



Artificial Intelligence (AI) Tools in Supporting Students Academic Writing Tasks: Benefits and Limitations

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Abstract. This study aims to explore English Language Education Study Program (ELESP) students' perceptions of the use of artificial intelligence (AI) tools in supporting their academic writing processes and identify the benefits and limitations they encounter when using these tools in their writing process. Six sixth-semester students from the ELESP were purposively selected based on their prior engagement with AI tools such as ChatGPT, Grammarly, or QuillBot in academic writing tasks. Data were collected through semi-structured, in-depth interviews that allowed participants to express their experiences openly while giving the researcher flexibility to probe further when necessary. Thematic analysis was used to analyze the findings. The findings indicate that the majority of students perceive AI paraphrasing tools as highly useful in the writing process, both in the linguistic and affective dimensions. The majority of EFL students also perceive AI tools as providing substantial benefits in supporting academic writing. Given these insights, it is suggested that educators and institutions integrate AI tools into writing pedagogy while providing explicit guidance on ethical and critical use.

Keywords: Academic Writing; Artificial Intelligence; EFL Students; Paraphrasing Tools; Student Perceptions

1. INTRODUCTION

Academic writing is an essential skill in higher education, requiring students to express their ideas clearly, logically, and supported by relevant research references. Karim and Mursitama (2015) emphasize that academic writing stands as one of the fundamental pillars of both learning and teaching at the university level, highlighting the importance of continuously improving writing skills. For students learning English as a foreign language (EFL), academic writing presents additional challenges. Ratnawati et al. (2018) found that EFL students often struggle with academic writing, particularly in the accurate use of grammar, idea development, also selecting precise and contextually appropriate word choice. Such issues not only hinder their ability to convey academic arguments effectively but may also impact their overall academic performance.

The rapid advancement of AI has introduced tools like QuillBot, Grammarly, and ChatGPT to support and enhance academic writing. These technologies are increasingly popular among EFL students, offering accessible and efficient ways to improve writing proficiency. Han et al. (2023) note that interactions with AI, such as ChatGPT, can aid essay revision and enhance writing quality. In the domain of AI utilization in education, several studies have examined how EFL students perceive the use of AI tools to support their academic writing tasks. Guo et al. (2024) revealed that AI-based chatbots can be effective tools for improving EFL students' argumentative writing skills, highlighting the potential of AI in facilitating learning. Sumakul, Hamied, and Sukyadi (2022) found that EFL students had

positive perceptions of using AI technology in their writing class. Students reported that AI helped them understand theoretical concepts, supported the writing process, and enhanced their understanding of grammar and vocabulary. Similarly, Kim et al. (2024) reported that students perceived the GenAI writing system as a tool capable of conducting topic research and utilizing technical writing skills to generate an initial draft, which helps facilitate the process of starting academic writing. Meanwhile, Bibi and Atta (2024) explored students' experiences in using ChatGPT as a writing assistant, uncovering their level of satisfaction with the technology.

While AI tools offer notable advantages, understanding ELESF students' perceptions is essential, as these shape their effective use. This study examines how students perceive the usefulness of AI in enhancing academic writing and explores the benefits and limitations they experience when integrating such tools into their writing process

2. LITERATURE REVIEW

The development of Artificial Intelligence (AI) in education has expanded rapidly, particularly in the field of English as a Foreign Language (EFL) learning. Among the four language skills, academic writing is considered the most complex since it requires not only mastery of linguistic structures but also critical thinking, organization of ideas, and adherence to academic conventions. In recent years, AI-based writing tools such as Grammarly, QuillBot, ChatGPT, and Perplexity have been increasingly used by students to support their writing processes. Previous studies show that the majority of students have positive perceptions toward these tools. Laila and Daulay (2024) found that QuillBot helped students reduce errors and improve fluency. Similarly, Safitri and Fithriani (2024) reported that students found AI tools useful in enhancing writing quality, accelerating the writing process, and stimulating creativity. Teng (2024) also highlighted that ChatGPT increased students' confidence, motivation, and collaboration in writing, while Utami Lubis and Rahman (2024) noted that Perplexity AI was appreciated for its ease of use, idea generation, and efficiency, which further improved students' confidence and competence in writing. Nevertheless, students are also aware of the limitations of AI tools. Rahmi et al. (2024) found that ParagraphAI often misinterpreted students' intended meanings, leading to dissatisfaction, though students still valued it as a writing assistant. Similarly, Rinaldy Malik et al. (2023) identified negative perceptions among some students, who expressed concerns about reduced critical thinking, overdependence on technology, plagiarism risks, misinformation, and bias in generated content.

