

EXPLORING INDONESIAN EFL STUDENTS' PERCEPTIONS OF GEMINI AI IN DEVELOPING ENGLISH SPEAKING SKILLS

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ABSTRACT

This study explores Indonesian EFL students' perceptions of using Gemini AI in developing their English speaking skills. The rapid growth of generative artificial intelligence has introduced innovative opportunities for language learning, particularly in speaking practice. Gemini AI offers interactive conversation, pronunciation modeling, instant feedback, and flexible self-directed learning experiences. This research employed a qualitative descriptive design involving semi-structured interviews with Indonesian university students who actively used Gemini AI for speaking practice. The findings indicate that students generally perceive Gemini AI positively due to its capacity to improve speaking fluency, pronunciation accuracy, vocabulary enrichment, and confidence. Participants reported that Gemini AI created a psychologically safe learning environment where they could practice without fear of social judgment. Additionally, the platform's accessibility and flexibility encouraged autonomous learning. However, technical issues such as unstable internet connections and occasional unnatural conversational responses were identified as notable limitations. Overall, Gemini AI is perceived as an effective supplementary tool that supports both linguistic and psychological dimensions of English speaking development among Indonesian EFL learners.

Keywords: *Gemini AI, EFL students, speaking skills, student perceptions, artificial intelligence*

ABSTRAK

Penelitian ini bertujuan untuk mengeksplorasi persepsi mahasiswa EFL Indonesia terhadap penggunaan Gemini AI dalam mengembangkan keterampilan berbicara bahasa Inggris. Perkembangan pesat kecerdasan buatan generatif telah menghadirkan peluang baru dalam pembelajaran bahasa, khususnya latihan berbicara. Gemini AI menawarkan percakapan interaktif, model pelafalan, umpan balik instan, serta fleksibilitas belajar mandiri. Penelitian ini menggunakan desain deskriptif kualitatif melalui wawancara semi-terstruktur terhadap mahasiswa Indonesia yang aktif menggunakan Gemini AI untuk latihan berbicara. Hasil penelitian menunjukkan bahwa mahasiswa umumnya memiliki persepsi positif terhadap Gemini AI karena mampu meningkatkan kelancaran berbicara, akurasi pelafalan, pengayaan kosakata, dan rasa percaya diri. Partisipan juga menyatakan

bahwa Gemini AI menciptakan lingkungan belajar yang aman secara psikologis karena memungkinkan latihan tanpa rasa takut dihakimi secara sosial. Selain itu, aksesibilitas dan fleksibilitas platform mendukung pembelajaran mandiri. Namun, kendala teknis seperti koneksi internet yang tidak stabil dan respons percakapan yang terkadang kurang natural masih menjadi keterbatasan utama. Secara keseluruhan, Gemini AI dipersepsikan sebagai alat pendukung efektif yang menunjang aspek linguistik dan psikologis dalam pengembangan keterampilan berbicara bahasa Inggris mahasiswa EFL Indonesia.

Kata Kunci: Gemini AI, mahasiswa EFL, keterampilan berbicara, persepsi siswa, kecerdasan buatan.

A. INTRODUCTION

Artificial intelligence (AI) has rapidly transformed educational practices across various disciplines, including language learning. In English as a Foreign Language (EFL) contexts, AI-based platforms have increasingly been utilized to provide adaptive, interactive, and personalized learning experiences that support learners' linguistic development. Recent advancements in generative AI technologies have enabled tools such as Gemini AI to facilitate real-time communication, pronunciation assistance, and autonomous language practice, particularly in speaking instruction. According to Kohnke et al. (2023), AI-powered conversational systems can significantly enhance learner engagement by providing immediate responses and personalized interaction. Similarly, Huang and Lee (2024) emphasize that

AI-assisted language platforms create more flexible and accessible speaking opportunities for learners beyond traditional classroom settings.

Speaking skill is often regarded as one of the most difficult competencies for EFL learners due to challenges related to pronunciation, fluency, vocabulary retrieval, and psychological barriers such as speaking anxiety. Many students struggle to express ideas spontaneously because of fear of making mistakes or receiving negative social evaluation. This issue is particularly relevant in Indonesian EFL contexts, where students may have limited opportunities to practice English orally outside formal classroom environments. Research by Darmi and Albion (2021) found that Indonesian students frequently experience low confidence in spoken English due to insufficient authentic communication

practice. Furthermore, conversational AI tools have been shown to reduce language anxiety by offering a non-judgmental learning environment that supports repeated practice (Wang & Young, 2024).

Gemini AI, as a generative AI platform with interactive voice capabilities, presents new possibilities for speaking development among EFL learners. Through real-time dialogue, pronunciation correction, vocabulary suggestions, and contextualized conversation simulation, Gemini AI may function as an accessible digital speaking partner. Unlike traditional classroom interactions, Gemini AI allows students to practice independently anytime and anywhere, thereby promoting self-directed learning. Previous studies suggest that AI-based speaking applications can foster communicative fluency, learner confidence, and psychological comfort (Kim, 2024; Rahman, 2025). However, while numerous studies have focused on tools such as ChatGPT or general AI chatbots, limited research specifically examines students' perceptions of Gemini AI in the Indonesian EFL context.

Understanding students' perceptions is essential because

learners' attitudes toward educational technology significantly influence its effectiveness and sustainability. Positive perceptions may encourage continuous usage and deeper learning engagement, whereas critical perceptions may reveal practical and technical limitations requiring pedagogical improvement. Therefore, this study seeks to explore Indonesian EFL students' perceptions of using Gemini AI in developing their English speaking skills.

