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Original article

ChatGPT for French Language Learning

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Abstract
This study explores the use of artificial intelligence as an educational tool, with a focus on its integration into language learning. The research investigates ChatGPT's efficacy as an AI-assisted learning tool for French language acquisition among students at the Department of French Language, Faculty of Languages, University of Benghazi. An online questionnaire administered to 25 students across different academic levels was used to evaluate its impact on key areas of the French language curriculum: grammar, translation, literature, Francophone culture, and general knowledge. The findings, supported by graphical data, indicated that ChatGPT significantly improved several language skills. Specifically, 56.0% (n=14) of participants used it primarily for enhancing oral proficiency, while 52.0% (n=13) rated it as "very useful" for autonomous learning. Improvements were most notable in lexical accuracy and conversational fluency, as evidenced by comparative performance metrics. Furthermore, 72.0% (n=18) considered it more effective than traditional learning methods. However, 68.0% (n=17) reported technical challenges, particularly difficulties in formulating effective prompts. Despite these limitations, 80.0% (n=20) recommended its continued use, accompanied by suggestions for improvement. The study concludes that ChatGPT is a valuable supplementary tool, although its effectiveness depends on proper usage and pedagogical integration.
Keywords: Artificial Intelligence, ChatGPT, French Language Learning.

Introduction

With the rapid evolution of scientific research and technological innovation, interest in Artificial Intelligence (AI) has significantly intensified, contributing to its proliferation across multiple sectors. AI refers to the simulation of human cognitive processes, enabling machines to perform tasks that typically require human intelligence. These include visual and auditory recognition, natural language understanding, decision-making, and the resolution of complex, abstract problems. In the business sector, AI facilitates predictive analytics by estimating the probability of success or failure. In medicine, it plays a critical role in diagnostic decision support systems. In economics, AI contributes to long-term financial forecasting, such as predicting currency value fluctuations. These applications underscore AI's interdisciplinary nature and its transformative impact on problem-solving and automation.

Artificial Intelligence (AI) was first coined by John McCarthy at the Dartmouth Conference in 1956. It was formally defined as a scientific field that integrates human cognition with computational models to emulate intelligent behavior. This domain encompasses several subfields, such as machine learning, neural networks, robotics, and natural language processing (NLP), each contributing uniquely to the development of intelligent systems.

NLP, in particular, is a core AI technique concerned with the interaction between computers and human language. It enables machines to analyze, interpret, generate, and translate text and speech. In educational settings, NLP holds the potential to mitigate learning barriers through personalized and adaptive content delivery. Educational institutions increasingly observe diverse challenges among students, such as communication anxiety, cognitive variability, learning disabilities, and external constraints—ranging from geographic inaccessibility to pandemics like COVID-19 [1]. Consequently, AI-powered chatbots have emerged as viable solutions for enhancing accessibility and learner engagement.

A chatbot is an AI-driven application designed to simulate human-like conversational interactions. The earliest known chatbot, ELIZA, was developed in the early 1960s by Joseph Weizenbaum as a pioneering experiment in machine-human dialogue [2]. Modern chatbots process user queries through NLP, retrieving relevant information from pre-trained knowledge bases and returning appropriate responses in real-time. This mechanism fosters dynamic, user-centered exchanges that enhance both comprehension and interaction [3], as shown below.

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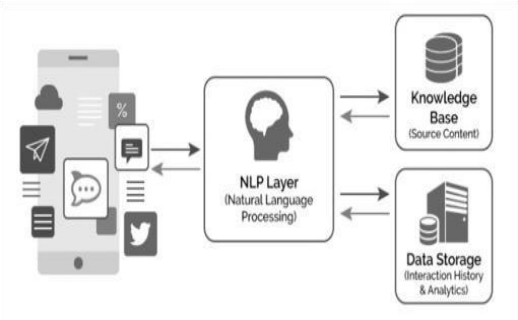

Figure. 1. The mechanism of chatbot [3].

