



Usability of ChatGPT in the english essay writing proficiency of the BEED students

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Received: 4 February 2024

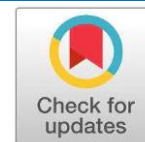
Accepted: 20 March 2024

Published: 31 March 2024

Abstract: The advancement of AI technology, especially in language processing systems like ChatGPT, creates opportunities for students to elevate their writing skills. This study aimed to explore the relationship between the usability of ChatGPT and the English essay writing proficiency of the BEED students. The study utilized a descriptive correlational design to investigate the relationship. A sample of 58 participants was selected to write an essay with the assistance of ChatGPT. Researchers developed and employed a rubric to assess the quality and ethical use of ChatGPT. Then, the participants answered the USE questionnaire to measure their perceived usability of ChatGPT. The result revealed that BEED students perceived ChatGPT as beneficial in enhancing their essays and found the system easy to use, and learn, and provided satisfying results. The participants also expressed a strong sense of contentment regarding using ChatGPT. The essay writing proficiency assessment revealed that BEED students were proficient writers. However, a Pearson correlation coefficient of 0.042 showed a statistically significant but very weak relationship observed between ChatGPT usability and English essay writing proficiency levels. It can be concluded that ChatGPT may improve students' essay writing proficiency to a minimal extent. Moreover, this study recommended further research to explore ChatGPT's use in other academic outputs, refine the rubrics to include vocabulary, grammar, and sentence structure criteria, and provide training for effective AI tool management among students. Also, policymakers should establish clear policies and guidelines to ensure the responsible and ethical use of ChatGPT, maintaining academic integrity and enhancing writing proficiency.

Keywords: ChatGPT; english essay; BEED students; AI technology; writing proficiency.

How to cite: Aglibot, K. A., Tomines, E. M., Talaman, J., Soguilon, J., Bongolto, R., & Abayon, M. R. (2024). Usability of ChatGPT in the english essay writing proficiency of the BEED students. *Journal of Science and Education (JSE)*, 4(2): 163-177. <https://doi.org/10.56003/jse.v4i2.338>



INTRODUCTION

Academic writing is crucial for the language development of English language learners, requiring expertise in various areas (Campbell, 2019). The writing skills of students are essential for their academic success as a significant portion of school tasks, including exams, assignments, projects, and research, include written work (Porsecion et al., 2011). Additionally, proficient writing abilities enable individuals to express their ideas properly and attain academic success in several professional fields (Yoon, 2011). Therefore, it is crucial for students to enhance their writing skills.

With the advent of the digital age, technology integration in education has become the new normal. Learners can now conveniently practice their writing skills at any time and from any location due to the widespread availability of technology and online platforms (Yan, 2023). Among the revolutionary technologies, the popularity of Artificial Intelligence (AI) continues to rise across all platforms, with Chatbot

technology becoming essential (Luo et al., 2019). The software program utilizes natural language processing (NLP) and deep learning techniques to engage in text-based online chat conversations (Dharani et al., 2020). It becomes helpful for language correction, grammar checking, and proofreading. Furthermore, this tool can help students improve sentence structure and vocabulary choice by giving them ample suggestions (Marzuki et al., 2023).

The rapid growth of AI technology has enhanced the accessibility, scalability, and effectiveness of text-generation tools like GPT-3 and ChatGPT (Zhou & Acuna, 2022). ChatGPT is a concept developed by the AI business OpenAI (Stokel-Walker, 2022). In 2020, the company launched GPT-3, an artificial intelligence model that generates text by analyzing vast training data to comprehend the connections between words and phrases. ChatGPT is an improved iteration of GPT-3 explicitly designed for engaging with users, spark intellectual debates about its limitations and possible applications.

ChatGPT is one of the promising tools that holds the potential to transform students' engagement with writing tasks, particularly in the realm of essay writing. ChatGPT's functions encompass text generation, answering questions, translating, summarizing, and completing tasks, which are deemed beneficial in essay writing. ChatGPT considers event sequences as well as writing order, which includes the use of main, explanatory sentences, and conclusions. It also takes into account tenses used in the context of the provided essay topic, but there is still a need to review the grammatical accuracy of the essays produced by ChatGPT (Fitria, 2023).

