

Perceived Benefits of AI Chatbots and Writing Assistants among EFL Students in Higher Education

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Abstract: This study aims to examine how EFL students in higher education perceive the benefits of AI-powered chatbots and writing assistants, particularly in helping them complete academic assignments. The goal is to understand students' real-world experiences when using tools such as ChatGPT, Grammarly, QuillBot, and DeepL in their writing process. This study employs a qualitative method with a phenomenological approach to thoroughly explore the students' experiences. Twelve EFL students participated, and all of them actively used AI to complete writing assignments. Data was collected through semi-structured interviews and documentation, then analyzed using the Miles and Huberman model (data reduction, data display, coding, categorization, and concluding). The research findings revealed that AI significantly assists students in improving grammar, vocabulary, sentence structure, developing ideas, and enhancing overall writing quality. Additionally, they reported that the writing process became faster, easier, and less stressful. Many participants noted increased confidence and motivation, as AI provides immediate feedback and helps them revise their writing more effectively.

Keywords: AI Chatbots, Writing Assistants, EFL Students, Academic Writing, Student Perceptions, Qualitative Study, Higher Education

Introduction

Use of Artificial Intelligence (AI) in the field of education is growing rapidly, especially in academic writing in higher education. Many students use AI chatbots as well as writing assistants, such as ChatGPT, Grammarly, and QuillBot, in various stages of writing. The use of these tools is perceived to help students in completing their writing tasks more effectively. There are many EFL students who find writing a difficult skill to master, as they have limited exposure to English and lack confidence in expressing their ideas. Therefore, AI tools are used by many EFL students as a practical solution in completing their writing tasks. In addition, many students depend on these tools for their daily academic activities. Thus, AI has become an integral part of the academic writing processes of higher education.

AI is increasingly used in many aspects of human life. One of the issues where AI plays an important role in higher education is academic writing. Many students depend on AI to help them complete writing tasks in higher education. For EFL students in particular, academic writing is considered difficult. This research attempts to explore the issue of how AI affects students' learning experiences in academic writing in higher education. From previous studies, it can be seen that AI greatly affects how students complete their academic writing. Students with the help of AI are able to write more effectively and work faster, and indeed feel less anxious. The aim of this study is to explore the perspectives of the students in this research in greater depth and to see how they perceive the benefits that AI writing tools can bring to support their learning experiences. The perspectives of students who have used AI for their writing greatly affect the way they complete their writing in academic settings. The findings of this study support the previous research on how students, with the aid of AI, complete their writing tasks more effectively and are able to work better. Findings of this study also attempt to describe and explain the benefits that students see in the use of AI in support of their learning of writing in academic

settings. It can be said that the way students complete their writing with the aid of AI greatly affects their learning experiences in academic writing.

Given the fact that there are few studies that have fully examined the perceived benefits of students in higher education learning environments (Rozaimie & Mumin, 2025; Nisa et al., 2025), this study intends to provide an in-depth account of how EFL students perceive the benefits of utilizing AI chatbots and writing assistants in their learning of writing in higher education. As Baskara (2023) stated, there are two categories of AI tools that are frequently utilized by students in higher education, namely AI chatbots and writing assistants. This study particularly refers to the term perceived benefits of students in utilizing AI chatbots and writing assistants for completing their academic writing in higher education. The study aims to explore how EFL students perceive the benefits of using a variety of tools in their learning to write in higher education settings. The findings from this study will help to give a deeper insight into how AI can be effectively used as a tool for learning to write without depriving students of their critical thinking skills.

Our initial study of EFL students in higher education observed their use of several AI chatbots and writing assistants during different stages of their writing processes. Although their use of such tools varied depending on the individual students' needs, abilities, and levels of awareness, the preliminary study found that numerous students used various forms of AI to support their writing in several different ways. By allowing students to instantly check their written work for mistakes and to immediately receive feedback, the use of such tools has led to many students completing their written assignments and revising their work independently, prior to submitting it to teachers for feedback. Many students reported the positive effect that AI had upon their writing, reporting that it made their writing easier and allowed them to complete their writing in a shorter space of time. In this way, the use of such AI tools has become an integral component of many students' approaches to writing. However, the findings from the preliminary study highlighted a number of concerns regarding the potential misuse of such tools by students.

