

## **The Use Of Web 2.0 Application In Learning: Investigating The Use Of Chatgpt In Improving Students' Work**

**DwiraHma Fadhlika Anjani<sup>1)</sup>, Fatayatul Hanani Safrul<sup>2)</sup>**  
Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia

### **ABSTRACT**

This study examines the perceptions of students regarding the use of ChatGPT to enhance their homework performance and explores strategies for its optimal application. The integration of artificial intelligence (AI) in education, particularly ChatGPT, has provided students with tools to overcome common academic challenges, such as difficulty understanding instructions and managing time effectively. Despite its potential, the ethical and practical implications of its usage remain underexplored. The study addresses two key questions: (1) What are students' perceptions of using ChatGPT for completing their homework? (2) How does the use of ChatGPT affect students' homework performance? A qualitative approach was adopted, utilizing semi-structured interviews with eight students from Ar-Raniry State Islamic University who had experience using ChatGPT for academic purposes. Students perceive ChatGPT as a valuable tool for generating ideas, improving writing quality, and breaking down complex concepts into simpler terms. It enhances efficiency, allowing faster task completion and better comprehension of study materials. However, concerns about the reliability of responses and overreliance on AI, which could undermine critical thinking and creativity, were raised. ChatGPT contributes positively to academic performance when used as a supplementary tool rather than a replacement for independent learning. Students emphasize the importance of ethical usage to maintain academic integrity and ensure meaningful learning. These findings suggest that ChatGPT has the potential to support education when integrated responsibly, offering valuable insights for educators and institutions seeking to optimize AI tools in academic contexts..

 OPEN ACCESS

### **ARTICLE HISTORY**

Received: 10-06-2024

Revised: 20-07-2024

Accepted: 20-10-2024

### **KEYWORDS**

Homework  
performance; Chat  
GPT; web 2.0

### **Corresponding Author:**

DwiraHma Fadhlika Anjani, Fatayatul Hanani Safrul  
Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia  
Adress  
Email: Dwirahma22@ar-raniry.ac.id

## **Introduction**

### **A. Background of Study**

Due to its ability to measure students' comprehension of the subject matter, encourage autonomous learning, and reinforce topics presented in the classroom, homework assignments are essential to the learning process. On the other hand, students could face obstacles when finishing their assignments, such as trouble

comprehending the directions, a lack of enthusiasm, or uncertainty about the subjects. Effectively addressing these issues is crucial to raising general academic achievement and promoting a favourable learning environment.

With its ability to provide instantaneous feedback and individualized help ubiquitously, web 2.0 applications such as AI-powered chatbots have become indispensable educational tools. One of the technologies currently developing is a conversational ChatGPT technology that has the function of helping humans search for information and create writing quickly; ChatGPT was released on November 30 2022. Open AI founded ChatGPT. Open AI labs are making rapid progress in developing AI technology and have created several machine-learning products for the public, such as DALL-E and ChatGPT (Devlin et al., 2018). Generative Pre-Trained Transformer (GPT) is an artificial intelligence developed by Open AI that can produce text responses nearly indistinguishable from humans (Dale, 2021). As a sophisticated chatbot, ChatGPT can fulfil user requests text-based, such as answering simple questions, completing tasks, and overcoming productivity issues (Lund & Wang, 2023). These chatbots use natural language processing (NLP) to comprehend and react to student inquiries in real time, offering help, explanations, and clarifications based on individual requirements. With its capacity to provide replies that are both logical and contextually appropriate, ChatGPT has much promise in helping students with their schoolwork.

Zhai (2022) conducted a previous study in which ChatGPT was used to write scientific papers titled Artificial Intelligence for Education. The test results indicate that ChatGPT can assist researchers in producing well-written, accurate, informative, and methodical scientific papers. Fast writing requires little professional expertise from the author and may be completed in two to three hours.

Furthermore, a study conducted by Wang and Woo's (2019) looked into how chatbot coaching affected students' enjoyment and performance in the classroom. Their research showed that, compared to learners who got traditional education techniques, students who received chatbot coaching performed better academically. Additionally, when chatbot coaching was used, students expressed greater satisfaction with the educational process. It has been discovered that the interactive aspect of chatbot exchanges encourages participation and involvement with course materials, which may improve students' comprehension and memorization of subjects. These findings imply that better learning outcomes and student satisfaction may arise from the use of chatbot coaching in educational

environments. However, the study also emphasized the necessity of more investigation into the long-term impacts and best practices in chatbot design for educational interventions.

