

**PRE-SERVICE ENGLISH TEACHERS’
PERCEPTION REGARDING CHAT GPT AS A
GENERATIVE AI TOOL TO ASSIST IN
ENGLISH ACADEMIC WRITING**

THESIS

Submitted in Partial Fulfillment of the Requirement for Gaining the
Degree of Bachelor of Education in English Language Education



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Wassalamu'alaikum Wr. Wb.

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ABSTRACT

Title : Pre-Service English Teachers' Perception
Regarding ChatGPT As A Generative Ai Tool to
Assist in English Academic Writing

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This qualitative exploratory study aims to investigate the pre-service English teachers' perception and the challenges of ChatGPT as a generative AI tool to assisting in English academic writing. The participants were 9 seventh-semester students from the English Education Department at a university in Semarang, Indonesia. The participants were recruited based on four criteria: 1) pre-service English teacher who can run and use ChatGPT in writing, 2) have graduated from an academic writing course, 3) pre-service English teacher who are currently writing their theses, 4) have used ChatGPT as a tool to carry out their academic writing tasks. The data was collected through Google form questionnaires and interviews through Google Meet, then analyzed using thematic analysis based on aspect of TAM. The study revealed that pre-service English teachers generally have positive perception toward ChatGPT as a generative AI tool to assist in English academic writing with notable level of familiarity with its usage. However, there are some challenges identified in its implementation. Future researchers can examine the effectiveness of ChatGPT, its long-term impact, comparison with other AI tools, integration in the curriculum, and the ethical aspects.

Keyword: *ChatGPT, English academic writing, Perception, Pre service English teacher, Technology Acceptance Model*

DEDICATION

This thesis is dedicated to my beloved parents, my brothers, my sisters, and my friends who never stop encouraging, supporting, and showing me their endless love.

ACKNOWLEDGMENT

I sincerely thanks to Allah SWT for his mercies, blessing, and the whole things to finish my research. Salawat and salam always be given to the prophet Muhammad SAW, who teaches humanity, love, good morals and leads us from darkness to the lightness era.

Furthermore, I expressed my gratitude to the parties who helped me, parents, supervisors, friends, and participants. I realized that this thesis would not be finish without advice, motivation, guidance, help, and encouragement from people around me. This is not just a formality but a form of respect for their invaluable contribution. Therefore, I would like to express my whole heartedly gratitude and appreciation to:

1. Prof. Dr. Fatah Syukur, M.Ag., and the dean of the Education and Teacher Training faculty of Walisongo State Islamic University Semarang.
2. Dra. Nuna Mustikawati Dewi, M.Pd., the head of the English Education Department of Walisongo State Islamic University Semarang.
3. Sayyidatul Fadlilah, M.Pd., as the advisor who always accompanies me in every process of conducting this research and gives me great motivation patiently since my first year of college.

4. My best support system, Mr. Ikromin and Mrs. Srikatun almh who always pray for a million goodness for me, provide endless support, motivation, and affection for me, I love you very much.
5. My beloved siblings, Brother Nor Syafi'i, Brother Zaenal Abidin and Sister Ida Wahyuni who always provide financial support, motivation and fill my life with love and happiness.
6. My beloved friends "The hyung" Novia and Zulmi who always provide moral and emotional support, and provide love and happiness.
7. My supportive friends "Partner nugas" Alivia, Raya, Endina, Faila, Aininda, Mustika, and Muamanah who always provide emotional support and motivation so that they can work on this thesis with enthusiasm.
8. All friends who cannot be mentioned one by one, thank you for the support that is always given to the author.
9. All research participants who have helped me in this research.

MOTTO

“And whoever fears Allah, he will make for him a way out”

(QS. At-Talaq: 2-3)

“The future rewards those who press on. I don’t have time to feel sorry for myself. I don’t have time to complain. I’m going to press on”

(Barack Obama)

“Believe that Allah SWT will guide you according to your efforts, so keep striving with all your might”

(Nurul Azizah)

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CHAPTER I

INTRODUCTION

This chapter explains the background of the research and explains the reasons why researchers conducted this research. Then the formulation of research problems and research objectives are formulated. Followed by the significance of the research which informs the benefits of this research.

