

# Analysis of the Use of ChatGPT in Improving the Quality of Learning for Office Administration Student at Jakarta State University

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**Abstract.** This study aims to explore the use of artificial intelligence technology, specifically ChatGPT, in improving the quality of learning for students in the Office Administration Education study program. The background of this study is based on the increasing need for adaptive and interactive digital-based learning media, especially in the context of higher education. The research method used is a descriptive qualitative approach with data collection techniques through interviews with students who have used ChatGPT in the learning process. The results of the study indicate that the use of ChatGPT has a positive impact on improving material comprehension, learning time efficiency, and encouraging student independence in seeking information. ChatGPT is also considered capable of assisting students in completing assignments, understanding complex concepts, and providing alternative learning opportunities outside of class hours. However, there are also challenges faced, such as over-reliance on technology and limitations in evaluating the accuracy of information provided by AI. Overall, ChatGPT has the potential to be an effective learning tool if used wisely and supported by adequate digital literacy. This study recommends the need for training in the ethical and productive use of ChatGPT for students and faculty to optimize the benefits of this technology in the context of higher education.

**Keywords:** ChatGPT, Artificial Intelligence, Learning Quality, Students, Digital Learning

## Introduction

In the last ten years, there has been rapid progress in information and communication technology known as Artificial Intelligence (AI). The use of AI has expanded to other fields, such as banking, manufacturing, services, and even government. In the last ten years, artificial intelligence has become an important component of advances in information and communication technology (Ririh, K. R., et al. 2020). The rapid development of information technology in recent years has brought significant changes to various aspects of life, including the education sector. One of the most notable technological advancements is the use of Artificial Intelligence (AI)-based chatbots, which are now increasingly being applied in various fields, including education. Especially with the emergence of AI-based chatbots such as Chat Generative Pre-trained Transformer (ChatGPT), which can assist students in answering questions and understanding the material being studied. This enables the creation of student learning profiles and automatically provides content, feedback, and learning parameters tailored to each student's abilities (Diantama, 2023).

The use of ChatGPT enables students to obtain assistance in understanding the material, answering questions, outlining scientific writing ideas, and composing sentences and paragraphs in written works more efficiently (Putri, Hayati, and Putri, 2025). ChatGPT also supports the creation of a more personalized learning experience by providing content, feedback, and learning strategies tailored to the individual abilities of

students. This makes AI chatbot technology one of the innovations with great potential to improve the quality of learning, both in terms of interactivity, effectiveness, and the relevance of the material presented.

The Department of Office Administration Education at the University of Jakarta, as one of the programs preparing professionals in the field of office administration, needs to keep up with technological developments to ensure its graduates are ready to face the challenges of the workplace. In the field of Office Administration Education, the use of AI-based chatbots can significantly contribute to improving the effectiveness of the teaching and learning process, facilitating more personalized learning, and assisting in completing assignments (Ardana, 2025). These advantages make ChatGPT a promising solution for performing various tasks with diverse applications, including in an educational context (Rohmawaty, E. N., et al., 2024). In this context, the application of ChatGPT in learning is a strategic step toward enhancing students' creativity and quality. The implementation of ChatGPT in learning is also expected to create a more engaging and relevant learning experience aligned with current industry needs.

However, the effectiveness of using ChatGPT in improving learning quality remains an issue requiring further research. Not all students have the same level of digital literacy, and not all educational institutions provide adequate technological infrastructure. Additionally, the absence of clear campus policies regarding the use of AI chatbots in learning presents its own challenges (Zahra Hayat Arka Putri et al., 2024). Some students may find ChatGPT helpful, while others may struggle to adapt to this technology. Furthermore, challenges such as the availability of technological infrastructure, the digital literacy of students and lecturers, and campus policies regarding the use of ChatGPT in learning are also factors that need to be considered. Therefore, this study aims to analyze the utilization of AI-based chatbots in improving the quality of learning, particularly for students in the Office Administration Education program at the University of Jakarta, as well as to identify challenges and strategies for optimizing this technology in an academic environment.

This study is based on several key questions that aim to provide a deeper understanding of the utilization of AI-based chatbot technology in education, particularly in the Office Administration Education program. The first question is how the use of ChatGPT can improve the quality of learning for students in this program. Additionally, this study also seeks to identify the challenges faced in implementing ChatGPT in student learning. Finally, this study will examine how students perceive the use of ChatGPT in completing their daily college assignments.