There are various artificial Intelligence platforms available online, developed by different companies. For example, OpenAI has developed ChatGPT, while Google has introduced tools such as Gemini (formerly known as Bard). Each platform offers unique features for language understanding and interaction.
ChatGPT, developed by OpenAI and launched in late 2022, has proven useful in language learning due to its multiple capabilities [4]:

- Text generation: Ability to compose coherent articles, essays, narratives, and professional reports.
- Information classification: Efficient in organizing, categorizing, and structuring data contextually.
- Multilingual translation: Delivers accurate, context-aware translations across a wide spectrum of languages.
- Text summarization: Condenses complex or lengthy content into concise, intelligible formats.

The impact of ChatGPT on students can be observed across various educational dimensions. One of the most notable aspects is its ability to facilitate real-time interaction, allowing learners to engage directly with the system through immediate question-and-answer exchanges. This instant responsiveness promotes active participation and encourages learners to seek clarification or explore new information without hesitation.
In addition to fostering engagement, ChatGPT offers remarkable flexibility and accessibility. Students can utilize the tool at any time and from any location, accommodating different learning paces and schedules. Its adaptability enables personalized responses that cater to individual needs, which is particularly beneficial in addressing diverse academic backgrounds and learning styles. Furthermore, ChatGPT plays a significant role in enhancing core language skills, including reading comprehension, writing proficiency, grammatical accuracy, and translation abilities. Its feedback-rich environment allows students to learn through iteration and correction, supporting both guided and independent learning.
However, despite these pedagogical advantages, certain challenges and limitations have been reported. Some users have encountered incomplete or inaccurate responses, often due to ambiguous queries or the system's limited contextual understanding. Overreliance on ChatGPT may also discourage critical thinking and reduce learners' initiative in problem-solving tasks. Additionally, the continuous exchange of information between users and the system raises valid concerns regarding data privacy and information security [5].
To better utilize ChatGPT as a supportive educational tool, it is essential to implement appropriate pedagogical scaffolding and ethical guidelines that ensure its responsible and effective integration into academic environments.
Research on AI-assisted language learning reveals four critical dimensions: cross-cultural acceptance, pedagogical efficacy, and contextual implementation challenges, with emerging ethical considerations.

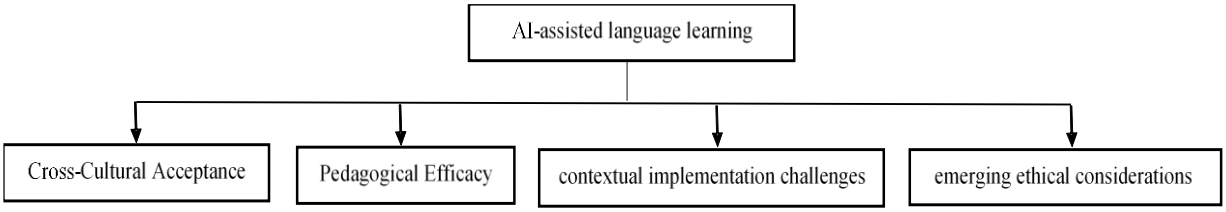

Fig. 2. Dimensions of AI-assisted language learning

European and global studies confirm growing receptiveness to AI tools:

- Salonen-Tessa (6) reported that a large majority of Finnish foreign-language students accepted ChatGPT, identifying it as the most adaptable platform.
- Lobet et al. (7) documented widespread adoption at Namur University (Belgium), although some students raised academic integrity concerns.
- Li et al. (8) explored how self-directed learners engage with ChatGPT to enhance their language skills. learners' evaluations emphasized the critical role of self-regulation strategies-such as goal setting and self-monitoring- in maximizing the benefits of AI-assisted language learning.

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- Oghenefejiro E. OBI (9) enhanced French language learning in Nigeria through using AI-powered tools, despite many challenges and limitations.

Skill-specific implementations demonstrate measurable gains:
- Mavropoulon (10) demonstrated accelerated vocabulary retention compared to traditional methods in culinary French programs using ChatGPT.
- Beclairi (11) reported significant reductions in grammatical errors among Algerian students using AI writing tools.
- Eleni Mavropoulou and Panagiotis Arvanitis (12) used AI for enhancing French oral skills: pronunciation, rhythm, and accuracy based on CEFR (Common European Framework of Reference for Languages).
- Konstantinos T. Kotsis (13) emphasized ChatGPT's integration with academic writing in higher education through publications for pedagogical implications with ethical challenges.
- Elena VELESCU (14) demonstrated ChatGPT's integration with language learning for developing linguistic and professional skills by using the French language courses among students in veterinary medicine at the University of Life Sciences in Lasi.
- Thomas François and Cédrick Fairon (15) introduced a new readability formula, "AI readability" for FFL (French as a foreign Language) based on SVM (Support Vector Machines).