Liu's (2023) research indicates that ChatGPT can be a very successful instrument for formal English language education. Students also perceive ChatGPT as user-friendly (Shaikh et al., 2023) and an excellent instrument for formal English language learning (Mulia, Piri, & Tho, 2023). Users generally agree that the system operates properly and efficiently and is easy to use. Additionally, ChatGPT excels at executing tasks and commands effectively. However, not all information provided by ChatGPT is always accurate, up-to-date, or comprehensive.

Nevertheless, employing AI tools like ChatGPT has obstacles, including those related to academic honesty and plagiarism (Cotton, Cotton & Shipway, 2023). This violates educational integrity principles (Roe & Perkins, 2022). According to Holden, Norris, and Kuhlmeier (2021), maintaining integrity in education and academics involves a commitment to honesty, fairness, trust, responsibility, and respect. Academic integrity is a significant issue in academia and higher education, especially with the increasing use of AI chatbots due to technological advancements (Dwivedi et al., 2023). Consequently, some educators prohibit the utilization of ChatGPT in the class. Bozkurt et al. (2023) argue that disabling ChatGPT or restricting its use will not solve the problems it causes. Furthermore, this approach needs to capitalize on its potential benefits for improving education.

Thus, it is a challenge for educators to maintain the balance between the use of AI technologies like ChatGPT and the writing proficiency of the students. Bin-Nashwan, Sadallah, and Bouteraa (2023) suggest

that stakeholders, including academic institutions, publishers, and AI language model programmers, should work together to specify necessary guidelines for the ethical use of AI chatbots in academic work and research.

With the opportunities and challenges presented by ChatGPT in assisting students, this study seeks to investigate the usability of ChatGPT and its relationship with the English essay writing proficiency of BEED students. Specifically, it aims to address the following questions: (1) What is the extent of the perception of the BEED students on the usability of ChatGPT in enhancing their essay-writing skills? (2) What is the level of ChatGPT-assisted writing proficiency of the BEED students in their English essays? (3) Is there a significant relationship between BEED students' perceptions of ChatGPT usability and the quality of their enhanced essays?

Exploring the relationship between students' perceptions of ChatGPT and its usability in the English essay writing proficiency of the BEED Students holds a significant evolution in education and technological integration. This study will imbue awareness among 21st-century educators of the boundless impact of AI tools. Thus, they will be guided accordingly in crafting well-designed policies suitable to the needs of the students.

METHOD

This study employed a descriptive correlational design. The correlational research design will help investigate the relationship between two or more variables without the researcher changing or manipulating them (Bhandari, 2021). Based on the information gathered on the research design, the researchers decided that the descriptive-correlational research design would fit well with the study to see if there is a relationship between the students' perceptions of the usability of ChatGPT and the English writing proficiency of the BEED students.

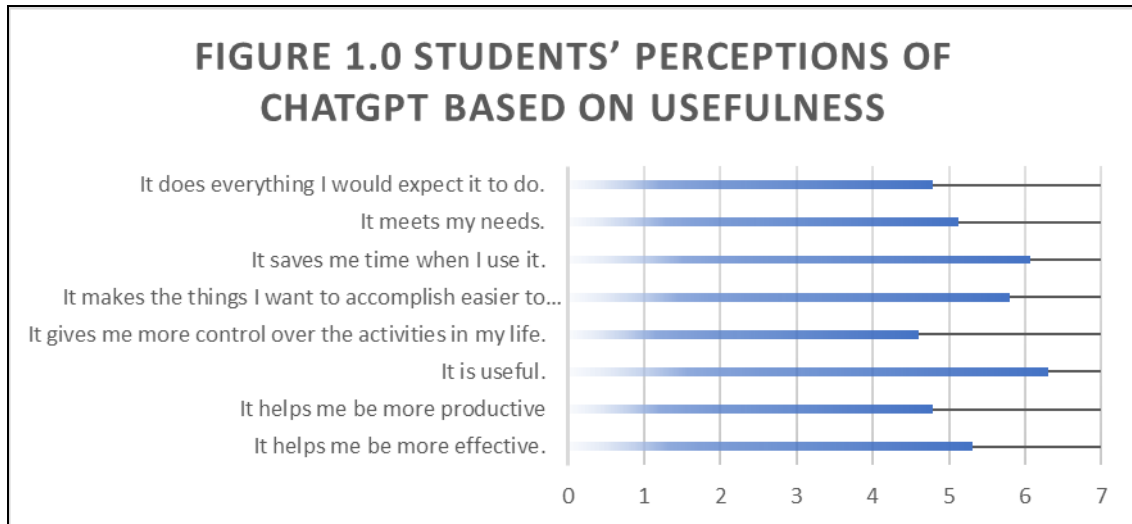
The study's participants are students in the Bachelor of Elementary Education Department. The researchers identified and chose BEED students who have experienced using ChatGPT to enhance their essays. A total of 58 students participated in the study. The researchers asked the participants to write their essays with the assistance of ChatGPT. The researchers prepared a rubric to assess the students' essays carefully, ensuring their quality and ethical use of ChatGPT. In addition, the guidelines clearly indicate how ChatGPT should be used to enhance the students' essays to maintain ethical standards and support the development of necessary essay writing skills. Then, to assess the students' perceptions of the usability of ChatGPT, the researchers asked the respondents to answer a questionnaire through Google Forms. The researchers adapted the USE Questionnaire (Lund, 2001) to measure the usability of ChatGPT.

