Understanding Student Perception Regarding The Use of ChatGPT in Their Argumentative Writing: A Qualitative Inquiry

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ABSTRACTS

This study is a qualitative study to understand perception regarding the use of ChatGPT in their argumentative writing. Argumentative writing equips students with the opportunity to emulate scientists, allowing them to collect data, analyse, and justify their findings while addressing research questions. This method has been proven to enhance both their learning and critical thinking abilities. However, with the rise of AI tools like ChatGPT, which are becoming increasingly popular among university students, concerns have emerged about their potential impact on students' capacity to craft argumentative papers. This study delves into these concerns, focusing on students' perceptions of ChatGPT's role in their argumentative writing endeavours. Employing qualitative research methods, seventeen students were selected as respondents using purposive sampling. The respondents were tasked with reflecting on this issue. The results from the analysis of documents indicated that although students acknowledge the extensive capabilities of ChatGPT, including its ability to provide information and guidance and decrease both research expenses and time consumption, they also voice apprehensions. These include doubts about ChatGPT's accuracy, potential over-reliance which could diminish their learning and critical thinking, and the looming risk of plagiarism. The study suggests that while embracing these tools can help produce meaningful argumentative writing more efficiently, caution must be taken to avoid unchecked use of ChatGPT in writing.

Keywords: *Student perception, ChatGPT, argumentative writing, qualitative inquiry, artificial intelligence.*

INTRODUCTION

According to Zhai (2022), ChatGPT is a general-purpose conversational chatbot that utilizes the GPT-3 language model developed by OpenAI. Its primary objective is to generate text that resembles human-like conversation, and it can engage in open-ended discussions on various topics. Distinguished from its predecessor, ChatGPT was trained using reinforced learning through human feedback to simulate natural conversations. Human feedback in the form of rewards is used to rank machine responses' quality and fine-tune the model through Proximal Policy Optimization. This new development approach enables ChatGPT to answer follow-up questions, acknowledge errors, challenge fallacious premises, and reject inappropriate

queries effectively. In contrast with other AI language models like Meta's language tool or RoBERTa dubbed as "more creative," ChatGPT generates more imaginative replies.

The use of artificial intelligence (AI) tools such as ChatGPT (OpenAI, San Francisco, CA), is becoming increasingly important in scientific writing (Golan et al., 2023). Whether you like or hate it, you need to face the fact that many other people are using ChatGPT to generate a lot of manuscripts right now. Instead of resisting it or wasting your time blaming it, a better choice is for you to manage to use this powerful tool as your assistant, ethically, to increase your productivity and the quality of your work. ChatGPT is a powerful tool to help students to write review articles more efficiently. Here are several reasons why you should use it to increase your proficiency in review writing, speed up your writing process, and save time. Writing a review article can be a time-consuming process, involving extensive research, organization, and writing. ChatGPT can speed up the writing process by automatically generating content that can be further edited and refined by human authors, saving valuable time and resources (Zhai, 2022; Yan, 2023).

ChatGPT also can help students to manage data. Students often need to sift through large volumes of data and research papers to find relevant information for their review articles. ChatGPT can assist with data management by analysing and summarizing large amounts of information effectively and much more quickly than humans (Zhai, 2022). ChatGPT can help students to improve the quality of scientific writing. ChatGPT can also help improve writing quality by identifying potential errors, inconsistencies, or gaps in the argument. This can help human authors refine their writing and ensure that their manuscript is accurate, well-structured, and well-supported by all available evidence as much as possible (Golan et al., 2023).

In addition to its other benefits, ChatGPT has the potential to assist students in maintaining a balanced and impartial approach. One of the key advantages of utilizing this platform is that it is not influenced by personal biases, allowing for a more diverse range of perspectives to be presented on any given topic. This feature can prove especially valuable in fields where there may be a multitude of conflicting opinions and viewpoints, such as when promoting a ketogenic diet for patients with cardiovascular disease. By providing an array of different perspectives, ChatGPT enables students to gain a more comprehensive understanding of various issues and make informed decisions based on the available evidence.

