, (Syahira et al., 2023) in the Indonesian context, it is also concluded that the majority of students of the English Education Study Program view AI as a very useful auxiliary medium, especially for practicing productive skills such as speaking.

Nevertheless, not all findings showed a completely positive response. Some studies have also revealed the limitations of AI in providing contextual feedback, especially in understanding the cultural nuances that are important in foreign language communication (Fu et al., 2024). Moreover (Syafryadin, 2024) reported that some

students experienced confusion in understanding technical instructions from AI applications, even feeling frustrated by unnatural interactions compared to human tutors. This suggests that acceptance of AI is strongly influenced by the subjective experience and digital readiness of each individual.

This research is unique because it specifically highlights students' perceptions of the use of AI in independent speaking learning in the English Education Study Program of STKIP Taman Siswa Bima. Unlike other studies that have been conducted in large universities with more mature technological infrastructures, the focus of this research lies on local contexts that may not yet be fully digitally facilitated. Therefore, this research makes an important contribution in bridging the gap between technological innovation and the reality of learning in regional higher education institutions.

Apart from the context of location, the approach used also shows a side of novelty. This study adopts a qualitative descriptive approach that allows for an in-depth exploration of students' perceptions, including the feelings, expectations, and obstacles they experience when using AI platforms—in this case, CICI AI (Ahmed et al., 2024). This approach is very important because student perceptions are not only formed from the technical function of a technology, but also from the accompanying emotional and social experiences.

With this background, this study is not only academically valuable but also has a practical impact. The findings from this study can be used by lecturers, curriculum developers, and educational technology providers to develop AI-based learning strategies that are more responsive, inclusive, and in accordance with the characteristics of local students. In the midst of increasing technology integration in post-pandemic education, an in-depth understanding of user perceptions of AI is becoming increasingly important to examine.

2. Methodology

This study seeks to understand students' perceptions of the use of artificial intelligence (AI) in independent speech learning. This topic was chosen due to the increasing integration of AI in education, while student experiences as direct users remain underexplored. For this reason, I choose to use a descriptive qualitative approach with a constructivist paradigm. I think this approach is the most appropriate, because I want to hear firsthand how students build meaning on their own experiences, without limiting them to numbers or rigid categories.

I conducted this research within the English Education Study Program of STKIP Taman Siswa Bima. The focus was deliberately directed to one institution so that I could understand the social, cultural, and technological context behind the students' experience in that place more fully. The subjects in this study are active students from the English Education Study Program STKIP Taman Siswa Bima who have experience using AI-based technology for independent speaking practice. To determine who was involved as an informant, I used the purposive sampling

technique, which is to select based on certain criteria that are relevant to the focus of the research. The inclusion criteria that I set are as follows:

1. Active students are at least in semester 4,
2. Have used AI-based applications or platforms, especially CICI AI, for speaking training activities, and
3. Willing to participate in the interview process with an open attitude and able to reflect on their personal experience.

The number of informants is flexible, depending on the principle *Data Saturation* (data saturation), which is when the information obtained begins to repeat itself and does not provide new findings. The initial estimate involved 8–12 students with diverse backgrounds of language skills, technological experience, and learning motivations to gain a richer perspective.

Data collection is carried out in a time frame that follows the principle of data saturation. In this case, I use two main types of instruments according to the focus of the research question. To answer the first research question related to students' perception of the use of AI, I used a questionnaire based on the Technology Acceptance Model (TAM) approach, which included aspects of the perception of ease of use, perception of usability, and attitudes and intentions of behavior towards technology. Meanwhile, to explore the second research question regarding the problems or challenges faced by students in using AI, I used semi-structural interviews.

The questionnaire was given first to get an overview of students' perceptions of the use of AI. Furthermore, semi-structural interviews were conducted to delve deeper into students' personal experiences, obstacles, and reflections while interacting with AI applications. The semi-structural format was chosen to keep the direction of the questions but to provide space for informants to explore their stories freely. Interviews are conducted in person as well as online, with an average duration of between thirty to forty-five minutes per session. In addition, I also made limited observations on the use of AI applications in learning activities and collected additional documentation such as screenshots of students' interactions with AI applications. All data collected were analyzed qualitatively by identifying patterns of meaning and key themes such as ease of use, perceived benefits, technical or psychological barriers, and expectations for future AI development.

To maintain confidence in the results of this research, I applied triangulation of sources and methods, which is comparing the results of questionnaires, interviews, observations, and documentation to ensure data consistency. In addition, I also did member checking, which is asking for confirmation from the informants for my initial interpretation of their experience. Throughout the research process, I maintain critical reflection and awareness of my position as a researcher so that the findings produced really depart from field data, not from personal assumptions.

3. Results and Discussion

This study aimed to explore students' perceptions and challenges regarding the use of Artificial Intelligence (AI), specifically CICI AI, in independent speaking practice. The results are presented and discussed according to the two research questions, with emphasis on the significance, relevance, and implications of the findings.

Students' Perception of the Benefits of Using AI (Perceived Usefulness)

In general, students showed a positive response to the benefits of using AI in speech learning. The average score for the Perceived Usefulness dimension reached 3.5 which was in the "Good" category, indicating that students felt that AI was making a real contribution to improving their speaking skills. Most of the respondents stated that the use of AI helped them in developing confidence when speaking English. This is illustrated by the high score on the statement "Speaking practice using AI makes me more confident" which obtained an average score of 3.53.

In addition, the statement regarding increased motivation to learn and the spirit of independent learning also showed a fairly high score, namely 3.47 and 3.42, respectively, which were included in the "Quite Good" category. However, these two aspects still show that some students need additional encouragement or a more appropriate pedagogical approach to increase their enthusiasm for independent learning.

