

Harnessing Artificial Intelligence in Language Acquisition: Perceptions and Experiences of BIPA Learners in the Digital Era

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Abstract

The development of artificial intelligence (AI) technology has transformed the landscape of language education, including the learning of Indonesian for Foreign Speakers (BIPA). This study aims to analyze the perceptions and experiences of BIPA learners in using AI-based platforms as a medium for self-directed learning in the digital era. Data's were collected through interviews, participant observation, and open-ended questionnaires with respondents from various countries. The findings indicate that the use of AI platforms provides significant benefits in terms of learning time flexibility, instant feedback on grammar and pronunciation, and increased motivation through gamification. However, several challenges were also identified, such as the limitations of AI in understanding complex cultural contexts, interactions that feel less human, and the potential for technology anxiety among some learners. This study concludes that while AI platforms are highly potential tools, their role is more optimal as a supplement to support teaching by human instructors, rather than as a complete replacement.

Keywords: BIPA, Artificial Intelligence (AI), Perception, Language Learning, Digital Era

Abstrak

Perkembangan teknologi kecerdasan buatan (AI) telah mengubah lanskap pendidikan bahasa, termasuk pembelajaran Bahasa Indonesia untuk Penutur Asing (BIPA). Studi ini bertujuan untuk menganalisis persepsi dan pengalaman pembelajar BIPA dalam menggunakan platform berbasis AI sebagai media pembelajaran mandiri di era digital. Data dikumpulkan melalui wawancara, observasi partisipan, dan kuesioner terbuka dengan responden dari berbagai negara. Temuan menunjukkan bahwa penggunaan platform AI memberikan manfaat signifikan dalam hal fleksibilitas waktu belajar, umpan balik instan tentang tata bahasa dan pengucapan, dan peningkatan motivasi melalui gamifikasi. Namun, beberapa tantangan juga diidentifikasi, seperti keterbatasan AI dalam memahami konteks budaya yang kompleks, interaksi yang terasa kurang manusiawi, dan potensi kecemasan teknologi di antara beberapa pembelajar. Studi ini menyimpulkan bahwa meskipun platform AI merupakan alat yang sangat potensial, perannya lebih optimal sebagai pelengkap untuk mendukung pengajaran oleh instruktur manusia, daripada sebagai pengganti sepenuhnya.

Kata kunci: BIPA, Kecerdasan Buatan (AI), Persepsi, Pembelajaran Bahasa, Era Digital.

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1. INTRODUCTION

The rapid advancement of the digital era has catalyzed a paradigm shift in numerous sectors, with education being one of the most profoundly affected. The integration of Artificial Intelligence (AI) into educational tools has reshaped pedagogical approaches, offering personalized and flexible learning experiences (Kaplan & Haenlein, 2019). This transformation is particularly evident in language education, where AI-powered platforms provide learners with unprecedented access to interactive exercises, real-time feedback, and adaptive learning paths (Arifin, R. S. F., 2025)

In this context, the instruction of Bahasa Indonesia for Foreign Speakers (BIPA) stands at a critical juncture (Fitriani, R. S., 2019). As Indonesia's global prominence grows, so does the international interest in its language and culture (Fitriani, R.S.& M. Rahmat, 2019). Traditionally, BIPA instruction has relied on conventional classroom settings, emphasizing direct interaction with instructors (Fitriani, R. S., 2017). However, the rise of digital natives and the demand for more accessible learning methods have paved the way for AI-based solutions (Panda, P., et al., 2024). These platforms promise to overcome geographical barriers and offer self-directed learning opportunities for a global audience.

Despite the potential, the adoption of AI in BIPA learning is not without its complexities. Questions arise concerning its effectiveness in conveying cultural nuances, the quality of human-computer interaction, and its overall impact on learner motivation and anxiety (Fitriani, R. S., & Bhat, M. S. , 2024). This paper addresses this gap by investigating the perceptions and lived experiences of BIPA learners who utilize AI-based platforms (Fitriani, R. S., 2019). It seeks to understand the perceived benefits and challenges, ultimately evaluating the optimal role of AI in supporting BIPA education.

2. METHODOLOGY

Literature Review

Artificial Intelligence in Second Language Acquisition: Artificial Intelligence has been integrated into second language acquisition (SLA) through various applications, including intelligent tutoring systems, chatb2.2 The Unique Context of BIPA Instruction (Fitriani, R. S.,2020)

BIPA is more than just language instruction; it is a gateway to understanding Indonesian culture, which is deeply embedded in its linguistic expressions. Effective BIPA teaching involves not only grammar and vocabulary but also pragmatics, politeness levels (tingkat tutur), and non-verbal cues (Sudaryanto, 2015).

