TEACHERS' AND STUDENTS' PERCEPTIONS TOWARDS THE USE OF CHATGPT TO IMPROVE WRITING IN THE MALAYSIAN SECONDARY SCHOOL CONTEXT

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Abstract

The use of artificial intelligence in education has gained traction among teachers as well as students in recent years. Artificial intelligence (AI)-powered language models such as ChatGPT have been widely used for various purposes, including producing improved writing. This study sought to investigate the perceptions of secondary school students and English teachers in Malaysian public schools on the use of ChatGPT to enhance students' English writing. This study also investigated how ChatGPT was used by both students and teachers and the factors that influenced their use of ChatGPT. This study employed a qualitative research design. A total of 20 respondents (12 students, 8 teachers) from six schools in Sabah participated in this study. Data were collected using an open-ended questionnaire designed based on the Technology Acceptance Model (TAM), and were analyzed thematically. The findings of the study showed that students and teachers generally believe ChatGPT to be an effective tool to enhance students' English writing proficiency. Among the features of ChatGPT that were lauded by the participants were its ability to provide personalized feedback and perform tasks that are useful for writing, such as proofreading and idea generation. Several challenges were also pointed out, such as difficulties using ChatGPT due to lack of resources and digital literacy. The participants also expressed their concern about the possibility of overdependency on ChatGPT, which can hamper the development of the students ability to write independently. The findings of this study contributed to the current knowledge of the perceptions of the use of ChatGPT among secondary school students and English teachers in Malaysian public secondary schools. This knowledge can guide educators and policymakers on matters related to the integration of AI into English writing instruction.

Keyword(s): *artificial intelligence, ChatGPT, English writing proficiency, language learning, technology acceptance model*

INTRODUCTION

As of August 2024, ChatGPT has over 180.5 million users worldwide (Singh, 2024). The AI-powered language model amassed 100 million users in just two months after it was released publicly in 2022. ChatGPT took the internet by storm with its ability to engage in intelligent and human-like interactions. This was achieved after the language model was trained with a massive

corpus of textual data, which, as of 2022, was estimated to be made up of 300 billion words or 570 gigabytes of data (Iyer, 2022). The versatility of its ability to perform a wide range of textual tasks has made it a potentially useful tool in education.

AI-tools have been increasingly used in education (Chen et al., 2020). An example of such a tool is the AI-powered language model ChatGPT, which is a tool that has been found to be beneficial for education (Kamalov et al., 2023; Zheng et al., 2021) for both students and teachers. Administrative tasks such as grading assignments and recording students' performance is often a very time-consuming task for educators. It often left a teacher with little time to focus on their students and improving their teaching. AI can provide a solution for this problem by assisting teachers on their administrative tasks (Chen et al., 2020). This can save a teacher a lot of time from doing the administrative tasks (Harry & Sayudin, 2023) and will enable them to concentrate on their students.

AI has also been proven to be a very useful tool in improving students' learning achievements (Chen et al., 2020) such as improving STEM education (Xu & Ouyang, 2022) and increasing creativity (Huang et al., 2021). An AI feature that is particularly useful is its ability to provide fast personalized feedback (Su & Yang, 2023; Harry & Sayudin, 2023). The type and amount of assistance required by students vary from each other. Focusing on individual students can be challenging for a teacher who has to divide their attention between multiple students in a class. ChatGPT, with its ability to provide personalized feedback, can assist a teacher to provide personalized feedback to students. This will not only ease the burden of the teacher but will also make learning more efficient and easier as, with the use of ChatGPT, they are able to receive feedback almost instantaneously (Su & Yang, 2023).

Despite the positive outcome and findings, there were also concerns and challenges regarding the integration of AI in education. AI technology has only recently been integrated widely into education and its effectiveness is still largely untested (Su & Yang, 2023). Among the concerns raised regarding the use of AI in education is privacy and security (Akgün & Greenhow, 2022). There are also ethical concerns with regard to the use of ChatGPT in education, particularly on the matter of the fairness of the responses provided by AI (Harry & Sayudin, 2023).

This study sought to investigate the perceptions of Malaysian secondary school students and English teachers about the use of ChatGPT to enhance students' English writing proficiency. In addition to that, this study also sought to understand the factors influencing the tendancy of both students and teachers to use ChatGPT to enhance students' English writing proficiency and how they use the AI-powered language model.

Multiple studies have been conducted about the integration of ChatGPT into education, such as on the opportunities that the AI-tool can offer, the possible challenges it can pose (Adeshola & Adepoju, 2023; Grassini, 2023; Memarian & Doleck, 2023), and best practices when using ChatGPT in education (Memarian & Doleck, 2023; Halaweh, 2023). An equally important area of study regarding the integration of AI into education is the perceptions of its users.