Beyond perceptions, AI's role in academic writing has been widely studied. Selim (2024) reported that most EFL students found AI helpful for improving clarity and avoiding

plagiarism. Khan et al. (2024) found that over 80% of students believed platforms like Google Translate, ChatGPT, Grammarly, and QuillBot significantly supported their writing development. Xu and Jumaat (2024) showed that ChatGPT aids multiple stages of writing, including identifying research trends, generating outlines, enriching content, synthesizing literature, and providing revision feedback. A systematic review by Raheem et al. (2023) confirmed QuillBot's efficiency benefits but noted risks of overreliance and variable outcomes based on proficiency. Similarly, Wang and Hu (2020) emphasized that AI offers interactive activities and instant feedback to identify grammatical errors and reinforce academic writing conventions. Collectively, these studies show that AI assists EFL students in idea generation, drafting, revising, and editing, while also boosting confidence and motivation.

The use of AI in academic writing can be better understood through two theoretical perspectives: Technology Acceptance Model (TAM) and constructivism. TAM (Davis, 1989) explains user adoption based on perceived usefulness and perceived ease of use, suggesting that students are more likely to employ AI when it improves writing quality, efficiency, and idea generation with minimal effort. However, concerns about dependence and academic integrity may hinder its acceptance. From a constructivist perspective, learning involves active engagement and reflection, where students critically interpret and adapt AI-generated content to construct meaning. Together, these frameworks highlight that students' acceptance and effective use of AI depend both on its perceived benefits and their active role in learning through interaction with the tool.

3. METHODOLOGY

This study adopts a qualitative approach to gain an in-depth understanding of EFL students' perceptions of AI tools in academic writing. A qualitative design was chosen to capture subjective and contextual meanings rather than measure variables statistically. As Creswell (2009) explains, qualitative research explores how individuals construct meaning from their experiences, relevant since perceptions are complex and context-dependent. Within this framework, a case study method was employed to examine the phenomenon holistically (Priya, 2020; Yin, 2008). The research took place at the Islamic University of Kalimantan Muhammad Arsyad Al-Banjary, Banjarmasin, which has a large population of active EFL writers.

Data were collected in June 2025 through semi-structured interviews, conducted face-to-face and online via WhatsApp. Six sixth-semester students from the English Language Education Study Program were purposively selected based on prior use of AI tools such as

ChatGPT, Grammarly, or QuillBot. Criteria included active enrollment, prior writing experience, AI tool usage, willingness to participate, and reflective ability. This purposive sampling ensured relevance to the study's focus, aligning with Patton's (2002) emphasis on depth over breadth. Each interview lasted 20–30 minutes, with informed consent obtained and confidentiality ensured. All sessions were recorded, transcribed verbatim, and analyzed using Braun and Clarke's (2006) six-step thematic analysis, which enabled systematic theme identification while preserving participants' authentic voices. This analysis provided rich insights into how EFL students perceive the usefulness of AI tools in academic writing.

4. FINDINGS AND DISCUSSION

The research findings indicate that the majority of students perceive AI paraphrasing tools as highly useful in the writing process. Some of the main uses identified include:

Benefits of AI tools in supporting Academic Writing tasks

Improvement of Writing Quality

One major benefit students gain from using AI tools is the overall improvement in their writing quality. AI enhances vocabulary, sentence fluency, and academic style, which is especially helpful for those less confident in their English skills. Informant 1 shared that AI boosted their confidence when submitting assignments, as it suggested more natural vocabulary compared to Google Translate, which often sounded rigid.

"... I feel more confident when submitting assignments if I have used AI, especially in terms of vocabulary. Honestly, my vocabulary is quite limited, and I usually only use simple words, which are not really suitable for writing papers or proposal writing. That is why AI helps me a lot in choosing more appropriate vocabulary." (I1)
"Using Google Translate sometimes makes the language sound really stiff... while AI translations are more appropriate for academic writing like papers or proposals." (I1)

Informant 2 stated that AI helped improve grammar, sentence structure, and the overall academic tone of their writing. Similarly, Informant 3 admitted relying on AI to refine word choices and sentence clarity, as the tool effectively enhanced their drafts and provided alternative phrasing suggestions.

