

NON-EFL LEARNERS' PERCEIVED BENEFITS AND LIMITATIONS OF EXPLORING CHATBOTS IN ACADEMIC WRITING CLASS

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Abstract

Chatbot integration in Language Education using chatbots shows potential to improve students' writing skills. This study explores the benefits and limitations of using chatbots in academic writing classes for non-EFL students, specifically Agrotechnology students at Universitas Mercu Buana Yogyakarta. This study uses qualitative research data collected through classroom observations and semi-structured interviews over a semester. The observations focused on how students use chatbots to produce academic essays in Academic Writing classes. Semi-structured interviews were conducted with five students. Interview participants were selected based on their relevance to the research scope, ensuring that their responses aligned with the study's objectives while maintaining a focused and manageable range of inquiry. This study concludes that integrating chatbots and manual validation to ensure depth and critical thinking in writing classes using chatbots for non-EFL students is beneficial in developing writing skills that support their foreign language development.

Keywords: *AI-Powered Chatbot, Academic Writing, Non-EFL Students, Writing Skills, Language Education, Thematic Analysis, Universitas Mercu Buana Yogyakarta.*

Introduction

Chatbot is a computer program that utilizes AI (Artificial Intelligence) to simulate human conversation with interaction through text or voice. This system is designed to understand user commands and provide instant feedback (Caldarini et al., 2022). Chatbot will automatically process any commands given by users with these features, so its use in various sectors is needed, especially in education. with the ability to process natural language from chatbot conversations can increase user engagement to fire its functions (Labadze et al., 2023).

Chatbots, nowadays, have been used widely in education settings especially in language classes. A study by Kadaruddin (2023) at the State Islamic Institute (IAIN) Parepare explored the use of AI-based applications in language proficiency. The result is AI is able to improve learning with personalization features that are able to provide explanations to students according to what they need or adaptive learning. In addition to the AI personalization feature provides a new way for students in learning styles, they are able to learn independently and also improve foreign language skills efficiently. Using AI in education is also a form of literature in the field of academic literature.

The integration of AI-powered chatbots in language education has shown promise in enhancing students' writing skills. For instance, Kohnke (2024) investigated the effect of chatbot-based writing practices on second language learners' writing performance. Their study revealed that students who engaged with chatbots for individual writing practice over 15 weeks demonstrated significant improvements compared to those receiving traditional teacher-led instruction. The participants Also found the chatbot helpful in improving their language skills and felt more comfortable learning a foreign language. Another study conducted by Silitonga et al. (2023) found that learning AI chatbots can increase students' motivation to write using English. The study provided detailed and comprehensive feedback in understanding and helping students regarding their weaknesses and was able to improve more targeted abilities. Therefore, the integration of chatbots in language learning complements the effectiveness of interactive and personalized chatbot features so that they can improve their overall language skills.

The use of chatbots in English as a Foreign Language (EFL) contexts has been extensively researched and explored. A couple of studies have been conducted to identify the effectiveness of using chatbots in developing students' writing skills in EFL classrooms, such as a study conducted by Salihu et al. (2024), which explored AI tools, namely ChatGPT and Google Bard, for students' creative writing skills at a university in Northeast Nigeria. This study highlights that AI can be integrated into drafting and revising to improve students' writing skills and creativity. Another study by Waziana

et al. (2024) highlighted the role of AI chatbots, namely ChatGPT, Gemini, Perplexity, Bing Chat, Ernie, Character AI, Discord Bot, Wren, and Ginger, which are helpful in improving students' vocabulary and grammar in EFL writing.

While much research has explored the use of chatbots in English as a Foreign Language (EFL) contexts, less attention has been given to how non-EFL learners, who may have different linguistic backgrounds and learning needs, perceive the integration of this technology in their academic writing, especially in Indonesia. Understanding non-EFL students' perceptions of chatbots in academic writing classes aims to maximize the potential benefits of using chatbots. With the results of the analysis of students' integration with Chatbot, educators are able to identify strengths and limitations that provide learning evaluation. This approach can be particularly beneficial for students in diverse fields, such as those in the Agrotechnology program at Universitas Mercu Buana Yogyakarta, aiming to enhance their foreign language writing skills for support their foreign language development.