Integrating digital technology into learning is one of the strategies considered to impact learning, including writing positively (Muluk et al., 2024). The integration of ChatGPT into the educational environment has sparked interest in understanding students' perceptions regarding its utilization for homework and assignments. This research delved into the nuanced perspectives of students, exploring how they perceive and engage with ChatGPT when completing academic tasks and the strategies they use using ChatGPT to enhance their understanding of any homework assignment, particularly among UIN Ar-Raniry students.

This study's first research question aimed to uncover students' overall perception regarding using ChatGPT in their homework and assignments. By gaining insights into students' attitudes, preferences, and experiences, we can better understand ChatGPT's role in their academic lives. Additionally, the purpose of the second study question is to investigate the strategies students employ when using ChatGPT to enhance their understanding of homework assignments.

This qualitative study specifically aimed to comprehend the strategies students use to use ChatGPT to improve homework assignments, including how they communicate with the chatbot to solve difficulties, look for clarifications, and address topics. The study intends to provide insights into the efficacy of ChatGPT as an AI tool for helping students understand the ideas, instructions, and problem-solving techniques included in homework assignments by looking at students' strategies for using it for homework aid.

## **B. Literature Review**

### **1. Definition of Perception**

According to Soko (2017), Perception is how people explain something based on their own experience, which results from the stimulus that generates information. People's perceptions of something can be defined as the impressions they form based on what they see, experience, and have about it. It means that everyone's perception of the world is bound to be different. According to Walgito (2002, as cited in Masruroh, 2012), perception is a process known by sense, which is when the individual receives the "stimulus" through his "receptor". However, this process does not stop just there but at the centre of the central nervous system, namely the brain. There is a psychological process in which the individual realizes what he sees, hears, etc., so that he has perception. Based on the explanation

above, perception is the process of interpreting an object that comes from outside itself or its environment so the individual realizes and understands the thing.

## 2. Definition of ChatGPT

ChatGPT stands for Chat Generative Pre-Trained Transformer and is developed by an AI research company, OpenAI. ChatGPT operates on the Generative Pre-trained Transformer (GPT-3) architecture, originally designed for tasks such as language generation and machine translation. It produces human-like text in response to specific prompts or dialogues, facilitating natural, open-ended conversations. Beyond text generation, ChatGPT creates code, stories, poems, and more. With its 175 billion parameters, GPT-3 remains one of the largest language models, enabling it to perform these tasks at a high level of proficiency (Cooper, 2021). Unlike earlier AI language models, ChatGPT functions as a generative AI capable of creating new content and ideas by leveraging enhanced learning through human feedback. This ability allows it to provide real-time responses in conversations. Its advanced training enables it to handle follow-up questions, recognize errors, reject incorrect assumptions, and decline inappropriate requests. Compared to traditional AI tools like RoBERTa or Meta's language model, ChatGPT delivers more creative responses (Vanian, 2022).

As a text-based generative AI, ChatGPT does not generate images from text, a feature offered by other models like DALL-E (Qadir, 2022). One notable feature of ChatGPT is its ability to maintain a conversational tone and consistent personality throughout a dialogue, creating a more engaging and authentic interaction. This is achieved through extensive training on large datasets of conversational text, including chat logs, forums, and social media discussions (Qadir, 2022).

## 3. Pros and Cons of Using ChatGPT in Education

### a. Pros of using ChatGPT in Education

ChatGPT offers numerous advantages, such as designing customized interactive lessons, enhancing educational access for individuals with disabilities, supporting educators in developing lesson plans, and much more (Snehnath, 2023) gave the following of the Pros of Using ChatGPT in Education :

#### a) Improves Accessibility to Education

ChatGPT enhances educational accessibility by breaking down barriers for individuals with disabilities and non-English speakers. For example, it can read responses aloud to assist visually impaired students and summarize course topics or concepts to support learners with cognitive challenges. Additionally, it allows students who struggle with typing or using a keyboard to voice their questions.

Furthermore, ChatGPT can translate English content into a preferred language, helping students better comprehend their study materials.

b). Helps with Homework

In a traditional setting, students often rely on textbooks and online searches to gather material for their assignments. ChatGPT, however, streamlines this process, making it quicker and more efficient. By simply typing their assignment questions into ChatGPT, students receive detailed explanations and examples. This tool offers an alternative approach to tackling assignment tasks while also supplying academic phrases, terminology, and context-specific sentence structures. Consequently, it enhances students' academic vocabulary and writing abilities.

c). Provides Assistance to Educators

ChatGPT can be a valuable tool for educators in various ways, including:

1). Assisting in creating detailed lesson plans for courses. It can also generate diverse question types, such as multiple-choice, true/false, and fill-in-the-blank questions, for quizzes or tests.

2). Supporting the evaluation of student assignments by helping with grading and offering constructive feedback.