A. Background of the research

Artificial intelligence (AI) has become a ubiquitous form of technology in our daily lives. Applications of generative AI in education are growing as the technology advances quickly in our culture. ChatGPT is one of the example of Artificial intelligence. Artificial intelligence (AI) has made significant strides in the previous ten or so years, and Chat Generative Pre-trained Transformer (ChatGPT – open AIs GPT-3 model) is a prime illustration of this development.

Generative artificial intelligence (AI) produces human-like text trained on data from the internet originally written by humans, created by OpenAI, San Francisco. ChatGPT uses a "prompt" that can be pasted or typed, to which the chatbot instantly responds in natural language. More "prompts" can be used to improve and extend the conversation (P. Lee et al., 2023).

Since its release in November 2022, 100 million and more people used ChatGPT. Deep learning models for generating human-

like content, including audio, code, images, text, simulations, 3D objects, and video can be utilized using Generative AI. videos (P. Lee et al., 2023). These tools can accomplish a wide variety of human tasks, create unexpected results by responding to varied and complex requests, and maintain interaction (Lim et al., 2023).

Academic research has typically depended on time-consuming manual methods to organize and analyze enormous amounts of material. The automation of many of these tasks is possible because improvements in natural language processing (NLP) technology have enabled. One of such tool that has demonstrated promising results in academic study is ChatGPT. The human-like text response result is a large language model (LLM) that has been trained on an extensive text corpus from ChatGPT. (Dergaa et al., 2023).

Over the past few years, it has become increasingly difficult to distinguish AI sentences from sentences made by humans. It has been proven that AI can produce coherent language. By 2022, chatbots as research assistants to help them organize their thoughts, receive feedback on their work, write code, and even summarize research literature, according to an opinion from the journal Nature (van Dis et al., 2023)

The use of ChatGPT for academic writing has greatly increased. Researchers can use ChatGPT as a co-author when creating papers. In some instances, insufficient ability, willingness,

slowness, and dislike of the writing process can pose significant challenges for researchers. (Oshiro et al., 2020). ChatGPT can generate clear and consistent text according to the given context. Summarizing text, answering questions, and creating text also can be completed with ChatGPT. It is especially needed by researchers or writers in creating academic texts (Babl & Babl, 2023).

Academic writing has long been an integral part of learning and obtaining higher education in a particular subject. While some research indicates that ChatGPT can produce better reports than those written by students, higher education educators are concerned that university students' over-reliance on it could impair their ability to study (Ausat, et al., 2023; Jeon, 2023). As a result, opinions on utilizing ChatGPT in the field of higher education are vary (Firat, 2023; Huallpa, et al., 2023).

However, there needs to be more empirical research using the ChatGPT for English education (Cha & Im, 2023). Although the integration of artificial intelligence in the writing classroom has been extensively reserached, little attention has been devoted to researching this topic in the context of pre-service English teachers. Specifically, for English education, it is important to examine how Pre-service teachers in English education can utilize ChatGPT for their English academic writing.

In this regard, this study analyzes how pre-service English instructors view ChatGPT utilization. The research question was:

How is Pre-service English teachers' perception the use of ChatGPT as a means to assist their English academic writing? And then What are the challenges that Pre-service English teachers face regarding their utilized ChatGPT for English academic writing?

B. Research Questions

1. How are Pre-service English teachers' perceptions of the use of ChatGPT as a generative AI tool to assist their English academic writing?
2. What are the challenges that Pre-service English teachers face when using ChatGPT as a generative tool for assisting their English academic writing?

C. Research Objectives

According to the research questions, the objectives of the research can be stated as follows:

1. To explain the perceptions of pre-service teachers using Chat GPT as a generative AI tool for assisting their English academic writing.
2. To explain the challenges of Chat GPT as a generative AI tool for assisting their English academic writing.

D. Significances of the Study

By using this research, there are some significances of the study as follows:

1. Theoretically: This study seeks to expand the understanding of pre-service English teachers' perceptions regarding the use of ChatGPT as a Generative AI tool for supporting academic writing tasks, analyzed through the framework of the Technology Acceptance Model (TAM) by Davis (1989). By exploring factors such as perceived usefulness and ease of use, this research provides insights into the acceptability and potential of AI-assisted tools in educational contexts. This study contributes to the growing body of knowledge on TAM in relation to AI technology, particularly in its capacity to enhance learning and writing skills development for future educators.
2. Practically:
 - a. For Pre-Service English teachers, this study offers valuable insights for pre-service English teachers by highlighting how ChatGPT, as a Generative AI tool, can support and enhance their academic writing skills. By understanding the tool's potential to simplify complex writing tasks, generate ideas, and improve language accuracy, pre-service teachers may develop greater confidence and efficiency in academic writing. Additionally, the findings could encourage the integration of AI-assisted tools in

teacher training programs, preparing future educators to utilize innovative technology in both their professional development and instructional practices.