Method

This qualitative study uses an exploratory method which has the aim of exploring a phenomenon or problem with prior knowledge but limited theory, this type of research is able to guide future research to explore more about this phenomenon (Creswell & Creswell, 2017). This study aims to explore the benefits and limitations of using chatbots in academic writing classes for non-EFL students, especially agrotechnology students at Universitas Mercu Buana Yogyakarta. Qualitative data were collected through classroom observations and semi-structured interviews. This study was conducted in an academic writing class for non-EFL students, namely the Agrotechnology Department at Universitas Mercu Buana Yogyakarta. As many as 58 non-EFL students enrolled in the course participated in the study for one semester. The class consists of 16 meetings including mid term examination and final examinations. The one-semester duration provided an opportunity to explore the use of chatbots in their writing process.

The data collection process used two methods, namely classroom observations were conducted several times in English for Academic Writing class especially when

the lecturer involved the use of chatbots. Detailed class notes were taken to document student behavior, especially interaction patterns with the chatbot and challenges faced when writing assignments were given. Semi-structured interviews were conducted with 5 students to gain in-depth insights and their experiences. The interview participants were chosen using a purposive sampling technique which was based on some criteria. The first is they have great engagement with chatbots during the observation. Second, they are willing to participate in a follow-up interview. The interviews explored the benefits and limitations when interacting using chatbots. Flexible semi-structured interviews are able to express freely so as to provide rich and detailed data.

Table 1. Demographics of interview participants

No	Pseudonyms	Gender	Age
1	Aryo	Male	22
2	Yeni	Female	21
3	Yuke	Female	23
4	Andi	Male	21
5	Salma	Female	22

Pseudonyms were used to protect the anonymity of participants during the research.

Data analysis in this study followed a thematic analysis approach (Braun & Clarke, 2006), moving beyond simply describing the data to identifying patterns and themes related to students' perceived benefits and limitations of chatbot use in academic writing. Reviewing interview transcripts and observation notes was able to identify patterns and themes related to the benefits and limitations of using chatbots. identified themes were then grouped into broad categories such as benefits and

limitations faced by the writing process using chatbots. A rigorous review of the themes ensured their accuracy and relevance based on the data collected. Finally, the analyzed data were interpreted to answer the research question regarding the role of chatbots in academic writing for non-EFL students.

Results

1. Benefits of using chatbots in writing class

The use of chatbots in writing class provides several benefits in correction, finding equivalent words so as not to be plagiarized in writing, and students are also given references regarding topic relevance or coherence so as to increase work efficiency. such as respondents' statements:

"The use of chatbots can speed up work time" (Respondent 1, AO).

"In my opinion, the benefit of chatbots is to make it easier to find synonyms for words or words that I may lack" (Respondent 2, Yi).

"It's faster to do it" (Respondent 4, AI).

"So I understand the relationship between topics and other paragraphs." (Respondent 5, SA).

As highlighted by the respondents, using the chatbot can increase efficiency in writing with corrections and then equivalent words so that non-EFL students can develop their writing skills using a foreign language.

2. Limitations of using chatbots in writing class

In addition to the benefits felt by students in using chatbots in writing classes, there are also limitations experienced, namely related to the references given that are not appropriate, vocabulary that is too difficult to understand, and limitations in asking questions:

"The chatbot I use gives me supporting journals that are not appropriate; sometimes the chatbot also provides input with vocabulary that is difficult to understand." (Respondent 1, AO).

"Maybe giving questions is limited, as far as I know, so it's like you can't keep asking" (Respondent 2, YI).

"Search limitations because you have to use the premium version." (Respondent 3, YE).

"If it's not premium, you can only ask a few times" (Respondent 4, AI).

"The reference is wrong and does not correspond to the topic." (Respondent 5, SA).

Although chatbots offer various benefits in writing classes, students also experience limitations with some references that are not to the topics discussed, and chatbots do not understand students' language well. This statement becomes the main power to improve integrated learning, namely, manual validation and chatbots so that in developing writing skills, they can maximize their abilities.

3. Chatbot features that help in writing classes

Respondents stated that the use of chatbots in writing classes has features that students rely on, namely grammar correction; then there is a translate feature, checking the coherence of topics between paragraphs:

"I ask Grammarly to check if it is grammatical." (Respondent 1 AO).