Despite global advancements, Arabic-speaking regions face unique challenges:
- A cross-regional study in East Asia raised ethical concerns by employing ChatGPT in higher education: misinformation, overreliance, and algorithmic bias [16].
- Sahibdeep Singh and Gurjit Singh Bhathal (17) found that incorporating AI in Libyan higher education presented many challenges: a lack of digital infrastructure, high implementation cost of AI's tools in the institutions, and limited education strategies.
- A Kuwaiti study highlighted many limitations when using ChatGPT for developing the French language, including inaccurate information and technical problems [18].
- El JEMLI, S and JAI LAMIMI (19) acknowledged ChatGPT's notable role in English-French translation initially in Morocco, highlighting emotional and pedagogical challenges, also overreliance on AI.
- Ghrieb Aounia and Siradj Safaa (20) declared on obstacles that faced Algerian students when they used some AI tools for enhancing self-learning of the French language: a lack of interaction with native speakers, limitations in cultural and literary aspects.

Emerging research highlights complex trade-offs:
- Felicia Constantin (21) described ChatGPT as "a sharp knife ", simultaneously enhancing learner autonomy while raising concerns about overreliance, and replaced it by traditional approaches in language teaching and learning.
- Gacemi, M. (22) cautioned that while ChatGPT plays a significant role in higher education, it may also raise some ethical concerns regarding fraud and plagiarism.

While research from the Global North dominates the discourse on AI-assisted language learning, there is a notable lack of empirical studies focusing on AI-supported French acquisition. This study aims to evaluate the effectiveness of ChatGPT in supporting French language learning among university students in Libya.

Methods

To collect data, a structured electronic questionnaire was administered using Google Forms and distributed online. The instrument consisted of 30 items and was completed by 25 students enrolled in the Department of French Language at various academic levels, including postgraduate students.
The questionnaire comprised both closed- and open-ended questions, covering key areas of the French language curriculum such as grammar, translation, literature, Francophone culture, and general information. Additionally, it included sections addressing students perceived challenges, technical difficulties, and recommendations related to the use of ChatGPT as a supplementary tool for learning French. The questions were designed to reflect the content of courses offered from the first to the final semester, ensuring comprehensive representation of the students' academic experiences. This purposive sample targeted learners with prior exposure to ChatGPT in academic settings, thus enhancing the relevance and reliability of the collected responses.

Results

The research sample consisted of 25 students, including 6 males and 19 females.

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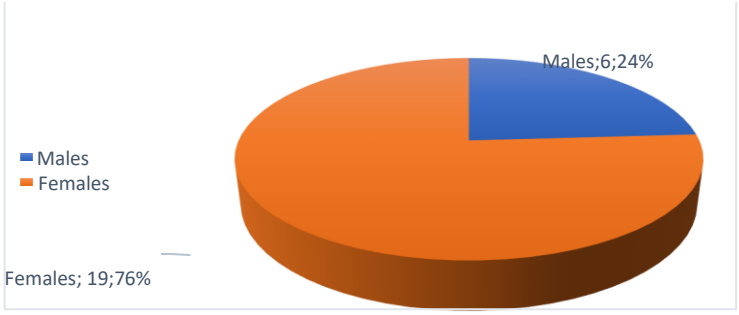

Figure 3. Sample Characteristics

Participants were enrolled across various academic levels, distributed as follows:

- Postgraduate students: 12 (3 males, 9 females).
- Eighth semester: 6 (3 males, 3 females).
- Seventh semester: 1 (female).
- Sixth semester: 2 (females).
- Fourth semester: 1 (female).
- Third semester: 2 (females).
- Second semester: 1 (female).