- b. For teacher educators, his study helps teacher educators understand how ChatGPT can support academic writing for pre-service English teachers. By showing how AI can assist with idea generation, language improvement, and writing efficiency, the findings can guide teacher educators in incorporating AI tools into their teaching. This integration can better prepare future teachers to use technology effectively in their own writing and teaching practices.

CHAPTER II

REVIEW OF RELATED LITERATURE

In this chapter, the researcher examines some earlier research that is pertinent to this study, as well as literature that has contributed to it.

A. Previous Research

In this paper, the researcher takes a review of related previous studies from other sources as a comparison with this study. Those are:

1. Pre-Service English Teacher Perception of ChatGPT

Moorhouse & Kohnke (2024) investigated role in adapting initial language teacher education (ILTE) to technological advancements, understanding the effects of generative AI tools on ILTE by teacher educators. Generative AI tools like ChatGPT can influence ILTE according to the majority of studies by prompting curriculum updates, changing instructional and assessment practices, enhancing learner motivation, highlighting the need for professional development, and encouraging the exploration of new pedagogical frameworks.

Moorhouse (2024) explored first-year English teachers, their readiness to use Generative AI tools in their professional work and their perceptions of such tools in language teaching. The findings of this study are that first-year teachers are largely ready to

use Generative AI tools and can recognize their potential to support their professional work.

Kartal (2024) explored ChatGPT on the potential effects of EFL student teachers on this critical area of cognitive development. The use of ChatGPT in teacher education can improve teaching practice, creativity, and thinking skills when managed effectively. The importance of human and AI collaboration, encouraging critical analysis, and promoting teamwork to maximize its benefits. The findings reveal the importance of co-creation between humans and computers, engaging in critical analysis, and encouraging collaboration to maximize the educational benefits of ChatGPT.

Li (2024) aims to investigate the effects of “Human-Human” and “Human-Machine” collaborative learning approaches on the STEM (Science, Technology, Engineering and Math) teaching training performance of student teachers. The incorporation of AI tools such as ChatGPT and human guidance to enhance learning can demonstrate better critical thinking, higher task efficiency, and lower cognitive load, collaborative learning methods to effectively integrate AI and human input and provide valuable insights for educators, policy makers, and AI developers to optimize training strategies in education.

2. ChatGPT as a Tool to Support Academic Essay

Writing

Playfoot et al., (2024) provides prospective occurrence rates for students who say they are willing to use, or indeed have used, ChatGPT or other AI tools to assisting their writing academic assignments. Using ChatGPT for second language (L2) writing can provides timely and adaptive feedback, allowing students to receive immediate responses on their writing. can generate model texts that illustrate effective writing conventions, and it assists in the editing process by suggesting improvements in language, style, and grammar. students can enhance their creativity and critical thinking (Barrot, 2023; Su et al., 2023).

Malik et al., (2023) claimed that AI tools are considered useful for checking grammar, detecting plagiarism, translating language, and creating essay outlines. However, the potential impact of AI on creativity, critical thinking, and ethical writing practices is a concern they are face for. The importance of a balanced integration of AI, so that collaboration between technology and humans retains originality and critical thinking as priorities. Effective online EFL courses with AI tools, promoting learner autonomy and better learning outcomes. Using AI-powered tools in online English courses creates a productive learning loop that connects online learning with offline practice (Hsiao & Chang.,2023).

According to a study by Nguyen (2023) on the effects of ChatGPT on students' English language learning, ChatGPT generally raised learners' motivation for writing, grammar, and vocabulary, and it should be used as a learning aid. Nguyen & Dieu (2024) also investigated students' perceptions regarding the use of ChatGPT as an artificial intelligence (AI)-based writing aid. The study aimed to investigate students' level of familiarity and usage of ChatGPT, as well as to understand their views on the adoption of this tool in the writing learning process.

Another study conducted by Limna et al., (2018) showed that students' opinions of ChatGPT in the classroom are generally positive, with many expressing gratitude for the instant feedback, direct instruction, question-answering capabilities, and support features. ChatGPT also provides valuable support in academic writing by assisting with tasks like generating text, drafting, brainstorming, and summarizing, but it cannot replace human writers due to limitations in skills and knowledge (Imran & Almusharraf, 2023).