The purpose of this study is to analyze the contribution of Artificial Intelligence (AI)-based chatbots, particularly ChatGPT, in improving the quality of student learning in the Office Administration Education Study Program. Additionally, this study aims to identify the challenges and obstacles that may arise in the implementation of AI chatbots in higher education learning environments. Furthermore, this study also seeks to understand students' perceptions of ChatGPT usage, both in the general learning process and in completing various academic assignments assigned by instructors.

## Methods

The researcher conducted qualitative research using observation and interview techniques.

### Observation

Observation is a form of monitoring that is part of the technique for obtaining data and is carried out by directly observing the object being studied. The purpose of this observation technique is to obtain data in the field. According to Robert K. Yin, participant observation is a special form of observation in which the researcher is not only an observer but also participates in a particular situation and takes part in the events involved in the research. Through this observation technique, the researcher observes how ChatGPT is used by students in the office administration education program to find information sources to complete their assignments. The researcher directly observes how the research subjects use ChatGPT.

### Interview

According to Esterberg (2002), an interview is defined as a meeting between two people to exchange information and ideas through questions and answers, so that the results of the interview can be processed and constructed into a specific topic. An interview is a process in which questions and answers occur between a source (informant) and an interviewer (researcher). In field-based case studies such as this research, interviews are one of the most accurate data collection techniques because researchers obtain information

directly from the informants being studied (Wijoyo, 2022).

In this study, the researcher conducted in-depth interviews using an unstructured method (Fadli 2021). This type of interview is a free-form interview, where the researcher does not follow a systematically and comprehensively prepared interview guide to collect data. In this study, although an unstructured interview method was used, the researcher still had an interview guide to ensure that the questions during the data collection process did not stray too far from the theme. Although this type of interview is considered informal, it is more effective because the researcher can explore information in a relaxed manner and approach the informants in advance so that they feel more comfortable sharing their information more broadly and deeply without feeling pressured or awkward.

## Result and Discussion

### Results

This study was conducted on six informants who are active students in the Office Administration Education Study Program at Jakarta State University, namely Najla, Keisya, Juna, Mavalda, Bagus, and Deko. All informants are active users of ChatGPT in their academic activities. Data collection was conducted through in-depth interviews and direct observation of students' learning activities, which were then validated using source and method triangulation techniques. Each informant had a different background in using ChatGPT. Najla began using ChatGPT in the first semester of 2023 after learning about it through social media. Keisya was introduced to ChatGPT by a professor at the beginning of her studies in the same year. Juna began using ChatGPT in early 2024 after being introduced to it by friends and social media. Mavalda has been using ChatGPT since the beginning of her studies in 2023, thanks to information from family and social media. Bagus first learned about ChatGPT from his peers during his studies, while Deko had already known about ChatGPT since high school through social media.

Based on the observation results, all informants actively use ChatGPT to assist in the learning process, such as understanding course materials, preparing academic assignments, and searching for scientific references. Most informants demonstrated sufficient proficiency in operating ChatGPT, although some encountered technical challenges and found answers that were occasionally irrelevant or inaccurate. From the interview results, three main themes emerged. First, the use of ChatGPT as a learning tool. All informants agreed that ChatGPT was very helpful in understanding material and completing assignments. For example, Najla used ChatGPT to search for references, while Mavalda used it to draft writing frameworks and understand difficult material. Juna mentioned that ChatGPT's explanations were easier to understand than conventional academic readings. Second, challenges and obstacles in usage, where some informants like Najla, Juna, and Deko faced issues related to the accuracy of answers, while Mavalda encountered access limitations. Additionally, the need for paraphrasing was highlighted by Bagus and Deko as an extra challenge. Third, perceptions and expectations regarding ChatGPT in education. Most informants have a positive perception of ChatGPT's use, as long as it is used ethically and with adequate guidance. They see ChatGPT as a supportive learning partner, not a replacement for learning activities. The informants also hope that this technology will be more formally integrated into the learning system at universities.

The data obtained through interviews and observations were then validated through triangulation, by comparing the findings from the field and relevant literature references. The triangulation results showed consistency in the findings that ChatGPT can be an effective learning tool, but its successful use depends heavily on students' understanding and responsibility in utilizing it critically.

### Discussion

The discussion in this study is based on research questions that refer to data obtained from interviews with six student informants. The three main themes, namely the contribution of ChatGPT utilization, challenges in its use, and student perceptions, form the basis of this discussion.

#### 1. The contribution of ChatGPT utilization to learning quality

The research findings indicate that ChatGPT makes a significant contribution to improving the quality of learning for students in the Office Administration Education Program. All informants acknowledged that ChatGPT helped them understand course materials, complete assignments, and find references. For example, Najla, Juna, and Mavalda used ChatGPT to understand topics that were

difficult to grasp from conventional teaching materials. Mavalda even mentioned that ChatGPT made it easier for her to structure her writing. Meanwhile, Keisya stated that ChatGPT greatly assisted her in searching for references and processing complex materials.