"...I feel like my writing becomes more organized and sounds more academic because AI often suggests more suitable vocabulary. It makes my work seem more 'next level.'..." (I2)

"... Sometimes I try to write in my own words, just putting down whatever comes to mind. But the words I use might not be the right fit, or the sentences turn out too roundabout, unclear, and hard to understand. So, I often ask AI to make my writing better. I just say

something like, 'please make this more suitable for a proposal,' and it fixes it, plus it even gives me alternative sentence options.” (I3)

Overall, the participants described AI as a “writing partner” that helps sharpen linguistic quality and align writing style with academic standards, resulting in more professional work.

Time and Energy Efficiency

Most informants emphasized that AI tools save time and effort by speeding up writing stages such as idea generation, reference searching, and sentence construction. Informant 1 noted that AI reduces writer’s block and accelerates idea development. Informants 2 and 3 agreed, highlighting that AI makes the writing process faster and more efficient by providing ideas and examples that guide their work

“It really saves time. Back then, before AI, I had to search manually on Google, read through everything, and find sources one by one until I got the most suitable ones. Now I do not get stuck as much when it comes to ideas either.” (I1)

“...The writing process has become much quicker. It really saves time, because before, I often spent a long time just not knowing where to start, stuck on Google. Now AI can help by giving me ideas and even examples.” (I2)

“The most noticeable benefit is probably saving time. Writing becomes much faster with AI, and when I need ideas while working on a proposal, my mind works quicker because AI already provides examples to guide me...” (I3)

Meanwhile, Informant 6 highlighted the ease of accessing relevant information without having to conduct lengthy manual searches.

“So it really helps save time. Sometimes there are so many assignments that it gets overwhelming, especially when the deadlines are close, it feels like a lot of pressure. But with AI, I just type in what I need, without having to search too much. I only need to double-check a few of the sources.” (I6)

The informants agreed that the time and energy efficiency provided by AI allows them to focus more on idea development, data analysis, and argument refinement, while reducing fatigue from the lengthy writing process.

Confidence and Motivation Enhancement

Besides technical help, AI tools not only provided technical support but also boosted students’ confidence and motivation in academic writing. Informant 2 noted that grammar feedback helped them understand mistakes, while Informant 3 felt more confident producing organized, well-structured writing. Similarly, Informant 4 described AI as a supportive

“companion” that guided initial steps like finding sources and outlining, offering reassurance throughout the process.

“...I feel more confident about my grammar after translating with AI. Sometimes I also ask AI to explain why my grammar was wrong, so it is like learning at the same time. It makes me think, ‘oh, so that is how it works.’...” (I2)

“I’m sometimes a bit afraid of making mistakes, but using AI makes me feel more confident that the structure is good, more so than when I write entirely on my own.” (I3)

“I feel more at ease, like there is ‘something that will definitely help’ Even if I’m confused, AI at least gives a bit of direction on where the writing should go. The rest can still be checked by the lecturer, and if there is a mistake, it can just be revised.” (I4)

Informants 5 and 6 shared that AI eased the writing process by providing guidance, helping with phrasing, and offering clear structure. This support reduced their insecurity about grammar, coherence, and how to start, making writing feel more directed, organized, and less stressful.

“AI gives guidance, like ‘the background should include this’ or ‘you need to add this to make it connect.’ I do not get confused about where to start looking for sources. Overall, it makes the work more directed and structured.” (I5)
“It helps me arrange words. Sometimes when I write in my own language, I feel less confident, either worried about grammar mistakes or that the sentences do not sound coherent.” (I5)

“Sometimes I try to put the words together myself, but I often feel less confident about what I have written. Usually, I ask AI to help improve it.” (I6)
“It makes writing less stressful because I do not have to worry about how to structure it, which parts to start with, or what is missing. I am not confused since the outline and examples are already provided...” (I6)

For the informants, AI not only aided the technical side of writing but also boosted their confidence and motivation. Having a “companion” during the writing process encouraged them to explore ideas and stay consistent in finishing tasks.

Inspiration and Creativity

Besides offering technical support, AI tools also inspired new ideas in academic writing. Some informants said AI’s examples and suggestions opened new perspectives and boosted creativity. Informant 5 noted that AI helped generate ideas they hadn’t considered before, leading to more diverse and richer writing.

“...Because it can be used for so many things, including generating ideas, sometimes the examples it gives spark a thought like, ‘oh, this is what I meant to write,’ which I had not initially considered. Seeing AI’s example allows me to add that to my writing.” (I5)

For informants of this kind, AI functioned not merely as a technical aid but also as a catalyst for creativity. Interaction with AI provided opportunities to explore different perspectives, expand ideas more broadly, and produce writing that was fresher and more relevant.