These findings are in line with research by (Zhang et al., 2024), which found that EFL students who use voice-based AI in learning to speak experience increased motivation and confidence, as evidenced by significant improvements in their foreign language enjoyment (FLE) and willingness to communicate (Table 1). Additionally, the study reported a noticeable decrease in foreign language anxiety (FLA), indicating that while students ultimately became more confident, they initially had to undergo a period of emotional adjustment to become comfortable using AI as a speaking partner. This suggests that AI-supported speaking practice can serve as a motivating tool for learners, but adequate time and support may be required to facilitate emotional adaptation, especially for those unfamiliar with technology-based interactions.

Table 1. Shows The Average Scores for Each Indicator of Perceived Usefulness

Indicator	Average Score	Category
Speaking Skill Improvement	3.58	Good
Confidence Building	3.53	Good
Learning Motivation	3.47	Quite Good
Independent Learning Spirit	3.42	Quite Good

Students' Perception of Perceived Ease of Use

In terms of ease of use, students' perceptions seem stronger. The average score on the Perceived Ease of Use dimension is 4.0, which is in the "Excellent" category.

This indicates that students in general find AI easy to use, both technically and visually.

Statements such as "I find it easy to use the AI platform to practice speaking" and "The AI interface I use is easy to understand" earned an average score of 4.16, reflecting that AI (in this case CICI AI) has a design that supports a comfortable learning experience. Similarly, the statement "I rarely experience technical difficulties while using AI" earned an average score of 4.00, reinforcing that AI is quite stable and easily accessible to students.

Interestingly, students also showed a high level of comfort when interacting with AI, even without a human interlocutor. This is illustrated by the score of 3.68 on the statement "I feel comfortable talking to AI even without a human interlocutor". This shows that AI is able to provide adequate interaction simulations for the purpose of speaking exercises independently.

These results confirm previous findings by (Kang & Sung, 2024), which suggest that the ease of AI-based interfaces and interactions can significantly boost the intensity of self-paced speaking practice among EFL learners especially those at early proficiency levels who may feel awkward speaking with human partners. In their quasi-experimental study involving 112 South Korean middle-school students, participants using AI chatbots rated the self-directed chatbot activities as more engaging and effective than worksheet-based methods, reporting enhanced conversation skills and greater autonomy (Table 2).

Table 2. Shows The Average Scores for Each Indicator of Perceived Ease of Use

Indicator	Average Score	Category
Ease of Platform Use	4.16	Excellent
Interface Clarity	4.16	Excellent
Low Technical Difficulty	4.00	Excellent
Comfort without Human Partner	3.68	Good

Challenges Students Face in Using AI for Speaking Practice

While the general perception of AI is quite positive, there are various challenges that students face during its use. Based on interviews with 15 college students, several technical and non-technical barriers emerged in the practice process of talking to AI.

The main challenge most often cited is an unstable internet connection, which was conveyed by 87% of respondents. AI's reliance on the internet network causes interactions to be disrupted, such as delayed responses or conversation breakdowns. In addition, 80% of college students said that AI had difficulty understanding pronunciation that was unclear or too fast. This creates inaccuracies in responding, which leads to frustration in users. On the other hand, 80% of college students also feel that AI responses still feel rigid and unnatural. This shows that technology is not yet fully capable of simulating real human conversations.
Another fairly significant problem is the lack of feedback specifications. As many

as 60% of respondents stated that corrections provided by AI are often too general, without detailed explanations of grammar or pronunciation errors. This can reduce the effectiveness of error-based learning. Additional more minor challenges include: lack of variety in conversation topics (27%), confusing initial interfaces (13%), poor recognition of regional accents (13%), and the appearance of annoying ads (7%). These findings align with research by (Zou et al., 2024), which highlights the importance of developing AI systems that are adaptive to learners' diverse accents, pronunciations, and emotional responses during interaction (Table 3).

Table 3. Challenges Faced by Students When Using AI for Speaking Practice

Type of Challenge	Students (n = 15)	Percentage (%)
Unstable Internet Connection	13	87%
Pronunciation Not Understood	12	80%
Rigid AI Responses	12	80%
General Feedback	9	60%
Limited Topics	4	27%
Accent Recognition Issues	2	13%
Confusing Interface	2	13%
Ads Interference	1	7%

4. Conclusion

This study explored students' perceptions and challenges regarding the use of Artificial Intelligence (AI), particularly the CICI AI platform, in independent English speaking practice. The findings reveal that students generally hold a positive view of AI in terms of both its usefulness and ease of use. Students acknowledged that AI contributes to enhancing their speaking confidence, learning motivation, and ability to practice independently. Furthermore, the interface and functionality of AI were perceived as accessible and intuitive, making the technology well-accepted among users. However, despite these positive perceptions, the research also uncovered several challenges. These include technical issues such as unstable internet connectivity and the AI's limitations in recognizing varied pronunciation styles, providing specific feedback, and responding naturally. These obstacles suggest that while AI holds great promise in supporting EFL learning, its implementation must be accompanied by continued technological improvement and pedagogical support tailored to user needs.

Overall, the research successfully addressed its objectives by uncovering both the perceived advantages and the obstacles of AI usage in speaking practice. It also emphasized the importance of user-centered AI development that accommodates linguistic diversity and supports emotional engagement in learning. Future research could expand on these findings by involving larger and more diverse student populations, comparing different AI platforms, or assessing long-term impacts on speaking proficiency and learner autonomy. Furthermore, collaboration between educators and developers is crucial to enhance the effectiveness and inclusiveness of AI-based speaking tools in educational settings.

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