

ARTIFICIAL INTELLIGENCE-ASSISTED WRITING APPLICATION FOR IMPROVING WRITING SKILLS OF ISLAMIC EDUCATION STUDENTS

Zumrotul Fauziah¹, Sri Minarti²

Universitas Nahdlatul Ulama Sunan Giri

fauziah@unugiri.ac.id¹, minarti@sunan-giri.ac.id²

Abstract

Academic Writing is one of the language competencies that should be mastered by learners. In the English as a Foreign Language (EFL) classroom, teaching writing is very challenging since the students do not use the language in their daily lives. Therefore, the students need tools that can help them to construct academic writing easily. This study aims to illuminate the use of AI-assisted writing applications for EFL academic writing. This study is qualitative research. The data is collected through analysis of writing tasks and interviews about the use of Artificial Intelligence in academic writing. After analyzing students' writing tasks and interviews related to the use of AI in language teaching, especially in writing. The study revealed that the use of AI-assisted applications is beneficial for students, especially students of Islamic education study programs. The applications could help the students construct paragraphs, correct the structures, and even paraphrase the paragraphs. The use of AI in writing will not replace human existence since AI-assisted writing application is just a tool, there should be creativity and logical reasoning in writing an academic article. The use of Artificial intelligence-assisted applications could be applied as a new model to increase students' writing skills since there are many features and easiness offered by AI technology.

Keyword: *Artificial Intelligence; Academic Writing; EFL Classroom.*

Abstrak

Menulis teks akademik merupakan salah satu kompetensi bahasa yang harus dikuasai oleh mahasiswa. Di dalam kelas EFL (Bahasa Inggris sebagai Bahasa Asing), mengajar menulis sangatlah menantang karena mahasiswa tidak menggunakan bahasa tersebut dalam kehidupan sehari-hari. Maka dari itu, mahasiswa membutuhkan alat yang dapat membantu mereka menyusun teks akademik dengan mudah. Penelitian ini bertujuan untuk menguraikan tentang penggunaan aplikasi berbantu kecerdasan buatan (AI) untuk meningkatkan kemampuan menulis artikel ilmiah dan mendeskripsikan bagaimana penerapan aplikasi berbantu kecerdasan buatan untuk penulisan artikel ilmiah dalam pembelajaran bahasa Inggris sebagai bahasa asing. Penelitian ini merupakan penelitian kepustakaan. Data dalam penelitian ini dikumpulkan melalui analisis tugas menulis dan wawancara tentang penggunaan AI dalam pembelajaran bahasa, khususnya dalam keterampilan menulis. Hasil atau temuan dalam penelitian ini menunjukkan bahwa penggunaan aplikasi berbantu kecerdasan buatan sangat bermanfaat untuk pembelajar, terutama untuk mahasiswa program studi Pendidikan agama Islam. Aplikasi-aplikasi tersebut dapat membantu pembelajar untuk menyusun paragraph, mengoreksi tata bahasa, dan bahkan memparafrase paragraph. Penggunaan kecerdasan buatan tidak akan menggantikan eksistensi manusia karena kecerdasan buatan dalam hal ini hanyalah sebuah alat, harus ada kreatifitas dan alasan logis dalam menulis artikel ilmiah. Penggunaan aplikasi berbantu kecerdasan buatan ini dapat diaplikasikan sebagai model baru untuk meningkatkan keterampilan menulis karena banyak fitur dan kemudahan yang ditawarkan oleh teknologi kecerdasan buatan

Kata Kunci: *Artificial Intelligence; Academic Writing; EFL Classroom.*

INTRODUCTION

In higher education, academic writing is one of the essential competencies that should be mastered by students. Almost all lectures require the students to be able to write an academic essay or paper as one of the assessments for the learning process. However, academic writing is not an easy task, the students

have to do extensive reading, a literature review, and many other activities to be able to write a good essay. Further, evaluating the students' writing is very time-consuming. Meanwhile, the students need to know their writing scores and get feedback on their writing tasks as soon as possible.

The emergence of some applications powered by artificial intelligence gives solutions for correcting and giving feedback for the student's writing task. The AI-assisted writing application allows the users to know the errors or incorrect grammar and structure in the writing, give suggestions for the errors, give some suggestions for creating sentences based on the topic of writing, give suggestions for paraphrasing a paragraph, and many others. Gumawang Jati mentioned some AI-assisted writing applications that can be used to assist the student's academic writing are Essaybot, Prowritingaid, Paperrater, virtualessaytutor, and many others (Jati, 2022).

Based on the researchers' observation, the students of the Islamic education study program at Universitas Nahdlatul Ulama Sunan Giri still find difficulties in doing a literature review and using the correct grammar and structure in their academic writing. As a result, there are so many incorrect grammatical structures which affects the quality of their writings. The emergence of Artificial intelligence as a tool for writing is very helpful for them. The use of these AI-assisted writing applications is interesting to analyze. Therefore, this research is going to illuminate the use of AI-assisted writing applications to improve academic writing skills and describe how to implement AI-assisted writing applications for EFL academic writing.