To obtain maximum insight regarding the usability of ChatGPT, the researchers analyze the participants' responses to the USE questionnaire. The mean and standard deviation were the statistical methods used to extract insights from the data collected. Then, the researchers analyzed the proficiency level of the ChatGPT-assisted English essays of the students from the scores using the rubric developed by the researchers. The

link between the perceptions of the usability of ChatGPT and the English essay writing proficiency of the BEED students was analyzed using Pearson's correlation.

RESULTS AND DISCUSSION

The responses of the 58 BEED students were analyzed. The data collected from the participants provided sufficient data for the study.

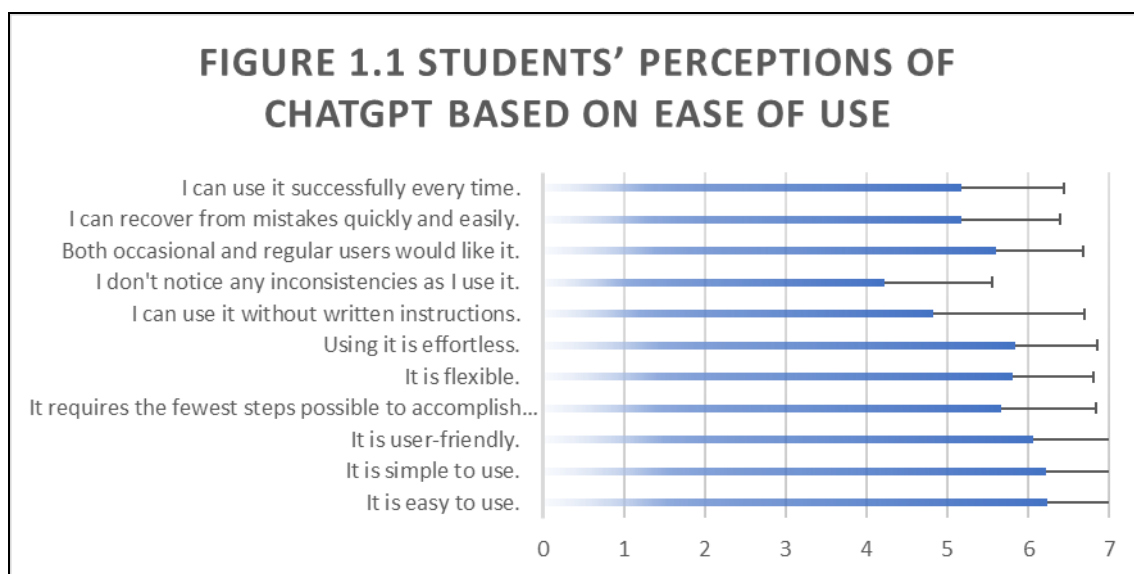


*The USE Questionnaires are scored on a Likert scale of 1 to 7, with 1 indicating strongly disagree and 7 indicating strongly agree.