3. Academic Writing in Higher Education

Levrai & Bolster (2019) discussing action research that explored students' perceptions and opinions of a framework for supporting students through collaborative essay assignments over the course of one semester at an English language teaching

university in Macau. This research indicates positive student perceptions, with improved writing quality and idea generation through collaboration. However, challenges like unequal contributions and the need for teacher support are noted. Overall, the study suggests that collaborative assignments can enhance learning outcomes beyond academic writing.

Tabé & Materechera (2024) determine a major impact on the writing ability of higher-level students and their academic performance towards stenographic writing. The findings of the study are that stenography writing can easily damage students' writing skills, as well as lead to misunderstandings and confusions of ideas. However, positively, the teaching and learning process by facilitating the flow of communication and also improving student learning outcomes can be well facilitated.

Brown & Marshall (2012) devised and assessed a instruction for teaching the writing of academic essay introductions. Explore the relationship between learning the linguistic characteristics of introductory essays and real essay marks given by academic teachers or academic tutors. This study investigates the effect of essay writing workshops on students' actual writing performance in actual academic work, which is an essential standard of effectiveness. The study found that a single two-hour essay writing session, which concentrated on the linguistic aspects of introductions rather than writing style, significantly improved

students' ability to apply appropriate linguistic moves in the introduction of an academic essay.

Subandowo & Sárdi (2023) investigated Indonesian graduate students' experiences when writing high-stakes academic essays in the EMI Hungarian environment. This study investigated how these students perceived the difficulties and assistance offered by topic courses and institutional practices in the EMI environment in Hungary when completing L2 English academic essay assignments. Key supports include English academic writing courses, access to e-libraries, and clear assignment guidelines. Students also use strategies like consulting peers, using online writing tools, and managing their time effectively to overcome challenges such as unclear instructions and tight deadlines.

B. Literature Review

1. Pre-Service English Teachers' Perception on Artificial Intelligence (AI)

McDonald (2011) stated that Perception is a strong motivator for action since it is a person's opinion. By analyzing sensory data and connecting it to prior experiences, one might develop a lens through which to see the world through a sociocultural filter. The following characteristics must exist for perception to take place: (a) Sensual awareness or experiential

cognition, (b) Individual experience, (c) knowledge that may result in a reaction (Walker & Avant, 2005).

With the combination of artificial intelligence (AI) services with various information science and technology (IST) technologies such as smart devices, big data, and speech recognition technology, the fields and types of application of AI technology are becoming increasingly diverse, indicating that the scope of application is expanding. In particular, integrated AI technologies are considered to have high utilization and show growth potential, as voice recognition interface technologies are advancing in terms of ease of use and accessibility. The use of artificial intelligence in education (AIED) has grown in popularity throughout the years. AIED does not only adopt cutting-edge educational technologies. Understanding the learning process, learning processes and methods in a deeper and clearer way can utilize AI technology as a powerful tool (Yang, 2022).

The use of artificial intelligence (AI) in English language instruction has the potential to significantly change the educational environment. Three paradigms are present (Ouyang and Jiao 2021). Learners are the clients of AI services in the first paradigm. In the second paradigm, AI and learners collaborate. According to the third paradigm, which is based on connectives, artificial intelligence (AI) can work in concert with other entities such as teachers, students,

information, and technology to improve learning, give students more control over their education, and raise their intelligence.

Several studies on the use of AI in ELT have been conducted by researchers. Sumakul et al., (2022) identified three benefits of using AI as a teaching tool for English: it can improve students' comprehension of theoretical ideas; additionally, AI can function as a helpful ally by providing immediate feedback based on instruction. According to Garcia and Thompson (2022), there are several ways in which artificial intelligence (AI) can aid in the understanding of theoretical concepts in English language teaching. These ways include personalized learning, sophisticated data analysis, interdisciplinary integration, and enhanced visualization. This is the first advantage of AI in ELT.

Generative AI integration into language education offers a variety of potential benefits. Generative artificial intelligence can provide direct feedback to students, enabling a more efficient and personal learning experience. This direct feedback will help students fix errors in real time and enhance students use of the right language. This leads to the right and leads to more effective learning outcomes (Xu et al., 2024).