(See Fig. 4 for detailed distribution)

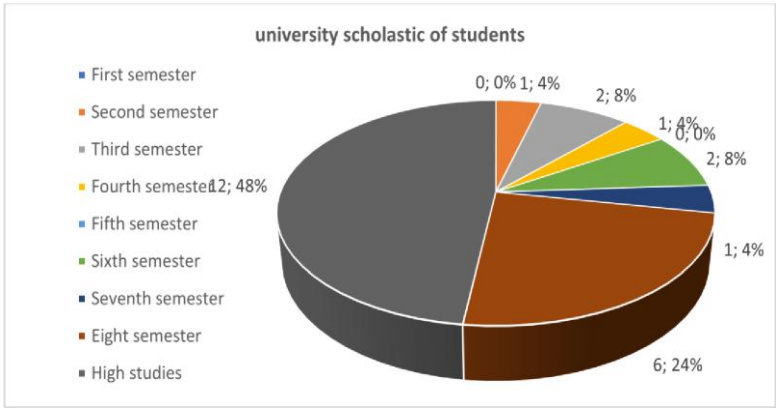

Figure 4. Academic levels Distribution.

When asked about the primary use of ChatGPT in French learning, the responses were as follows:

- 56.0% (n=14) used it to enhance oral proficiency.
- 24.0% (n=6) used it for vocabulary acquisition.
- 12.0% (n=3) employed it for text translation.
- 8.0% (n=2) focused on writing practice.

Notably, no participants selected “vocabulary enrichment” as a separate use-case.
(See Fig. 5 for usage distribution).

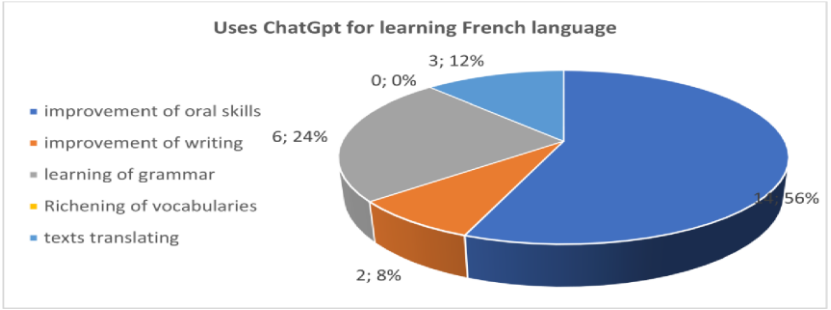

Figure 5. Uses ChatGPT for learning the French language.

Students’ evaluations of ChatGPT as a learning tool were varied as below:

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Table 1. Perceived Effectiveness.

Rating	Percentage	Number Students
Very Useful	52.0%	13
Useful	24.0%	6
Moderately Useful	20.0%	5
Not Useful	4.0%	1

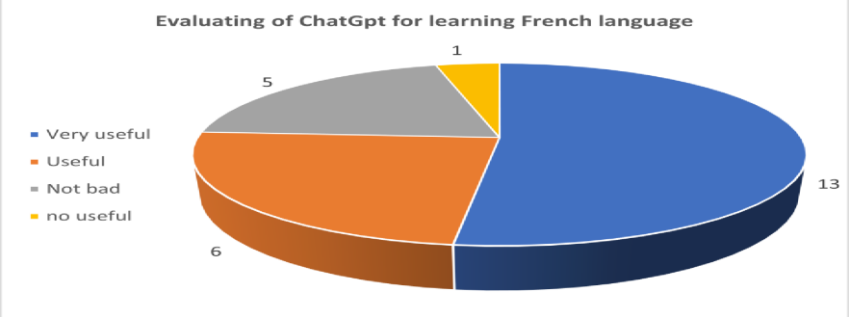

Figure 6. Perceived Effectiveness.

Regarding ChatGPT's effectiveness in improving learning outcomes compared to traditional methods:
- 72.0% (n=18) believed ChatGPT provided superior support.
- 28.0% (n=7) disagreed, favoring traditional approaches.

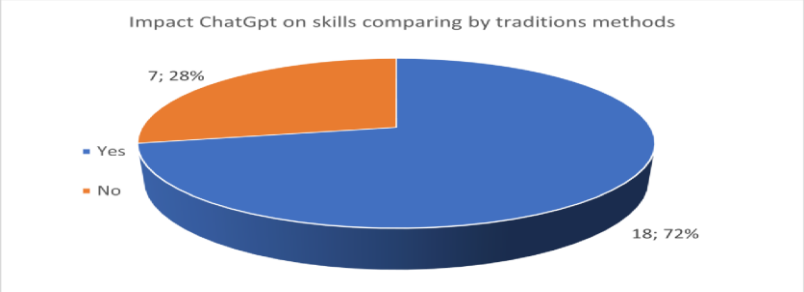

Figure 7. Comparative Advantage.