RESEARCH METHOD

This research uses the qualitative method because the data is in the form of words. According to Miles and Huberman (1994) Qualitative data is a well-grounded source, rich in description and explanation in identifiable local context so that the researcher can describe chronological flow, see events precisely, and derive fruitful explanations (Miles & Huberman, 1994). This research is going to be conducted on undergraduate students of the Islamic education study program at Universitas Nahdlatul Ulama Sunan Giri Bojonegoro who take English lectures during one semester. The data will be collected through observation, interview, and deep analysis of students' writing tasks using AI-assisted writing applications. The data was then analyzed and validated using triangulation of sources and techniques.

FINDINGS AND DISCUSSION

The Use of Artificial Intelligence-Assisted Writing Applications to Improve Academic Writing Skills

Academic writing such as essays or papers is something that is very common for students of higher education. However, writing essays or papers in English is considered challenging since they are not native speakers of English. The students often found difficulties in writing academic English texts. According to Bailey (2011), students often worry about vocabulary, plagiarism, referencing skills, lack of critical thinking, and failure to answer logically the questions given by the lecturers (Bailey, 2011). In this case, the students could use an AI-assisted writing application with helpful features to help them write a good essay or paper.

Boden (1996) suggests four definition versions of Artificial Intelligence: First, acting like a human (AI can interact as human do), thinking like a human (AI copy the process of human's thinking process within a program), third, thinking rationally (AI represent and reason about many different things), fourth, acting rationally (AI attempt to design a system that acts to achieve goals) (Boden, 1996).

Data from the observation shows the implementation of Artificial Intelligence in supporting the students' academic writing task. The detail of the implementation is displayed in the following table.

Table 1 Steps of using artificial intelligence application to assist academic writing task

No.	Activity	Tool/Application
1	Finding a topic/current issue	Chat GPT
2	Finding literature related to the topic	Publish or Perish (PoP)
3	Finding the introductory paragraph for the topic	Essaybot, Essay writer, Jenni AI
4	Reviewing the literature	Chat PDF
5	Paraphrasing	Essaybot
6	Checking grammatical error	Grammarly

Before the students start writing, they should choose a topic from several topic options provided by the lecturer. After that, the students will open a browser and use an AI tool to find more specific topics. The tool they like to use to find a specific or current issue is Chat GPT. By using that tool, the students can find the subtopic easily and quickly. The next activity is finding literature related to the topic by using Publish or Perish (PoP), by using this application, students can easily find literature from many databases, so students should choose which database they want to use. Then this application will filter articles or books that relate to the research based on the keywords. Furthermore, this application can help students to decide whether to exclude or include the articles.

After finding out the articles that will be used in the writing, the students sometimes find difficulties in how to start their writing. In this case, they use Essaybot to make an introductory paragraph and paraphrase it. This application is only used if the students find difficulty in starting the writing, for the students who can easily start their writing, this application may be skipped.

In conventional writing, students should review many articles by reading the whole article one by one. However, since the emergence of AI applications, students can use Chat PDF to review articles, we can type some questions related to the article, such as the findings, the focus of the research, and many other things needed. However, if the students want to get insight into a particular article, they are suggested to read and analyze it manually.

After reviewing some literature, the students start constructing text based on the topics. In this activity, the students use their creativity and logical framework to arrange sentences until become a good English text. However, they may use an online dictionary or translation tool as needed. While writing, they can directly check the grammatical errors by using Grammarly. This application should be installed in a laptop or mobile phone. Then it will help the students to detect incorrect grammar and spelling followed by some suggestions.

Using Artificial Intelligence is part of modern teaching and learning in which technology is integrated into the process of education. Nazari et al suggest that AI-powered writing tools are an efficient tool to promote learning behavior and attitudinal technology acceptance through formative feedback and assessment in English academic writing. Learners could finish the tasks and get feedback quickly with the assistance of AI writing tools (Nazari et al., 2021). Furthermore, Gumawang Jati (2020) stated that the integration of AI in English Language Teaching is very essential, the use of AI will not replace human instruction but rather supplement and enhance the human-to-human experience. He also mentioned several AI-assisted writing applications that he usually used with their students, they are: Essaybot, Prowritingaid, Paperrater, virtualessaytutor, etc. (Jati, 2022)

However, Hou (2020) revealed that the use of AI in foreign language teaching is far from satisfaction. The use of AI needs improvement and support both financially and technically (Hou, 2020). The users should have sufficient ability to use the AI tools or applications so that the use of AI could promote the objective of learning a foreign language.

To summarize, the use of AI-assisted writing applications could help students to write essays or scientific articles easily and effectively. Some activities in writing that be assisted by AI tools are, finding current issues, finding related literature, constructing introductory paragraphs, reviewing literature, paraphrasing, and checking grammatical and spelling errors.

AI-assisted writing applications for EFL academic writing.

Massive development of technology nowadays provides many tools for teaching. Arimuliani et.al explores the use of Padlet, Kahoot, YouTube, Essaybot, and Grammarly in teaching Essay Writing course. The application is used for creating content, creating collaboration in learning, sharing the content, and engaging the students' interaction in writing essays (Arimuliani et al., 2022). Further, they recommend teachers use digital tools in teaching to increase the learning process and learning outcomes.