3). Providing links to supplementary educational materials relevant to a course.

4). Offering strategies to enhance student engagement and address challenging behaviors in the classroom.

d). Personalizes Learning

ChatGPT can adapt to students' unique learning styles, offering a tailored educational experience. Analyzing their academic performance can help customize course structures to suit individual needs. This allows students to learn at their own pace while gaining a deeper understanding of challenging concepts. Additionally, ChatGPT provides quick access to supplementary educational materials and facilitates engaging interactions with text-based resources. It also helps enhance the quality of academic essays by offering personalized and detailed feedback.

e). Helps with Exam Preparation

When exams approach, ChatGPT can assist students with preparation in various ways. It can summarize their class notes, highlighting essential terms and concepts. It can also help craft well-structured answers to critical questions. Additionally, it can create practice questions, enabling students to identify their strengths and areas for improvement within the subject matter.

## 1. Cons of Using ChatGPT in Education

Conversely, ChatGPT has several limitations, such as generating biased responses, providing inaccurate information, lacking multitasking capabilities, and other shortcomings.

### a). Lack of Academic Integrity

Academic integrity is a significant concern when it comes to using ChatGPT in higher education. Many educators worry that relying on ChatGPT for writing assignments could encourage cheating and plagiarism. They argue that its ability to generate responses rapidly might undermine students' skills in brainstorming, critical thinking, and creative problem-solving.

### b). Provides Inaccurate Information

The information ChatGPT provides often appears credible and well-structured, but it may lack depth and accuracy. Identifying the specific inaccuracies can be challenging, which might negatively impact students' learning and decision-making abilities.

### c). Biased Responses

AI chatbots are developed using extensive datasets, and if these datasets include biases, it's likely that the responses generated by ChatGPT may also reflect those biases. Such biases can be damaging, as they may reinforce discrimination against certain groups and contribute to an unbalanced or harmful environment.

### d). Limited Knowledge

Although ChatGPT is trained on a vast amount of information, it has limitations. It might struggle to provide accurate answers on niche topics and may lack awareness of recent developments in various fields.

### e). Inability to Multitask and Understand Context

ChatGPT is designed to handle one task or query at a time. If a student poses multiple questions simultaneously, it might struggle to prioritize and may respond slowly or fail to address all the questions. Additionally, ChatGPT can face challenges in grasping the context and subtleties of human language. For example, if a student uses humor or sarcasm, the system may not recognize it and could provide an unrelated or inappropriate response.

### f). Lack of Emotional Intelligence

Emotional intelligence (EI) is crucial in educational environments, as human educators can recognize and respond to students' emotions effectively. They offer valuable emotional support during difficult moments, a quality that virtual chatbots like ChatGPT lack. While chatbots may appear empathetic, they do not

possess the ability to understand or appropriately address the complexities of human emotions truly.

## **Methods**

### **A. Research Design**

Rather than depending just on numerical data, this study will employ a qualitative methodology that collects data through interview transcripts, field notes, personal documents, memo notes, and other official documents (Denzin & Lincoln, 2018). According to Denzin and Lincoln (2018), qualitative research is a technique that produces descriptive data from people's spoken and written words as well as their observable activities. The use of qualitative research is to investigate and comprehend the significance that individuals or groups attach to social or human issues (Patton, 2015). To get a thorough grasp of how students felt about using digital tools to improve their listening abilities, the researcher used a descriptive qualitative technique (Merriam & Tisdell, 2016). Merriam and Tisdell (2016) stress the value of qualitative research in illuminating complicated processes and revealing subtle insights. Creswell (2013) also highlights the depth and flexibility provided by qualitative methods in investigating research problems, as well as the different approaches to qualitative inquiry and research design. This method is selected to investigate how students felt about using ChatGPT for homework and the techniques they used to improve the performance of their homework assignments completion.

### **B. Participant**

For this study, purposive sampling was used to select participants who had direct experience using ChatGPT for homework assignments. This method was chosen because it allowed me to target a specific group of students who could provide valuable insights into the role of ChatGPT in academic tasks. The screening process began by surveying all students in the 2021 cohort, which included 37 males and 116 females. The survey asked whether they had used ChatGPT to assist with their homework assignments. This approach was straightforward, as it directly identified students who had practical experience with the tool.

From the survey responses, we identified those students who had used ChatGPT for their homework. To ensure the participants were relevant to the study, we then selected eight students who reported having significant experience using ChatGPT. These students were chosen because their firsthand use of the tool could provide direct insights into how it impacted their homework performance. While the process was relatively simple, it was effective in identifying the key participants needed to explore the research questions. By focusing

specifically on students who had used ChatGPT, we ensured that the data collected would be relevant to the study's objectives and allow for a focused analysis of students' perceptions and experiences with the tool. This selection process enabled me to gather in-depth feedback from participants who had relevant experience, making the findings of the study both reliable and grounded in real-world use.

