USING AI CHATBOTS FOR SELF-REGULATED WRITING: EFL STUDENTS' PRACTICE, PERCEPTIONS, AND SUPPORT NEEDS

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Abstract: This study investigates EFL students' practices, perceptions, and support needs regarding the use of AI chatbots for self-regulated writing. A mixed-methods approach was employed with 243 EFL students completing an online survey, followed by semi-structured interviews with 11 participants from a public university in central Vietnam. The findings reveal that most students commonly used AI chatbots in their self-regulated writing, with ChatGPT and Gemini being the most popular tools. Students reported utilizing AI chatbots for various writing purposes during the writing process, especially the pre-writing and post-writing stages. Perceived benefits include boosting learning productivity, fostering language and writing development, personalizing learning experience, increasing learning motivation, and supporting self-regulation strategies. However, reported concerns involve AI-generated response quality, overreliance risks, ethical concerns, and insufficient technical support. Based on these findings, the study recommends that institutions and instructors provide proper guidance to help students integrate AI chatbots effectively into their self-regulated learning process.

Keywords: AI Chatbots; self-regulated learning; writing skills; EFL students

KHẢO SÁT THỰC TRẠNG, NHẬN THỨC VÀ NHU CẦU HỖ TRỢ CỦA SINH VIÊN NGÀNH TIẾNG ANH VỀ VIỆC SỬ DỤNG AI CHATBOT ĐỂ TỰ LUYỆN KỸ NĂNG VIẾT

Tóm tắt: Nghiên cứu này khảo sát thực trạng, nhận thức và nhu cầu hỗ trợ đối với việc sử dụng AI chatbots để tự học kỹ năng viết luận Tiếng Anh của sinh viên ngành Tiếng Anh. Nghiên cứu sử dụng phương pháp hỗn hợp với dữ liệu được thu thập từ 243 sinh viên thông qua khảo sát trực tuyến và 11 sinh viên qua phỏng vấn bán cấu trúc tại một đại học công lập ở miền Trung Việt Nam. Kết quả cho thấy đa số sinh viên thường xuyên dùng AI chatbots trong quá trình tự học viết luận, phổ biến nhất là công cụ ChatGPT và Gemini. Sinh viên cho biết họ sử dụng AI chatbots cho nhiều mục đích khác nhau trong suốt quá trình viết, đặc biệt là giai đoạn trước và sau khi viết. Các lợi ích được ghi nhận bao gồm tăng năng suất, giúp phát triển ngôn ngữ, cá nhân hóa trải nghiệm, tăng động lực và hỗ trợ người học tự điều chỉnh chiến lực học tập. Tuy nhiên, các thách thức liên quan đến chất lượng phản hồi của AI, nguy cơ phụ thuộc quá mức, các vấn đề đạo đức và thiếu hỗ trợ kỹ thuật cũng được đề cập. Từ đó, nghiên cứu kiến nghị nhà trường và giảng viên cần hỗ trợ sinh viên có định hướng tự học phù hợp để ứng dụng AI chatbots vào quá trình học một cách hiệu quả.

Từ khoá: AI Chatbots; tự học; kỹ năng viết luận Tiếng Anh; sinh viên ngành Tiếng Anh

1. Introduction

In the era of globalization, English remains the dominant universal language (Patel, 2023). Among the four English language skills, academic writing proficiency is increasingly vital, serving as a key indicator of critical thinking and reasoning (Stephen, 2024). However, English as a Foreign Language (EFL) students often encounter significant difficulties in writing due to limited resources (Alzahrani, 2025; Le & Nguyen, 2025). To address this, artificial intelligence (AI) technologies, especially AI chatbots, have emerged as powerful tools that can facilitate language learning and writing through rapid information analysis (Cope & Kalantzis, 2023; Xu, 2024).

Although research on AI in education is expanding, existing studies predominantly focus on teacher-led instructional applications. There remains a need to explore how EFL students autonomously adopt AI chatbots outside formal classroom settings. Therefore, this study investigates the self-regulated use of AI chatbots among Vietnamese EFL undergraduates for writing skill development. Specifically, it examines their usage practices, perceived benefits and challenges, and support needs. The findings aim to provide insights for educators and policymakers to optimize the integration of AI tools in language learning.

