The Benefits and Weaknesses of ChatGPT on Students' Learning Writing

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ABSTRACT

Keywords: Chat GPT, Artificial Intelligence, Writing Learning

ChatGPT is seen as an Artificial Intelligence application of OpenAI in the industrial era 4.0. ChatGPT has been identified as possibly being used in a variety of disciplines, including education. Previous research has shown that employing ChatGPT as a learning helper can help students enhance their learner autonomy, research, and scholarship. Furthermore, studies discovered that ChatGPT poses several obstacles to learners, particularly those beginning to write, such as illusions and potential illicit authorship and copyright. Consider that there are few studies conducted in Vietnam on this topic. This study aims to identify the limitations of Chat GPT that people typically encounter when studying writing, particularly in the Research Writing Course, and explore whether Chat GPT helps learners improve writing outcomes. The author discovered qualitative data from interviews with seven Master Course students, indicating that despite the numerous problems that students frequently face when utilizing ChatGPT, this platform can help them improve their writing abilities.

Introduction

In industrial era 4.0, technology developed rapidly with the emergence of Artificial Intelligence (AI), which is a technological system created to help humans solve cognitive issues as intelligently as humans (Fitria, 2023). According to Fitria (2021a), AI is produced to perform human-like actions. It can understand humans' speech, perception, and emotions and respond to every requirement as an assistant to the user. Moreover, thanks to a developing focus on "intelligence", AI has more creativity to design software and solve complex problems. Therefore, AI is also considered Machine Intelligence and is applied in many fields (Mehrotra, 2019, cited in Fitria, 2021a).

In the sustainable development of artificial intelligence, AI was used through many platforms, such as Google on the Internet, Siri on Apple smartphones, etc. (Wei et al., 2018). ChatGPT is one of the most common AI applications, and it is a chatbot platform that allows users and computers to communicate through text-based online chat conversations (Fitria, 2023). Chat GPT has been considered the fastest-growing app since its public release in November 2022

(Rudolph et al., 2023). According to Firat (2023), Chat GPT has grown at a rapid pace, reaching over one million users in just five days, while Tiktok took nine months, Facebook took approximately one year, Twitter took two years, and Instagram took over two years (Wodecki, 2023 cited in Firat) to achieve the same number. Moreover, thanks to the innovation by the OpenAI company, ChatGPT is recognized as a potential application in various fields, especially in education (Bozkurt, 2023; Sallam, 2023). Students will likely improve their learner autonomy by using ChatGPT as a learning assistant (Biswas, 2023). Learners can use ChatGPT as an AI-based chatbot that can be contacted by both text and voice. The GPT language model allows it to provide learners with personalized recommendations and assistance. Furthermore, the study by Wang (2023) reported that Chat GPT can help learners enhance research and scholarship in six ways: (1) literature review assistance, (2) text generation, (3) data analysis, (4) language translation, (5) automated summarization, (6) question answering. The capabilities of GPT also concentrate on creativity and analysis of learners' work. Consequently, ChatGPT has become more and more prevalent in education.

While Chat GPT is considered an assistant for learning, many researchers argue that it may bring many disadvantages to learners, especially in learning writing (Nguyen, 2024; Ho, 2024; Pham & Le, 2024). Shidiq (2023) stated that the ability of Chat GPT can ease the processing of information, but it will make learners uncreative. In addition, Rudolph, Tan, and Tan (2023) reported that the GPT system gives learners incorrect information or answers. The number of instances of illusions, and prospective illegal authorship and copyright have increased in sending emails, disinformation, spyware creation, and hacking. Therefore, many countries and publishers prohibited the use of Chat GPT, such as North Korea, Iran, Russia, and China (Browne, 2023). Hence, many researchers doubt whether this technology has the potential to be disruptive to students' learning of writing (Pham & Le, 2024). Therefore, this study aims to identify the limitations of Chat GPT that people typically encounter when studying writing, particularly in the Research Writing Course, and explore whether Chat GPT helps learners improve writing outcomes.

Literature Review

What is ChatGPT?