Limitations in the Use of AI Tools for Academic Writing

Limitations of AI in Understanding Context and Relevance

Despite the conveniences offered, several informants noted limitations in AI’s output quality. A major issue was its inability to fully grasp context, often leading to repetitive, generic, or irrelevant responses. Informants 1 and 2 mentioned that AI frequently gave repetitive answers and struggled to understand their specific writing needs.

“...Most often, the AI cannot grasp the context I provide. Sometimes my prompt is difficult or too complicated, so the AI misunderstands and produces responses that are irrelevant or disconnected. Also, if the answers are not reviewed carefully, they can end up being repetitive.” (I1)

“...The most common issue is that AI often does not align with what I am trying to find or convey. For example, even after I explain something in detail, it still gives answers that feel repetitive, as if it misunderstood me. When I read the response, it often feels inaccurate or off the mark.” (I2)

Informants 3 and 4 reported that AI responses were sometimes too general, lacked specificity, or misinterpreted prompts. This often produced irrelevant, repetitive, or circular outputs, requiring extra effort and more detailed instructions to obtain useful results.

“... Sometimes the responses are very general and often do not match the context.” (I3)

“...Sometimes the responses end up being like a summary or go off on too many tangents. That is why I have to read them carefully and extract only the main points that are relevant to my needs.” (I3)

“..When I ask it to find sources or give examples for a background section, sometimes it ends up explaining the meaning of the title instead, as if it misunderstood my request..” (I4)

“..If the prompt is not specific enough or a bit too complicated, sometimes AI gives very general answers, and then the responses become repetitive and circular.” (I4)

The findings show that AI recognizes text patterns well but struggles to grasp real meaning. When words have multiple meanings, humans interpret them by context, while AI often misinterprets them due to its lack of true understanding.

Limitations in the quality of sources

In addition to concerns about content quality, Several informants highlighted the unreliability of AI-generated sources, especially for literature searches. Informant 1 noted that AI often produced references that seemed relevant but were inaccurate or invalid, prompting reliance on other tools like Perplexity. Informant 3 experienced nonexistent or inaccessible journal sources, while Informant 4 found that some references had convincing titles but empty or broken links, requiring careful verification before use.

“... With references, AI often provides sources that are not quite accurate. It is strange, when I click on them, the titles sometimes do not match or the source turns out to be invalid. For example, with ChatGPT, it occasionally mentions a journal or article, but when I check, it either does not exist or the title does not match. Since this is for academic assignments, I do not want to use unreliable sources. Therefore, for references, I more often rely on Perplexity.” (I1)

“I once asked for journal references, and it listed titles and authors that turned out not to exist when I checked. So now I never copy and paste automatically, I always verify the links first.” (I3).

“...Sometimes the titles AI provides do not match the links when I click on them, and some links are even empty. So I always have to double-check the sources...” (I4)

This issue forced informants to manually verify each AI-generated source, checking its relevance, validity, accuracy, and availability. For some, this extra step became burdensome, as they had expected AI to simplify the reference search but instead had to spend more time ensuring the sources were credible and accessible.

Feature and Access Limitations of Free AI Tools

Several informants highlighted access and cost limitations of AI tools, especially free versions, including daily chat limits, restricted features, and lower quality. Informant 1 noted that chat limits required restarting discussions, which could be disruptive. Informants 2 and 3 agreed that AI use was generally safe and sufficient, as long as it remained free, with chat limits considered reasonable for no-cost services.

“... There is a limit to the conversation, so I have to start a new chat, retype the prompt, and go through the discussion again. It can be a bit disruptive because I have to repeat the process multiple times.” (I1).

“So far, it has been completely safe. Nothing unusual has happened, the only limitation is the daily chat limit, which is because the AI is free.” (I2)

“All the features can be tried for free, and for me, that is fine, as long as it remains free and continues to be helpful..” (I3).

Informant 6 mentioned that using AI tools generally ran smoothly without major issues, though some limitations slightly reduced convenience. They noted that full features and optimal responses were only available in the paid version, making the free version less effective due to restricted access to advanced academic search functions.

“So far, I have not really experienced any major issues, it has been running smoothly.” (I6)

“...The full features are only available in the paid version. For example, in Perplexity, academic features such as more up-to-date and comprehensive source searches are limited. Those using the free version do not have access, so it feels somewhat lacking.” (I6).

Despite the limitations, several participants, including Informants 4 and 5, preferred to keep using the free version due to its sufficient benefits. Informant 4 mentioned that the daily chat limit disrupted their workflow, while Informant 5 stated that AI was safe and convenient but saw no need to pay since the free features already met their needs.