Moreover, if you are not a native English speaker, ChatGPT can be tremendously helpful. Are you tired of being criticized by reviewers and editors on your English writings for not using standard English, and suggest you ask a native English speaker to help proofread or even use the service from a professional English editor? ChatGPT can readily help you with grammar and sentence structure, suggest appropriate vocabulary choices, assist in translating text from one language to another, and so on. Argumentative papers offer students an opportunity to mimic the role of a scientist: they gather and analyse pertinent data before logically addressing research questions. Argumentation is not only about the knowledge students possess but also about their ability to construct convincing arguments (Cavagnetto, 2010).

A widely recognized model for teaching students argumentative writing is the Toulmin framework, which comprises six main elements: Claim, Grounds, Warrant, Backing, Counterargument, and Qualifier. The Claim is the central assertion, bolstered by the Grounds

(facts or evidence). The Warrant bridges the Claim and Grounds and is often reinforced by additional evidence termed as Backing. Counterarguments recognize alternate viewpoints, whereas Qualifiers refine the claim's ambit. Collectively, these elements craft a coherent and persuasive argument (Sampson & Clark, 2008).

The research underscores the significance of argumentative writing in enhancing students' literary and scientific communication abilities, refining their conceptual comprehension, and honing their problem-solving skills (Aguirre-Mendez et al., 2020; Cigdemoglu et al., 2017; Jang & Hand, 2017; Shultz & Gere, 2015; Walker & Wolf, 2017). Given the emergence of ChatGPT, a groundbreaking AI tool trained on vast data sets to produce human-like text (Birhane et al., 2023) and its rising use among students (reported at 30-43% among university attendees; "One-Third of College Students Used ChatGPT for Schoolwork During the 2022-23 Academic Year," 2023; Welding, 2023), there are burgeoning concerns about its impact on argumentative writing. This article seeks to understand the influence of AI tools like ChatGPT on argumentative writing by delving into student perceptions.

LITERATURE REVIEW

ChatGPT, an AI language model developed by OpenAI, utilizes a deep neural network architecture known as the transformer model. This mechanism of self-attention differentially weighs the significance of each part of input data to learn context and meaning by tracking relationships in sequential data like words in a sentence (Zhai, 2022). Following this penetrating phase, ChatGPT can generate natural language responses to user inputs (Birhane et al., 2023).

Upon receiving text prompts from users, ChatGPT generates a response based on its understanding of the input and patterns it has previously learned from its large corpus of text data. It is capable of generating various formats such as short answers, long-form essays, and even conversation-style interactions. To achieve this feat, ChatGPT dissects the input text into tokens that are processed by the transformer model to produce a probability distribution over every subsequent token in sequence. The highest probable token is selected while generating corresponding output text iteratively until meeting stopping criteria (Golan et. al., 2023).

The launch of ChatGPT (Chat Generative Pre-trained Transformer, OpenAI Limited Partnership, San Francisco, USA) on November 30, 2022, has sparked a wave of enthusiasm. People from all walks of life are eager to experiment with this novel application and discussions are lively, ChatGPT is a powerful tool that can help media and communication students in several ways when it comes to their academic writing course and assignments. The most important ways that ChatGPT can make a difference such as ChatGPT can help by generating ideas based on keywords and phrases entered by the student, providing writing tips and guidance, offering editing and proofreading support and answering specific academic questions. According to Hutson (2022), AI tools like ChatGPT have demonstrated their capacity for producing responses across multiple domains including scientific writing, creative writing and general conversations. Its ability to create coherent and contextually relevant natural language responses has made it popular for several applications ranging from automated content creation to language translation or processing.

