The Role of ChatGPT in Enhancing Paraphrasing Skills to Minimize Plagiarism in Student Assignments

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Abstract
The innovation of artificial intelligence (AI) in education has opened up new avenues to improve academic skills, especially in improving paraphrasing and reducing plagiarism. This research explores the role of ChatGPT, an AI-based language model developed by OpenAI, in helping university students improve paraphrasing and avoid plagiarism in academic tasks. Using quantitative methods, a survey was conducted among 30 university students to assess their experiences and perceptions of ChatGPT's effectiveness. The results showed that 76.7% of students reported improvement in paraphrasing skills after using ChatGPT, and 46.6% believed that ChatGPT helped reduce plagiarism. However, some respondents remained neutral or sceptical about the effectiveness of this tool. Although the findings suggest that ChatGPT can be a valuable resource in academic writing, this study highlights the need for further refinement of this technology and more comprehensive guidelines for its use. This research provides insights for students and educators in integrating AI tools such as ChatGPT to foster academic integrity and improve reding skills.
Keywords: Chat GPT, Paraphrasing, summarizing, university Students, Reading skill

INTRODUCTION

The development of artificial intelligence (AI) technology has brought significant changes in various aspects of life, including education. One AI innovation that has attracted attention is ChatGPT, a language model developed by OpenAI. ChatGPT has the ability to generate coherent and contextualised text, opening up a wide range of possible applications in learning and academic writing. Plagiarism remains a serious problem in the academic environment. Plagiarism among students has become a widespread problem in higher education institutions around the world. Studies show that plagiarism is prevalent among university students in various forms, including copying text without attribution, paraphrasing without citation, and self-plagiarism (Clarence et al., 2023; Akib & Ibrahim, 2017). In the academic world, plagiarism is a critical issue and often a major concern in the assessment of student assignments. Plagiarism not only undermines academic integrity but also hinders students' ability to think critically and creatively. Therefore, the ability to properly paraphrase sources becomes crucial. Paraphrasing, or rephrasing ideas from the original text using different words without changing the meaning, is a skill that every student must master to avoid plagiarism and improve the quality of their academic writing. However, paraphrasing correctly is not an easy task. Paraphrasing is an important skill in academic writing, allowing writers to present the ideas of others in their own words while still giving proper acknowledgement. However, many students have difficulty in performing effective paraphrasing. According to research conducted by Magdalena et al, 2023, university students often find it difficult to re- express complex ideas without relying too much on the author's original words, which can lead to unintentional plagiarism or improper citation In this context, ChatGPT emerges as a potential tool to help

university students improve their paraphrasing skills. ChatGPT's ability to generate various alternative formulations of a text can provide examples and inspiration for students in practising paraphrasing. However, research on the effectiveness of ChatGPT in improving paraphrasing skills and reducing plagiarism is still limited.

This study aims to fill that gap by investigating two main research questions: How does ChatGPT play a role in improving students' paraphrasing skills? Can the use of ChatGPT significantly reduce students' academic assignment plagiarism? The originality of this research lies in its specific focus on the use of ChatGPT as a tool to improve paraphrasing skills and reduce plagiarism. While previous studies have explored the use of AI in education in general, this research will provide in-depth insight into the potential and limitations of ChatGPT in this specific context The contribution of this research is expected to be useful for various parties in the academic world. For students, the results of this study can provide new strategies in improving their paraphrasing skills. For educators, this research can provide insights on how to integrate AI technologies such as ChatGPT into the curriculum to support the development of academic writing skills. More broadly, this research can contribute to the ongoing discussion on the role of AI in education and its implications for academic integrity.

RESEARCH OBJECTIVES

The main objective of this study was to evaluate the effectiveness of ChatGPT in improving students' paraphrasing skills and its impact on the level of plagiarism in academic assignments. In addition, this study aims to develop practical guidelines for educators and students in using ChatGPT as a learning tool to improve academic integrity. The integration of Artificial Intelligence (AI) in education offers significant benefits, but also presents challenges that require careful consideration. AI can personalise learning experiences, improve teaching methods, and increase overall educational effectiveness (Rochmawati et al., 2023; Zakiyah et al., 2024) so the integration of AI technologies in education must be done carefully, considering both the potential and the risks. This research aims to provide a better understanding of the potential and limitations of ChatGPT in the specific context of paraphrasing and plagiarism prevention, so as to inform future policy and practice.