However, there are possible advantages, issues, and criticisms to integrating generation AI in language instruction. Moral, copyright, clearness, legal questions, risk of distortion, plagiarism, limited knowledge, inaccurate information, false

citations, and cybersecurity issues are all valid concerns regarding the generation (Zhai & Wibowo, 2023).

2. ChatGPT as a Generative AI

Generative modeling artificial intelligence (GAI) is a unsupervised or partially supervised machine learning framework and uses probability, statistics, and other concepts to create artificial relics (Hu, 2022; Jovanovic & Campbell, 2022). By leveraging developments in deep learning (DL), generative AI generates artificial relics from digital content, including but not limited to text, audio, video, images/graphics, and video, by analyzing training examples and figuring out their distribution and patterns (Abukmeil et al., 2022; Jovanovic & Campbell, 2022; Gui et al., 2023).

Generative AI models have versatility in applications (Ahmad et al., 2021). Beyond basic chatbots, they generate content for marketing, offer personalized recommendations, automate customer service, and assist authors in content creation. The two main generative AI techniques recognized in the literature are Generative Adversarial Network (GAN) and Generative Pre-trained Transformer (GPT) (Abukmeil et al., 2022; Baidoo-Anu & Owusu Ansah, 2023; Jovanovic & Campbell, 2022; Gui et al., 2023).

Generative Pre-Trained Transformer (GPT) models can read and produce human-like text in different languages using a massive quantity of publicly available digital content data (natural

language processing [NLP]). They can also write creatively, from a paragraph to a full research article, in a convincing (or nearly convincing) manner on nearly any topic (Aydın & Karaarslan, 2022). Recently, a more advanced version of the Generative Pre-trained Transformer (GPT)-3 has been created (Baidoo-Anu & Owusu Ansah, 2023b). GPT-3 is ten times more than any prior non-sparse language model, according to (Baidoo-Anu & Owusu Ansah, 2023).

Currently, GPT-3 serves as the fundamental natural language processing engine for the recently created language model ChatGPT. This model has garnered interest from several domains, such as education (Williams, 2023), engineering (Qadir, 2023), journalism (Pavlik, 2023), medicine (Nisar & Aslam, 2023; O'Connor & ChatGPT, 2023), and economics and finance (Alshater, 2022; Terwiesch, 2023).

3. Higher Education Students' Challenges of Using ChatGPT

AI chatbots such as ChatGPT have raised issues in the field of education since its introduction in 2022. Although there is a chance that kids' capacity for autonomous thought and verbal expression would decline, prohibiting the instrument from use in classrooms shouldn't be the solution (Dwivedi et al., 2023). Professors and educators are concerned about the possibility of

academic fraud with AI-powered chatbots like ChatGPT (Dempere et al., 2023).

ChatGPT's capabilities range from helping with academic research to completing students' literary works. ChatGPT's capabilities range from helping with academic research to completing students' literary works. (Roose, 2022; Shankland, 2022). But students might take advantage of tools like ChatGPT to finish essays faster, endangering the development of critical skills. (Shrivastava, 2022). According to Jeff Maggioncalda, CEO of Coursera, ChatGPT's availability would quickly transform any written assessment-based education. (Alrawi, 2023).

The use of ChatGPT as an AI tool in higher education presents a number of difficulties, despite the many advantages it can provide. Because of the possible abuse or unethical usage of ChatGPT, some researchers have expressed worry about students' academic integrity (see Anderson et al., 2023; Atlas, 2023; Crawford et al., 2023; Cotton et al., 2023; Eke, 2023; Sallam, 2023; Sok & Heng, 2023; Sullivan et al., 2023; Thurzo et al., 2023; van Dis et al., 2023). Plagiarism, abuse, and cheating may be involved in this problem. Many higher educational institutions and academic staff have expressed concerns about the increasing risks associated with cheating and plagiarism, as students use ChatGPT to produce their essays and complete other tasks (Sabzalieva & Valentini, 2023).