ChatGPT is a tool with both merits and demerits for students. On the upside, ChatGPT can bolster student motivation to hone their reading and writing competencies (Ali et al., 2023). It enriches the learning experience by offering tailored feedback and promoting interactive dialogues, thereby nurturing comprehension and critical thinking (Neumann et al.,

2023; Silva & Janes, 2021). ChatGPT aids in demystifying intricate concepts for better understanding, preparing students for assessments, and rectifying grammatical errors (Sullivan et al., 2023). Many students view ChatGPT as an effective and streamlined learning aid that simplifies the learning, writing, and brainstorming processes (Bonsu & Baffour-Koduah, 2023; Chan & Hu, 2023). It can also alleviate teacher workloads (Farrokhnia et al., 2023).

On the other hand, the use of ChatGPT could hinder critical thinking and undermine students' ability to assess their learning, as stated by Sysoev and Philatov (2023). Moreover, this tool presents challenges to academic integrity since it can produce misleading information and bypass plagiarism detectors, as Rahman and Watanobe (2023) pointed out. There are also discrepancies among educators regarding the implementation and usage of ChatGPT (Neumann et al., 2023), and concerns about its impact on online exam integrity due to its advanced thinking capabilities (Sharples, 2022). In terms of writing, research has shown that ChatGPT can surpass humans in producing argumentative essays (Herbold et al., 2023). Another study highlighted that ChatGPT offers more comprehensive feedback on student essays than human educators.

METHODOLOGY

The present study employed a qualitative research approach, enabling a deeper understanding of students' perceptions regarding the topic in focus (Creswell & Poth, 2018). This study used a qualitative approach to obtain in-depth information about students' perceptions related to the use of ChatGPT in academic writing. The researcher has selected a total of 17 respondents using a purposive sampling method to obtain information related to students' perceptions. All participants were university students enrolled in the course of Knowledge and Language Center (PPIB) for English Courses. The use of purposeful sampling is because the respondents of the study have the characteristics required in the study, and this method allows the researcher to obtain clear information related to the objectives of the study.

To conduct the study, data was collected through the analysis of documents written by students. This approach is a valuable tool for researchers as it enables us to understand and categorize primary sources or original accounts from individuals who have had personal experiences with the topic at hand. The researcher utilized established sources when developing this study to gather ideas and evidence. By doing so, we were able to evaluate the quality and purpose of the documents they used, thereby determining whether or not the information contained within would be beneficial to our research.

The documents utilized in this study were centred around three main topics: student knowledge about plagiarism, student perceptions related to project paper writing, and the use of ChatGPT in academic writing. These documents served as research instruments and provided valuable insights into each of these areas. Through careful analysis of the data, researchers were able to gain a deeper understanding of these topics and develop new insights that could help shape future research.

Overall, the use of document analysis proved to be an effective method for collecting data and gaining insights into complex topics related to student writing. By utilizing established sources and carefully evaluating the quality and purpose of each document, researchers were able to develop a comprehensive understanding of each topic area. Moving

forward, these insights can be used to inform future research efforts aimed at improving student writing outcomes and promoting academic success.

For analysis, we utilized the thematic analysis approach as outlined by Braun and Clarke (2006). Thematic analysis is used because it is a method, or process, for identifying and encoding patterns of meaning in primary qualitative research (Braun & Clarke, 2013), it pinpoints and organizes the themes which the analyst deems to be important in the description of the phenomenon under study and are often associated with a specific research question. Our initial step was to immerse ourselves in the data, reading it repeatedly to gain familiarity. This was followed by the generation of initial codes, requiring another thorough review of the data. Throughout this coding process, new codes emerged, some were consolidated, and others were discarded. Subsequently, the research team deliberated on the primary themes and sub-themes, refining them for clarity and coherence. The final step was to articulate our findings, endeavouring to convey the participants' perspectives accurately while capturing the inherent complexity of their responses.