“The main limitation is the daily chat limit, which requires starting a new conversation. It can be a bit annoying because I have to rewrite the prompt and reconnect the discussion each time.” (I4).

“Not really. So far, using AI has been completely safe.” (I5)

“I only use the free version. For the paid one, I would probably just do it manually. Since I usually use only the basic features, paying for it feels a bit unnecessary.” (I5).

The findings of this study show that students in the English Language Education Study Program (ELESP) perceive AI tools as providing substantial benefits in supporting academic writing, both in the linguistic and affective dimensions. These benefits include increased confidence and motivation, improved writing quality, time efficiency, and stimulation of creativity. The presence of AI serves as scaffolding, aligning with the constructivist notion that external support helps learners move beyond their limitations within the *zone of proximal development* (Vygotsky, 1978). Similarly, Huang (2025) reported that AI technology strengthens EFL students' self-concept and confidence.

Students also perceive that AI enhances the quality of writing through improved grammar, vocabulary, and coherence, enabling them to produce more formal and academically appropriate texts. This supports the *Technology Acceptance Model* (Davis, 1989), which posits

that perceived usefulness influences technology adoption. Correspondingly, Khampusaen (2025) found that ChatGPT significantly improved students' writing quality in terms of content, organization, and language use. Another notable benefit is time efficiency. AI's instant feedback accelerates brainstorming, drafting, and revising, allowing students to engage in more cycles of reflection and refinement. Amani and Bisriyah (2025) observed that students in East Java used AI for self-regulated writing, particularly during the planning phase, while Teng (2024) emphasized that students in Macau perceived AI as a "companion, not an enemy," reinforcing its role as a supportive rather than substitutive tool. AI also fosters creativity and idea generation, serving as an inspiration source that introduces new perspectives and conceptual directions. From a constructivist perspective, this reflects how learners actively interpret and adapt AI-generated ideas to construct meaning in their writing, illustrating a collaborative knowledge-building process between human and digital agents. Overall, students perceive AI as a supportive partner that enhances their linguistic competence, motivation, and reflective writing practices.

Despite these notable benefits, the findings also reveal several limitations in students' experiences with AI tools, particularly regarding contextual accuracy, reference validity, and access restrictions. The first limitation concerns contextual understanding, as students report that AI often misinterprets prompts, producing general or misaligned outputs that lack academic depth. This indicates that AI still lacks human-like comprehension of nuanced contexts. Within the Technology Acceptance Model (Davis, 1989), such issues reduce perceived ease of use, even if perceived usefulness remains evident. Similarly, Kasneci et al. (2023) highlight that ChatGPT outputs tend to be generic and require user refinement to ensure academic relevance. The second limitation involves reference validity. Students frequently encounter fabricated or unverifiable references generated by AI, known as "hallucinated" citations, which threaten academic credibility and integrity. Within the process writing framework, this issue disrupts argument development and revision stages that rely on trustworthy sources. Jamaluddin et al. (2023) note that one of the most problematic forms of AI hallucination is the generation of false but plausible bibliographic entries, which can mislead users if not verified. Therefore, students must critically evaluate all AI-generated references. The third limitation concerns restricted access and functionality. Many students depend on free AI versions that limit interactions, response length, or access to advanced features, thereby interrupting writing flow and comprehensive use. Nevertheless, some overcome these constraints by saving responses or combining multiple tools, reflecting creativity and learner autonomy. El-Garawany (2024) found that students perceive free AI

versions as insufficient for advanced writing support due to the absence of key premium features. From a constructivist perspective, however, these limitations may still encourage independent learning, as students integrate AI tools with personal strategies rather than relying solely on automation

5. CONCLUSION AND SUGGESTIONS

This study concludes that EFL students view AI tools as valuable companions in academic writing, enhancing linguistic accuracy, writing quality, time efficiency, confidence, motivation, and creativity. These findings align with Vygotsky's (1978) constructivist principle that external scaffolding extends learners' capabilities and the Technology Acceptance Model (Davis, 1989), which links perceived usefulness to continued use. Despite these benefits, students faced limitations such as contextual misinterpretation, unreliable references, and restricted access to premium features, requiring extra effort to verify and refine outputs. Nevertheless, they demonstrated autonomy by integrating multiple resources to overcome these challenges. The study suggests integrating AI into writing pedagogy with guidance on ethical and critical use, and providing institutional support such as access to premium features to maximize educational benefits. Students should view AI as a collaborative aid rather than a replacement for human reasoning. Future research could compare the effects of free versus paid AI versions on writing development and explore how accessibility impacts motivation, autonomy, and sustained technology use in EFL contexts.

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