Several difficulties were observed by students when using the ChatGPT platform, detailed in Table 2 and Figure 8 below.

Table 2. Implementation Challenges

Difficulty Type	**Percentage**	**Number Students**
Technical Issues	68.0%	17
Question Formulation	24.0%	6
Answer Comprehension	8.0%	2

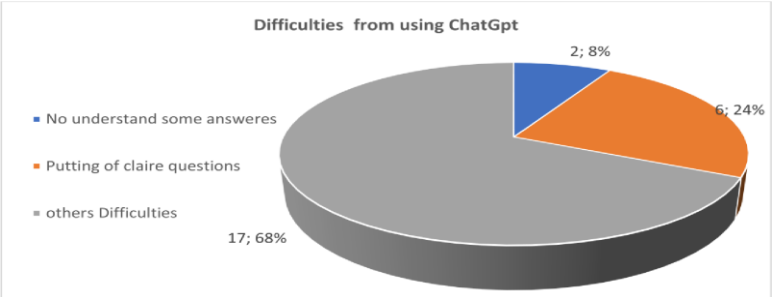

Figure 8. Challenges Encountered.

Participants proposed various enhancements to optimize ChatGPT's utility:
- 2 students indicated no prior use
- 6 students believed no improvement was needed
- 3 students suggested adding voice-based interaction

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- 6 students requested enhanced referencing and answer accuracy
- One student recommended making the tool free to access
- One student proposed offline accessibility
- One student called for video-based explanations
- 5 students offered miscellaneous suggestions

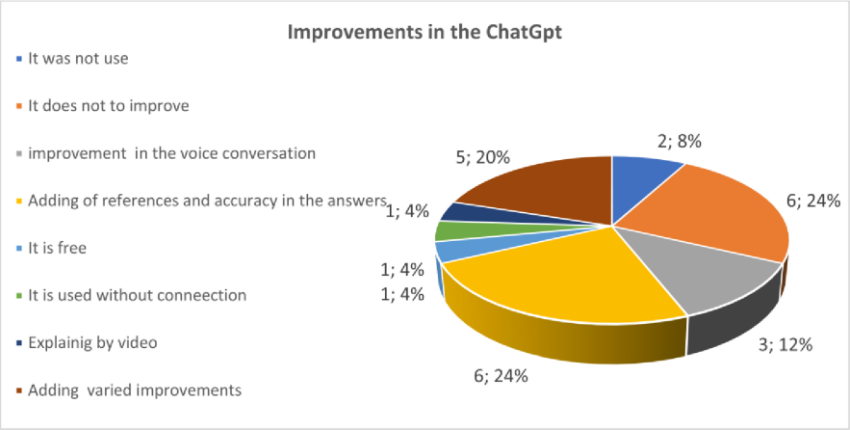

Figure 9. Suggested Improvements in the ChatGPT.

Based on the responses to the question “Do you recommend using ChatGPT?”, the following results were obtained:

- 16.0% (n=4) of students did not recommend using it.
- 80.0% (n=20) of students recommended its use.
- 4.0% Some students believed that using ChatGPT is not essential.

These results reflect a generally positive attitude toward the use of ChatGPT, although a minority expressed reservations or considered its use unnecessary.

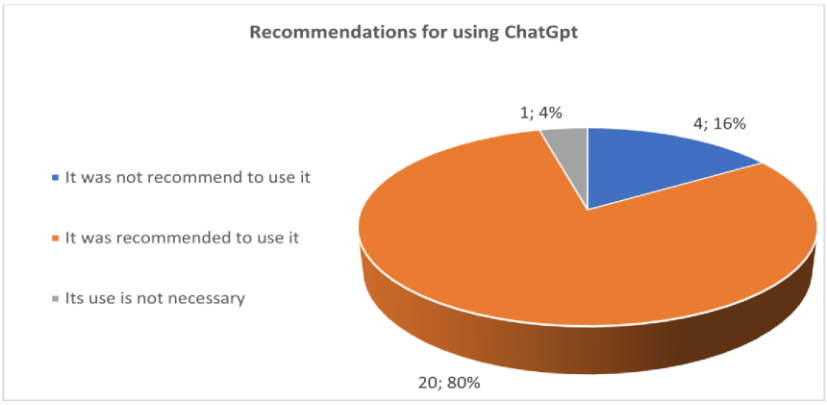

Figure 10. Recommendations for future use.