Figure 1. Students' Perceptions of ChatGPT Based on Usefulness

The graph shows the results of BEED students' perceptions of the usability of ChatGPT according to its usefulness. With a mean score of 5.34, BEED students perceive ChatGPT as beneficial, especially in enhancing their essays. The findings also indicate that students consider ChatGPT a tool that positively impacts their tasks. Despite recognizing the usefulness of ChatGPT, students encountered difficulties in its efficacy in improving productivity and fully achieving their expectations. The standard deviation with the lowest 0.96 and the highest 1.46 indicates moderate to high variability within the data points.

In the study of [Rodríguez et al. \(2023\)](#), university students acknowledged the usability of ChatGPT and some of its good uses in terms of critical thinking. The study of [Karaköse \(2023\)](#) supported the idea of the usability of ChatGPT in educational researchers in terms of identifying gaps in the literature, generating new ideas, establishing hypotheses, and others. Additionally, in the study of [Biswas et al. \(2023\)](#), they concluded that ChatGPT is useful in providing quality and accurate information, but further evaluation was recommended to avoid potential misinterpretation.

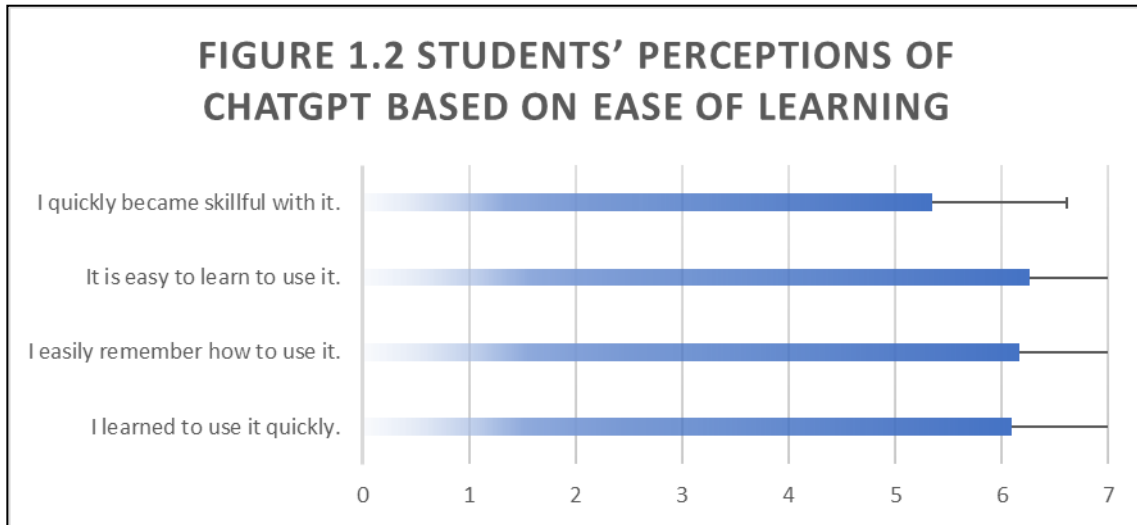


*The USE Questionnaires are scored on a Likert scale of 1 to 7, with 1 indicating strongly disagree and 7 indicating strongly agree.

Figure 2. Students' Perceptions of ChatGPT Based on Ease of Use

ChatGPT's ease of use garnered a mean score of 5.53, indicating that BEED students find the system easy to use. In addition, students expressed that ChatGPT is simple to use and user-friendly. However, the results revealed that the students experienced inconsistencies in ChatGPT's responses. Even though students find ChatGPT relatively easy to use, they still need guidance on navigating and maximizing the potential benefits of utilizing ChatGPT in enhancing their essay-writing skills. Furthermore, although most items exhibit a moderate degree of consistency, more significant variability is evident concerning the requirement for written instructions and the detection of inconsistencies during use.

In the study of [Ngo \(2023\)](#), university students found that ChatGPT is easy to use and cited its benefits, including reducing time, offering information in a variety of fields, providing personalized tutoring and feedback, and illuminating thoughts in writing. They mentioned the challenges in using ChatGPT and recommended solutions to improve ChatGPT's use in education. Correspondingly, the study of [Amaro et al. \(2023\)](#) indicated that the participants knew that the chatbot generated both correct and incorrect answers for several predetermined questions. Moreover, this recommendation was supported by [Sharma and Yadav \(2022\)](#), who concluded that ChatGPT can be used for teaching and learning but teachers and students must know how to use it responsibly.