Overall, the use of AI in academic writing appears to be a complex phenomenon, requiring more in-depth study, in terms of how it can be best used, in order to support learning, while at the same time ensuring that students do not use the tools in order to avoid carrying out thoughtful and critically evaluated writing. There was also the potential for AI to replace human teacher feedback altogether, with the result that students did not receive the support that they required in order to learn how to improve their writing on an ongoing basis. In this way, the findings from the preliminary study provided initial insight into the study's theme, while at the same time highlighting the need for a more in-depth study into the use of AI in EFL students' higher education writing.

The purpose of this study is to investigate the benefits perceived by EFL students in higher education regarding the use of AI chatbots and writing assistants. Specifically, the study is designed to explore the ways in which students understand and experience the advantages of utilizing various types of AI writing tools to support and improve their writing in English as a second/foreign language. Most of the previous studies that have been conducted on the use of AI in writing reported on a variety of aspects of the use of AI, including general experiences of users, problems they encounter while using the technology, and overall impacts of the technology on writers. While these studies are beneficial in helping to gain insight into the impacts of AI on writers and writing, they do not provide sufficient information about the perceived benefits of the use of AI by writers. Therefore, the main focus of the present study is on the perceived benefits of the use of AI by EFL students. The reason for focusing on the perceived benefits is that students' perception of the use of technology in general and AI in particular plays a significant role in how they use technology in their learning to write. By exploring the benefits perceived by EFL students regarding the use of AI chatbots and writing assistants, this study aims to help teachers of writing

and writers themselves to understand how AI can be utilized effectively and beneficially to improve the academic writing of EFL students.

There have been a number of studies conducted by prior researchers who examined the use of AI for writing in a variety of fields. For example, Tampippi and Tan (2025), Eleftheriou et al. (2025), Rozaimie and Mumin (2025), Munawaroh (2024), and Nisa et al. (2025) share students' and tutors' experiences in utilizing AI tools for completing their academic writing. Then, there are a number of studies which review the benefits of using AI in EFL teaching and academic writing, such as Nasution et al. (2024), Bista and Bista (2025), Tran et al. (2025), Vera (2023), and Baskara (2023). The use of AI in academic writing also has its own challenges. This is described by prior researchers, namely Bista and Bista (2025); Tran et al. (2025); Yilin et al. (2023); Akbarani and Pamungkas (2023); and Royani and SiHombing (2023). In addition, there are a number of studies that look at the effect of using AI on students' writing skills as well as their academic achievements. Such studies are written by Khampusaen (2025), Lo et al. (2025), Semel and Uli (2026), Pervaiz et al. (2025), and Jamshed et al. (2024). The four dimensions mentioned above that have been examined by prior studies in terms of the use of AI for writing are experience, benefits, challenges, and impacts. In terms of benefits, there are still no clear results. Therefore, further studies are needed, especially with a more focused context or setting such as EFL universities. This study is an attempt to fill the gap. The literature gap that this study is trying to fill is a contextual gap.

Research Question

1. Why do AI chatbots contribute to the improvement of EFL students' writing skills in higher education contexts?
2. What benefits do EFL students perceive when using AI writing tools in their writing process?
3. How do AI writing tools help EFL students improve their writing skills in terms of grammar, vocabulary, ideas, and sentence structure?
4. What difficulties do EFL students face in integrating AI chatbot assistance into their own writing process?

Methods

This study employed a qualitative research method specifically using a phenomenological approach to explore and describe the research participants' lived experiences and perceived benefits that they experienced while utilizing AI chatbots and writing assistants in EFL academic writing activities. The study focused on the ways in which the participants personally made sense of and interpreted the roles that the AI tools performed and perceived the benefits they experienced in utilizing the technology in supporting them to improve their writing. The participants in this study consisted of 12 EFL students from TBI classes at one of the higher education institutions located in the city of Curup, Indonesia. The students have experience of utilizing various types of AI technologies, such as chatbots and writing assistants, including but not limited to ChatGPT, Grammarly, QuillBot, and DeepL, while completing their assigned EFL writing tasks. The participants were selected for the study because they were users of AI technologies in the processes of completing their assigned writing tasks.