2. Literature review

2.1 Artificial intelligence and the application of AI chatbots in education

AI algorithms simulate human intellectual behaviors such as reasoning and problem-solving (Xu et al., 2021). The evolution of AI has produced Generative AI (GenAI), which generates new content based on input data (Sengar et al., 2025). Prominent among GenAI tools are AI chatbots, which utilize conversational interfaces to mimic human interaction (Gao et al., 2025). In education, AI chatbots can facilitate content generation, personalization, and immediate feedback (Mollick & Mollick, 2023). Moreover, they can promote autonomous learning among learners by assisting their self-regulated learning activities (Xu, 2024). Specifically in language education, these tools can serve as intelligent virtual tutors by providing learners with authentic practice in a low-anxiety environment. In this context, AI chatbots can act as flexible scaffolding for productive skills like writing (Nugroho et al., 2024), and offering the complex structural evaluation required for essays (Barrot, 2023). However, balancing efficiency with emerging pedagogical and ethical challenges remains a critical necessity for responsible AI implementation.

2.2 English writing skills

Writing is a complex cognitive activity requiring the integration of organizational skills, grammatical accuracy, and vocabulary to convey ideas effectively (Richards & Renandya, 2002). As a tool for analytical thinking, the writing process is often framed by Seow's (2002) cyclical model, which comprises five core stages: (1) Pre-writing (planning and exploring); (2) Drafting (developing ideas); (3) Revising and Feedback (focusing on content and clarity); (4) Editing (correcting surface-level errors); and (5) Finalizing. This iterative process fosters learners' metacognitive awareness and competence.

Despite its significance, EFL students frequently encounter significant hurdles in writing, especially for academic purposes. Linguistically, learners might struggle with grammatical control and appropriate vocabulary usage (Le & Nguyen, 2025) while structurally, they often fail to

organize ideas logically or ensure textual coherence (Alzahrani, 2025). In addition, these challenges are often compounded by psychological barriers, such as a lack of confidence and fear of negative evaluation, as well as insufficient foundational knowledge and formal training (Listyani, 2025).

2.3 Self-regulated learning

Self-regulated learning (SRL) is defined as a proactive, self-directed process through which learners transform mental abilities into academic skills (Zimmerman, 2000). Zimmerman's model of SRL outlines three cyclical phases: (1) Forethought (planning and motivation); (2) Performance (self-control and observation); and (3) Self-Reflection (self-evaluation and adaptation). This framework aligns closely with Seow's (2002) writing process. Specifically, the Forethought phase parallels Pre-writing; Performance corresponds to Drafting and Revising via strategy application; and Self-Reflection mirrors Editing and Finalizing, where learners evaluate outcomes to inform future tasks.

In the modern educational landscape, AI and SRL exhibit a reciprocal relationship. Technology-mediated SRL can enhance learning flexibility and motivation (An et al., 2020), while strong SRL abilities enable learners to engage more actively with AI chatbots. This dynamic suggests that SRL can shape interaction patterns; thus, it is necessary to design tools that can foster students' active learning and improve academic performance (Lee et al., 2025). In this light, integrating AI chatbots within an SRL framework is essential for optimizing learner outcomes.

2.4 Benefits and challenges of using AI chatbots for EFL writing skills

Existing research has synthesized the benefits of integrating AI chatbots in EFL writing instruction into three core dimensions: cognitive-linguistic support, psychological empowerment, and self-regulation. Cognitively, GenAI has been recognized for facilitating ideation and reducing cognitive load during the writing process (Barrett & Pack, 2023). Linguistically, studies have shown that AI-mediated feedback can significantly enhance vocabulary, syntactic structures, and writing quality, while offering substantial time-saving benefits (Chia et al., 2024). Psychologically, AI chatbots can create a safe, non-judgmental learning environment that reduces students' stress and boosts their confidence (Vo & Nguyen, 2024), which can lead to higher motivation compared to traditional instructional methods (Song & Song, 2023). Finally, these tools can promote self-regulation among students by providing them with personalized feedback and encouraging learner autonomy (Chang et al., 2023).

Despite these affordances, critical challenges associated with the use of AI chatbots in students' writing development cannot be overlooked. Technically, AI output is prone to "hallucinations" and often lacks cultural nuance (Sengar et al., 2025). Ethically and cognitively, significant concerns exist regarding students' over-reliance on AI tools, plagiarism, and the erosion of critical thinking skills when students passively outsource drafting to AI (Song & Song, 2023). Consequently, there is an urgent need to guide students in balancing AI assistance with the development of independent thought (Schug, 2025).

