

Utilizing Technology to Enhance Second Language Acquisition in Undergraduate English Language Education Students: Students Perspective

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Article Info	ABSTRAK
Article history: Received Agustus 3, 2026 Revised Agustus 3, 2026 Accepted Agustus 3, 2026 Kata Kunci: Kecerdasan Buatan, Pemerolehan Bahasa Kedua, Persepsi Siswa Keywords: <i>Artificial Intelligence, Second Language Acquisition, Students' Perceptions</i>	Perkembangan pesat kecerdasan buatan (Artificial Intelligence/AI) telah mengubah proses pemerolehan bahasa kedua (Second Language Acquisition/SLA) dengan menyediakan pengalaman belajar yang lebih personal, interaktif, dan fleksibel. Sebagai calon pendidik bahasa Inggris, mahasiswa Program Studi Pendidikan Bahasa Inggris diharapkan mampu memanfaatkan AI dalam proses belajar maupun pembelajaran di masa depan. Namun, penelitian yang mengkaji jenis AI yang digunakan oleh mahasiswa dari berbagai angkatan serta persepsi mereka terhadap kontribusi AI dalam SLA masih terbatas. Oleh karena itu, penelitian ini bertujuan untuk mengidentifikasi aplikasi AI yang paling banyak digunakan oleh mahasiswa Pendidikan Bahasa Inggris serta mengetahui persepsi mereka terhadap peran AI dalam mendukung pemerolehan bahasa kedua. Penelitian ini menggunakan pendekatan kuantitatif deskriptif dengan melibatkan 53 mahasiswa Program Studi Pendidikan Bahasa Inggris Universitas PGRI Jombang dari angkatan 2021, 2022, dan 2023. Data dikumpulkan melalui kuesioner yang diadaptasi dari Muhtar et al. [14] serta Milon dan Iqbal [15], kemudian dianalisis menggunakan statistik deskriptif dengan bantuan SPSS. Hasil penelitian menunjukkan bahwa ChatGPT, Grammarly, dan DeepL merupakan aplikasi AI yang paling banyak digunakan, dengan pola penggunaan yang berbeda pada setiap angkatan. Selain itu, mayoritas mahasiswa memberikan persepsi positif terhadap AI karena dinilai mampu meningkatkan keterampilan berbahasa Inggris, memberikan umpan balik yang cepat dan bermanfaat, mendukung pembelajaran yang fleksibel dan personal, meningkatkan penguasaan tata bahasa dan empat keterampilan berbahasa, meningkatkan motivasi belajar, serta mendukung pencapaian akademik. Temuan ini menunjukkan bahwa AI telah menjadi pendamping belajar yang penting dalam pemerolehan bahasa kedua dan mendukung pembelajaran bahasa yang lebih mandiri. ABSTRACT <i>The rapid advancement of artificial intelligence (AI) has transformed second language acquisition (SLA) by providing learners with personalized, interactive, and accessible learning opportunities. As future English teachers, undergraduate English Education students are expected to integrate AI into their language learning and teaching practices. However, limited research has examined the variety of AI tools used by students across different academic cohorts and their perceptions of AI's contribution to SLA. Therefore, this study aimed to identify the AI tools most frequently used by undergraduate English Education students and investigate their perceptions of AI in supporting second language acquisition. A descriptive quantitative design was employed involving 53 English Education students from three cohorts (2021, 2022, and 2023) at Universitas PGRI Jombang. Data were collected through a questionnaire adapted from Muhtar et al. [14] and Milon and Iqbal [15] and analyzed</i>

using descriptive statistics with SPSS. The findings revealed that ChatGPT, Grammarly, and DeepL were the most frequently used AI applications, with usage patterns varying across academic cohorts. Overall, students expressed positive perceptions of AI, agreeing that it enhances second language skills, provides timely and useful feedback, supports flexible and personalized learning, improves grammar and the four language skills, increases learning enjoyment, and contributes to better academic performance. The findings suggest that AI has become an important learning companion in SLA and supports students' autonomous language learning. These results provide insights for educators and curriculum developers to integrate AI meaningfully into English language education while promoting responsible and effective AI use.