In this study, purposive sampling was used. The researcher selected the participants on purpose because they met the specific criteria. They were students who frequently used AI chatbots and writing assistants for their academic writing and who had enough experience in integrating AI in their learning processes.

The data for this study were collected using qualitative research methods, specifically through semi-structured individual interviews with the participants and also through documentation. Each interview was recorded and then later transcribed. Through the interviews,

the researcher aimed to gather in-depth information regarding the participants' experiences, perceptions, and understanding of the various AI technologies that they use in support of their academic writing. The interview questions covered four key areas, namely (1) the range of AI technologies that the students use for writing, (2) the perceived benefits of AI for the students' writing, (3) how the students believe that AI can support aspects of their writing such as grammar, vocabulary, ideas, and sentence construction while they complete their writing, and (4) how the students believe that AI can support their own writing while at the same time causing them problems with their writing. The written documentation that was collected included the students' actual writing tasks and examples of how the students used the AI technologies during the writing process. These samples of the students' use of AI for writing provided supporting evidence for the interview data collected from the students.

The data analysis for this study followed a qualitative analysis model developed by Miles and Huberman. The three main stages of data analysis for this study were data reduction, data display, and conclusion drawing or verification. In the data reduction stage, the researcher sorted through the data from the interviews and related documents, selecting, simplifying, organizing, and reducing the raw data. The researcher read through all of the transcripts from the interviews and noted down important points relating to the research questions and the ways in which students had experienced using the AI tools for their writing. These points were then coded and grouped together under several different themes. The researcher excluded any data that was deemed to be irrelevant to the study.

In the second stage, the data reduction results are organized and presented in a systematic manner and are displayed within themes or categories of data. This results in a number of written accounts of the findings from the interviews, as well as tables that compare data across the participants and draw out similarities and patterns, as well as any differences.

The final stage of analysis was the process of conclusion drawing and verification. In this final stage of analysis, the researcher made sense of his findings and drew some conclusions with reference to the emerging themes, patterns, and contrasts found in the data. These conclusions were verified on an ongoing basis against the interview data and the documentation data in order to ensure that the analysis was consistent and credible.

Results and Discussion

Result

Findings: Academic results show that the usage of ChatGPT changed the way learners in university working positions study foreign languages in both positive and negative directions. Since the researchers looked at interview data, observation records, and notes, many important themes were found regarding how ChatGPT supports learning activities. Research data shows that ChatGPT helped learners with speed, linguistic skill growth, and internal drive. Even though ChatGPT is helpful, the investigation also identified worries about relying too much on machines and wrong information. It has been observed that these findings show the actual lives of learners when they use AI tools in their university tasks.

Research Question 1: Why Do AI Chatbots Contribute to the Improvement of EFL Students' Writing Skills in Higher Education Contexts?

Regarding the first research question, five main themes were identified by the investigators. Many people believe that these themes show how learners experience ChatGPT during their education.

Theme 1: Easier and Faster

Learning Most results indicate that ChatGPT makes the process of studying simpler and more rapid. Because learners get instant corrections, participants said that ChatGPT helps them

finish their work tasks. Respondent 6 mentioned that ChatGPT provides assistance with difficult word meanings without searching many websites.

Theme 2: Improvement in Writing, Vocabulary, and Grammar Skills

Linguistic growth in writing and grammar was another significant result of the investigation. Respondent 1 stated that her writing is better because ChatGPT gives academic examples.

Theme 3: Increased Motivation and Confidence

Learners feel braver and more motivated when they use ChatGPT for their studies. Respondent 11 said that confidence is increased because ChatGPT allows for checking answers before submission.

Theme 4: Promotion of Autonomous

Learning Independent study was also a very important theme found in the data. Respondent 3 explained that learners study at any time without waiting for a teacher.

Theme 5: Over-Reliance and Surface Learning

However, there are some participants' views that they overuse ChatGPT. Respondent 6 said, "I copy and paste sometimes without fully understanding the materials."

Research Question 2: What Benefits Do EFL Students Perceive When Using AI Writing Tools in Their Writing Process?