The deliberate selection of participants based on their applicability to the study's goals and their personal experience using digital tools, specifically ChatGPT for homework assignments, is made possible by purposive sampling. Griffie (2012) underlined the significance of participants as essential parts of the research tool, emphasizing their function in offering viewpoints and insights via interviews. Although there are no set standards for sample size in qualitative research, Creswell (2007) recommended that case study analyses usually include three to five participants. With ten participants, a wide range of viewpoints and experiences may be recorded in this survey, guaranteeing thorough data gathering and analysis. Each participant is picked based on their capacity to provide insightful comments and meet the requirements for the data needed to meet the goals of the study.

The 2021 batch of students, consisting of 37 males and 116 females, make up the research population. Purposive sampling, the sampling technique used, focuses on students who have previously used ChatGPT to improve their homework assignments. Eight students were found and chosen to take part in the study through an initial inquiry process because they satisfied the requirements of having previously used ChatGPT in their academic work.

### C. Data Collection Method

A semi-structured interview approach is employed as the main data collection technique to meet the study's objectives. While keeping a broad framework to direct the interview process, this method permits flexibility in pressing participants for in-depth answers (Denzin & Lincoln, 2018). Semi-structured interviews allow for a more thorough examination of participants' viewpoints and experiences without placing strict limits on the discussion, claim Denzin and Lincoln (2018). The primary data source for this study is in-depth interviews conducted with students who have used ChatGPT to improve their listening abilities. Interviews with students are conducted in order to learn more about their opinions of ChatGPT's efficacy as a digital tool for developing listening skills as well as the methods they used to use it. The semi-structured interview format, which is adapted from Merriam and Tisdell (2016), allows for the unplanned investigation

of emerging themes while also offering the chance to delve deeply into participants' experiences.

The interviews are conducted virtually via WhatsApp, using voice notes as the primary medium to facilitate accessibility and convenience. These sessions will include open-ended questions designed to elicit detailed responses from participants about various aspects of using ChatGPT, such as its perceived benefits, challenges, and its impact on improving listening skills. To ensure participants feel comfortable and engaged, the interviews will incorporate bilingual options, aligning with the principles of inclusivity and deeper engagement as suggested by Creswell (2013).

Overall, the researchers collect rich, nuanced data on students' experiences using ChatGPT thanks to the semi-structured interview approach, which will provide important insights into the usefulness and possible uses of this digital tool in educational settings.

#### D. Data Analysis

This study's data analysis used a qualitative methodology with the goal of methodically examining and interpreting the information gleaned from semi structured interviews with participants who had previously used ChatGPT for homework. The framework proposed by Miles and Huberman (1994) served as the guidance for the analysis process, which included the following crucial steps:

##### 1. Data Reduction

The first step in methodically condensing and organizing the qualitative information gleaned from the interviews is known as data reduction. During this process, the data is divided into digestible chunks, pertinent information is coded, and significant themes and patterns pertaining to students' opinions and experiences using ChatGPT for homework assistant was found.

##### 2. Data Display

Presenting the data in a logical and meaningful way came after they have been sorted and reduced in size. The results are visually represented through the use of data display techniques in a variety of formats, including tables, graphs, and narrative summaries. This makes it easier to comprehend the emerging themes and enable comparisons and contrasts between various interviewees and their responses.

##### 3. Drawing and Verifying a Conclusion

To derive meaningful insights and interpretations regarding students' perceptions and experiences with ChatGPT, conclusions are drawn by synthesizing the analyzed data. Based on the themes and patterns identified, preliminary

conclusions are formulated. These conclusions are then subjected to peer debriefing and member checking to ensure accuracy and consistency. Additional data exploration and validation address any discrepancies or uncertainties.

Overall, the data analysis method used in this study attempts to further our understanding of the role of AI technologies in education by thoroughly and rigorously examining students' perceptions and experiences with using ChatGPT for homework assignments.

## **Conclusion**

### **A. Findings**

The study indicates that most students find ChatGPT highly beneficial for academic tasks, as it streamlines the learning process by offering rapid access to information, enhancing the quality of their writing, and deepening their understanding of the material. Some students noted that ChatGPT assists with organizing ideas or starting their writing, enabling them to complete assignments faster and with improved quality. Additionally, using ChatGPT was reported to alleviate mental strain, especially when tackling assignments that demand in-depth analysis.