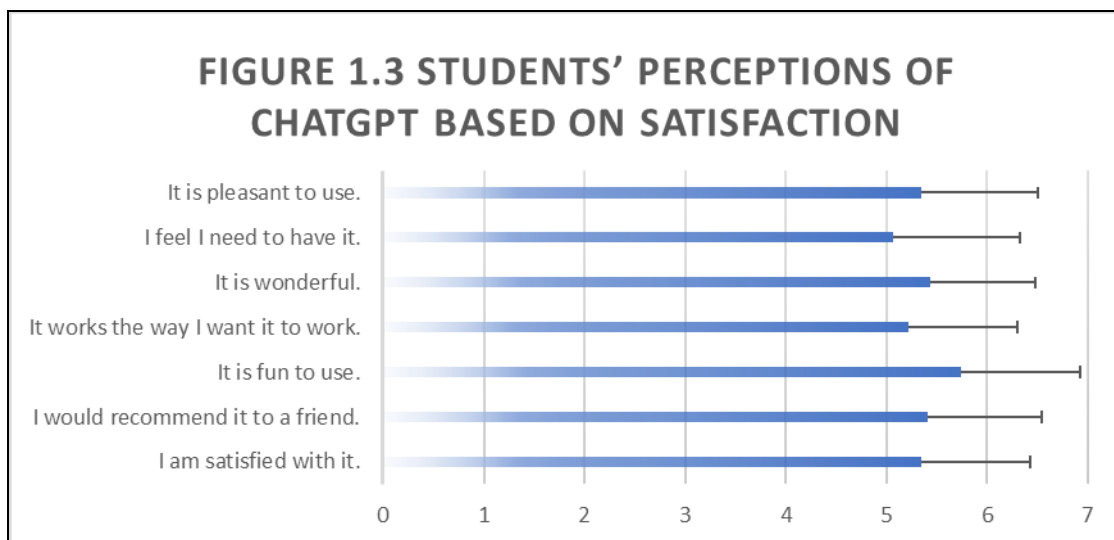


*The USE Questionnaires are scored on a Likert scale of 1 to 7, with 1 indicating strongly disagree and 7 indicating strongly agree.

Figure 3. Students' Perceptions of ChatGPT Based on Ease of Learning

The findings underscore favorable perceptions of students regarding ChatGPT's ease of learning, with a mean score of 5.97. The result indicates that students find ChatGPT easy to learn and remember how to use it. While there was a slightly lower rating for the speed at which the BEED students became skillful with ChatGPT, it is evident that they had positive experiences learning how to utilize ChatGPT to enhance their essay-writing skills. The standard deviation of students' perceptions regarding the ease of learning ChatGPT indicates a moderate level of heterogeneity. Furthermore, there is greater variety in perceptions of the rate of learning and skill acquisition. This confirms the findings of [Limna \(2023\)](#) that students typically have a favorable view of utilizing ChatGPT for learning purposes. English educators and students easily utilize ChatGPT with a favorable outlook on its effectiveness in education. Students have a positive perception of integrating ChatGPT into the classroom, especially for writing assignments.

The results align with the existing research on students' perspectives regarding the influence of ChatGPT and other AI-powered tools on their writing, where students demonstrated improved writing skills throughout the assessment period ([Marzuki, 2023](#)). The ChatGPT's positive impact on students' academic performance, such as improved idea generation, enhanced coherence between ideas and sentences, and higher grammatical precision, was attributed to its user-friendly learning interface.



*The USE Questionnaires are scored on a Likert scale of 1 to 7, with 1 indicating strongly disagree and 7 indicating strongly agree.

Figure 4. Students' Perceptions of ChatGPT Based on Satisfaction

The findings on ChatGPT's usability demonstrate positive indicators in various areas. Results indicate that BEED students are highly satisfied with ChatGPT's usability, as shown by a mean score of 5.37. Notably, students are inclined to recommend ChatGPT to others. The findings emphasize students' satisfaction with ChatGPT. The average standard deviation in students' satisfaction with ChatGPT indicates that students are generally satisfied with the AI tool. While there is consistency in themes like satisfaction, enjoyment, and recommendation, there is also greater heterogeneity in the strength of these impressions among BEED students.