Theme 1: Writing Efficiency

The findings showed that there were many benefits that EFL students got from using AI chatbots and writing assistants during the writing process. These benefits were grouped into five major themes, starting with the first theme, which was about the writing efficiency provided by AI tools to the students. As Respondent 11 said in her writing protocol, "I finish my assignment on time because with the help of AI writing tools, I can complete my writing and then I can revise it quickly." This indicated that using AI writing tools helped the students to complete their writing tasks on time efficiently.

Theme 2: Confidence Improvement

Another important theme was confidence improvement. Many participants explained that AI increased their confidence because they could check grammar, vocabulary, and sentence structure before submitting assignments. Respondent 1 stated, "I feel more confident because AI helps me check grammar and vocabulary mistakes."

Theme 3: Anxiety Reduction

The findings also revealed that AI reduced students' anxiety during academic writing activities. Respondent 4 stated, "Writing in English makes me nervous sometimes, but AI helps me feel less stressed."

Theme 4: Motivation Enhancement

Another dominant finding was motivation enhancement. Several participants stated that AI increased their motivation because writing became easier and more interesting. Respondent 8 explained, "AI makes me more motivated because writing becomes easier and more interesting."

Theme 5: Learning Support Perception

The concluding subject deals with the way students see AI as a support for their education. Many people believe that AI functions as a technology tool and as a helper for schoolwork that supports studying by oneself. Respondent 10 stated, "AI feels like a learning partner during writing activities."

Research Question 3: How Do AI Writing Tools Help EFL Students Improve Their Writing Skills in Terms of Grammar, Vocabulary, Ideas, and Sentence Structure?

Regarding the third research question, the results showed five major themes concerning the progress of students in writing after utilizing AI chatbots and writing assistants. Five major themes were identified in the results when students utilized AI tools for their writing skill development. It has been observed that the improvement of students occurs because AI provides constant feedback.

Theme 1: Grammar Improvement

The correction of sentence rules appeared as the most frequent result among those who participated. Many individuals seeking education explained that AI assisted them in seeing errors in sentence construction rules and in making the accuracy of sentences better. Respondent 1 stated, "AI improves my grammar by correcting mistakes and explaining them clearly."

Theme 2: Vocabulary Development

A different significant result was the growth of word knowledge. Participants claimed that AI showed them word choices that are more suitable for an educational institution. Respondent 8 stated, "It gives me better word choices so vocabulary becomes richer."

Theme 3: Idea Development

The data also indicated that AI helped students when they were building and arranging their conceptual thoughts. It has been noted that AI assists students when they are stuck in the middle of a paragraph. Respondent 6 explained, "AI helps me continue writing when I get stuck in the middle of the paragraph."

Theme 4: Sentence Structure

Improvement: The identification of a different theme involved the arrangement of words in sentences. People who participated mentioned that AI assisted them in creating sentences that are easy to understand and well-arranged. Respondent 11 stated, "AI helps me make sentences more structured and understandable."

Theme 5: Overall Writing Quality Enhancement

The last subject demonstrated that AI made the general quality of scholarly composition of text better. Experts claim that the writing of students became more logical and easier to read when AI tools were used. Respondent 10 stated, "AI improves the quality of my writing because the paragraphs become clearer."

Research Question 4: What Difficulties Do EFL Students Face in Integrating AI Chatbot Assistance into Their Own Writing Process?

Theme 1: Over-Reliance on AI

One of the biggest problems EFL students have to deal with when using chatbots and writing tools is over-reliance on these tools for assistance. Most of the students admitted to using AI to complete their writing tasks, and in many cases, even depended on it for providing them with answers to questions in academic writing. This over-reliance by EFL students on using chatbots to complete their tasks to write better means that they lack independent ideas for solving problems to write better in academic writing. On the other hand, it also means that these students have failed in using chatbots to improve their own writing skills, as they are unable to think critically for themselves. This over-reliance on chatbots and writing tools for assistance to complete writing in academic settings hinders the learning process of EFL students and is a major problem they face in fulfilling the purpose of completing writing tasks.

Theme 2: Accuracy Issues

The second set of difficulties is accuracy issues. Many of the EFL students reported that they encountered several problems with the AI chatbot responses, for instance, how the AI would give incorrect grammar explanations. One of the EFL students explained that there were times when AI responses were confusing or inconsistent. This points to the need for EFL students to still develop critical evaluation skills in order to effectively utilize information from AI chatbots.