However, the research also identifies several challenges associated with ChatGPT use. A primary concern is the need to verify the accuracy of its responses, as not all generated answers can be relied upon without further validation. Some students feel the need to cross-reference ChatGPT's answers with other sources to ensure accuracy. Moreover, there is a risk of over-relying on the tool, which may hinder the development of critical and creative thinking skills over time.

ChatGPT's ability to break down complex topics into simpler terms has proven helpful, particularly for class discussions and exam preparation. Nevertheless, some students suggest using ChatGPT with caution, viewing it as a supplementary resource rather than a replacement for independent learning. They emphasize the importance of ethical usage, maintaining academic integrity, and using ChatGPT responsibly avoiding plagiarism and relying on it only as a guide in their studies.

#### **a. Students Perception**

The table below summarizes each student's perception based on several categories, including experience, benefits, challenges, writing quality, confidence, understanding, and recommendations.

Table. 1. *Students Perception Based on Experience, Benefits, Challenges and Writing Quality*

| NO | Students Initial | Experience                                   | Benefits                              | Challenges                            | Writing Quality                  |
|----|------------------|----------------------------------------------|---------------------------------------|---------------------------------------|----------------------------------|
| 1  | NS               | Helpful but not 100% reliant                 | Easy to understand, flexible language | Needs specific questions, no sources  | Improved starting structure      |
| 2  | SEPP             | Facilitates academic tasks                   | Speeds up work                        | No reference sources                  | Helpful with outline             |
| 3  | MJA              | Helpful for brainstorming and paraphrasing   | Time-saving                           | Must cross-check answers              | Limited creativity               |
| 4  | FM               | Useful for concise definitions               | Less mental strain                    | Limited questions/ Day                | Clearer answer structure         |
| 5  | TMAM             | Helps with in-depth understanding            | Time-efficient, helpful summaries     | Needs specific questions for accuracy | Provides ideas, not full writing |
| 6  | KW               | Idea generation tool                         | Eases material understanding          | Risk of plagiarism                    | Customized writing style         |
| 7  | RNE              | Efficient for understanding complex concepts | Fast assignment completion            | Avoids over-reliance                  | Used as reference                |

|   |    |                                         |                                                 |                           |                          |
|---|----|-----------------------------------------|-------------------------------------------------|---------------------------|--------------------------|
| 8 | KZ | Simplifies answering academic questions | Direct answers, flexibility to simplify answers | No significant challenges | Intermediate improvement |
|---|----|-----------------------------------------|-------------------------------------------------|---------------------------|--------------------------|

*Table. 2. Students Perception Based on Confidence, Understanding and Recommendation*

| NO | Students Initial | Confidence                                                  | Understanding                              | Recommendation                                        |
|----|------------------|-------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------|
| 1  | NS               | Confident with paraphrasing                                 | Improved material understanding            | Recommended with additional sources                   |
| 2  | SEPP             | Less confident due to accuracy concerns                     | Easier to understand tasks                 | Recommended for task comprehension                    |
| 3  | MJA              | Relies more on other sources                                | Easier after paraphrasing                  | Recommended, not 100% dependent                       |
| 4  | FM               | Confident with explanations                                 | Simplified complex material                | Recommended with caution on reliance                  |
| 5  | TMAM             | More confident due to idea generation                       | Broader understanding for discussions      | Recommended with academic ethics                      |
| 6  | KW               | Improved confidence with ChatGPT help                       | Better concept mastery                     | Recommended while maintaining originality             |
| 7  | RNE              | Confident with deeper understanding                         | Helps in class discussions                 | Recommended with responsible use                      |
| 8  | KZ               | Sometimes lacks confidence; cross-checks with other sources | Improved understanding of complex material | Recommended for occasional use to avoid over-reliance |

Overall, most participants found it helpful to use ChatGPT in completing academic assignments, especially in terms of time efficiency, quality of writing, and understanding of the material. However, some of the challenges encountered included the need for source verification, concerns about the accuracy of answers, and over-reliance that could affect creativity.

### **b. The Effect of ChatGPT on Homework Performance**

#### **1). Ease and Efficiency in Completing Tasks**

Across various responses, students highlighted that ChatGPT facilitates faster completion of academic tasks. This feature allows students to manage their workload more effectively, especially under tight deadlines. One participant noted, "All tasks feel faster and easier to complete" (SEPP). Another participant shared, "With the help of ChatGPT, our minds are more open, allowing us to skip ahead to the next step" (FM). Many participants expressed relief and gratitude for the time-saving nature of the tool, especially for complex or high-volume tasks, which might otherwise feel daunting without additional assistance.