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1. INTRODUCTION

In the landscape of the ever-evolving education sector, technology has become an essential and transformative tool that plays a significant role in shaping and enriching the learning experience. This is similar to Ghanizadeh et al. [1] findings that technology is used in almost all areas of language education. The language acquisition domain is undergoing significant changes, with digital tools and resources increasingly influencing language teaching and acquisition methods. This study aims to specifically investigate the integration of technology in the second language acquisition (SLA) process among undergraduate students majoring in English education and whether students agree that AI can help the second language acquisition process.

The term Second Language Acquisition (SLA) covers research on the acquisition of a new language by individuals or groups who have learnt their first language as a child, the term also includes the process by which this new language is learnt [2]. Second language acquisition (SLA) research has evolved from behaviorist theories that emphasize memorisation and direct teaching to cognitive and sociocultural perspectives that focus on mental processes and social interaction. The transformation is supported by technological advancements such as AI-based applications and mobile learning platforms. These tools provide customized, engaging, and captivating learning experiences. This is in line with Pawar's perspective [3], which states that the rapid advancement of Artificial Intelligence (AI) has ushered in a new era in education. The definition of AI itself according to Fitria [4] is the process of modeling human thinking and designing a machine so that it can behave like a human or another term called cognitive tasks, namely how machines can learn automatically from data and information that has been programmed.

The use of artificial intelligence (AI) in second language acquisition (SLA) has shown great potential in enhancing the language learning experience. According to Huang et al. [5], the application of AI in language learning demonstrates the technology's transformative power in SLA, offering a highly interactive and personalized experience that effectively meets the diverse needs of learners. The application of AI in education has grown significantly, especially with the use of chatbots, AI assistants, and integrated AI learning platforms such as Duolingo and ELSA Speak. These tools enhance the learning experience by providing personalized and interactive educational support. In addition, chatbots

have become essential in providing instant feedback, managing routine tasks, and assisting with second language acquisition. Research has shown that chatbots can enhance language learning by offering immediate corrections and explanations [6].

The implementation of Artificial Intelligence (AI) is widely acknowledged for its potential to enhance the learning process and facilitate the accomplishment of educational objectives. AI tools are prevalently utilized by undergraduate students to aid their academic pursuits [4]. The incorporation of technology within the domain of English education has been found to yield significant benefits for students. In this technology development, AI has potential to analyze and explore the data efficiently and deeply of the teachers and students in the education industry to advance future teaching and learning methods [7]. Students must prepare well for their future education through using this technology integration. Technology not only enhances students' language skills but also completes the teachers' technological competencies that students require to have an effective teaching and learning process. As future educators, teachers must be adept in the AI tools usage to create an engaging and effective learning environment.

Some previous studies have been conducted on technology-enhanced language learning (TELL) and AI issues that can improve students' skills. The study of Atmowardoyo [8] revealed that many mobile applications technology were useful to improve students' English Skills such as Listening, Speaking, Reading, and Writing skills. Another study is from Arif [9] resulting from the use of Information and Communication Technology according to the EFL students' perceptions and their expectations. Research conducted by Kumar Betal [10] found that the use of AI in second language acquisition has both positive and negative impacts, such as adaptive learning experience, better language, but there are also limitations such as lack of AI-generated authenticity, risk of dependency, etc. On the other hand, Lee et al. [11] also conducted a study about the perceptions of Korean university students, which revealed that AI-based writing tools' benefits on English writing skills and has strengths and weaknesses of each AI-based tool. Another study also conducted by Septiani et al. [12] found that AI in Education has the potential to improve students' learning experience by developing personalized learning programs, using chatbots to support learning, and improving administrative efficiency.

After looking at the previous studies which have been conducted about the students' perception on technology and AI usages in English learning. However, there is no study containing various AI tools and its benefits based on the students' experience and perception among university students at different levels. This research aims to investigate the integration of AI in the process of second language acquisition (SLA) among undergraduate students majoring in English education at different levels.

2. METHOD

The type of research used is quantitative research with a focus on descriptive quantitative approaches. According to [13] quantitative research is a means of testing objective theories by examining the relationship between variables. These variables, in turn, can be measured, usually through instruments, so that numerical data can be analyzed using statistical procedures. This research is used to find out what AIs are used by students majoring in English education at PGRI Jombang University in each batch.