The study by [Lee and Park \(2023\)](#) found that ChatGPT literacy has a significant positive impact on user satisfaction. It also revealed that information and knowledge acquisition, as well as entertainment and leisure, partially mediate the relationship between ChatGPT literacy and user satisfaction. The results may have implications for large language model developers and practitioners, such as educators. According to [Ngo \(2023\)](#), students generally held a positive view of ChatGPT's application. Students believe that ChatGPT offers benefits such as time-saving, giving information across different subjects, personalized tutoring, and feedback, and enhancing writing ideas. Therefore, it provides them with satisfaction.

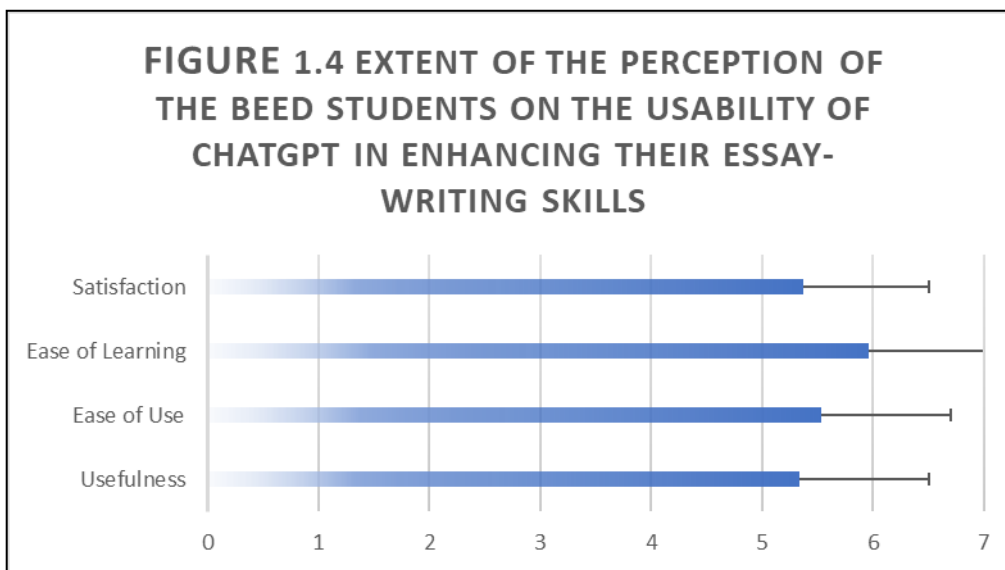


Figure 5. Extent of the Perception of The Beed Students on The Usability of ChatGPT in Enhancing Their Essay-Writing Skills

With an overall mean of 5.55, BEED students’ perceptions of the usability of ChatGPT is generally positive. They perceive CHATGPT as useful for enhancing or giving assistance on their English essays. They also find the system easy to navigate and to learn. BEED students are also satisfied with their experience with ChatGPT. The findings also indicate a moderate variability of perceptions among BEED students about the usability of ChatGPT.

The study conducted by [Haleem et.al \(2022\)](#) found that ChatGPT is highly beneficial for English language acquisition, particularly in essay writing, as it is capable of producing essays. It claims that ChatGPT is a useful and user-friendly application that may offer solutions to both major and minor issues in life. Furthermore, the study asserts that these AI technologies are capable of engaging in human-like conversations on a wide range of topics using natural language. ChatGPT has garnered praise for its advanced capabilities and user-friendly interface.

Moreover, the research findings by [Caratiquit \(2023\)](#) unveil that effective and ethical employment of ChatGPT plays a vital role in promoting educational progress and enhancing academic achievement among students, which may include essay writing, thereby fostering their motivation to acquire knowledge.