Discussion

The findings of this study demonstrate ChatGPT's significant role as a supplementary tool in French language acquisition within the Libyan higher education context. A majority of students (56.0%, n=14) reported using ChatGPT primarily to enhance oral proficiency, highlighting its interactive potential to compensate for limited authentic French exposure. This tool for developing speaking skills corroborates the findings of Annuš (2023), who emphasized chatbots' capacity to foster interactive and personalized learning experiences, thereby supporting the development of communicative competence.

Regarding perceived usefulness, (52.0%, n=13) of participants evaluated ChatGPT as “very useful” and (24.0%, n=6) as “useful,” confirming its value in promoting autonomous learning.

These positive perceptions align with Al-Hoorie & AlShakhori (2025), who identified enhancing student engagement, automating language assessment, and facilitating self-learning beyond the classroom as key factors influencing ChatGPT adoption in language learning and teaching. Furthermore, the tool's contribution to writing practice and assessment: revision processes, enhancing brainstorming, drafting for multilingual and novice writers, has been demonstrated by T. Kotsis K (2025)

For comparing ChatGPT with traditional methods, (72.0%, n=18) more than half of participants praised its high effectiveness in language learning, which agrees with Ayesha Shahid et al. (2023), who explained that ChatGPT's role is for enhancing language outcomes and creating an interactive and engaging learning

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environment. However, the study also revealed notable challenges. The participants declared difficulties related to technical issues (68.0%, n=17), question formulation (24.0%, n=6), and understanding of complex answers (8.0%, n=2). These obstacles are consistent with Annuš (2023), who cautioned that ChatGPT may generate incomplete or misleading outputs, necessitating learner supervision and critical interpretation. Also, indicated to some concerns that resulted from its use. These concerns echo Felicia (2023), who described ChatGPT as "a sharp knife ", capable of enhancing learner autonomy while simultaneously raising concerns about overreliance and its replacement by traditional approaches in language learning.

Students' suggestions for improvement—such as voice-based interaction, offline accessibility, enhanced referencing, and video explanations—mirror recommendations found in broader reviews. Lo et al. (2024) stressed the importance of adapting AI tools to local infrastructure capacities and integrating them into pedagogical frameworks rather than relying on them as standalone solutions.

Ultimately, the majority of participants (80.0%, n=20) recommended ChatGPT for continued use in French language learning, underscoring its relevance in resource-scarce and conflict-affected contexts like Libya. Nevertheless, a minority expressed reservations due to ethical concerns and the risk of technological dependency, which is consistent with international debates on the pedagogical and ethical boundaries of AI in education. Additionally, the limitation of the study lies in the small sample size (n=25), which may impact the generalizability of the findings. Overall, this study extends the global literature by providing empirical insights from a context with limited French immersion opportunities. While confirming ChatGPT's potential benefits, it also underscores the need for careful integration, teacher mediation, and longitudinal research to ensure sustainable skill development.

Conclusion

This study investigated the role of ChatGPT as an AI-assisted tool for learning the French language among 25 students from the Department of French Language at the University of Benghazi. The sample included both undergraduate and postgraduate students, representing various academic levels. The tool was primarily used to enhance oral proficiency, with 56.0% (n=14) of participants identifying it as their main application. 52.0% (n=13) considered it very useful for learning the language. Furthermore, 72.0% (n=18) considered it more effective than traditional methods, indicating a shift toward AI-supported autonomous learning. Despite its advantages, students reported challenges such as difficulty in formulating effective prompts and occasional comprehension gaps. Notably, 68.0% (n=17) cited technical or accessibility issues as limiting factors. However, the majority, 80.0% (n=20), recommended its continued use. Future research should focus on longitudinal studies with larger samples and experimental controls to further evaluate the pedagogical effectiveness of AI tools in second language acquisition.

Conflict of interest. Nil

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