2.5 Research gaps and research questions

Although previous studies have explored different aspects of AI integration into EFL writing instruction, several gaps remain under-addressed. First, research (e.g., Karataş et al., 2024; Vo & Nguyen, 2024) pays more attention to certain specific AI tools (e.g., ChatGPT) while little is known about how other AI chatbots are used among EFL learners. Second, the research focus remains heavily on teacher-led classroom instruction (e.g., Bimpong et al., 2024; Thai, 2023), while using AI chatbots for out-of-class self-regulated writing among students is not sufficiently investigated. Third, students' perspectives on necessary institutional support for effective AI use remain largely unexplored. To address these gaps, this study aims to examine EFL students' self-regulated practices with various AI chatbots, their perceived benefits and challenges, and their specific support needs. The study seeks answers to the following research questions:

1. How do Vietnamese EFL students use AI chatbots for self-regulated writing?

2. What are Vietnamese EFL students' perceptions of the benefits and challenges of using AI chatbots for self-regulated writing?

3. What support do Vietnamese EFL students need for improving the effectiveness of using AI chatbots for self-regulated writing?

3. Research methodology

3.1 Research setting and participants

This study was carried out at the Faculty of English of a public university in central Vietnam. There are no official policies on AI or academic integrity, but EFL lecturers and students proactively apply information technology, including AI, both inside and outside the classroom. Regarding writing skills, students have to complete five writing courses, which follow a process-based approach. The study involved 243 second and third-year EFL students, predominantly female, aged between 19 and 20, majoring in English Language and English Language Teaching. On average, participants have been learning English for 5 to 10 years. Detailed information is presented in Table 1.

Table 1

Demographic information of the participants

Participant Characteristics		N=243	Percentage (%)
Sex	Male	34	13.99%
	Female	209	86.01%
Field of study	English Language Teaching	122	50.21%
	English Language	121	49.79%
Academic Year	Second-year	141	58.02%
	Third-year	102	41.98%
English learning duration	Over 10 years	136	55.97%
	5 - 10 years	86	35.39%
	Under 5 years	21	8.64%
Frequency of technology use	Always	83	34.16%
	Frequent	143	58.85%
	Sometimes	11	4.53%
	Rarely	5	2.06%
	Never	1	0.41%

Students were informed about study's purposes, involvement was voluntary. Personal data and responses were stored, used solely for research purposes, and excluded from published materials. These measures ensured anonymity and confidentiality.

3.2 Research approach and instruments

This study adopted a mixed-methods approach to obtaining precise, in-depth, and comprehensive data, aligning with the study's objectives (Creswell & Creswell, 2017). The study utilized a questionnaire and semi-structured interviews. The questionnaire comprises 2 parts: collecting participants' information and the main survey content focusing on students' current practices of AI chatbot usage for self-regulated writing practice. Multiple choice items regarding students' practices of using AI chatbots were developed based on a literature review of AI chatbot use in writing instruction (Vo & Nguyen, 2024), the process-based writing approach (Seow, 2002), and self-regulated learning (Zimmerman, 2000). Meanwhile, 5-point Likert items were designed to understand students' perceptions of the benefits and challenges of using AI chatbots for self-regulated writing, adapted from Amoush and Alhosban (2025). Finally, close-ended questions gathered students' suggestions to enhance AI chatbot usage. To refine the questionnaire, a pilot study was conducted with seven students who were not part of the final sample. Statistical analysis using SPSS yielded Cronbach's Alpha coefficients for benefits and challenges as .956 and .886 (Table 2). According to Izah et al. (2023), a coefficient of .70 or higher is acceptable. Therefore, these questionnaire items are statistically reliable and credible for this study.

Table 2

Questionnaire Reliability

Aspects	Cronbach's Alpha	Number of Items
Benefits	0.956	13
Challenges	0.886	12

To address the limitations of closed-ended questions in the questionnaire, follow-up semi-structured interviews were conducted to explain the quantitative results with in-depth qualitative data. Participants were required to share their opinions on their use of AI chatbots, benefits, and challenges regarding AI chatbots in writing. Interview data were used to supplement and clarify the questionnaire results.

3.3 Data collection and analysis procedure

The data collection process was conducted in two stages. Quantitative data were collected through Google Forms at the end of the 2024-2025 academic year. After receiving 243 responses, the authors invited participants for semi-structured interviews, and 11 students voluntarily accepted the invitation. Interviews were conducted on Google Meet in Vietnamese, each lasting approximately 20 minutes, and were recorded with the consent of the participants. For anonymity, interviewees were labeled from S1 to S11 (S for student).

Quantitative data were analyzed using SPSS 26.0 and Google Forms to calculate descriptive statistics to examine students' perceptions of using AI chatbots in self-regulated writing. Meanwhile, qualitative data were analyzed using thematic analysis. Findings from the

interviews were used to enrich and clarify the survey data, providing a more comprehensive and practical understanding of students' experiences.