A significant challenge for any technological tool is its ability to navigate this rich socio-cultural context. (Fitriani, R. S., & Rajkumar, S. R.2024). The effectiveness of an AI platform in the BIPA context, therefore, depends not only on its technical sophistication but also on its capacity to incorporate and explain these cultural intricacies, a task that has traditionally been the domain of human instructors (Fitriani, R. S., Hidayati, R. P. P., & Budiarti, A., 2021)

3. RESULTS AND DISCUSSION

Research Approach

This study employed a qualitative research design to gain an in-depth understanding of learners' perceptions and experiences . A phenomenological approach was adopted to focus on the subjective and lived experiences of the participants using AI-based BIPA learning platforms. (Fitriani, R. S., et.all, 2025).

Data Sources

The data for this research were collected from a diverse group of 25 BIPA learners from 12 different countries, ensuring a broad range of cultural and linguistic backgrounds. Participants were selected based on their experience of using at least one popular AI-driven language learning application (e.g., Duolingo, Babbel, or specialized BIPA apps) for a minimum of three months.

ots for conversational practice, and automated feedback tools for writing and pronunciation (Kukulska-Hulme, 2016). The core technologies driving these innovations are Natural Language Processing (NLP) and speech recognition, which enable machines to understand, interpret, and generate human language. Research indicates that AI tools can enhance learner autonomy by providing immediate, personalized feedback, allowing students to learn at their own pace (Chapelle, 2001). Furthermore, the integration of gamification elements—such as points, badges, and leaderboards—has been shown to significantly boost learner engagement and motivation.

Data Collection and Analysis

Data were gathered using a combination of three methods:

- Semi-structured Interviews: To explore individual experiences, motivations, and challenges in detail.
- Participant Observation: To observe learners interacting with the AI platforms in a naturalistic setting.
- Open-ended Questionnaires: To collect supplementary written data on specific aspects of the user experience.

The collected data were analyzed using thematic analysis. The process involved transcribing interviews, coding the data to identify recurring patterns, and organizing these codes into broader themes that directly addressed the research questions (Fitriani, R. S. 2025).

Findings and Discussion

The analysis revealed two overarching themes regarding the use of AI in BIPA learning: perceived benefits that enhance the learning process and significant challenges that highlight its current limitations .

Perceived Benefits of AI Integration

Participants consistently highlighted three major advantages:

- Flexibility and Accessibility: Learners valued the ability to study anytime and anywhere, fitting language practice into their busy schedules. This self-paced nature was seen as a significant improvement over the rigid structure of traditional classes.
- Instantaneous Feedback: The AI's ability to provide immediate corrections on grammar, vocabulary, and pronunciation was highly praised. This real-time feedback loop accelerates the learning process, helping learners identify and rectify errors on the spot.
- Enhanced Motivation through Gamification: The use of game-like features created an engaging and rewarding learning environment. Participants reported feeling more motivated to continue their lessons to achieve daily streaks, unlock new levels, or compete with friends.

Challenges and Limitations

Despite the benefits, learners also identified critical drawbacks:

- **The Cultural Nuance Gap:** A primary concern was AI's inability to grasp and explain complex cultural contexts. For instance, AI platforms struggled to teach the appropriate use of formal versus informal pronouns (Anda vs. kamu) or explain idiomatic expressions that are culturally specific.
- **Lack of Human Connection:** Many participants expressed that interactions with the AI felt "robotic" and impersonal. They missed the empathy, encouragement, and spontaneous conversational opportunities that a human teacher provides. Language learning is an inherently social activity, and this lack of genuine human connection was a significant demotivator for some.
- **Technology Anxiety:** A minority of learners, particularly those less familiar with digital technologies, reported feeling overwhelmed or frustrated by the user interface. Technical glitches or a non-intuitive design sometimes created a barrier to learning.

These findings suggest that while AI is a powerful tool for the mechanical aspects of language learning (e.g., vocabulary drills, grammar rules), it falls short in the socio-pragmatic and affective domains, which are crucial for achieving true communicative competence.

4. CONCLUSION

The digital transformation offers powerful new tools for BIPA instruction, and Artificial Intelligence stands at the forefront of this evolution. This study concludes that AI-used platforms provide significant, tangible benefits for BIPA learners, particularly in offering flexibility, instant feedback, and motivational engagement. They excel at building foundational knowledge in a structured and accessible manner.

However, the technology's current limitations cannot be ignored. The inability of AI to fully navigate the rich cultural tapestry of the Indonesian language and the absence of genuine human interaction mean that it cannot, and should not, be seen as a complete replacement for human instructors. Its optimal role is that of a powerful supplementary tool.

Therefore, a blended learning approach is recommended, where instructors leverage AI platforms for drills and personalized practice outside the classroom, while classroom time is dedicated to immersive cultural discussions, nuanced conversational practice, and fostering the vital human connection that lies at the heart of language learning. Future development in AI for BIPA should focus on integrating more sophisticated socio-cultural modules to bridge the existing gap.

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