The study included English language education students at PGRI Jombang University, located in Jombang, East Java. The sample comprised 53 students, with 10 from the class of 2021, 19 from the class of 2022, and 24 from the class of 2023. The sampling technique employed was purposive sampling.

The instrument used in this research is a questionnaire taken from Muhtar et al. [14] and Milon & Iqbal [15]. The questionnaire is an efficient data collection technique if the researcher knows exactly the variables to be measured. The answer to each instrument item has a weighted value, namely Strongly Disagree (1), Disagree (2), Agree (3), Strongly Agree (4).

The results of the data obtained from the questionnaire were processed using a data processing application, namely the SPSS (software product and service solution) program. The data is presented in table form with the aim that the data is easy to read and understand.

3. RESULT AND DISCUSSION

In the first question, the researchers aimed to find out which AI was most frequently used by students in each batch and each student was allowed to choose more than 1 AI, with the following results:

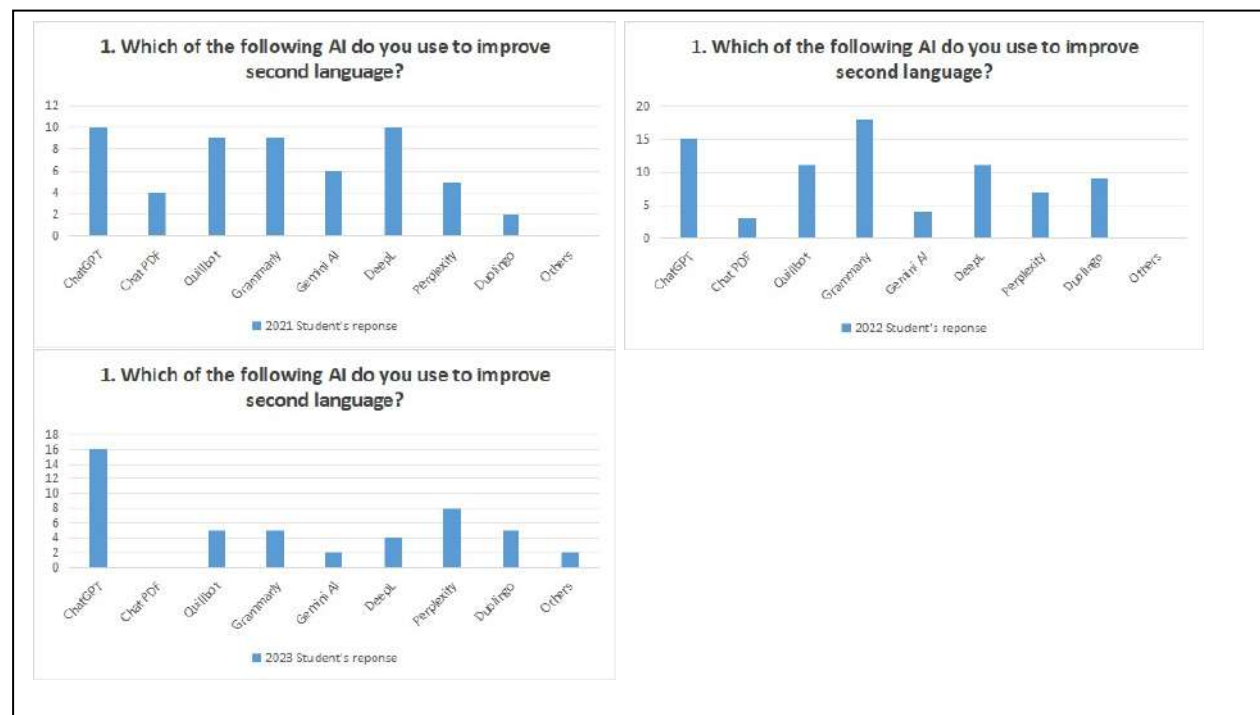


Figure 1. AI Use Across Different Year Students

In the undergraduating class of 2021, students most frequently utilized chatGPT and DeepL, achieving a response rate of 100%, with 10 out of 10 respondents using these AI technologies. Moving on to the class of 2022, Grammarly emerged as the most popular choice, garnering 18 out of 19 responses. As for the 2023 class, ChatGPT was the preferred AI for second language acquisition, chosen by 16 out of 24 respondents.