Theme 3: Ethical Concerns

Other findings relate to ethical concerns about plagiarism and academic dishonesty. These concerns were found to be well understood by students, and some students even commented on the possibility of other students copying and pasting entire AI writings without editing them. For instance, Respondent 10 wrote, “I think some people might copy and paste AI writings and then just edit them a bit to make them sound more original.”

Theme 4: Technical and Prompt-Writing Difficulties

Some students reported technical problems or difficulties with prompt writing. For example, Respondent 12 said, “I have a problem writing an effective prompt to get a good answer for me.”

Theme 5: Reduced Critical Thinking

The final theme revealed by this study, that of how AI can reduce the critical thinking skills of students, was of concern to the two participants who discussed this theme. Respondent 1 explained that “the use of AI would make students less active in thinking for themselves” and that this could have very negative effects on their learning.

Discussion

This study explored the significance of AI chatbots and writing assistants in supporting EFL students in their higher education studies, particularly in their academic writing. The study discovered that, apart from being a technological tool to support students’ writing, AI has also become a learning companion that supports EFL students’ cognitive, emotional, and academic development in writing. This study was qualitative phenomenological in nature. The study explored the lived experiences, perceptions, and personal meanings of EFL students’ use of AI chatbots and writing assistants in their academic writing. The findings of the study demonstrated how students experienced the benefits and challenges of AI in their real-life educational contexts. These were the characteristics of phenomenological research.

The findings from the research question 1 on how AI chatbots can support EFL students’ writing skills revealed that a number of students perceived that the use of AI chatbots could improve their writing skills. The primary functions of AI chatbots identified by the students included providing writing support, immediate feedback, idea generation, and support for independent learning. Most of the students described the use of AI chatbots in relation to how they supported writing at different stages, from idea generation to revising and editing. The findings from this research question are therefore consistent with the Technology Acceptance Model (Alghasab, 2025; Hwang et al., 2025), which explains that users will continue to use technology when they find it useful and easy to use. Furthermore, AI chatbots also function as a scaffold, as defined by sociocultural theory, that supports students in completing writing tasks to promote more independent learning. The use of AI chatbots to support EFL students’ writing skills is therefore consistent with the findings of Duong and Chen (2025) and Apriani et al. (2024), who reported that AI chatbots can provide immediate and personalized assistance to support the writing development of EFL students. The findings from this research question also provide insight into the personal experiences that students have when using AI chatbots to support their writing from a phenomenological perspective.

For research question 2, the findings of this study showed that there were many benefits of using AI chatbots and writing assistants by EFL students in higher education, such as writing efficiently, having confidence in writing, reducing anxiety in writing in English, and increasing the willingness to write in English. These benefits were felt by the students when they wrote their assignments using AI chatbots and writing assistants. They wrote their assignments quickly and accurately. They felt less anxious and worried when writing in English using AI chatbots and writing assistants. They were confident in writing using AI chatbots and writing assistants. They were

motivated to write using AI chatbots and writing assistants. These findings are in line with previous studies such as Song and Song (2023), Marzuki et al. (2023), and Stöhr et al. (2024). These studies stated that AI chatbots and writing assistants can reduce anxiety in writing in English and increase motivation to write in English for EFL students. Using AI chatbots and writing assistants created a safe environment for EFL students to write in English. In this environment, students felt safe to express their ideas and opinions in writing in English using AI chatbots and writing assistants. This study supports the constructivist learning theory. The students interacted with AI chatbots and writing assistants in the learning process. They used the tools to revise and improve their writing in academic writing. From a phenomenological research perspective, the findings of this study indicated how the students felt when using AI chatbots and writing assistants in their writing process. The students felt less anxious and worried. They felt confident in writing. They felt motivated to write. These feelings showed how the students personally experienced the use of AI chatbots and writing assistants in their writing process.