4. Results

4.1 EFL students' practice of using AI chatbots for self-regulated writing

Figure 1

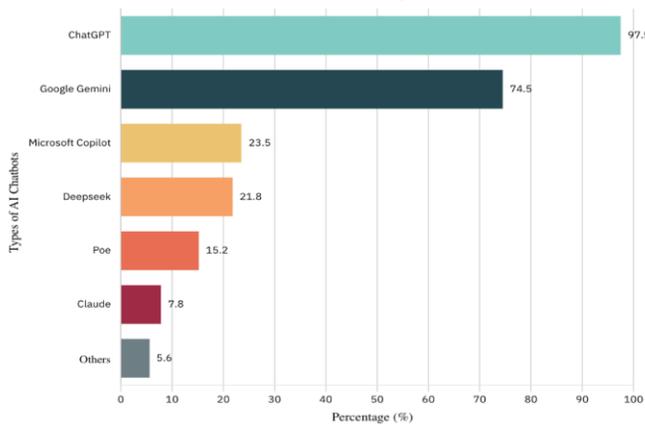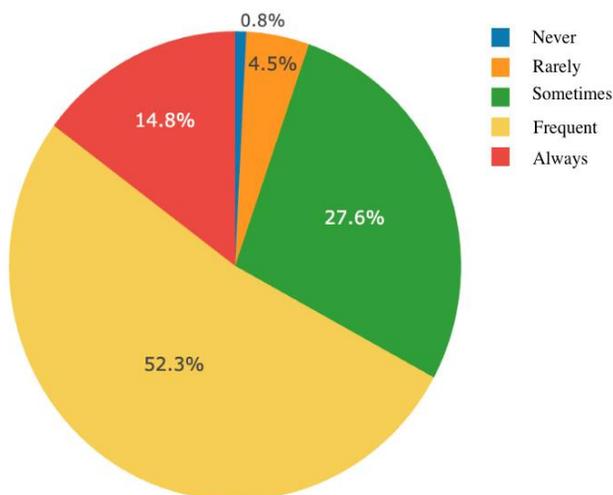*Types of AI chatbots students frequently use*

Figure 1 illustrates the distribution of different types of AI chatbots that the participants reported using. Clearly, the two most commonly used AI chatbots are ChatGPT and Google Gemini, with usage rates exceeding 70%. Notably, ChatGPT has an almost absolute percentage of usage, accounting for 97.5% of the participants. Furthermore, Microsoft Copilot or Deepseek are also used by a small number of students (20%). Additionally, a very small number of students (over 5%) use other AI chatbots such as Grok, Blackbox, or Perplexity, etc. In summary, based on the figures above, it can be seen that students are aware of and use a fairly diverse range of different AI chatbots, with ChatGPT being the most prominent.

Figure 2

Frequency of AI chatbots use in students' self-regulated writing

As shown in Figure 2, the proportion of students who admitted to engaging with AI chatbots varies in intensity but is mainly at a medium to high frequency. Over half (52.3%) frequently use AI chatbots to practice English essay writing, and another 14.8% use these tools very frequently. This indicates that AI chatbots have surpassed the "novelty" stage to become a familiar tool, especially when applied to learning and writing practice. The interview data also support the quantitative findings on this use pattern as some students shared:

I use it almost every day because it helps me a lot in improving my skills. (S1)

I use it occasionally, and the frequency increases, becoming more frequent during times like preparing for exams or supporting in-class learning (S5)

However, the higher "Sometimes" rate (27.6%) compared to "Very Frequently" (14.8%) suggests that AI is still mainly used as supplementary support rather than a primary learning tool.

Figure 3

Purpose of using AI chatbots in students' self-regulated writing
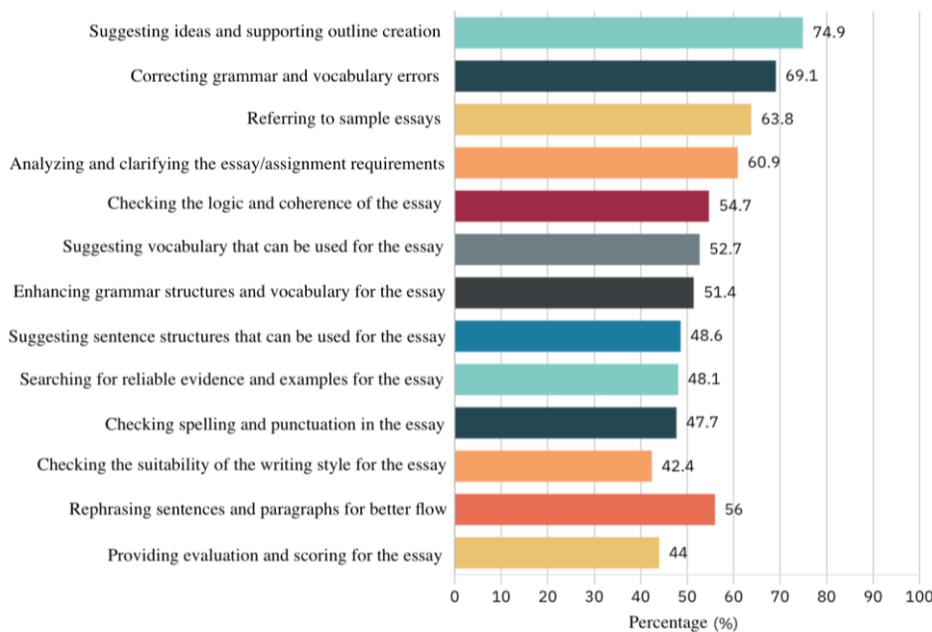