From the viewpoints of both students and academics, the vast array of applications provided by major language models, like ChatGPT, has made them almost a juggernaut in the higher education sector, particularly in the tertiary education area. Additionally, they provide academic learning designers a tremendous deal of opportunity for improving task performance. Although ChatGPT may be useful for practitioners, scholars, and students, pertinent issues like prejudice, data privacy, and ethical concerns should be properly addressed (Rasul & Nair, 2023)

4. Academic Writing in Higher Education

Academic writing is different from other genres. Al-Mansour (2015) describes it as “a set of references, information, and evidence to support it”. Academic writing is scientific in terms of its purpose, presentation, and tendency toward reasoning and logic (Al-Mansour, 2015). Hayland (2002) emphasizes how important style, content, and concrete facts and details are in maintaining the formal style that makes writing academic and appropriate for its target audience, which includes academics and educators. As a result, mastery of academic writing requires cognitive abilities in knowledge comprehension, application, and synthesis (Defazio et al. 2010).

Well-structured paragraphs, coherently linked concepts, complex frameworks, and a wide vocabulary are further traits of

academic writing (Hyland, 2002). Sawles (2005) emphasizes the components of punctuation and adherence to grammar rules as instruments for content and thinking clarity that eliminate any possibility of ambiguity. One of the most frequent issues EFL/ESL learners encounter is poor written performance, which results from the difficulty of creating correct, clear, eloquent, and ordered written texts when taking into account the fundamentals of academic writing. Even English-speaking students find it difficult to develop their voice when writing academically because they need to be able to critically analyze both words and other people's ideas (Mousa & Mudawy., 2017).

Graduate-level academic writing is defined as "a method of teaching languages that recognizes the subject-matter needs and proficiency of students while recognizing the unique linguistic characteristics, discourse patterns, and communication abilities of target academic groups (Hyland, 2018). The importance of academic writing at universities was also highlighted by Ding & Bruce, (2017) who described it as "a specialist, theory- and research-informed branch of English language and literacy teaching".

Thus, for research students to graduate and pursue academic employment, they must possess a strong grasp of English academic writing skills. Many doctorate candidates from non-English speaking backgrounds may be writing their PhD dissertation for the first time, and as a result, they may not be familiar with the

conventions of scholarly writing (Carter & Kumar, 2017; A. Lee & Murray, 2015).

5. Exploratory Research Methodology

Exploratory research is distinguished by its qualitative nature, high degree of flexibility, and lack of order. Investigating a topic about which little is known or determining whether a particular research project is feasible are two examples of exploratory research. For researchers to precisely identify and describe issues, as well as to establish particular goals and data needs that can be met by more research, exploratory research is essential (Swaraj, 2019).

a. The purpose of Exploratory Research

According to Swaraj (2019), the purpose of an exploratory research may be:

1. To generate new concepts.
2. To make the researcher more knowledgeable about the issue.
3. In order to formulate the problem precisely.
4. To collect data in order to make concepts more understandable.
5. To ascertain whether trying the study is feasible.

b. The Process of Exploratory Research

Selltiz (1959) proposed the following three steps or methodologies for the exploratory investigation in relation to the steps in exploration:

1. Literature survey

Numerous lead clues for additional research that will progress the field are found through a review of relevant and related books, papers, and reports. It is possible to create a feasible hypothesis and identify significant variables.

2. Experience survey

The researcher will gain insight into the topic and its many facts by conducting informal interviews with people who have experience in the field of study. When choosing a survey participant, consideration should be given to a variety of personal experiences. To get a sense of the problems and facets of the topic that could be the subject of inquiries, the researcher should develop an interview guide. Naturally, this interview guide ought to be adaptable enough to cover a range of topics that come up throughout the interviews.

3. Analysis of insight-stimulating cases

An in-depth examination of a few chosen cases can provide intriguing new information in an uncharted field of inquiry. When researchers venture into an unexplored area of study, they often encounter novel situations, phenomena, or contexts. These uncharted territories provide an opportunity to gain fresh insights that can significantly contribute to existing knowledge.

6. Technology Acceptance Model (TAM)

In 1975, the Theory of Reasoned Action (TRA) was incorporated into TAM (Hill et al., 1977). Davis created TAM based on the advantages and disadvantages of TRA, which more precisely predicts the technology system's acceptability. According to TAM theory, the adoption process of a particular technology is determined by five factors: actual use (AU), behavioral intention to use (BI), attitude towards using (ATU), perceived usefulness (PU), and perceived ease of use (PEOU).