Table 2. Students' Perspective Toward AI Can Help The Second Language Acquisition Process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	3	5.7	5.7	9.4
	Agree	27	50.9	50.9	60.4
	Strongly Agree	21	39.6	39.6	100.0
Total		53	100.0	100.0	

From the table 2 which stated AI can improve of second language skill, it can be seen that 27 of the respondents "agree" and reached 50.9%, while under 6 of that amount chose "strongly agree" gains 39.6% at 21 responses. In low amounts, the "disagree" reached only 3 responses in 5.7%, while the "strongly disagree" has chosen by only 2 answers with the amounts at 3.8%. After looking at those result amounts, it can be said that AI can improve the students second language skill.

Table 3. Students' Perspective Towards AI Can Support Learning a Second Language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.7	5.7	5.7
	Disagree	2	3.8	3.8	9.4
	Agree	25	47.2	47.2	56.6
	Strongly Agree	23	43.4	43.4	100.0
	Total	53	100.0	100.0	

Based on the results in Table 3 show that AI can support learning a second language every time and anywhere. From the respondents, they are mostly “agree” which counted 25 frequency of them with 47.2%. Meanwhile, 23 respondents chose “strongly agree” which reached 43.4%. On the other hand, only 2 respondents 3.8 %, and 3 respondents 5.7% chose to “disagree” and “strongly disagree” respectively toward the question. From those results, it is known that AI can support the students in learning second language everytime and anywhere.

Table 4. Students' Perspective Towards Proper AI Feedback For Learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	4	7.5	7.5	11.3
	Agree	31	58.5	58.5	69.8
	Strongly Agree	16	30.2	30.2	100.0
	Total	53	100.0	100.0	

According to the results in Table 4 which are based on the question of AI can give proper feedback beneficial for learning, the higher frequency is “Agree” with an amount of 31 and reached 58.5%, followed by an amount of 16 at “strongly agree” in 30,2%. Otherwise, the lower frequency is “strongly disagree” with the amount at 2 and gains only 3.8%, while the “disagree” also has few respondents with a frequency at 4 and only gets 7.5%. After gaining these results, it indicates that AI can give proper feedback and it is beneficial for learning especially when students are learning to get their second language acquisition.

Table 5. Students' Perspective Towards AI Can Support Can Support Different Learning Style

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	3	5.7	5.7	9.4
	Agree	35	66.0	66.0	75.5
	Strongly Agree	13	24.5	24.5	100.0
	Total	53	100.0	100.0	

By seeing the results on the table 5 of AI promotes different learning styles to acquire second language, three are 35 responses of “agree” at 66% and 13 responses of “disagree” at 24.5% respectively. On the other side, there are only 3 respondents of 5.7% “disagree” and there are only 2 respondents chose “strongly disagree” at 3.8%.From these amount of results, it can be known that AI can promotes the students' different learning styles to gain their second language acquisition.

Table 6. Students' Perspective Towards AI Can Improve Four Language Skill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	5	9.4	9.4	13.2
	Agree	33	62.3	62.3	75.5
	Strongly Agree	13	24.5	24.5	100.0
	Total	53	100.0	100.0	

Based on the table above, item number 6, namely AI can improve my four second language skills (Reading, Listening, Speaking, Writing) received an "Agree" response of 62.3% from 53 respondents, followed by "Strongly Agree" which reached 24.5% or equivalent to 13 respondents. Meanwhile, Disagree and Strongly Disagree received 9.4% and 3.8% of all respondents respectively. Based on these results, it can be said that English education students agree that AI can improve four second language skills (Reading, Listening, Speaking, and Writing).

Table 7. Students' Perspective Towards AI Impact To their Grammar

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.9	1.9	1.9
	Disagree	7	13.2	13.2	15.1
	Agree	32	60.4	60.4	75.5
	Strongly Agree	13	24.5	24.5	100.0
	Total	53	100.0	100.0	

As per the data presented in the table, item number 7, concerning the impact of AI on my second language grammar, garnered a 60.4% "Agree" response from 53 respondents, followed by a 24.5% "Strongly Agree" response from 13 participants. Additionally, "Disagree" and "Strongly Disagree" received 13.2% and 1.9% of all responses, respectively. Therefore, based on these findings, it can be concluded that students of English education concur that AI has the potential to enhance second language grammar.