Literature Review
ChatGPT

ChatGPT is an artificial intelligence (AI) based language model developing by OpenAI, designed to understand and generate text based on given input. Using advanced models such as Generative Pre-Trained Transformer (GPT) 3.5 and 4, ChatGPT has attracted widespread attention and rapid adoption, with more than one million users in various fields in the first week of its launch. This popularity reflects the increasing recognition and utilization of AI-based chatbots in various sectors. ChatGPT offers a variety of applications and benefits. First, it excels in generating well-structured text, ensuring coherence and good organization in its responses. Secondly, ChatGPT demonstrates a wide vocabulary and language fluency, which enhances the quality and fluency of the generated content. In addition to being a writing aid, ChatGPT can also serve as a quick search engine, able to retrieve relevant information immediately. The chatbot has the ability to search and analyze available literature, which helps researchers and professionals in their work.

Paraphrasing

Paraphrasing is the process of rephrasing or restating someone else's ideas in your own words while preserving the original meaning. It is a valuable skill for writers and students, enabling them to integrate information from other sources into their work without directly

quoting the original text. Paraphrasing demonstrates a student's ability to comprehend information by analyzing grammatical structures and language features to create new statements that still accurately reflect the original ideas. According to Escudero, Fuertes, and Lopez (2019, p. 58), paraphrasing is not simply about changing words in a sentence but also involves strategically altering sentence structure and phrasing without omitting any important information from the original text. Keck (2014, p. 8) provides an example of paraphrasing, where a student selects an excerpt from a source text, makes at least one word-level change, and attempts to convey the original meaning. The quality of paraphrasing is assessed using specific criteria.

Reading skill

Reading skill refers to the ability to understand, interpret, and analyze written text effectively. It involves various cognitive processes such as decoding words, comprehending meaning, recognizing context, making inferences, and critically evaluating the content. The reading skill represents the third level of the hierarchical model for language development containing five levels: Receptive language, expressive language, reading, writing, and employing written and verbal language in daily life (Al-Khasawneh, 2020).

Plagiarism

Plagiarism is the re-utilization of another person's ideas, processes, results or words without explicitly acknowledging the original author and source (IEEE 2008). Although plagiarism can occur unintentionally, it is often the result of a deliberate process. plagiarism can occur unintentionally, it is often the result of a deliberate process. who fails to provide appropriate sources is suspected of plagiarism. Plagiarism is an increasingly worrying issue in higher education, especially with increased access to digital resources (Park, 2003). Research shows that students often perceive plagiarism as a common and less serious form of cheating (Duggan, 2006; Scanlon & Neumann, 2002). Students often rationalise their behaviour and downplay the significance of plagiarism committed by themselves and their peers (Park, 2003). The reasons for plagiarism are multifaceted, and the problem is exacerbated by widespread internet access (Scanlon & Neumann, 2002). To tackle this problem, institutions in the UK need to develop a comprehensive framework that includes prevention strategies, robust detection methods, and consistent application of penalties (Park, 2003). Although the exact extent of plagiarism on the internet remains unclear, professors' use of plagiarism detection software is increasing (Scanlon & Neumann, 2002). These findings underscore the need for universities to proactively address academic integrity issues in the digital age.
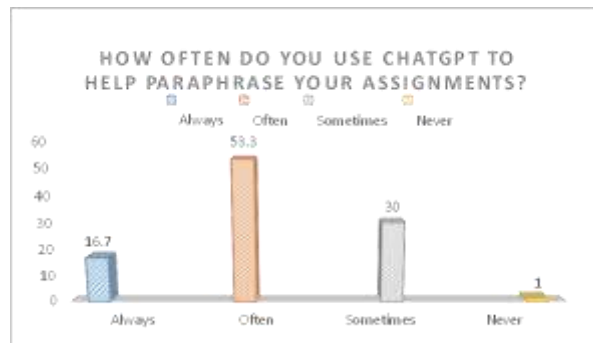
University Students

Students are individuals registered at an institution of higher education, working towards a degree in various fields. They attend classes, complete assignments, and engage in academic activities to gain knowledge and skills for their future careers. In addition to academic activities, college students also often engage in extracurricular activities, internships, and part-time jobs to enhance their personal and professional development.