Some informants, such as Juna and Bagus, stated that ChatGPT's explanations are easier to understand than academic readings like books and journals. This shows that ChatGPT can act as a bridge to facilitate students' understanding of lecture materials. Additionally, the question-and-answer interaction with ChatGPT also helps develop students' critical thinking skills. For example, Mavalda said that she often asked the same question in various forms to get a more appropriate perspective. Thus, ChatGPT not only acts as an information provider but also as a facilitator of independent learning that supports reflective and critical thinking processes.

## **2. Challenges and obstacles in using AI chatbots**

Although ChatGPT has many benefits, informants also faced a number of challenges while using it. The implementation of artificial intelligence (AI) in education offers various opportunities to improve the effectiveness and efficiency of the learning process. However, there are several challenges that need to be addressed to ensure the successful and sustainable implementation of AI, such as infrastructure and resource limitations, the readiness of educators and students, ethics and data privacy, and the balance between technology and human interaction (Nur et al., 2025). One of the main issues is the accuracy of the information provided. Informants such as Najla and Deko noted that ChatGPT's responses sometimes do not cite clear sources or are even misleading. This requires students to verify the information obtained, especially when using it for academic purposes. Another challenge is technical limitations, such as limited access to the free version, contextual mismatches in responses, and difficulties in determining the right keywords or prompts, as experienced by Juna and Bagus.

These conditions show that the successful use of ChatGPT depends not only on the availability of the technology, but also on the digital literacy of users. Students are required to have the skills to formulate effective questions, evaluate the relevance of answers, and understand the limitations of AI technology. Thus, improving digital capacity is an important aspect of optimizing the use of this technology.

## **3. Students' perceptions of the use of ChatGPT in learning**

The majority of informants expressed a positive attitude toward the use of ChatGPT in learning activities. They do not view ChatGPT as a replacement for traditional learning processes, but rather as a tool that supports understanding of the material and academic efficiency. Najla, Keisya, and Mavalda found ChatGPT to be highly helpful in answering questions in an easy-to-understand language, thereby accelerating their understanding of specific topics. Juna also emphasized that ChatGPT is merely a supplement to the learning process, not a tool to replace instructors.

Regarding higher education policy, all informants hope that institutions and lecturers will provide clear guidance on the ethical and responsible use of ChatGPT. Some informants suggested that lecturers provide training so that students can maximize the effective use of AI. In addition, they also hope for further development of ChatGPT, particularly in terms of the accuracy of contextual responses, language capabilities, and the accuracy of references provided.

## **4. Relationships between themes and implications for learning**

The three main themes in this study are interrelated and describe a consistent pattern of utilization. When used wisely and critically, ChatGPT has been proven to improve the effectiveness and efficiency of student learning. However, this effectiveness is highly dependent on students' ability to utilize technology reflectively, responsibly, and in accordance with academic ethics.

The implications of these findings highlight the importance of integrating AI technology into higher education systems alongside the strengthening of digital literacy and information literacy competencies. Faculty and educational institutions must play an active role in guiding the use of AI

to prevent dependency or a decline in students' critical thinking skills. Conversely, if properly guided, ChatGPT and similar technologies can serve as transformative tools that enrich the learning process and enhance students' independence in the digital age.

## Conclusion

Based on research conducted on six students from the Office Administration Education Program at the University of Jakarta who actively use ChatGPT, it can be concluded that the use of artificial intelligence technology such as ChatGPT significantly contributes to improving the quality of learning. All informants utilized ChatGPT as a tool to understand course materials, complete assignments, and search for academic references in a more flexible and efficient manner. ChatGPT is considered capable of facilitating independent learning, enhancing critical thinking skills, and accelerating understanding of complex materials through more flexible and searching for academic references in a more flexible and efficient manner. ChatGPT is considered capable of facilitating independent learning, enhancing critical thinking skills, and accelerating understanding of complex material through question-and-answer-based interactions. However, there are challenges that need to be addressed, such as the accuracy of information, access limitations, and students' ability to use features and formulate questions effectively. appropriate questions. Informants expressed positive perceptions toward the presence of ChatGPT, with the hope of institutional and faculty support in utilizing this technology ethically and effectively. Overall, the use of ChatGPT can support technology-based learning transformation in higher education, provided it is used wisely and accompanied by adequate digital literacy.

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