Figure 3 shows that students tend to utilize AI chatbots for various purposes across different stages of the writing process, with the highest use at the Pre-writing and Proofreading and Editing stages. Specifically, over 60% rely on AI chatbots for idea generation, analyzing essay requirements, referencing sample essays, and correcting grammar or vocabulary errors. Among them, the highest proportion (74.9%) use them for generating ideas and making outlines, which suggests that AI chatbots play a key role in shaping and organizing writing ideas. AI use during the drafting stage is also substantial (around 50%), mainly for refining sentence structure, vocabulary, logic, and coherence, contributing to more cohesive writing. The least common use is checking the appropriateness of writing style (42.4%).

However, the survey data alone may not fully capture the nuance of student engagement. The semi-structured interviews revealed additional uses beyond the listed categories. For example, students used AI chatbots as personalized tutors to generate practice exercises, or requested sample essays to learn topic-relevant vocabulary and structures:

> I usually ask AI chatbots to generate questions or exercises for me to solve. Finally, I submit my work for it to check grammar and spelling errors. (S8)

> I use it to assist with outlining, learning vocabulary, and generating sample essays. (S2)

4.2 EFL students' perceptions of the benefits and challenges of using AI chatbots for self-regulated writing

4.2.1 Benefits of using AI chatbots for self-regulated writing

Table 3

Benefits regarding students' learning productivity

Survey items	N	Mean (M)	Standard Deviation (SD)
1. AI chatbots help me save time when self-studying English essay writing.	243	3.84	1.035
2. AI chatbots help reduce the effort required to complete essays.	243	3.73	1.008

Data in Table 3 indicate that AI chatbots can help students enhance writing productivity, particularly regarding time savings (M=3.84) and effort reduction (M=3.73). However, the relatively high standard deviations (>1.0) suggest varied experiences among students. Interview findings clarify that students use these tools to efficiently address specific "idea-related" and "language-related" challenges. Crucially, participants employ AI actively to develop fragmented thoughts into concrete ideas rather than passively outsourcing assignments, as illustrated by the following responses:

> I usually try to brainstorm thoughts first, and then ask [the chatbot] to create a complete idea that I can apply to my writing. (S1)

> I usually ask AI chatbots to generate questions or exercises for me to solve. Finally, I submit my work for it to check grammar and spelling errors. (S8)

Table 4

Benefits of helping students develop language ability and English essay writing skills

Survey items	N	Mean (M)	Standard Deviation (SD)
3. AI chatbots help me develop ideas and organize thoughts clearly and effectively before writing essays.	243	3.83	1.045
4. AI chatbots help me improve my sentence expansion and sentence structure.	243	3.86	1.007
5. AI chatbots contribute to improving my vocabulary.	243	3.81	.990
6. AI chatbots help me develop critical thinking when writing.	243	3.56	.983

Survey data show that students generally view AI chatbots as beneficial for improving writing and language skills. Mean scores for idea generation, sentence structure, and vocabulary

enhancement (M=3.81-3.86) indicate consistently positive perceptions, while the lower mean for critical thinking (M=3.56) suggests more cautious endorsement in this area. Standard deviations near or above 1.0 across these items also reflect diverse student experiences, highlighting the need for differentiated support and careful integration of AI tools into writing instruction.