Various research has already been conducted on the perceptions of learners and educators on the use of ChatGPT (Rahim et al., 2023; Ali et al., 2023; Iqbal et al., 2022). Most of the research was conducted in the context of higher education. There is a lack of information on the perceptions of students and teachers in secondary schools, which is what this study sought to contribute to

This research was conducted with three objectives:

1. To investigate the perceptions of Malaysian secondary school students and English teachers regarding the use of ChatGPT to enhance students' English writing proficiency.
2. To investigate how secondary school students and English teachers used ChatGPT to improve students' English writing proficiency.

3. To identify factors influencing the adoption of ChatGPT by secondary school students and English teachers for the purpose of improving students' English writing proficiency.

The findings of this study will contribute to the current understanding of the perceptions of secondary school students and English teachers in the Malaysian context. It can also serve as a guide for educators and policymakers on their decisions regarding the integration of ChatGPT into education.

LITERATURE REVIEW

Multiple studies have shown that the perceptions of both learners and educators regarding the use of ChatGPT in education were mostly positive (Phuong, 2024; Bibi & Atta, 2024; Teng, 2024; Zebua & Katemba, 2023; Solovey, 2024). Among the characteristics of ChatGPT that was appreciated by them was its convenience (Bok & Cho, 2023). ChatGPT can be accessed anywhere, provided that the user has a device such as a smartphone or a laptop that is connected to the internet. The user-interface of ChatGPT for both desktop and mobile is intuitive and easy-to-use (Zebua & Katemba, 2023).

ChatGPT is capable of performing various text-based task that are useful to help learners improve. Among the capabilities of ChatGPT that were stated by learners and educators to be helpful for the improvements of English writing include its ability to proofread, translate, and paraphrase texts (Phuong, 2024; Eunim & Youngsang, 2023). Studies have also shown that learners and educators found that ChatGPT can bring a lot of benefits for the improvements of English writing, such as increasing motivation, engagement (Teng, 2024), and improving vocabulary (Phuong, 2024). Despite the mostly positive opinions,

Overall, the perceptions of learners and educators on the use of ChatGPT to improve English writing are generally positive. However, there is still much to be investigated regarding the use of ChatGPT and English writing, such as the area of investigation ventured by the present research, which is the perception of secondary school students and English teachers in the Malaysian context. Various studies were already conducted regarding the perceptions of learners and educators on effectiveness of AI-powered language model to improve writing skills (Jen & Salam, 2024; Lou, 2023; Har, 2023; Azmi et al., 2023; Younes, 2024; Xu & Jumaat, 2024). However, there is a lack of research that focuses specifically on the perceptions of secondary school students and English teachers on the effectiveness of ChatGPT in improving students' English writing.

METHODOLOGY

This study employed a qualitative research design. This design was chosen because of its ability to provide deep insights into the participants' experiences and beliefs, which were central to the research objectives. The data for this study were collected using an open-ended questionnaire. The open-ended questionnaire was conducted to explore the perceptions of Malaysian secondary school students and English teachers on the effectiveness of ChatGPT to improve students' English writing.

The sample for the study was made up of two groups, namely teachers and students. A total of 12 students were involved in this study. The selection of the students was nondiscriminatory. Students across various levels of proficiency were allowed to participate in this study. This diversity is important to gain a better understanding of the general perspective of the

students on the use of ChatGPT to improve their English writing. Students also have different levels of exposure to ChatGPT. The other group consisted of secondary school English teachers. Their insights into the use of ChatGPT to improve students' English writing are invaluable. This study aimed to gather educators' perspectives on the potential benefits of ChatGPT in this area.

Data were collected through an open-ended questionnaire. It allowed the participants the flexibility to respond without being constrained by scheduling conflicts. They could provide answers at their convenience. This promoted more thoughtful and comprehensive responses. It also eliminated the pressure to generate spontaneous answers on the spot, which could potentially lead to inaccuracies.

Participants received the open-ended questionnaire online through a Google Form designed to gather detailed information about their perceptions of ChatGPT's use in improving English writing proficiency. Clear instructions on how to submit responses were provided, and participants were encouraged to seek assistance or clarification if needed. A submission deadline was communicated to ensure timely completion of the study. Additionally, participants had the option to provide supplementary information relevant to the study and could contact the researcher even after submission.

Responses were collected and systematically organized with strict confidentiality protocols in place. Each response was anonymized and securely stored to prevent association with individual participants. Written responses were compiled and stored in a password-protected digital folder accessible only to the researcher.

FINDINGS & DISCUSSION

The study aimed to investigate the perceptions of secondary school students and teachers on the use of ChatGPT to improve students' English writing. Along with that, it also examined how the AI tool was used by both teachers and students.