METHODOLOGY

This research uses a mixed method approach with 30 respondents, which combines quantitative and qualitative methods. This approach was chosen because it is considered to be able to provide a more comprehensive understanding of the phenomenon we studied, by utilising the advantages of each method. Quantitative methods provide generalised and statistically measurable data, while qualitative methods provide a more in-depth and detailed
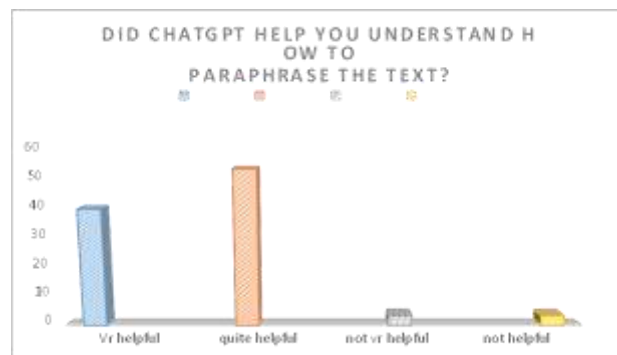
understanding of the views of the research subjects. In the quantitative approach, we used a questionnaire as the main instrument to collect data from respondents. The questionnaire was designed with multiple-choice questions that measured respondents' perceptions, attitudes, and understanding of the research topic. The questionnaire was distributed online through the Google Form platform in order to reach more respondents effectively and efficiently. The use of online questionnaires also allowed for faster and more organised data collection. After the quantitative data was collected, we conducted descriptive statistical analyses, such as calculating the percentage, frequency, and average of respondents' answers for each question. To complement the quantitative results, we also conducted a qualitative approach with in-depth interviews with selected respondents. These respondents were selected based on their answers in the questionnaire, to get a more detailed perspective on the findings from the quantitative data. The interviews were conducted with the aim of digging deeper into the views, experiences and reasons behind their answers, as well as identifying factors that may not have been revealed through the questionnaire.

Findings Q1

Results from the survey on the frequency of using ChatGPT to help paraphrase assignments showed that 16.7% of respondents always used ChatGPT, 53.3% often, and 30% sometimes. This indicates that the majority of respondents (70%) rely on ChatGPT consistently, either often or always, in the paraphrasing process. This data also reflects a fairly high level of reliance on This research uses a mixed method approach with 30 respondents, which combines quantitative and qualitative methods. This approach was chosen because it is considered to be able to provide a more comprehensive understanding of the phenomenon we studied, by utilising the advantages of each method. Quantitative methods provide generalised and statistically measurable data, while qualitative methods provide a more in-depth and detailed understanding of the views of the research subjects.
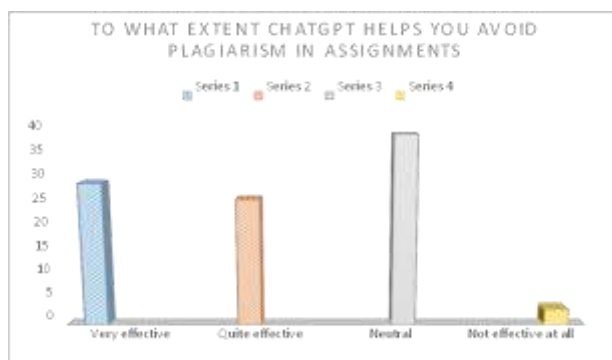
Q2

Based on the respondents' survey results about ChatGpt helping them understand how to paraphrase texts, it can be concluded that the majority of respondents perceived positive

benefits from using this tool. A total of 40% of respondents found ChatGPT very helpful, while 53.3% found it moderately helpful. This means that a total of 93.3% of the respondents benefited significantly from ChatGPT in understanding paraphrasing techniques. On the other hand, only a small percentage of respondents were dissatisfied, with 3.3% finding ChatGPT not helpful enough and another 3.3% finding it not helpful at all. These results indicate that ChatGPT is likely to be an effective tool in helping users understand and practice paraphrasing, although there is still room for improvement to meet the needs of all users.

Q3

Results from the survey on the extent to which ChatGPT helps avoid plagiarism in assignments showed that the majority of respondents, 56.7%, had a positive view of ChatGPT in this context, with 30% considering it very effective and 26.7% rating it moderately effective. This shows that more than half of the respondents perceived tangible benefits from using ChatGPT to reduce the risk of plagiarism in their assignments. However, the largest percentage of respondents (40%) chose to be neutral, which may indicate that they are not yet convinced or have not felt the significant impact of using ChatGPT in avoiding plagiarism. On the other hand, only a small percentage of respondents (3.3%) thought ChatGPT was not effective at all in helping to avoid plagiarism. This result shows that although ChatGPT is considered useful by many users in the context of avoiding plagiarism, there is still room for further improvement and education regarding the effective use of this AI tool in the academic process.