#### **2). Writing Quality and Idea Generation**

Students often mentioned that ChatGPT supported them in producing higher quality work by providing structured responses or helping them brainstorm. One participant stated, "ChatGPT is able to explain things simply, so we understand the material" (TMAM). Another noted, "I can find an idea, which I can then further develop" (KW). The tool is considered a catalyst for creativity, offering a starting point or structure that students can develop in their writing.

#### **3). Customization and Adaptation to Task Needs'**

A recurring theme was the need to paraphrase or modify ChatGPT responses before integrating them into the task. This customization allowed students to align the content with academic standards. One participant shared, "I paraphrase the language so that it doesn't sound too much like ChatGPT" (NS). Another mentioned, "I never ask ChatGPT to write something for me; I only ask for suggestions or ideas" (TMAM). Students are cautious about copying directly from ChatGPT, both to avoid detection and to ensure that they meet academic integrity guidelines. They often use ChatGPT as a tool for inspiration or structural guidance rather than as a single source.

#### **4). Confidence and Validation in the Task**

Students' confidence varied based on their perception of ChatGPT's reliability. Some students expressed concerns about accuracy and often validated ChatGPT's output by cross-referencing with other sources. One participant shared, "I don't feel confident if it's 100% from ChatGPT, but I feel confident if it's

paraphrased" (NS). Another noted, "I often cross-check using Google Scholar or several well-known websites" (MJA). Although students found ChatGPT useful, they were cautious about relying on it completely. Validation through other academic sources gives them confidence that their assignments can be trusted.

#### 5). Academic Comprehension and Understanding

The tool is credited for improving comprehension of complex topics, making abstract concepts more accessible, and increasing understanding, especially when students are unfamiliar with the material. One participant noted, "From not knowing, I became knowledgeable after using ChatGPT" (NS). Another shared, "ChatGPT helped my understanding improve significantly" (TMAM). Students see ChatGPT as a powerful resource to expand their understanding, bridging gaps in their knowledge by providing clear and simplified explanations that enhance their understanding.

#### 6). Challenges in Precision and Specificity

A noteworthy limitation of ChatGPT is that it sometimes generates responses that are too general or imprecise. Students found it necessary to structure their questions carefully to get relevant answers. One participant shared, "You have to ask something specific so that ChatGPT provides the answer we really want" (NS). Another mentioned, "I have to think about what kind of question or sentence I should type" (MJA). This theme highlights the importance of user feedback; students realized that effective use of ChatGPT often required them to be more thorough and purposeful in typing questions.

#### 7). Ethical and Responsible Use

Several participants recommended using ChatGPT with caution, emphasizing that ChatGPT should complement, not replace, academic work. They encouraged cross-referencing and ethical use to maintain academic integrity. One participant shared, "Don't rely too much; it's only for helping in searching" (FM). Another noted, "I have already recommended it, but only if you know the ethics and limitations" (TMAM). Students expressed awareness of the ethical considerations surrounding the use of AI, recommending it as additional support rather than as a primary source for maintaining academic standards.

Based on the previous information, Students' homework performance is often improved by using ChatGPT since it increases time efficiency, fosters idea production, and improves understanding of difficult subjects. Because the technology lets them concentrate on understanding and analysis rather than information gathering, students report feeling more productive and confident when using it. However, there are drawbacks, such as the requirement for precise,

well-crafted questions in order to obtain insightful answers and the possibility of over-reliance, which over time may impede independent thought. When used responsibly and as a supplement to their own work rather than as a substitute, students often find ChatGPT useful.

## **B. Discussion**

According to the interviews, ChatGPT affects students' assignment performance in both positive and negative ways. Many students discover that it significantly increases their productivity and time efficiency, enabling them to finish assignments faster by giving them instant ideas and summaries. Students can concentrate more on evaluating and comprehending the content rather than just acquiring information thanks to this simplified access to information. TMAM and RNE, for example, mentioned that ChatGPT's assistance helps them complete their assignments more effectively and carefully. Additionally, the technology helps students comprehend the course material more thoroughly. Many students, such as KW and RNE, reported that ChatGPT helps them learn difficult subjects, which has been beneficial for both class discussions and assignments that need for a thorough comprehension of the material.

By improving the caliber of their concepts and offering organizational assistance, ChatGPT helps students feel more confident about their assignment performance. For instance, TMAM said that when ChatGPT assisted him in coming up with ideas, he felt more self-assured and creative, which improved his approach and performance on homework. But there are difficulties as well. Students have pointed out that ChatGPT frequently needs extremely detailed inquiries in order to produce pertinent and helpful answers, which is a major drawback. According to TMAM, asking ambiguous questions can lead to less useful responses, and rewording them to make them more relevant can occasionally be annoying and time-consuming.