Data from interviews with 5 students of the Islamic Education study program revealed that the AI-assisted writing application could help the students to improve the quality of their writing. The students assumed that with the assistance of AI applications, they could write quickly. AI helped them how to start writing about particular topics. The students realize that as students of Islamic education study program, their English competencies are very low since they do not deal with English in their everyday teaching and learning process. They found it difficult when they had to write English texts. Therefore, AI-assisted writing applications are very fruitful for them.

Furthermore, the students stated that the use of AI in writing has both advantages and disadvantages. The advantages are vocabulary use, translation, grammar checker, and suggestions. Those features are very beneficial for EFL learners, especially for students of Islamic education study programs. This finding is in line with the research conducted by (Huang et al., 2022), the result of the study revealed that the use of AI in language education could help students learn writing, reading, vocabulary, grammar, speaking, and listening.

The analysis of the student's writing tasks showed that the quality of the student's academic writing is highly improved in terms of finding proper literature, and the quality of diction or vocabulary, grammar, and punctuation. However, AI-assisted applications also have some drawbacks, such as causing laziness and decreasing creativity and logical reasoning in writing. Therefore, the students are suggested to use AI applications as tools, they should use their logical reasoning and creativity in writing a good article. This finding is in line with a study conducted by Hidayati et al. which revealed that the integration of ICT and AI for language learning significantly improves the students' essay writing quality (Hidayati et al., 2021). Further, in foreign language classrooms, AI-assisted applications help learners to process their writing individually, correct themselves, and think about the process itself. Using AI could facilitate learners' self-regulation and autonomy (Elmanshi & Qoura, 2023).

Some literature suggests the use of several online applications in writing manuscripts, such as sciNote Manuscript Writing, SCIgen, Essaybot, Essay Typer, AI Writer, and many others. Those applications offer features that can allow users to write essays and manuscripts quickly and effectively. SciNote Manuscript Writing could prepare and generate a draft of the manuscript which contain a series of introduction, methods, and references. SCIgen could generate random computer science papers. Essaybot could help the users to generate paragraphs based on the topic requested, providing citations related to the topic, and the best part is the application could paraphrase the paragraphs. To develop the content of the writing, Essay Typer is a good option, it can warn users when the content will lead to plagiarism. The most amazing application is AI Writer, this application can generate an article only by writing a headline and a few keywords (Shaikh, 2020).

Based on the explanation above, it can be concluded that the use of Artificial intelligence-assisted applications could be applied as a new model to increase students' writing skills since there are many features and easiness offered by AI technology. The students perceive that the use of AI applications can

help them to write easily and effectively. The analysis of the students' tasks shows improvement in terms of diction or word choice and grammar. However, the students' creativity and logical reasoning are decreased.

CONCLUSION

The study revealed that the use of AI-assisted applications is beneficial for students. The applications could help the students find current issues, find related literature, construct introductory paragraphs, review literature, paraphrase, and check grammatical and spelling errors. The students stated that they can write easily, quickly, and effectively with the assistance of AI applications. The quality of the students' academic writing is better than what they write conventionally. Therefore, it can be concluded that Artificial intelligence-assisted applications could be applied as a new model to increase students' writing skills since there are many features and easiness offered by AI technology. Further research is suggested to analyze the negative impact of AI-assisted applications on academic writing.

REFERENCES

- Arimuliani, A., Mukhayar, & Atmazaki. (2022). Exploring Digital Tools for Teaching Essay Writing Course in Higher Education: Padlet, Kahoot, YouTube, Essaybot, Grammarly. *International Journal of Interactive Mobile Technologies*, 16(13), 200–209.
- Bailey, S. (2011). *Academic Writing: A Handbook for International Students*. Rotledge.
- Boden, M. A. (1996). *Artificial intelligence*. Elsevier.
- Elmansi, H. M., & Qoura, A. A. S. (2023). *Artificial Intelligence in Language Education: Implementations and Policies Required*.
- Hidayati, I. N., Dewanti, R., & Rasyid, Y. (2021). Integrating ICT Learning Model and the Use of AI to Enhance Students' Writing Quality. *Proceedings of the 2nd Borobudur International Symposium on Humanities and Social Sciences, BIS-HSS*.
- Hou, Y. (2020). Foreign Language Education in the Era of Artificial Intelligence. . In *Advances in intelligent system and computing (AISC)*.
- Huang, X., Zou, D., Cheng, K. S., Chen, X., & Xie, H. (2022). *Trends, Research Issues, and Applications of AI in Language Education*.
- Jati, A. G. (2022). Envisioning the partnership of Human and AI in English Language Teaching and Learning. *Indonesia Technology Enhanced Language Learning (ITELL)*.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis Second Edition*.
- Nazari, N., Shabbir, M. S., & Setiawan, R. (2021). Application of Artificial Intelligence powered digital writing assistant in higher education: randomized controlled trial. *Heliyon*, 7(5).
- Shaikh, S. A. (2020). Use of AI for Manuscript Writing—A Study Based on Patent Literature. *Allana Management Journal of Research, Pune*, 10, 1–8.