Beyond basic error correction, students further explained how they can learn by observing AI-generated content as learning material. Furthermore, students could utilize AI chatbots to refine the sophistication of their expression:

> I use it to write sample essays. It provides more realistic examples, showing me how to use vocabulary in context. (S2)

> It helps upgrade vocabulary or make sentences more concise, sometimes grading and fixing ideas. (S6)

Table 5

Benefits regarding the ability to personalize the learning experience for students

Survey items	N	Mean (M)	Standard Deviation (SD)
7. AI chatbots can provide personalized feedback and guidance based on specific requests.	243	3.69	.984
8. AI chatbots help detect grammar, syntax, and spelling errors and provide suggestions for correction.	243	3.86	1.011
9. AI chatbots can grade and provide detailed evaluations based on my writing.	243	3.64	.984

The mean values for statements related to the personalization features of AI chatbots range from 3.64 to 3.86, indicating that these capabilities generally enhance students' learning experiences. The highest level of agreement was found for the ability to identify grammar, syntax, and spelling errors and provide corrective suggestions (M = 3.86). In contrast, the ability of AI chatbots to grade students' writing and offer detailed evaluations received a lower mean score (M = 3.64). Standard deviations close to 1.0 also suggest varied learner experiences, implying that while many students benefit from personalization, others may need additional guidance to make full use of these features.

Table 6

Benefits of helping to foster students' positive psychology

Survey items	N	Mean (M)	Standard Deviation (SD)
10. My learning motivation and confidence in essay writing are enhanced through using AI chatbots in the learning process.	243	3.55	.996
11. Using AI chatbots makes learning to write less stressful.	243	3.67	1.028

The results in Table 6 affirm the positive impact of AI chatbots on students' psychology and writing motivation. Using AI chatbots makes learning to write less stressful (M = 3.67), as their conversational nature creates a safe and friendly environment that helps reduce students' writing anxiety. In addition, the ability of AI chatbots to adjust their communication tone

contributes to more natural interactions and greater learner interest (M = 3.55). However, the relatively high standard deviations indicate varied individual responses, suggesting that while many students benefit emotionally from AI-assisted writing, others may need additional support to fully realize these benefits.

Table 7

Benefits of promoting students' self-study ability

Survey items	N	Mean (M)	Standard Deviation (SD)
12. Using AI chatbots helps me self-study better by suggesting materials and guiding appropriate learning strategies.	243	3.70	1.031
13. AI chatbots are always available to support me in proactively improving my writing skills whenever I need.	243	3.79	1.048

The data in Table 7 indicate that most students agree or somewhat agree that AI chatbots encourage greater proactivity in self-practicing writing skills. The item "AI chatbots are always available to support me in proactively improving my writing skills whenever I need" reached M = 3.79, highlighting the convenience and flexible accessibility of these tools. Moreover, students reported receiving personalized material suggestions and learning strategy guidance suited to their abilities during interactions with chatbots, which was also rated positively (M = 3.70). Nevertheless, these figures are accompanied by relatively high standard deviations (1.031–1.048), reflecting considerable variation in students' perceptions of these benefits.

4.2.2 Challenges of using AI chatbots in self-regulated writing

Table 8

Challenges regarding dependence and limitations on students' personal development

Survey items	N	Mean (M)	Standard Deviation (SD)
5. Frequent use of AI chatbots in the essay writing learning process can lead to dependence on technology.	243	3.79	1.081
6. Using AI chatbots too much can lead to a decline in academic skills.	243	3.59	1.042
7. Dependence on AI chatbots when learning reduces my creativity and critical thinking when writing.	243	3.56	1.040
8. Using AI chatbots makes me lose autonomy in the writing learning process.	243	3.40	1.025

Concerns about overdependence and its potential impact on personal development emerged as a key challenge reported by many students. A large proportion believed that frequent use of AI chatbots in learning English essay writing carries a high risk of dependence (M = 3.79), accompanied by a high standard deviation (SD = 1.081), indicating polarized views. While many students perceived this risk as significant, others did not share the same concern. Students also worried that overreliance on AI could gradually reduce academic ability, creativity, and critical thinking, thereby limiting their academic development. In this study, participants were particularly concerned about a possible decline in their academic skills when using AI chatbots for learning support (M = 3.59).

Table 9

Challenges regarding the quality of information generated by AI chatbots

Survey items	N	Mean (M)	Standard Deviation (SD)
1. Information provided by AI chatbots is often inaccurate.	243	3.80	.930
2. The language of AI chatbots is often too complex.	243	3.42	.939
3. The feedback from AI chatbots is not detailed enough to help me improve my writing.	243	3.14	.931
4. The academic writing style of AI chatbots is unnatural.	243	3.44	.953

As detailed in Table 9, despite the time-saving benefits noted in Table 3, students identify information inaccuracy as a significant limitation (M=3.80). Learners are particularly aware of the misalignment between AI-generated content and curriculum standards, as observed by S4: "In the process of using AI chatbots, some results may not match the textbook content."