FINDINGS

Table 1: Themes and sub-themes of the present study

Theme	Sub-themes
Utilization and potentials	Responsible Use
	Endorsement and encouragement
	Information & Guidance
	Assistance in Academic Writing
	Increase motivation and reduce anxiety
	Cost & Time Effective
	Generate ideas and summary
	Expanding Worldviews
Concern and challenges	Reliability and authenticity
	Dependency and plagiarism
	hinder learning and thinking

After conducting a thorough examination of the available data, we have concluded that two key themes emerge as particularly significant: firstly, the issue of utilization and potential, and secondly, concerns and challenges. These two categories appear to be of paramount importance when considering the overall picture presented by the data, and as such we believe they warrant close attention from all parties involved. By focusing on these themes in greater detail, we hope to gain a deeper understanding of the underlying trends and dynamics at play within this complex system. Ultimately, we aim to use this knowledge to inform future decision-making processes and drive positive change towards a more effective and sustainable outcome.

Theme 1: Utilization and Potential
In today's fast-paced and technologically advanced world, ChatGPT is a tool that can be incredibly powerful if used wisely and with discretion. As one student has rightly pointed out, it should be used reasonably and only as an additional reference to supplement academic efforts. This ensures that students do not become complacent and avoid the hard work required to succeed in their studies.

However, while some students may feel that ChatGPT should only be used in moderation, others argue that even the smallest usage can prove useful. This view suggests that ChatGPT can act as a valuable resource for those who need quick answers or are struggling to comprehend certain concepts. It is important to note that the effectiveness of ChatGPT ultimately depends on how it is used. If individuals misuse this technology by relying solely on it instead of putting in genuine effort, they risk hindering their academic progress. Therefore, users need to exercise caution and responsibility when utilizing ChatGPT. By doing so, they can harness its potential benefits without compromising their learning journey.

> ChatGPT should be used responsibly, only as an additional reference source and not as a means to bypass the effort required in academic work (Student 14).

> The students could not learn more diversely because of this technology. However, ChatGPT can be used in writing research papers, but only in the slightest amount (Student 17).

> To sum up, ChatGPT is a good technology if people don't misuse it. This is because ChatGPT helps a lot, especially in generating a word. Some pros of using ChatGPT include that ChatGPT is versatile you can use ChatGPT to automate repetitive tasks and it can improve customer satisfaction (Student 3).

To become a proficient writer in the contemporary era, it is imperative to not simply utilize ChatGPT blindly, but rather comprehend its content and context. This viewpoint is held by a single student who recognizes the significance of fully grasping the intricacies of language and how it is utilized within various mediums. By gaining an understanding of this fundamental aspect of writing, one can effectively convey their message and ideas to their intended audience with clarity and precision. Therefore, aspiring writers need to approach ChatGPT with a critical eye and strive for comprehensive comprehension to master the art of written communication.

> To become a good writer in this technological era, one should not blindly accept ChatGPT's explanations but should try to understand its content and context. This will help the writer to enhance their ideas in project paper writing (Student 5).

In this modern age of technology, some students strongly advocate for the endorsement and adoption of ChatGPT. As we cannot halt the progress of technological advancements, we must learn to embrace them to reap their benefits while minimizing their drawbacks. By incorporating ChatGPT into our lives, we can effectively maximize its potential advantages and minimize any negative consequences that may arise. We must keep up with the ever-evolving technological landscape and strive to integrate new technologies into our daily routines for optimal efficiency and productivity.

Therefore, I do endorse using ChatGPT to write up the explanation for a research paper's strong argument as a tool to enhance my work rather than rely on it entirely (Student 10).

Therefore, they need to be prepared to face changes and innovations along with the times and fully master digital technology (Student 12).

Various fields are adopting advanced and sophisticated technologies, including AI-driven machines. As we cannot stop technological progress, we should adapt to it (Student 5).

AI systems are here for a reason; therefore, we should embrace them, maximize their potential, and do everything we can to get the most out of them (Student 17).

On the other hand, students believe ChatGPT has a lot of potential. One of which is providing information and guidance for the students. One student notes the role of ChatGPT in helping students in their argument by providing a lot of information. It can also help students to understand this information by providing them with a valid example. Other students' points ChatGPT could guide with different writing styles. One student noted that ChatGPT could assist students' writing by providing an explanation and helping tie the essay together.