"Translate and then check using the chatbot whether it is related to the topic I chose." Respondent 3, YE).

Chatbot provides important features that support students in writing classes, such as grammar correction features, translation, and coherence between paragraphs.

Students learn about how to write well and structure so that it is efficient in developing non-EFL students' writing skills and foreign language proficiency.

4. Improving writing skills using a chatbot

Chatbot in its use to improve students' writing skills in English, namely by re-reading after corrections using chatbots such as grammar, vocabulary chosen, and coherence not with the topic chosen:

"Translate and then check using the chatbot whether it is related to the topic I chose. - Re-reading, that's what makes me learn English to understand the context I wrote by integrating technology and manual validation." (Respondent 3, YE).

"I translate to English while manually correcting to learn new vocabulary in English as well." (Respondent 4 AI)

"Translating and then checking using a chatbot to ensure grammar and comprehension according to my chosen topic. Rereading helps me learn English by understanding the context I'm writing in, integrating technology and manual validation. I also keep checking using Indonesian. I integrate this quite often in my English writing classes." (Respondent 5 SA).

In the process, respondents learn to write in a foreign language with the integration of a chatbot and manual validation so as to maximize foreign language learning.

Discussion

Chatbot is a tool or product of AI that is widely used with its fast response and can be accessed at any time this makes it easier for users to use chatbots. The use of chatbots is penetrating into all fields, especially education, using chatbots can help educators in class learning. Chatbots are able to receive commands both voice and text so that in class learning can be adjusted. The use of chatbots in learning is also useful for learning foreign languages (Wiboolyasarini et al., 2024). In many contexts

research explores EFL students, in this research the exploration of non-ELL students emphasizes the use of chatbots in learning in writing classes.

The features of the chatbot are able to assist students in correcting their writing. Chatbot has the main function of assisting student learning not replacing the main source, namely the teacher and in its application chatbot is also indicated to have benefits and limitations. In the interview process, respondents stated that the benefits of using chatbot were being able to provide coherent topics for each paragraph, then grammar correction and vocabulary and grammar suggestions became their favorite features. Apart from the advantages of using chatbot, limitations are also found in the use of chatbot, including the suggested vocabulary that is too complex and difficult, the references provided are not appropriate and also questions cannot be asked or have a limit if you do not subscribe to premium access.

With these benefits and limitations, the results of the exploration are able to provide insight and reference for further research and development in learning using chatbots is also needed to improve learning integration with technology that can facilitate students besides that integration can increase student involvement in learning (Widhiatama & Brameswari, 2024).

Some limitations were found in the use of the chatbot by non-EFL learners. The chatbot was not able to fully understand the commands that users were asking, usually resulting in misunderstandings or inappropriate answers. In addition, the chatbot also had difficulty understanding the vocabulary expressions that non-EFL learners were asking. the limitations that non-EFL learners faced in using the chatbot led to dependency and problem-solving skills, so that they became too dependent on the chatbot rather than developing their own writing skills.

Despite these challenges, the helpful features in the writing class are able to assist them in correcting their work in real-time. Chatbot also has a paraphrase feature to assist them in expressing ideas with different results from the chatbot's suggestions. These features are able to improve writing skills in academic or professional assignments so that the integration of the chatbot functions effectively.

These findings indicate that although chatbots provide assistance in improving students' writing skills, their effectiveness depends on how the chatbot is used. Future research should also explore teaching strategies that integrate chatbots in ways that encourage skill development. By balancing the benefits of chatbots with critical engagement, students can maximize their potential in writing using a foreign language.

Conclusion

The findings of the study indicate that chatbots can contribute to the field of technology-integrated education, especially in the context of EFL students in foreign language learning in writing skills. Combining technology and manual learning results in effective teaching in foreign language learning. These findings also increase technological literacy in the field of education. Based on statements from respondents, non-EFL students also experience difficulties and limitations in using chatbots so that with these shortcomings, integrating them with manual learning can be effective in developing writing skills and becoming a complementary tool rather than a substitute for teachers. Future research is expected to be able to integrate chatbots in other skills and explore more about non-EFL students in mastering foreign languages.

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