Perceptions of ChatGPT's Effectiveness

Both students and teachers expressed positive views on the use of ChatGPT to improve students' English writing. They recognized its potential to improve multiple aspects of writing all at once, such as grammar, vocabulary, and quality. ChatGPT's ability to provide instantaneous feedback and personalized learning were also noted and particularly appreciated by both groups.

Students' perspective:
> "Yes, because it makes it easier to find information" (S2).
> "Yes, ChatGPT can help improve my English writing skills if I need to correct my English writing. Besides that, ChatGPT can also save me time when writing in English" (S3).
> "In my opinion, ChatGPT can help improve English writing skills because it can provide feedback on writing, speaking, and listening skills, and it can benefit students learning English" (S9).

Teachers' perspective:
> "ChatGPT significantly aids students in improving their English writing. It offers feedback, boosts fluency, suggests improvements, fosters creativity, and provides an engaging learning experience" (T1).

"ChatGPT is very useful in helping students improve their English writing quality as it offers helpful suggestions for creativity in writing" (T3).

"I believe ChatGPT has the capability to enhance students' writing skills. For example, when they use its grammar correction function, they can ask ChatGPT's help to review their grammar. Additionally, students can seek ideas from ChatGPT on various topics, which I find highly beneficial" (T4).

Students' and Teachers' Use of ChatGPT

The study revealed that both teachers and students used ChatGPT in different ways. Most of the students stated that they used ChatGPT to draft as well as revise their essays. They also stated that they used ChatGPT to study grammar and enrich their vocabulary, both of which are important elements necessary for the production of good writing. Teachers, on the other hand, stated that they used ChatGPT in their teaching by using it to produce more personalized lesson materials for their classes.

Students' usage:
"I use ChatGPT to write my first draft and then get suggestions for improvement. It helps me refine my ideas and structure my essays better" (S3).
"ChatGPT only needs one example, and it will turn it into what we want, such as essays, reviews, and so on" (S1).

Teachers' usage:
"I can use the sentences as samples. Another one, it also helps me to check my grammar and sentence structure and learn from it" (T2).
"For example, students can expand their vocabulary range or enhance their writing style when they use ChatGPT to ask how they can improve their original work, or when ChatGPT identifies errors in their writing text, allowing them to make amendments accordingly" (T6).
"I assign homework where students use ChatGPT to write an essay, and we discuss the feedback and improvements in the next class" (T2).

Factors Influencing Adoption of ChatGPT

The use of ChatGPT was influenced by several factors. The factor that was stated the most is access to technology. Those without access to resources like an internet connection and a device that can connect to the internet and access ChatGPT will not be able to even begin using the tool. Access to technology was a major factor that influenced the use of ChatGPT to improve English writing. Another factor that influenced the tendency to use ChatGPT was concerns about the possible drawbacks of using AI, such as the problem of overreliance on the AI tool. However, even though concerns on the use of ChatGPT were expressed, none of the respondents expressed complete opposition to the use of ChatGPT but rather suggested that there should be a balance between the use of AI and the use of traditional teaching methods.

Technological factors:
"It's easy to use ChatGPT on my phone, so I can practice writing anytime, anywhere" (S1).
"Not sure because I have never used it" (S6).

Educational factors:

"ChatGPT encourages students to think critically as they must formulate their own questions or statements to obtain the specific answers they seek" (T4).

"I think using ChatGPT for writing is a very advanced and bold teaching tool. But based on myself, I am not very willing to use ChatGPT for English writing courses. I think it is too comprehensive and sometimes leads to situations that the classroom cannot control" (T5).

Cultural factors:

"Students should be taught that ChatGPT is there to help them generate ideas and suggestions for their personal growth instead of relying on it to do the job for them completely" (T7).

"While ChatGPT is a great tool, it's important to balance its use with conventional teaching to ensure students develop strong foundational skills" (T4).

The findings of this study resonate with existing literature on the use of AI in education. Previous studies have demonstrated the potential of AI tools for enhancing learning outcomes and student engagement. However, the challenges identified in this study, particularly those related to technical issues and digital literacy, underscore the importance of addressing infrastructure and training needs.

CONCLUSION

This study has provided information on the perceptions of secondary school students and English teachers on the use of ChatGPT to improve students' English, how both of them used the AI tool, and factors that influenced the adoption of the AI tool. Should interest in this area of knowledge persist in the future, it is suggested that upcoming research should investigate the long-term impact of the use of ChatGPT on writing skills. It could also be helpful to explore the effectiveness of the use of ChatGPT in different educational contexts. Last but not least, future studies can also examine the role of teacher support and training in incorporating AI in their lesson planning.

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