This study aims to examine students' perceptions of the use of Gemini AI in developing their English speaking skills. This refers to the need to understand how EFL students view the use of artificial intelligence in language learning, particularly in speaking practice. By integrating AI technologies such as Gemini AI into the educational realm, this study is expected to contribute to the growing discourse on AI-assisted language learning by providing insights into the cognitive, affective, and practical implications of integrating Gemini AI in speaking instruction.

B. RESEARCH METHOD

This study employed a qualitative descriptive research design to

investigate Indonesian EFL students' perceptions of Gemini AI in developing English speaking skills. Qualitative research was selected because it enables in-depth exploration of participants' experiences, attitudes, and interpretations regarding specific educational phenomena.

1. Participants

The participants consisted of six Indonesian university students enrolled in English-related academic programs who had prior experience using Gemini AI as a tool for practicing English speaking. Purposive sampling was applied to ensure participants possessed relevant experiences aligned with the study objectives.

2. Data Collection

Data were collected through semi-structured interviews designed to explore participants' experiences with Gemini AI, including its perceived benefits, limitations, psychological effects, and practical usability. Interviews focused on speaking fluency, pronunciation development, confidence, learning flexibility, and technical challenges.

3. Data Analysis

The collected data were analyzed using Braun and Clarke's (2022)

thematic analysis framework, which involved six phases:

- a. Familiarization with data
- b. Generating initial codes
- c. Searching for themes
- d. Reviewing themes
- e. Defining and naming themes

4. Writing the report

This analytical framework allowed the researcher to identify recurring patterns and themes that represented students' perceptions comprehensively.

5. Trustworthiness

To ensure credibility, the researcher employed repeated transcript review, coding consistency checks, and direct participant quotations to support thematic interpretations.

C. FINDINGS and DISCUSSION

FINDINGS

**Tabel 1. EFL Students' Perceptions
of Using Gemini AI in Developing
English Speaking Skills**

No	Perceptions	Description
1	AI-Enabled Linguistic Scaffolding	- Helps improve pronunciation through feedback and models - Supports vocabulary development (synonyms, examples) - Provides grammar correction (on request)
2	Psychological Safety and Confidence Empowerment	- Reduces fear of making mistakes • Creates a non-judgmental learning environment - Increases confidence in speaking English
3	Development of Communicative Fluency and Spontaneity	- Reduces pauses and fillers (e.g., “uh”, “um”) - Encourages faster and more spontaneous responses - Improves fluency through

No	Perceptions	Description
		regular practice
4	Ubiquitous and Autonomous Learning Accessibility	- Accessible anytime and anywhere - Supports independent learning - Functions as a personal speaking partner
5	Interactional Limitations and Technical Dependencies	- Depends on internet stability - Responses sometimes less natural or delayed - Cannot fully replace real human interaction

The thematic analysis generated five major themes representing Indonesian EFL students' perceptions of Gemini AI in developing English speaking skills.

Theme 1. AI-Enabled Linguistic Scaffolding

Participants perceived Gemini AI as an effective linguistic support tool that enhanced pronunciation,

grammar, and vocabulary development. Students reported that the AI provided immediate corrections and pronunciation models that improved their understanding of spoken English structures.

Several participants explained that Gemini AI's voice interaction enabled them to identify proper pronunciation patterns and contextual vocabulary usage more effectively than passive learning methods.

a. Discussion:

This finding aligns with previous studies indicating that AI tools can serve as linguistic scaffolding by offering immediate corrective feedback and personalized language assistance (Huang & Lee, 2024).

Theme 2. Psychological Safety and Confidence Empowerment

A dominant perception among participants was the psychological comfort provided by Gemini AI. Students expressed that practicing with AI reduced anxiety because they did not fear embarrassment, peer judgment, or social pressure. This safe learning environment

encouraged more spontaneous speaking practice and increased confidence over time.

a. Discussion:

The findings support affective filter theory, suggesting that reduced anxiety positively contributes to language acquisition (Krashen, 1982). AI platforms may therefore function not only as linguistic tools but also as psychological facilitators.

Theme 3. Development of Communicative Fluency and Spontaneity

Participants reported noticeable improvements in fluency, particularly in reducing fillers such as "uh," "um," and prolonged pauses. Regular interaction with Gemini AI encouraged faster responses and more natural communication patterns.

a. Discussion:

Consistent real-time speaking practice may enhance automaticity in oral production, contributing to greater fluency development.

Theme 4. Ubiquitous and Autonomous Learning Accessibility.

Students viewed Gemini AI as a highly flexible learning resource due to its 24/7 availability and mobile accessibility. This allowed independent speaking practice without relying on teachers or speaking partners.

a. Discussion:

This supports self-directed learning theories emphasizing autonomy and flexibility in technology-enhanced education.

Theme 5. Interactional Limitations and Technical Dependencies

Despite positive perceptions, participants also identified limitations, including internet dependency, occasional robotic responses, and less natural conversational experiences compared to human interaction.

a. Discussion:

While AI offers substantial educational benefits, technical barriers remain important considerations for broader implementation.

as a supplementary tool for developing English speaking skills. Gemini AI supports linguistic improvement through pronunciation guidance, vocabulary enrichment, and grammar assistance while simultaneously fostering psychological safety, confidence, and autonomous learning. The platform's flexibility and accessibility make it particularly valuable for independent speaking practice. However, limitations related to internet connectivity and interactional naturalness suggest that Gemini AI should complement rather than replace human communication practice. Overall, Gemini AI demonstrates strong potential as an innovative educational technology that supports speaking development in EFL contexts.

Future research may explore larger participant populations, quantitative measurements of speaking improvement, and comparative studies between Gemini AI and other AI-powered language learning tools.

D. CONCLUSION

This study concludes that Indonesian EFL students generally hold positive perceptions of Gemini AI

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