Furthermore, ChatGPT can give valid examples in its explanation. It can search and pick award-winning essays and take its example to be used in its explanation (Student 6).

In my opinion, I support the use of Chat GPT for writing explanations for arguments in project papers. This is because ChatGPT greatly assists students by providing ample information to complete project papers according to the timeline set by the lecturer (Student 4).

ChatGPT can offer guidance on various writing styles, including descriptive, narrative, and expository writing (Student 4).

When it comes to explanation, ChatGPT can aid in writing it. With all the knowledge kept on the internet, it will learn and create an explanation for the topic with good precision. It can be organized as a well-supported paragraph that ties an essay together (Student 6).

Another student pointed out that students would be more motivated and engaged to learn due to the support and guidance they are receiving from ChatGPT. The same students note the role of ChatGPT is to reduce students because they are free to ask the questions, they need without being judged by others or feeling embarrassed which they may commonly feel when they ask for help from their teacher.

ChatGPT also helps increase student motivation and engagement with learning. By providing personalized support and guidance, ChatGPT can help a student stay on the right track, thereby achieving excellent results and grades (Student 4).

Furthermore, ChatGPT helps reduce anxiety in students. Some students may feel anxious or afraid when asking questions in class or seeking help from their teacher (Student 4).

The convenience of ChatGPT provides a safe and judgment-free environment where students can ask questions and receive feedback without feeling embarrassed (Student 4).

ChatGPT could also provide a personalized interaction that helps students discover new ideas and perspectives by providing prompts. Other students note that if you have high-speed internet, ChatGPT could save a lot of time and cost. Considering its availability 24/7, unlike teachers who cannot help students outside their business hours.

Lastly, ChatGPT will help to create follow-up questions to discover our new ideas and perspectives based on our given prompt. For example, if we are writing about the benefits of a matter, ChatGPT will generate follow-up questions such as how it benefits, what are the impacts, how it affects, and what is the role of the matter. It lets us view the topic in a bigger picture to make our writing more logical and critical (Student 7).

With a high speed to compile data on the internet, it can save time to read every material on the internet (Student 6).

Besides, ChatGPT also saves time. Unlike teachers, ChatGPT is available 24/7, allowing students to access it at any time when they need assistance, especially when writing essays. This can be particularly beneficial for students with busy schedules or those who need help outside of learning hours (Student 4).

ChatGPT could also help students generate ideas (brainstorming) as well as provide summarization. One student notes they can use the ideas produced by ChatGPT and explain further. Finally, humans could reach a more profound understanding with the help of ChatGPT.

ChatGPT has a lot of advantages. It can help us to brainstorm ideas for writing as ChatGPT can generate texts and summary by providing a topic or question (Student 7).

Besides, ChatGPT can be used to generate text and provide ideas. With the ideas given from ChatGPT, I can write as well as explain further (Student 10).

In conclusion, ChatGPT is the future for academic use. The human brain is good but with the help of AI. Once we have reached this height, there will be something new to replace AI (Student 6).

Theme 2: Concerns and Challenges
Some students believe we should not rely on ChatGPT because the information there may not be accurate. One student believes we use ChatGPT to search for key ideas, but we do not ask it to write all the explanations because the information may not be accurate. Other students believe ChatGPT would write the information in a statistically valid way. But it may not be true.

> I truly believe people should make use of ChatGPT to search for key points to get the idea to write up an excellent explanation. However, I would say we should write it on our own instead of just asking ChatGPT to write the whole explanation as it is just an AI, and it is not always accurate (Student 1).

> Unfortunately, ChatGPT tends to put words together in a form that they think is statistically valid, but they don't know whether what they say is true or accurate (Student 16).