The findings from research question 3 support previous studies on how AI contributes to improving students' writing by enhancing grammar, vocabulary, idea organization, and overall quality of their writing (Marzuki et al., 2023; Apriani et al., 2024; Duong and Chen, 2025). The study found that there were noticeable improvements in grammar and other writing skills of the students who used AI writing tools in their academic writing. The improvement in grammar was the most dominant finding, as most of the students commented that not only did the AI writing tools correct their grammatical errors, but also explained the errors to them. In addition, some of the students mentioned that there were noticeable improvements in their vocabulary use and idea organization as the AI provided them with suggestions of more suitable and academic words as well as better organization of ideas in their paragraphs. These improvements indicated that there was support from the AI writing tools for the students in achieving better writing skills during the writing process. This finding supports the findings from the study by Marzuki et al. (2023) on the use of AI by students in improving their writing skills. This finding also supports the constructivist learning approach, as students learned by actively interpreting the information that they obtained from the AI writing tools during the writing process. The students' interpretation of the information that they obtained from the AI writing tools indicated that their academic writing skills were improved as they wrote with the assistance of the AI writing tools. This finding also supported the phenomenological interpretation of the use of AI by students in their academic writing, as the students used the AI writing tools interactively in order to improve their writing skills. Thus, the students' experiences with the use of the AI writing tools indicated that the AI writing tools had helped the students to improve their writing skills during the writing process.

For the findings of research question 4, the study identified several challenges that students experienced when using AI for writing. These challenges were divided into over-reliance on AI by students, inaccuracy of information provided by AI, ethical concerns of using AI for writing, and limitations of students in using AI effectively for writing through proper prompt-writing skills. Over-reliance on AI by students for writing purposes was the most dominant challenge encountered by the participants in the study. Most of the participants in the study admitted that they were too dependent on the use of AI for their writing purposes. This was due to the convenience of using AI for writing purposes.

The findings of the study on the challenges of using AI for writing purposes by students were consistent with the findings of Marzuki et al. (2023) and Luo (2025). These two researchers explained that excessive dependence on AI by students for writing purposes could lead to a decrease in critical thinking skills and originality of students for their academic writing purposes. Although AI has many advantages for students who are engaged in writing for their academic purposes, there are also some disadvantages to using AI for writing purposes by students. Some of the disadvantages of using AI for writing purposes by students need to be addressed by

students and teachers in order to ensure that students use AI effectively and responsibly for improving their writing skills for their academic purposes. From a phenomenological perspective, the challenges that were experienced by the participants in the study on the use of AI for writing purposes were real challenges that the participants experienced during their use of AI for writing purposes.

Conclusion

This study explored the perceived benefits of AI chatbots for EFL students in higher education through an examination of how they are used to support students' writing in various ways. Findings from the current study revealed that several AI tools, including ChatGPT, Grammarly, QuillBot, and DeepL, are perceived by students to support aspects of writing such as brainstorming, planning, and organization, as well as reviewing and editing written work for grammar errors, adding more suitable vocabulary, and rewriting sentences to improve overall writing quality. The majority of participants stated that they use AI tools for completing writing tasks more efficiently and autonomously, describing them as 'user-friendly' and 'practical'. This study found that, in addition to supporting the writing process, the use of AI chatbots and writing assistants also provided students with a range of important emotional and motivational benefits. These findings suggest that AI has the potential to support both the cognitive and affective aspects of language learning.

In the meantime, several problems regarding the use of AI tools for academic writing have come to the surface. A number of participants referred to over-reliance on AI as the biggest problem. This was followed by a range of accuracy issues, such as incorrect word usage and factual inaccuracies, as well as the ethical use of AI to complete assignments. Some of the participants reported that they struggled to write suitable prompts for the AI to respond to. This highlights the fact that although AI tools can be used to complete a number of aspects of the writing process, it is not able to replicate the human element of writing, such as the insight and critical thinking that a lecturer can bring to a piece of work. Because of this, it is essential that students use the technology in a responsible manner in order to maintain their academic integrity and to continue to develop as independent learners.