In addition, the quality of expression in AI chatbots' answers is also a relatively prominent limitation. Specifically, quite a few students reported that these tools provide responses with an unnatural writing style (M=3.44) and are too complex for the learners' desires (M=3.42).

> Personally, I find that sometimes the vocabulary it develops is too difficult and not suitable for my overall essay or for the current level I am studying at. (S5)

Moreover, AI chatbots' responses can lead to frustration when the tools fail to grasp the writer's specific intent, as described by S6: "The main difficulty... is that it doesn't respond exactly as I wish. When I want to revise a sentence's idea, it often misunderstands and gives an answer that doesn't meet my needs."

Table 10

Challenges regarding the lack of understanding of AI and students' technical issues

Survey items	N	Mean (M)	Standard Deviation (SD)
11. I have difficulty creating suitable prompts when using AI chatbots.	243	3.26	1.002
12. I do not have enough finances to use upgraded versions of AI chatbots.	243	3.67	1.070

It can be seen from Table 10 that a notable number of students cannot fully utilize AI chatbots due to financial constraints and limited understanding. Although AI chatbots offer many useful features, many students reported that insufficient funds to access upgraded versions restrict their ability to benefit from these tools (M = 3.67). The relatively high SD (1.070) suggests diverse views, with some students strongly agreeing that cost is a major barrier, while others do not perceive it as an issue. Additionally, while AI chatbots are generally effective and convenient for supporting writing development, they do not always provide the desired responses, usually because of limited knowledge of prompt formulation. S9 mentioned that: "At first, I didn't know how to use it, and there were prompts I didn't know how to create to find the desired answer".

Table 11

Challenges regarding ethical risks and privacy of AI chatbots

Survey items	N	Mean (M)	Standard Deviation (SD)
9. Using AI chatbots goes against honesty and academic integrity.	243	3.11	1.008
10. I feel that the information in the conversation between me and AI chatbots lacks privacy and security.	243	3.33	.875

Among the challenges presented, the issues of ethical risks and privacy were the lowest-rated limitations, although the mean values are still at a moderate level. Although these problems still exist, in this study, the belief that using AI chatbots is contrary to honesty and academic integrity (M=3.11), or that the privacy and security of conversations between AI chatbots and learners is not high (M=3.33), were not perceived as major challenges from the students' perspective.

4.3 EFL students' support needs to enhance the effectiveness of using AI chatbots for self-regulated writing

Table 12

EFL students' needs for support from lecturers

Survey items	N	Percent (%)
1. Organize activities using AI chatbots in essay writing classes.	243	49.8
2. Assign exercises comparing essays generated by AI and humans.	243	58.8
3. Guide on how to use AI chatbots honestly in the essay writing learning process.	243	70.0
4. Guide students on how to write effective prompts to interact with AI chatbots.	243	58.0

Students emphasized the lecturer's pivotal role in guiding AI use. As shown in Table 12, 70% desired training on ethical application. Additionally, nearly 60% sought instruction on prompt engineering (58%) and activities comparing AI-generated versus human-written texts (58.8%), while half (49.8%) advocated for integrating AI into classroom activities. Interviewees echoed this, favoring moderate, purposeful adoption over prohibition, as S11 suggested: "In my opinion, lecturers should provide guidance, not absolutely ban AI use, but should guide students on how to ask questions effectively."

With proper guidance from lecturers, students can learn to use AI chatbots more effectively to improve their essay writing skills and better meet teachers' expectations for AI use in the writing process. Such guidance can reduce trial-and-error practices, help students formulate more effective queries, and minimize the likelihood of receiving responses that do not align with their learning needs.

Table 13

Students' support needs from the institution

Survey items	N	Percent (%)
5. Have specific policies on the use of AI chatbots in teaching and learning	243	63.4
6. Organize seminars guiding AI chatbots usage skills for students.	243	58.8
7. Develop a transparent set of rules for using AI chatbots with specific instructions.	243	56.8
8. Encourage lecturers to integrate AI chatbots into teaching writing courses.	243	49.8

Beyond the classroom, students also prioritized institution-level guidance. Table 13 reveals that 63.4% requested an official handbook for responsible AI use, while 58.8% desired workshops on AI skills. Additionally, 9.1% called for institutional access to paid accounts to overcome the limitations of free versions. As S2 noted: "I think some applications with AI platforms are very useful but require payment. I think the school should provide free accounts for students." Thus, this demand for advanced features underscores students' recognition of AI as an essential, rather than supplementary, academic tool.