Q4

Based on the respondents' survey results about feeling more confident in paraphrasing after using ChatGPT, it can be analysed that the use of ChatGPT has a positive impact on users' confidence in paraphrasing. The majority of respondents, 53.3%, felt quite confident in paraphrasing after using ChatGPT, indicating that more than half of the participants felt a significant improvement in their ability. Furthermore, 16.7% of respondents even felt very confident, indicating that ChatGPT had a very positive influence on a small percentage of users. Meanwhile, 30% of respondents were neutral, which may indicate that they did not feel any significant change or were still undecided about the impact of ChatGPT on their paraphrasing skills. Overall, this data shows that ChatGPT tends to increase users' confidence in paraphrasing, with a total of 70% of respondents reporting increased confidence to varying degrees.
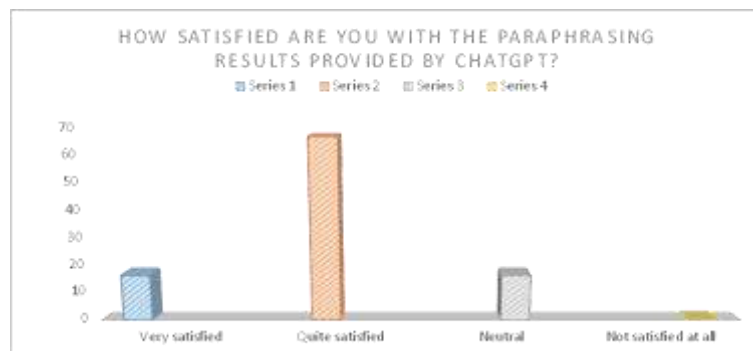
Q5

In terms of ease of understanding the paraphrase results, the majority of respondents (83.3%) considered that the paraphrases generated by ChatGPT were understandable, with 50% stating that it was fairly easy and 33.3% that it was very easy. These two results show that the majority of respondents (83.3%) were able to understand the results provided by ChatGPT.

This suggests that ChatGPT is effective in generating paraphrases that are generally understandable to users, although there are still 16.7% who are neutral, which may still require improvement in relevance for some situations.
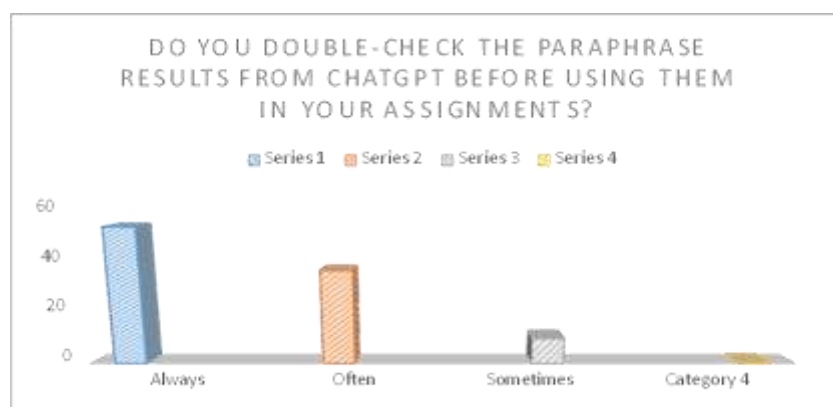
Q6

According to the survey on whether ChatGPT can replace the manual understanding of paraphrasing text, the majority of respondents (56.7%) were neutral, indicating that respondents who use this AI are still unsure and still have confidence in the use of the manual paraphrasing process in their tasks, while 38.7% agreed that ChatGPT can serve as a substitute and have full confidence in the ability of this AI to facilitate paraphrasing activities for tasks. Only a small proportion (3.3%) disagreed or strongly agreed. This indicates that while there is confidence in ChatGPT's potential, many users still doubt whether the technology can fully replace manual comprehension, as the manual paraphrasing process is often perceived as more in-depth and contextualized.
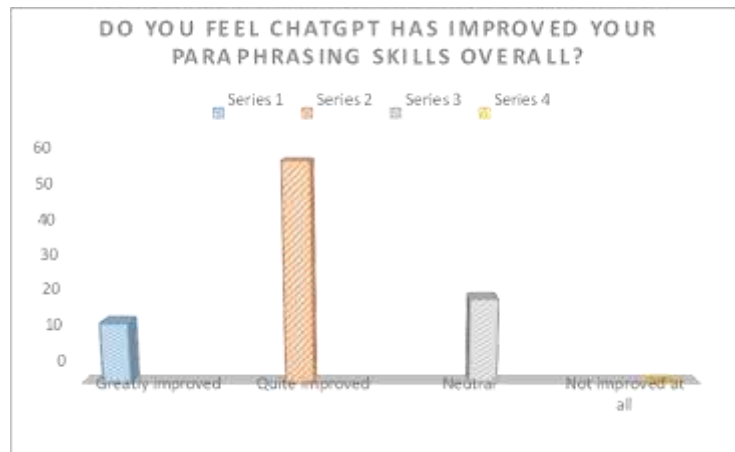
Q7