References

- Alghasab, M. (2025). Investigating EFL students' ChatGPT usage and attitudes through the lens of the Technology Acceptance Model (TAM). *EduPIJ*.
- Akbarani, R., & Pamungkas, F. D. (2023). The challenges of using artificial intelligence in academic writing. *Annual International Conference on Islamic Education (AICIED)*.
- Apriani, E., et al. (2024). Impact of AI-powered chatbots on EFL students' writing skills, self-efficacy, and self-regulation: A mixed-methods study. *Global Educational Research Review*, 1(2), 57-72.
- Baskara, F. X. R. (2023). Integrating ChatGPT into EFL writing instruction: Benefits and challenges. *International Journal of Education and Learning*.
- Bista, K., & Bista, R. (2025). Leveraging AI tools in academic writing: Insights from doctoral students on benefits and challenges. *American Journal of STEM Education: Issues and Perspectives*.
- Cisłowska, A. I., & Pena-Acuna, B. (2024). Integration of chatbots in additional language education: A systematic review. *European Journal of Educational Research*.
- Duong, T.-N.-A., & Chen, H.-L. (2025). An AI chatbot for EFL writing: Students' usage tendencies, writing performance, and perceptions. *Journal of Educational Computing Research*.
- Eleftheriou, Ahmer, & Fredrick. (2025). Balancing ethics and support: Peer tutors' experiences with AI tools in student writing. *Contemporary Educational Technology*.

- Gayed, J. M., et al. (2022). Exploring an AI-based writing assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, 3, 100065.
- Hwang, M., Lee, E., & Lee, H.-K. (2025). Exploring EFL learners' acceptance of ChatGPT: Application of the extended Technology Acceptance Model. *English Teaching*, 80(1), 45–69.
- Jamshed, M., Ahmed, A. S. M. M., Sarfaraj, M., & Warda, W. U. (2024). The impact of ChatGPT on English language learners' writing skills: An assessment of AI feedback on mobile. *International Journal of Interactive Mobile Technologies (IJIM)*.
- Khampusaen, D. (2025). The impact of ChatGPT on academic writing skills and knowledge: An investigation of its use in argumentative essays. *LEARN Journal: Language Education and Acquisition Research Network*.
- Lo, N., Wong, A., & Chan, S. (2025). The impact of generative AI on essay revisions and student engagement. *Computers and Education Open*.
- Marzuki, et al. (2023). The impact of AI writing tools on the content and organization of students' writing. *Cogent Education*, 10(1).
- Munawaroh. (2024). Exploring EFL students' experiences in using AI tools to support academic writing. *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial*.
- Nasution, K. Y., Sihite, R. A., & Hartati, R. (2024). Exploring the role and benefits of ChatGPT AI in enhancing students' fiction writing literacy: Insights from learner experiences. *Fonologi: Jurnal Ilmuan Bahasa dan Sastra Inggris*.
- Nisa, Basya, & Nugraheni. (2025). Exploring undergraduate students' experiences of using ChatGPT in the EFL academic writing classroom. *Journal of English Language Proficiency*.
- Pervaiz, H., Ali, K., Razzaq, S., & Tariq, M. (2025). The impact of AI on critical thinking and writing skills in higher education. *The Critical Review of Social Sciences Studies*.
- Rozaimie & Mumin. (2025). ChatGPT integration in writing development: Student experiences and perspectives. *World Journal of English Language*.
- Royani, I., & Sihombing, M. R. (2023). Exploring the opportunities and challenges of ChatGPT in academic writing. *Proceedings of the 1st International Conference on Educational Theories, Practices and Research (ICETAR)*.
- Semel, R., & Uili, J. (2026). Impacts of artificial intelligence (AI) tools on students' writing essays at the faculty of education, HED101 class, NUS. *International Journal of Multidisciplinary Research and Growth Evaluation*.
- Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: Assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology*, 14, 1260843.
- Stöhr, C., et al. (2024). Perceptions and usage of AI chatbots among students in higher education. *Computers and Education: Artificial Intelligence*.
- Tampippi & Tan. (2025). Exploring students' experiences with artificial intelligence (AI) platforms in academic writing. *International Journal of Research and Innovation in Social Science (IJRISS)*.
- Tran, H. N., Le, T. T. N., & Tran, V. B. U. (2025). AI tools in learning academic writing: Benefits and challenges for MA students in the English language studies at the Industrial University of Ho Chi Minh City. *International Journal of AI in Language Education*.
- Vera, F. (2023). Integrating artificial intelligence (AI) in the EFL classroom: Benefits and challenges. *Revista Electronica Transformar*.
- Yilin, W., Jishuang, L., Yunus, M. M., & Rafiq, K. R. M. (2023). Chances and challenges of EFL teaching powered by ChatGPT in developing the students' critical thinking. *International Journal of Academic Research in Business and Social Sciences*.