Some students express their concern that using ChatGPT may hinder our ability (become dependent) to do the project on our own. One student condemned the use of ChatGPT only for copy-paste. Considering its impact on the future people lose interest in learning and just use ChatGPT. Another student did not endorse ChatGPT because it did not allow him to show his creativity and his ability to write the explanation.

> Chat GPT has a bad effect on me because it causes me not to use my ability to do project work. The activation of thought does not function, and limited knowledge will not form noble morals for me. Therefore, ChatGPT is used as additional information and reading for understanding the topic (Student 2).

> I condemned using ChatGPT if the user will only copy-pasting the AI work and claim it as theirs. This will make the future strongly dependent on the AI and people will lose interest in studying rather than just simply asking an AI (Student 9).

> From my view, I do not endorse using ChatGPT to write up the explanation for a research paper's strong arguments. This is because by using the ChatGPT itself, I cannot show my creativity and ability to write an explanation (Student 17).

The student did not prefer using ChatGPT for the research paper because it is considered plagiarism. Since you end up using other people's work as if it's your own. Another student was concerned that most people will just copy and paste directly from ChatGPT since ChatGPT makes it easy for students to plagiarize research papers. Students could easily get things wrong while falsely believing to be correct when they use this tool.

> In my opinion, I do not suggest using ChatGPT to write the research paper. Because it's considered plagiarism to represent someone else's work as your own (Student 15).

> For instance, if someone exploits ChatGPT to copy the elaborations entirely, it will violate moral principles as the resulting work would not be their own (Student 14).

> However, most people will use ChatGPT as a whole thing. This means that they simply copy-paste their assignment questions to ChatGPT and straight up copy or rephrase ChatGPT answers, and mark it as done. This is not supportable in any other way because we are here to learn new stuff not to copy from an AI (Student 9).

> ChatGPT has compounded the issue by making it easier for students to plagiarize the research paper. We can get things wrong and "hallucinate" incorrect facts when we use the ChatGPT (Student 15).

Finally, informants believe that the students who are using ChatGPT to do their work end up not learning anything. Another student noted that students should not use ChatGPT to complete their assignments or coursework. One of the main aims of the educational endeavour is teaching people to think on their own, not relying on other tools like ChatGPT. Moreover, other students believe that being dependent on ChatGPT would decrease students' critical thinking and problem-solving skills.

> The cons of using ChatGPT happen especially among students because students tend to ask the AI to do their work, by that they will not learn anything (Student 3).

> If ChatGPT is used by students taking online exams or completing any fieldwork assigned by lecturers, that would be wrong in my view. This is because the educational world aims to teach people to think and make decisions on their own without assistance from any party, including robots like ChatGPT (Student 8).

> I do not support the use of ChatGPT. This is because, by using ChatGPT, the younger generation will become more negligent. If the use of ChatGPT in academics is not controlled, the risk of fraud among students will also increase (Student 11).

> Other than that, I think by depending on ChatGPT, students' critical thinking and problem-solving skills can be reduced due to reliance on it. Moreover, ChatGPT may discourage students from using their creative thinking to solve the problems (Student 17).

DISCUSSION

This study delves deeply into the perceptions held by university students on the potential advantages and challenges of using ChatGPT for argumentative writing tasks. Our research revealed a consensus that, when used judiciously, ChatGPT can serve as a valuable tool. The platform's capability to offer information and guidance quickly, and in real-time, can substantially aid students in their writing endeavours. Immediate access to information can bolster student motivation, engagement, and confidence in their academic tasks.

The feature of personalized assistance, whereby ChatGPT interacts with individual students catering to their unique needs, stands out as a significant advantage. Notably, this personal assistance is both cost-effective and time-saving. Unlike traditional educators, ChatGPT is available beyond the constraints of working hours, offering students flexible learning opportunities.