ChatGPT is an Artificial Intelligence application of OpenAI company that is produced based on Chatbot technology and applied text generation tools, such as Chat GPT and GPT-3 (Fitria, 2023). In the rapid innovation of AI, Chatbot is built as "robots" that can "chat" with humans and facilitate human life. According to Dharani et al. (2020), the authors state that Chatbot is an intelligent system that uses the natural language process (NLP) to carry out conversations by text or voice. By comparing the input requirements of the user to the chatbot database, if both of them match, the Chatbot will return the proper output to the user. The Chatbot will give some suggestions based on related data if the user's entry does not match its data. With this framework, Chatbot can answer any questions from humans. Moreover, in the study of Wei et al. (2018), the authors find that users can communicate with computers as human conversations, due to its eight abilities: (1) self-consciousness, (2) humorous, (3) purity, (4) IQ, (5) EQ, (6) memory, (7) self-learning and (8) charisma. Therefore, Chatbot has been implemented as an assistance tool, such as Google on the Internet, Siri on Apple smartphones, etc., in many fields.

The development of AI has continuously increased with the emergence of text generation tools, like Chat GPT (Chat Generative Pre-trained Transformer), GPT-3, and GPT-4 (Fitria, 2023a; Firat, 2023b; Zhou et al., 2022; Rudolph et al., 2023). Chatbots for plagiarism in news sources

and scientific literature, Chat GPT, was launched by the OpenAI company. In 2020, GPT-3 was released by the business as a big language model. It has a super performance in translating, summarizing, paraphrasing, and generating that can create text from billions of analyzed words of training data to determine the data's comprehension. With the new version of Chat GPT, this AI technology can create new texts, in formal and informal formats, from database resources. These text-generation tools increase ChatGPT's availability, flexibility, and effect. Then, in March 2023, the Chat GPT-4 model emerged, which can receive information via pictures, text, and voice and solve more complex problems. It can create texts more variously and creatively and give instructions more detailed (Yu, 2023). Hence, ChatGPT is an AI application that can chat with humans and facilitate their daily problems. It is built from the Chatbot framework, which uses natural language process (NLP) to communicate as human interaction and text generation technology, such as Chat GPT, GPT-3, and GPT-4. The capabilities of this application can be used in service, business, tourism, economics, and so on to minimize human workload as assistance tools (Sallam, 2023).

The advantages of ChatGPT in teaching and learning

In the study of Bozkurt (2023), the author states that by the ability to respond and solve difficult issues of people, ChatGPT has been applied in many fields, especially in education in the study by Wang (2023), which was conducted to explore the potential effect of ChatGPT on academia and libraries. As a result of this study, researchers found that learners use ChatGPT in six ways to improve their research and scholarships. The first way is literature review assistance. ChatGPT can summarize articles and give a list of related studies using keywords or topics. The second way is text generation, which means ChatGPT can generate writing in natural language, giving learners samples, ideas, and formats to write their own research. The third method is data analysis, which means learners can find the text data that was analyzed in large numbers, such as a country's population, cars in a particular city, and so on. The fourth method is language translation, which means learners can use ChatGPT as a translator, which allows them to comprehend sources in multiple languages. The fifth method is automated summarization, which means the Chatbot database's scientific documents are automatically summarized to give learners the latest innovations in their professions. The last way is question answering means ChatGPT can be a useful tool for scholars by answering any questions efficiently and quickly. Hence, the author concluded that ChatGPT can advance the scholarship and academia of learners in several new ways.

In addition, Firat (2023b) stated that Chat GPT can boost engagement and motivation of learner autonomy through its assistance, guidance, and comments. By the GPT-4 model, ChatGPT can interact with learners as a learning assistant. It gives real-time feedback for their writings and gives professional information for their research or study. It helps learners stay on task and find out their mistakes in real time. Moreover, Chat GPT also helps students as a mentor by giving suggestions about learning strategies, activities, or tasks that are suitable to their own learning style. Chat GPT is also convenient and flexible for students to use in learning. Learners can use it as a chatbot, like chatting with friends anytime and anywhere. To learn, students can be provided with open resources such as applications, websites, documents, and so on. Hence, the number of autonomous learners using ChatGPT is currently increasing.

The disadvantages of ChatGPT in teaching-learning

While Chat GPT is seen as a learning aid, several academics suggest that it may provide numerous obstacles to students, particularly when learning to write. According to Shidiq (2023), the author stated that ChatGPT has several weaknesses. First is the lack of direct interaction. It just interacts with learners online via a chatbot; it is not a real human, so it cannot model or

example in the learning process. Second is that the super ability of Chat GPT can make learners uncreative. Chat GPT may generate numerous works in a formal or informal style, such as poetry, novels, essays, tales, and so on, easily substituting learners' work, thanks to its capacity to interpret real language. As a result, instructors who often utilize ChatGPT will lack inventiveness in their writing skills. The last one misunderstands users' requirements. Sometimes, students may be not satisfied since Chat GPT does not understand their questions or requirements. It gives wrong learners wrong answers. Rudolph, Tan, and Tan (2023) revealed that the GPT system provides inaccurate information or responses to students. Hence, Shidiq claims that Chat GPT is also an innovative new technology. Teachers and learners should understand its limitations and potential to implement ChatGPT in teaching and learning.