Table 8. Students' Perspective Towards AI Can Provide Enjoyment While Learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	4	7.5	7.5	11.3
	Agree	29	54.7	54.7	66.0
	Strongly Agree	18	34.0	34.0	100.0
	Total	53	100.0	100.0	

According to the table, item number 8, which is about AI providing enjoyment while learning a second language, received an "Agree" response from 54.7% of the 53 respondents. And then, 34% or 18 respondents "Strongly Agree" with this statement. In contrast, 7.5% disagreed and 3.8% strongly disagreed. These findings suggest that a substantial proportion of English education students hold the belief that AI has the potential to enhance the enjoyment of learning a second language.

Table 9. Students' Perspective Towards AI Can Enhance Academic Performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	3.8	3.8	3.8
	Disagree	4	7.5	7.5	11.3
	Agree	31	58.5	58.5	69.8
	Strongly Agree	16	30.2	30.2	100.0
	Total	53	100.0	100.0	

According to the data presented in the table, item number 9, which pertains to the potential of artificial intelligence (AI) to enhance academic performance, particularly in the context of a second language, garnered an "Agree" response from 58.5% of the total 53 respondents. Additionally, 30.2% (16 respondents) expressed strong disagreement with the aforementioned statement. Moreover, 7.5% and 3.8% of the respondents disagreed and strongly disagreed, respectively. This discovery indicates that a significant number of students specializing in English education harbor the belief that AI holds promise in enhancing academic performance, particularly within the framework of a second language.

Table 10. Students' Perspective Towards AI Personalized Learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	5.7	5.7	5.7
	Disagree	5	9.4	9.4	15.1
	Agree	34	64.2	64.2	79.2
	Strongly Agree	11	20.8	20.8	100.0
	Total	53	100.0	100.0	

Based on the data outlined in the table, item number 10, concerning the potential of personalized learning experiences facilitated by AI to enhance proficiency in a second language, elicited an "Agree" response from 64.2% of the respondents, representing 34 out of 53 students. Additionally, 11 students, constituting 20.8% of the total, expressed a "Strongly Agree" stance on this item. Furthermore, a collective 8 individuals, translating to 9.4% and 5.7% for disagreement and strong disagreement respectively, opposed this statement. These findings indicate the potential of AI-driven personalized learning in bolstering the acquisition of a second language among English language students.

3.1 Discussion

The present study demonstrates that AI technologies have become an integral component of second language acquisition among undergraduate English Education students. The findings indicate that ChatGPT, Grammarly, and DeepL are the most frequently used AI tools, although their popularity differs across cohorts. Senior students (2021 cohort) predominantly use ChatGPT and DeepL, while Grammarly is most preferred by the 2022 cohort and ChatGPT dominates among the 2023 cohort. This variation suggests that students do not rely on a single AI application but instead select tools according to their academic needs and learning experience. More experienced students tend to combine multiple AI applications, whereas newer students appear to rely primarily on conversational AI.

This finding extends previous research on technology-enhanced language learning (TELL). Ghanizadeh et al. [1] argued that technology has become inseparable from modern language education, while Atmowardoyo et al. [8] found that various mobile technologies support the development of English skills. However, those studies primarily discussed technology in general rather than identifying

which AI applications students actually use. The present study contributes a more detailed perspective by showing that students adopt different AI tools for different language learning purposes, indicating that AI ecosystems, rather than individual applications, characterize current second language learning.

The results also reveal that students strongly perceive AI as beneficial for improving their second language acquisition. Most respondents agreed that AI enhances language skills, supports learning anytime and anywhere, provides useful feedback, accommodates different learning styles, improves the four English skills, strengthens grammar, increases enjoyment in learning, enhances academic performance, and offers personalized learning experiences. These findings are consistent with Huang et al. [5], who emphasized that AI enables personalized and interactive language learning experiences tailored to individual learner needs. Similarly, Septiani et al. [12] concluded that AI contributes to personalized learning environments and improves students' learning experiences through adaptive educational support.