The issues plaguing Asian classrooms, such as students' hesitance to engage due to fear of judgment, as indicated by Ahmad & Majid (2014), can potentially be alleviated with ChatGPT. The platform provides a private, judgment-free zone where learners can clarify doubts, thereby reducing classroom anxieties. Most of the former potentials regarding ChatGPT were supported by other studies, including Bonsu and Baffour-Koduah (2023), Chan and Hu (2023), Farrokhnia et al. (2023), and Sharples (2022).

An insightful reflection from a participant draws a parallel between ChatGPT and calculators. Just as calculators revolutionized complex computations, transforming laborious tasks into mere seconds-long processes, ChatGPT might usher in a similar revolution in argumentative writing. The tool could potentially reduce the time it takes to craft compelling arguments, allowing users to delve deeper into issues and enrich their understanding.

While there are several potential benefits associated with using ChatGPT, it's important to note that students have expressed legitimate concerns regarding this tool. One of the most significant issues raised is ChatGPT's inability to cite sources, which sets it apart from search engines like Google. This limitation can lead to questions about the authenticity and reliability of the information provided by ChatGPT (as noted by Dwivedi et al., 2023 and Wagner & Ertl-Wagner, 2023). Without a proper way to verify the source of the information, there is a risk that students may accept ChatGPT's responses without subjecting them to critical analysis. This underscores the importance of being vigilant when using any tool or resource for academic purposes and highlights the need for students to exercise caution when relying on ChatGPT as a primary source of information.

The issue of students becoming too reliant on ChatGPT is a cause for concern, as it could potentially lead to a decline in critical thinking skills. This concern has been expressed by several researchers, including Rahman and Watanobe (2023) and Sysoev and Philatov (2023). The ease and convenience of ChatGPT may inadvertently promote laziness among students, reducing their opportunities to exercise analytical faculties. Additionally, the accessibility and support provided by ChatGPT could worsen issues related to plagiarism and cheating. Several studies have raised concerns regarding this problem, including Farrokhnia et al. (2023), Lo (2023), Neumann et al. (2023), and Sullivan et al. (2023). Overall, educators need to recognize the potential drawbacks of relying too heavily on technology like ChatGPT, while also finding ways to leverage its benefits in a responsible manner that promotes critical thinking and academic integrity.

CONCLUSION

In conclusion, while most of the research to date, including our own, offers insights into the perceived benefits and challenges of ChatGPT, there remains a dearth of empirical evidence on the most effective integration strategies in academic settings. Future research should address this gap by experimenting with various methods, such as specific classroom regulations around ChatGPT's use. Such studies could evaluate the effectiveness of these strategies in enhancing student experience and curbing malpractices like plagiarism.

Moreover, the potential correlation between extensive ChatGPT usage and a decline in students' critical thinking and overall learning deserves thorough investigation. While our study sheds light on students' perceptions of ChatGPT in argumentative writing, its qualitative nature and reliance on self-reported data could affect the findings' generalizability and objectivity. Future research would benefit from more controlled environments and diverse methodologies to offer a more comprehensive understanding of this dynamic tool's role in education.

The emergence of ChatGPT has brought about significant implications for the assessment and evaluation of student's abilities in the classroom. Traditionally, essay writing and constructed response tasks have been commonly used to evaluate students' writing skills. However, with ChatGPT's ability to conduct such tasks with ease, there is a growing concern that students may be outsourcing their writing to AI. As a result, there is a need to change both the focus and formats of assessment practices. It is important to note that while general writing skills may be easily outsourced through AI, critical thinking and creativity cannot. Therefore, assessment practices targeting evaluation purposes should alter their goals accordingly. This change aligns with the needs of society and corresponding changes in educational learning goals.

In addition to altering the focus of assessment practices, educators may also need to consider innovative formats of assessments that require creativity and critical thinking. In doing so, they can better prepare students for success in their future lives. Overall, ChatGPT represents state-of-the-art AI technology that significantly reduces human intelligence workload. It has the potential to alter market needs for capable workers. As such, adjustments to educational learning goals, learning activities, and assessment practices are pressing and essential in preparing students for success in their future endeavours.

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