Furthermore, the number of cases of deception, as well as potential illicit authorship and copyright, has skyrocketed in sending emails, misinformation, malware production, and hacking. In March 2023, Yu conducted a study to discover whether teachers and educators should ban the use of Chat GPT in the academy or not because of the adverse effects and risks of this platform's application. The author reported that using Chat GPT may lead to increased cheating and dishonest assignments among learners and reduce interactions among learners and teachers. According to Mc Gee (2023, cited in Yu), 89% of American college students' homework tasks were completed using ChatGPT, with 53% written by AI. As a result, several governments and publications, including North Korea, Iran, Russia, and China, have forbidden the use of Chat GPT (Browne, 2023)

A gap in this study is that few studies have been conducted in Vietnam about this topic, ChatGPT. Therefore, this study is conducted to explore the challenges of Vietnamese learners in the Research Writing Course using Chat GPT to learn writing and explore whether Chat GPT helps learners improve writing outcomes.

Research Questions

To fulfill the purpose of the study, the survey sought to answer the following research questions:

1. What weaknesses do Chat GPT learners often encounter in learning writing, especially in Research Writing Courses?
2. Are students' writing abilities enhanced by using Chat GPT?

Methods

Research context and participants

Due to the substantial development of AI, Chat GPT has become increasingly popular among teachers and students at Van Lang University's Faculty of Foreign Languages, where this study was conducted. Chat GPT is regarded as a learning assistant or assisting tool in the field of education. This study was performed to discover the weaknesses of Chat GPT, which challenges Vietnamese learners in learning writing, especially in the Research Writing Course, and explore whether Chat GPT helps learners improve writing outcomes or not. Participants include 7 learners in the Master Course at the Faculty of Foreign Languages at Van Lang University who are English teachers at public schools, English Centers, or Tutors in HCM city. Learners use Chat GPT to learn and research to complete many tasks, assignments, and studies in their Master's Course.

Sampling method

This study used a non-probability sampling approach, convenience, and voluntary response

sampling. The qualitative sampling approaches are computed. There are 7 questions separated into two parts: four questions concerning the weaknesses of Chat GPT and three questions about the effect of Chat GPT. It took one week to collect all of the responses and data. The researchers conducted interview appointments with 7 learners by calling via the Zalo app. As a result, the author discovers that each learner has their own way of applying Chat GPT in their study based on their own learning style.

Research procedure

In addition, we conceal the pupils' identities to preserve their privacy. The author has compiled a list of interview questions for learners to go deeper into the challenges that learners encounter during the learning process. There are seven private interviews for seven learners. The purpose of these questions is to find the weaknesses of Chat GPT, which they usually encounter in learning writing, especially in the Research Writing Course, and explore whether Chat GPT helps learners improve writing outcomes or not. All interview meetings were held online via the Zalo app in one week, with all responses and notes written down for ease of data processing.

Data and analysis

The results of the interviews have been compiled for analysis. The qualitative method was used in the interviews. The goal of these interviews is to identify the limitations of Chat GPT that people typically meet when studying writing, particularly in the Research Writing Course, and to investigate whether Chat GPT helps learners improve their writing outputs or not. In the data process, the data was recorded, and notes were taken.

Findings and Discussion

Research Question 1: What weaknesses do Chat GPT learners often encounter in learning writing, especially in Research Writing Courses?

The first question is carried out to discover the limitations of Chat GPT that people typically meet when studying writing, particularly in the Research Writing Course, in research question 1. The researcher explores the weakness that all students face in the learning process, which is incorrect or unreliable information.