Furthermore, several students, like RNE, pointed out the possible danger of being unduly dependent on ChatGPT. Overuse of the technology raises concerns that it may eventually impair pupils' capacity for critical thought and problem-solving. Their performance on homework may suffer as a result of this dependence since it limits their ability to tackle difficult assignments independently. Instead of using ChatGPT to finish their homework, students like KW and RNE adopt an ethical stance and use it to support their work. They use ChatGPT as a tool that supports their work without taking the place of their own contributions since they have a strong sense of academic honesty.

These results closely align with the study conducted by Noer Hafidz Harsya et al. (2024), which identified similar advantages of ChatGPT in the academic context. Specifically, Harsya et al. highlighted ChatGPT's role in improving time efficiency, providing access to a wide range of information, offering personalized guidance, and supporting students in articulating ideas for assignments. Similarly, Zhai's (2022) experimental research underscored ChatGPT's capacity to expedite academic tasks, such as drafting an academic paper in a short timeframe, emphasizing its potential to enhance students' productivity and streamline academic processes.

Despite these benefits, this study, like the aforementioned research, also uncovers significant challenges associated with the use of ChatGPT. Participants noted difficulties in assessing the quality and reliability of information provided by the AI, which aligns with the findings of Harsya et al. (2024), who reported issues with evaluating the credibility of sources and maintaining proper citation practices. Moreover, this study highlights problems with the precision of ChatGPT's outputs, such as inaccuracies in idiomatic expressions and contextual word substitution, further echoing concerns raised by Harsya et al.

Ethical concerns, particularly the risk of over-reliance on ChatGPT, also emerged as a key theme in this research. Zhai (2022) similarly stressed the potential danger of students becoming overly dependent on AI tools, which could undermine the development of essential academic skills such as creativity and critical thinking. Zhai's findings emphasize the need for educational systems to redefine their objectives, ensuring that students are not solely reliant on AI technologies but are instead encouraged to engage in independent thought and problem-solving.

Overall, the findings of this study are consistent with those of previous research. The alignment with the works of Harsya et al. (2024) and Zhai (2022) underscores a growing recognition of both the benefits and challenges of integrating ChatGPT into academic settings. While its ability to enhance performance, improve efficiency, and provide personalized support is widely acknowledged, the potential drawbacks necessitate careful consideration. These include ensuring that students critically evaluate the information provided by ChatGPT, maintaining ethical practices, and balancing the use of AI tools with the cultivation of creativity and analytical skills.

## **CONCLUSION**

Students' performance on homework has typically improved as a result of using ChatGPT, with most finding it useful for doing assignments more quickly.

Students stated that ChatGPT improves their comprehension of the subject matter by helping them come up with ideas, offer advice, and clarify difficult subjects. Many reported that the technology enabled them to focus on higher-order thinking and analysis instead of information gathering, helping them get past obstacles like writer's block. They felt more prepared to take on assignments and raise their academic performance as a result, which in turn increased their confidence.

Students did, however, also point out certain difficulties and restrictions with ChatGPT. One frequent problem was that in order for the instrument to produce helpful answers, precise, well-crafted questions had to be asked. Students regarded the solutions to be less pertinent or useful when the questions were ambiguous. Furthermore, some students voiced worries about relying too much on the tool, believing it might impair their capacity for autonomous thought and problem-solving without outside assistance. The significance of using ChatGPT responsibly, that is, making sure it complements rather than takes the place of their own efforts in finishing assignments was also discussed.

Students concurred that ChatGPT is a useful tool when utilized appropriately in spite of these difficulties. It was viewed as an addition to their education, helping with research, ideation, and the clarification of complex ideas. Students discovered that, when used responsibly, the tool was a useful means of enhancing assignment performance without sacrificing academic integrity. The fundamental conclusion is that, even though ChatGPT can improve learning and productivity, students must use it carefully to get the most out of it while preserving their academic independence.

In conclusion, this study, along with prior research, is in line with the previous study highlights the dual nature of ChatGPT as both a facilitator of academic success and a potential source of dependency. The findings emphasize the importance of responsible use and thoughtful integration of AI tools into education. By guiding students toward a balanced approach that leverages the advantages of ChatGPT while fostering their independence and critical thinking abilities, educational institutions can maximize the potential of AI technologies to enrich the learning experience without compromising academic integrity or personal development.