Another finding that aligns with previous research concerns AI-generated feedback. Most respondents believed that AI provides immediate and beneficial feedback for language learning. This supports Belda-Medina and Kokošková [6], who reported that educational chatbots facilitate language learning by delivering instant corrections and explanations. Immediate feedback is particularly valuable in SLA because it allows learners to recognize linguistic errors and revise their language output without waiting for teacher intervention. Consequently, AI complements classroom instruction by extending opportunities for autonomous learning beyond formal educational settings.

The positive perception of AI's contribution to grammar development also corresponds with recent studies on AI-assisted writing. Lee et al. [11] reported that university students considered AI writing tools beneficial for improving grammar, vocabulary, and writing quality despite recognizing certain limitations. Likewise, respondents in this study believed that AI helps improve grammatical competence. This consistency suggests that grammar remains one of the language domains where students perceive the greatest benefits from AI-assisted learning.

The finding that AI increases learning enjoyment also supports previous studies emphasizing learner engagement. According to Kumar Betal [10], AI promotes adaptive and interactive learning experiences that increase learner motivation and engagement. The present study reinforces this argument by showing that students perceive AI not only as an academic support tool but also as a means of making language learning more enjoyable. Enjoyment is an important affective factor in SLA because motivated learners generally demonstrate greater persistence and willingness to communicate.

Despite these similarities, the current findings also provide a new perspective. Previous studies frequently discussed AI from the perspective of individual applications, such as AI writing assistants, chatbots, or mobile language learning platforms. In contrast, this study illustrates that English Education students simultaneously employ multiple AI applications according to specific learning objectives. For example, students may use Grammarly for grammatical accuracy, DeepL for translation, and ChatGPT for explanation, idea generation, or language practice. This pattern indicates that AI use in SLA is becoming increasingly complementary rather than substitutive, where different applications fulfill different pedagogical functions within learners' self-regulated learning strategies.

However, the overwhelmingly positive perceptions reported in this study should be interpreted carefully. The research measures students' perceptions rather than objectively assessing improvements in language proficiency. Positive attitudes toward AI do not necessarily indicate measurable gains in speaking, writing, reading, or listening performance. This observation supports Kumar Betal [10], who cautioned that although AI offers substantial educational benefits, excessive dependence may reduce learners' opportunities for authentic communication, critical thinking, and independent language production. Therefore, AI should be viewed as a learning support tool rather than a replacement for meaningful interaction with teachers, peers, and authentic language input.

Overall, the findings suggest that AI has become an accepted learning companion among English Education students. The study contributes to SLA research by demonstrating that students perceive AI as supporting not only linguistic development but also learning flexibility, personalized instruction, immediate feedback, and learner engagement. Furthermore, identifying AI preferences across different academic cohorts provides empirical evidence that technology adoption evolves alongside students' academic experience, offering a perspective that has received limited attention in previous AI and SLA studies.

4. CONCLUSION

The present study concludes that undergraduate English Education students hold overwhelmingly positive perceptions of artificial intelligence in supporting second language acquisition. ChatGPT, Grammarly, and DeepL emerged as the most frequently used AI tools, although their popularity varied across academic cohorts. Students generally agreed that AI enhances language learning by improving English skills, grammar, personalized learning, learning flexibility, feedback quality, motivation, and academic performance.

These findings confirm previous research highlighting the educational benefits of AI while extending the literature by demonstrating that students increasingly utilize combinations of AI applications to support different aspects of language learning. Rather than depending on a single AI platform, learners strategically select various tools according to their learning objectives, suggesting a shift toward integrated AI-supported self-directed language learning.

Nevertheless, this study is limited to students' perceptions and does not measure actual language proficiency gains. Therefore, future research should employ experimental or longitudinal designs to investigate the effects of specific AI tools on measurable language outcomes such as speaking fluency, writing quality, vocabulary acquisition, grammar accuracy, or communicative competence. Future studies are also encouraged to compare different AI applications, examine students from multiple universities, and investigate factors such as digital literacy, self-regulated learning, and AI dependency to obtain a more comprehensive understanding of AI's role in second language acquisition.

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