The data indicates that BEED students' English essays predominantly scored at the "Proficient" level based on the rubric criteria for Integration of ChatGPT, Coherence with the Voice, and Balanced Use of ChatGPT. Students use ChatGPT to improve their English essays while following the criteria for utilizing ChatGPT as a writing aid. However, the data indicates that students need further assistance on how to effectively integrate ChatGPT into their English essays while maintaining academic integrity and how to restrict the AI tool's use in their essays. The findings imply that although BEED students may combine ChatGPT suggestions with their thoughts, they need to enhance the depth and complexity of their critical thinking skills when writing English essays with the use of ChatGPT. Therefore, teachers must exercise

caution when using AI technologies such as ChatGPT and emphasize transparency, underscoring the importance of human intellect and critical thinking in learning (Dergaa et al., 2023).

Table 1. BEED students’ level of ChatGPT-assisted Writing Proficiency in their English Essays

Proficiency Level	Integration of ChatGPT		Critical Thinking		Coherence with Voice		Academic Integrity		ChatGPT Limitations		Balanced Use of ChatGPT		No. of Students per Level
	f	%	f	%	F	%	f	%	F	%	f	%	
1 Novice (0-6)	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Basic (7-12)	0	0	5	8.62%	7	12.06%	6	10.34%	3	5.17%	2	3.45%	0
3 Competent (13-18)	22	37.93%	28	48.27%	13	22.41%	29	50%	28	48.27%	23	39.65%	17
4 Proficient (19-24)	29	50.00%	21	36.20%	31	53.45%	17	29.31%	27	46.55%	26	44.83%	31
5 Expert (25-30)	7	12.06%	4	6.89%	7	12.06%	6	10.34%	0	0	7	12.07%	10
Average score: 21.14 (PROFICIENT) N = 58 (100 %)													

The overall assessment of the writing proficiency of BEED students in their ChatGPT-assisted English essays using a rubric prepared by the researchers yielded generally positive results, with an average score of 21.14, highlighting that most BEED students are at a proficient level in writing English essays. This aligns with [Mahapatra's \(2024\)](#) research, highlighting that ChatGPT improved students' academic writing skills. [Bozkurt et al. \(2023\)](#) suggest that ChatGPT has the potential to improve students' language skills, specifically in writing, through prompt feedback and ideas or by simulating a text-based conversation partner. The study also implies that BEED students can integrate ChatGPT suggestions while maintaining their individuality. Furthermore, developing their critical thinking skills and upholding academic integrity is needed.

[Dergaa et al. \(2023\)](#) highlight the importance of discussing the potential uses, risks, and limitations of these instruments, emphasizing the ethical and academic standards, along with human intellect and critical thinking. Users must approach the exploration of potential applications of generative AI in education with careful consideration and discernment. This involves carefully assessing the benefits and drawbacks of this technological advancement ([Bozkurt, 2023](#)).

Table 2. Relationship Between Usability of ChatGPT in Enhancing English Essay Writing Proficiency of the BEED Students

	r	p-value	SD	Extent of Relationship	Remarks
Relationship between the usability of ChatGPT and English Essay Writing Skills	.042	.0004	.34	Very Weak	Significant

* The p-value was calculated from the Pearson (r) calculator.

* $p < .05$

The statistical analysis reveals a significant but weak relationship between the usability of ChatGPT and the English essay writing proficiency levels of the BEED, as indicated by a Pearson correlation coefficient (r) of 0.042 and a p-value of 0.0004. The relationship between ChatGPT's usability and English essay-writing proficiency is classified as extremely weak, indicating that although there is a noticeable connection, its importance may be limited. This is consistent with [Bašić et al.'s \(2023\)](#) study, which found that students who used ChatGPT struggled to generate higher-quality content. However, the results generally indicate that students' high perceptions of using ChatGPT have value in improving their AI-assisted Essay Writing Skills. Confidence in the use of ChatGPT can slightly improve their AI-aided Essays. Overall, ChatGPT aided their Essay Writing skills to a proficient level. This corroborates the research conducted by [Mahapatra \(2024\)](#), which underscores the reliability of ChatGPT as a practical writing tool. Furthermore, it is worth noting that students did not entirely rely on using ChatGPT to write their essays or improve their English Essay Writing.