## References

- Cooper, H. (2007). *The Battle Over Homework: Common Ground For Administrators, Teachers, and Parents* (3rd ed.). Corwin Press.
- Cooper, K. (2021). OpenAI GPT-3: Everything you need to know. Springboard.  
<http://bit.ly/3GLMkmB>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). SAGE Publications.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Dale, R. (2020). GPT-3: What's it good for? *Natural Language Engineering*, 27(1), 113–118. <https://doi.org/10.1017/s1351324920000601>
- Denzin, N. K., & Lincoln, Y. S. (2018). *The Sage handbook of qualitative research* (5th ed.). SAGE Publications.
- Devlin, J., Chang, M. W., Lee, K., & Toutanova, K. (2018). *Bert: Pre-training of deep bidirectional transformers for language understanding*. arXiv.  
<https://doi.org/10.48550/arXiv.1810.04805>
- Griffiee, D. T. (2012). Participant. In S. N. Hesse-Biber & P. Leavy (Eds.), *The Practice of Qualitative Research* (2nd ed., pp. 121-124). SAGE Publications.
- Harsya, N. H., Claudia, Z., Wulandari, M., Kumala, A. W., & Rismawati, N. S. (2024). *Evaluasi pandangan mahasiswa UNNES terhadap dampak positif dan hambatan penggunaan AI (ChatGPT) dalam pembelajaran*. *Jurnal Majemuk*, 3(2), 365–374. <http://jurnalilmiah.org/journal/index.php/majemuk>
- Lund, B. D., & Wang, T. (2023). Chatting about ChatGPT: How may AI and GPT impact academia and libraries? *Library Hi Tech News*. Available at SSRN: <https://ssrn.com/abstract=4333415> or <http://dx.doi.org/10.2139/ssrn.4333415>
- Masruroh, S. (2012). *Pengaruh persepsi siswa tentang penggunaan media pembelajaran dan metode mengajar guru terhadap prestasi belajar akuntansi siswa kelas XI program keahlian akuntansi SMK Muhammadiyah 2 Moyudan tahun ajaran 2011/2012* [Skripsi]. Jurusan Pendidikan Akuntansi, Fakultas Ekonomi, Universitas Negeri Yogyakarta.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). SAGE Publications.
- Muluk, S., & Dahliana, S. (2024). Investigating students' writing performance and attitude towards a web 2.0-based flipped classroom instruction. *Jurnal*

- Ilmiah*                      *Peuradeun*,                      12(1),                      137.  
<https://doi.org/10.26811/peuradeun.v12i1.1090>
- Muluk, S., Zainuddin, Z., & Dahliana, S. (2022). Flipping an IELTS writing course: Investigating its impacts on students' performance and their attitudes. *Studies in English Language and Education*, 9(2), 591–612.  
<https://doi.org/10.24815/siele.v9i2.23314>
- OpenAI. (2021). GPT-3.5: Language Models are Few-Shot Learners.  
<https://cdn.openai.com/papers/gpt-3.5.pdf>
- Patton, M. Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4th ed.). SAGE Publications.
- Qadir, J. (2022). Engineering education in the Era of ChatGPT: Promise and pitfalls of generative AI for education. TechRxiv. Preprint.  
<https://doi.org/10.36227/techrxiv.21789434.v1>
- Qadir, J., Taha, A.-E. M., Yau, K.-L. A., Ponciano, J., Hussain, S., AlFuqaha, A., & Imran, M. A. (2022). Leveraging the force of formative assessment & feedback for effective engineering education. American Society for Engineering Education (ASEE) Annual Conference, 2020.
- Russell, S. J., & Norvig, P. (2022). Artificial Intelligence: A Modern Approach (5<sup>th</sup> ed.). Pearson.
- Snehnath N. (2023). *Ai in the Higher Education Industry: Learning in a new era* Digital Engineering & Technology | Elearning Solutions | Digital Content Solutions.  
[https://www.hurix.com/transforming-higher-education-how-ai-is-changing-the-education-industry/?utm\\_source=chatgpt.com](https://www.hurix.com/transforming-higher-education-how-ai-is-changing-the-education-industry/?utm_source=chatgpt.com)
- Soko, H. L. (2017). *Teachers' perceptions of English language teaching media* [Thesis]. The Graduate Program in English Language Studies, Sanata Dharma University
- Russell, S. J., & Norvig, P. (2022). Artificial Intelligence: A Modern Approach (5th ed.). Pearson.
- Wang, S., & Woo, H. L. (2019). Effects of chatbot coaching on students' learning performance and satisfaction: A quasi-experimental study. *Journal of Educational Computing Research*, 57(3), 562-578. DOI: 10.1177/0735633117741767
- Zanden, J. W. V. (1984). *Social psychology* (4th ed.). McGraw-Hill. p. 109.
- Zhai, X. (2022). CHATGPT user experience: Implications for education. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4312418>