> S2 said that *"...sometimes Chat GPT gives answers or just gives general answers or gives wrong answers - it makes up itself. Or sometimes it also gives answers with no obvious source or fake source. Therefore, I usually have to double check on other websites like Google, Google Scholar, or documents as books, to make sure the information is true to apply on my assignments…"*

> S3 said, *"To be honest, I rarely use ChatGPT when writing. ChatGPT gives unreliable information sources, so it has to be checked many times, and the answers are not consistent; each question will have a different answer."*

> S4 answered, *"The biggest drawback of ChatGPT is that it often gives wrong information or makes the wrong requirement. To get a perfect answer, you have to look up many times from many sources and then edit it again. Or often giving fake sources, I once found a source and check on Google that is not real."*

To identify learners' perceptions about ChatGPT's reliability, research has the second question: "On a scale of 1 to 10, how reliable do you find Chat GPT?" Almost all learners consider Chat GPT's reliability at 5 to 6 points because they have to double-check the information from many other sources to illustrate the assignments.

Furthermore, using the two questions, researchers find whether or whether students have problems like sloppy writing and limited creative thinking when utilizing GPT Chat. Almost all participants said they had poor writing when they had to accomplish a lot of chores and projects in a short period of time, but their critical thinking was not impacted as a result. Regarding lazy writing, the responses of some learners are:

> S2 said, *"Yes, sometimes I'm lazier because I feel that Chat GPT's answers are quite good, so I just rely on that and paraphrase rather than rewrite a completely new version because I don't have enough time."*

> S4 said, *"Yes! At first, she was lazy to write and relied on it completely to finish my deadline on time. Later, I realized that the answer from the GPT chat was far different from what the teacher taught, so I only used it for reference."*

And the responses about their critical thinking and creativity are:

> S5 said, *"I feel that ChatGPT is supporting to enhance my creativity, if I create it myself, it will take a lot of time, thanks to GPT chat, I save time, I am more confident, I am more creative."*

> S6 said, *" Yes, for example, the creativity level is 10, using GPT to 8. That means I also have an idea already, but it's not enough. For example, the topic requires 5 ideas, but I only have 3, so I asked ChatGPT to add more…"*

To sum up, throughout the four questions of the interviews, the researcher found that the biggest drawback of ChatGPT is incorrect or unreliable information. This finding is the same as the results of the study of Rudolph, Tan, and Tan (2023). Reliability is not significant because it often gives learners incorrect answers and fake sources of information. When using ChatGPT to learn writing, learners have to double their use of other resources.

Research Question 2: Are students' writing abilities enhanced by using Chat GPT?

In research question 2, the researcher has two questions to confirm whether Chat GPT helps learners improve their writing abilities or not. All of the answers received are their writing skills can improve through illustrating ChatGPT:

> S6 answered, *"It helps you add vocabulary, grammar, sentence structure, and organize ideas, but it still takes time."*

> S5 answered, *"Improved vocabulary provides more specialized words."*

> S4 answered, *"I can Make progress learning with Chat GPT. I can learn how to rewrite sentences, synthesize knowledge, organize lessons properly, learn new words, and rewrite based on new sentence structures."*

The second question, in research question 2, is "On a scale of 1 to 10, how quality do you find Chat GPT?" This question is designed to determine learners' perceptions of the quality of ChatGPT. Almost all students rank the dependability of Chat GPT at 7 to 8 points since it can provide useful information when needed.

> S2 stated, *"I can find answers to difficult questions on Chat GPT, so I rarely find answers to difficult problems myself."*

> S1 said that *"…it helps me to use words in a more appropriate and concise way, like "very, very convenient" to "conveniently, "and it helps me edit the ideas in my post to be more*

concise, not too wordy."

To sum up, throughout the last two questions of the interviews, the researcher claims that Chat GPT can improve learners' writing skills in the Master Course. This was consistent with the findings of Nguyen's (2024), Ho's (2024), and Pham and Le's (2024). However, it can improve learners' writing in particular aspects or general information with English knowledge, such as vocabulary, structure, organization, and ideas. ChatGPT can not provide learners with reliable sources to study for academic research in the academy. Moreover, ChatGPT has not yet been updated with new theories or new research. Hence, ChatGPT is not appropriate enough to apply in learning research writing.

Conclusion

In conclusion, researchers discovered that the most significant disadvantage of ChatGPT is erroneous or untrustworthy information. Reliability is unimportant since it frequently provides learners wrong responses and false information sources. When utilizing ChatGPT to study writing, students must double their efforts on other tools. In addition, the researcher claims that Chat GPT can increase the writing skills of Master Course pupils. However, it can only increase learners' writing skills at the beginning to intermediate level with English knowledge, such as vocabulary, structure, organization, and concepts. ChatGPT cannot supply learners with reputable sources to study for academic research in the academy. Furthermore, ChatGPT has not been updated with fresh theories or research. As a result, ChatGPT is insufficient for teaching research writing.

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Biodata

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