The primary goal of the rubric was to balance the use of ChatGPT in their Essays to sustain the human voice and avoid plagiarism. The result is coherent with the purpose of the rubric, which is to balance the use of ChatGPT in English essays. Conversely, in the absence of constraints in the rubric regarding the students' use of ChatGPT, they would have been able to utilize ChatGPT to its greatest extent when composing their essays. This would potentially lead to a stronger correlation between ChatGPT use and their essays, which could imply complete reliance on ChatGPT in writing essays. The results could have been different without the balanced use of ChatGPT rubric. Nevertheless, the rubric was specifically created to prevent plagiarism, preserve the individuality of students' work, and use artificial intelligence, all while ensuring that students' genuine progress is not overlooked. Irrespective of the outcomes, this implies that AI serves as an additional support to the pupils' essay-writing abilities.

The study's findings depict that BEED students find ChatGPT useful, easy to use, and learn. Additionally, they expressed satisfaction with the system. This affirms the outcomes of the study findings of

Duval et. al. (2020), which suggest that natural language processing tools are helpful for writers. ChatGPT can also improve writing since it can provide various feedback.

The usability of ChatGPT in enhancing English essays yielded high results, and their English essay proficiency level with ChatGPT integration generally had good results, which students categorized under the "Proficient" level. This implies that participants appropriately utilized ChatGPT in their English essays. However, they can still learn more about operating the tool to maximize its full potential to enhance their English essays. ChatGPT-assisted writing could depend on the user's previous knowledge and skills (Bašić et al., 2023). Shaikh et al. (2023) suggest that Educators and language learners alike should investigate different methods of incorporating this AI tool to enrich the experience of language learning. Instead of completely prohibiting the use of ChatGPT, educators should investigate methods to collaborate with these AI-driven tools and make the most of their capabilities (Barrot, 2023).

Moreover, it is interesting to note the emphasis on balance in integrating ChatGPT into essay writing, as highlighted in the rubric. While ChatGPT can certainly enhance writing skills to some extent, it is crucial to recognize its limitations, particularly regarding English essay writing proficiency among students. Malik et al. (2023) emphasize that AI plays a crucial role in enhancing academic writing, but there should be balanced integration to maintain human ingenuity and critical thinking in academic discourse. Nevertheless, BEED students utilize ChatGPT to enhance their English essays while maintaining balance in the system's use.

The observation of a "very weak relationship" between ChatGPT and essay writing proficiency suggests that while the tool can augment these skills, the improvement may be moderate at best. This underscores the importance of using ChatGPT as a supplementary tool rather than a primary means of writing, ensuring that students still develop and maintain their proficiency in English essay writing while benefiting from the assistance provided by the AI tool. Thus, the emphasis on balance in the rubric seems apt, encouraging students to leverage ChatGPT without overly relying on it. Furthermore, Cotton, Cotton, and Shipway (2023) state that clear guidelines for using ChatGPT must be communicated to the students.

CONCLUSION

This study found that BEED students perceived ChatGPT as a useful and easy-to-use tool for improving their English essay-writing skills. It can also be concluded that these students were satisfied with using ChatGPT and can integrate it into writing their essays. However, though its integration into their essay only revealed limited results, it is also important to consider that the role of ChatGPT is supplementary rather than a primary writing tool. With this information, it can be concluded that ChatGPT may improve the students' essay writing proficiency but only to a minimal extent. The student's ability to communicate and organize their thoughts and put them into writing is still the major determinant in identifying their proficiency level in essay writing.

Educators should continue to hone the students' foundational writing proficiency and critical thinking skills in their outputs and maintain human ingenuity in their writing. Additionally, this study has several recommendations based on what has transpired in the results to improve the usability of ChatGPT in the writing proficiency of the students.

1. Further studies on using ChatGPT in other academic writing outputs beyond essay writing should be explored.
2. Educators should strive to balance the integration of ChatGPT in students' writing and ensure the development of their writing proficiency.
3. The rubrics used for assessing student writing outputs should be revised and include the use of vocabulary, grammar, and sentence structure in its criteria.
4. Educators may organize training to guide the students in using AI tools like ChatGPT effectively.
5. Policymakers should set clear policies and guidelines on using ChatGPT in academic settings.
6. Teachers may conduct a comparative study to analyze more comprehensively ChatGPT's assistance in English essays by comparing AI-assisted essays to those written solely by students.

ACKNOWLEDGMENT

This study was supported by the students and faculty of Mindanao State University- General Santos College of Education.

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