5. Discussion

5.1 EFL students' use of AI chatbots in self-regulated writing

The study results show that EFL students have adopted AI chatbots in their writing skill practice outside of the classroom. Specifically, ChatGPT is the most preferred tool among students. This strong preference aligns with previous observations by Karataş et al (2024), who attributed ChatGPT popularity to its superior performance and ease of use. Regarding the specific purposes of use, the findings indicate that students primarily use AI chatbots for idea generation and linguistic correction, consistent with Barrett and Pack (2023). In the process of self-regulated writing, many students rely on AI for linguistic accuracy in grammar and vocabulary to improve the overall quality of their essays, supporting the arguments of Guo & Li (2024). This reliance can be explained by AI chatbots' capability to provide instant feedback and organize content based on the users' needs. Consequently, they can identify errors and offer contextually appropriate suggestions for each individual (Song & Song, 2023).

5.2 EFL students' perceived benefits and challenges of using AI chatbots in self-regulated writing

The findings indicate that EFL students value AI chatbots for their linguistic and non-linguistic affordances, despite acknowledging certain limitations. AI chatbots can provide essential cognitive support and enhance language proficiency (Thai, 2023). Furthermore, these tools significantly improve productivity, supporting the claims of Chia et al. (2024) regarding time efficiency. Psychologically, the conversational interface of AI chatbots acts as a low-stress "virtual companion," which helps reduce students' anxiety (Vo & Nguyen, 2024) and enhances motivation (An et al., 2020). Crucially, by validating autonomous, student-initiated use, this study addresses the research gap on self-regulated learning identified by Thai (2023) and aligns with Vo & Nguyen's (2024) balanced perspective on the tool's benefits and challenges.

Despite these benefits, significant limitations persist regarding content suitability and learner autonomy. A primary challenge is the reliability of AI output, which is prone to "hallucinations" and often lacks deep academic context (Sengar et al., 2025). Furthermore, AI-generated responses may be contextually inappropriate or linguistically too complex for lower-proficiency students, leading to students' confusion (Thai, 2023). Beyond technical mismatches, excessive dependence risks eroding students' linguistic competence (Rezaee & Allahyari, 2023). As Ivanova et al (2025) note, AI-generated text often appears "lifeless, correct yet missing a soul" (p. 8), resulting in formulaic essays that may lack individual creativity.

5.3 EFL Students' support needs to enhance the effectiveness of using AI chatbots in self-regulated learning

The findings underscore that effective integration of AI chatbots in self-regulated writing practices requires shared responsibility involving both instructors and institutions, rather than falling solely on students. The students' demand for guidance on AI use directly addresses the significant ethical challenges and risks to academic integrity previously identified by researchers like Bimpong et al (2024) and Thai (2023). Proper guidance from teachers can enable students to meet instructors' expectations when using AI chatbots during the writing process, mitigating the very risks to critical thinking that Bimpong et al (2024) warned against. Such guidance is crucial for effective self-regulated learning - a key focus of this study. At the institutional level, broad dissemination of AI usage policies is necessary to address the digital divide and unequal access to technology, which Bimpong et al (2024) identified as a critical barrier to equity in education. This demand concerns how to use AI technology effectively and responsibly. The call for effective use aligns with the emerging recognition of Federiakin et al (2024) that requires formal training, moving it beyond mere trial-and-error individual effort. Consequently, comprehensive AI literacy support is essential to help students critically engage with these tools (Ng et al., 2021). By equipping learners with evaluative skills, educators can ensure that AI chatbots serve as empowering aids rather than sources of dependency, supporting both academic growth and personal development in writing.

6. Conclusion and recommendations

This study investigated EFL students' self-regulated use of AI chatbots, revealing a high prevalence of engagement, particularly in pre-writing and editing stages, which suggests AI functions as a scaffolding tool. While students valued enhanced productivity and linguistic support, they cautioned against risks regarding inaccuracy and overdependence that could erode critical thinking. Consequently, the study emphasizes the necessity of teacher guidance and institutional support to ensure responsible AI integration in EFL writing contexts.

This study has several limitations that should be acknowledged. The restricted sample size from a single Vietnamese public university may limit the generalizability of the findings across diverse educational contexts. Furthermore, this study primarily examined students' subjective perceptions rather than the actual effectiveness of AI chatbots in improving their self-regulated writing practice. Based on these limitations, several directions for future research are proposed. First, subsequent studies could expand the sample size and include more diverse participants from different educational contexts to enhance the generalizability and applicability of the findings. Second, future research could assess students' actual writing development through performance-based evaluations, thereby providing a deeper and more comprehensive understanding of the impact of AI chatbot use on students' learning outcomes.

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