The results of the survey on whether the use of ChatGPT can replace manual paraphrasing showed that the majority of respondents, 56.7%, were neutral. This suggests that many respondents are still unsure or do not have a firm stance on ChatGPT's ability to completely replace the manual process of paraphrasing. Meanwhile, 38.7% of respondents agreed that ChatGPT can replace manual comprehension, indicating that some respondents have faith in the technology's ability to ease the paraphrasing task. On the other hand, only 3.3% of respondents disagreed and strongly disagreed, indicating that views that strongly support or strongly reject this technology are relatively low. From the data, it can be inferred that despite the faith in the effectiveness of ChatGPT, the majority of respondents are still cautious in assessing whether the technology can truly replace manual comprehension.
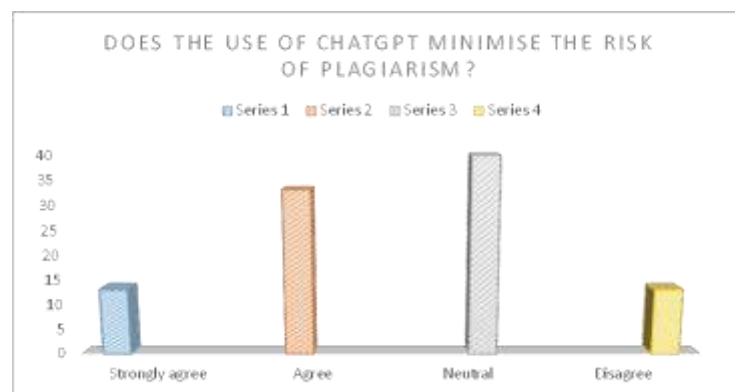
Q8

According to the survey results regarding the respondents' level of satisfaction with the paraphrasing results provided by ChatGPT, the majority of respondents, 66.7%, were quite satisfied with the quality of the paraphrases produced. This shows that in general, ChatGPT succeeds in meeting users' expectations in paraphrasing text well, despite there may be some aspects that can still be improved. A further 16.7% of respondents were very satisfied, indicating that a small proportion of users felt that the paraphrasing results met their expectations, both in terms of clarity and accuracy.

Q9

The data regarding the impact of ChatGPT on students' paraphrasing skills shows that the tool has had a largely positive effect. A significant majority of students, 76.7%, indicated that their paraphrasing skills have either "greatly improved" (16.7%) or "quite improved" (60%) with the help of ChatGPT. This highlights the effectiveness of the tool in enhancing students' ability to rephrase content, which is crucial in minimizing plagiarism in assignments. Meanwhile, 23.3% of students felt neutral about the impact of ChatGPT, suggesting that, while beneficial for most, some students may not have experienced substantial improvements. Importantly, none of the respondents indicated that ChatGPT had no effect on their paraphrasing skills, further reinforcing its role as a useful resource in academic.

Q10

The data on whether the use of ChatGPT minimizes the risk of plagiarism presents a mixed yet informative perspective. A combined total of 46.6% of respondents either "strongly agree" (13.3%) or "agree" (33.3%) that ChatGPT helps reduce plagiarism. This suggests that nearly half of the students believe the tool is effective in assisting with original content creation. However, a substantial portion, 40%, remains neutral, indicating uncertainty about ChatGPT's impact on preventing plagiarism. Additionally, 13.3% of students "disagree" with the idea that

ChatGPT minimizes plagiarism, reflecting some skepticism about its role. Overall, while many students recognize ChatGPT as a helpful tool, there is still considerable variation in perception, with some students either unsure or unconvinced of its effectiveness in this regard.

CONCLUSION

The findings revealed that 46.6% of students thought ChatGPT contributed to a decrease in plagiarism, and 76.7% of students said their paraphrasing abilities had improved as a result of utilising the service. Nonetheless, a few participants expressed a lack of opinion or doubt on the efficacy of this instrument. Thus, ChatGPT has been demonstrated to enhance students' paraphrase skills and positively impact the reduction of plagiarism risk. While opinions on how much less plagiarism there was varied, most users felt that using ChatGPT for paraphrase had a major positive impact. To maximise the tool's impact, additional enhancements and training on its proper usage are still required.

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