PU is the degree to which a person believes that a particular system would increase their effectiveness in their line of work. PEOU indicates the degree to which a person believes that implementing a particular system won't require a lot of work. ATU is characterized by sentiments, viewpoints, and positive or negative evaluations regarding technology use. BI is the degree to which specific technology users have created a plan outlining whether or not they want to adopt a given technology going forward. AU is a phrase used to describe how frequently someone uses technology. The model's primary antecedents are PU and PEOU. (Y. Lee et al., 2003), The aspect that leads to the actual use of technology is conditioning the attitude toward its usage, which in turn conditions behavioral intention to use.

Davis (1989) created and presented the TAM in order to forecast and explain computer technology adoption as well as to

comprehend the causal linkages between users' internal beliefs, attitudes, and intentions. There are two specific variables such as perceived usefulness and perceived ease. Granić & Marangunić (2019) suggest that the TAM or an extension thereof, is the most common way to explore user acceptance of e-learning technology.

TAM centers on two primary determinants, that are Perceived Ease of Use and Perceived Usefulness. Perceived Ease of Use is defined as “the degree to which a person believes that using a particular system would be free of effort”, whereas Perceived Usefulness is “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989, p. 320), and has the most significant correlation to the future. In a complex link between system attributes (external variables) and potential system usage, behavioral intention of use is seen to be the primary predictor of user acceptability (Granic & Marangunic, 2015).

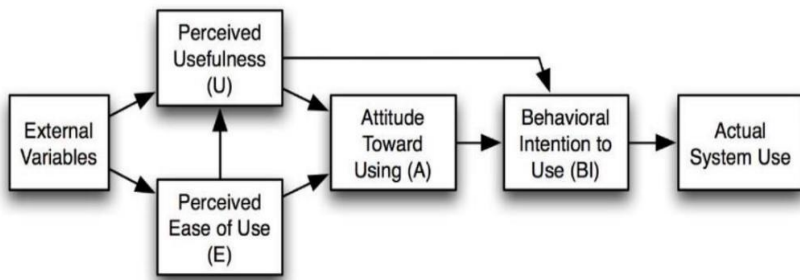


Fig 2.1 Technology Acceptance Model (Davis, 1989)

Both the user's attitude and its sense of utility influence behavioral intention. Perceived utility and perceived ease of use are two important beliefs that are thought to have a major impact on the user's attitude. These beliefs serve as mediators between external factors and intention to use. According to TAM, a person's behavioral intention to utilize a system is influenced by how beneficial and simple they believe it to be. (Amadu et al., 2018).

7. ChatGPT in Academic Writing

OpenAI's ChatGPT natural language processing (NLP) model is constructed utilizing a deep learning technology called as transformers. Due to its extensive training on text data, this large-scale language model is capable of producing text that closely mimics that of a human. Text that is cohesive and consistent with the context given can be produced by ChatGPT. It can be applied to many different tasks, such as text production, question answering, and text summarizing. (Buruk, 2023). Academics are increasingly using GPT-3.5 and its predecessors, GPT-3 and GPT-2, for a variety of scientific communication needs, including defining terms, correcting writing difficulties, and traversing a large body of literature (Meroño-Peñuela & Spagnuolo, 2020).

ChatGPT is a large language model (LLM) that can produce text responses that resemble those of a human since it has been trained on a vast corpus of text. For example, ChatGPT can

produce useful computer codes, write well-written student essays, summarize research papers, and provide answers to queries that are sufficient to pass medical exams. It has even produced research abstracts that are hard for scientists to tell apart from human-written ones. But this technology also has the ability to create malware, spam, and other negative effects, which is quite concerning for our civilizations. (van Dis et al., 2023).

Given the potential for LLMs, such as ChatGPT, to upend a number of industries, it is imperative that the research community have a thorough discussion about the potential applications, risks, and constraints of these technologies.

Therefore, the purpose of this letter was to I give a general review of ChatGPT and other NLP technologies, including their origins, limits, and related applications; and (ii) look at the potential benefits and drawbacks of employing these tools in academic writing. (van Dis et al., 2023).

GPT models have also been suggested as a tool to help students with their academic writing, and a study from Kumar (2023) evaluated ChatGPT's effectiveness for Biomedical Writing by using brief prompts; it discovered that while the language produced lacked depth, ChatGPT had a great deal of promise for application in academic writing with modifications. They did not, however, utilize it as a tool to support writing through the employment of various techniques. Although GPT has been shown

to have applications in academic writing, some potentially troubling findings have also emerged. For instance, in research articles, some academics have included ChatGPT as a co-author (King, 2023; Kung et al., 2023).

C. Conceptual Framework.

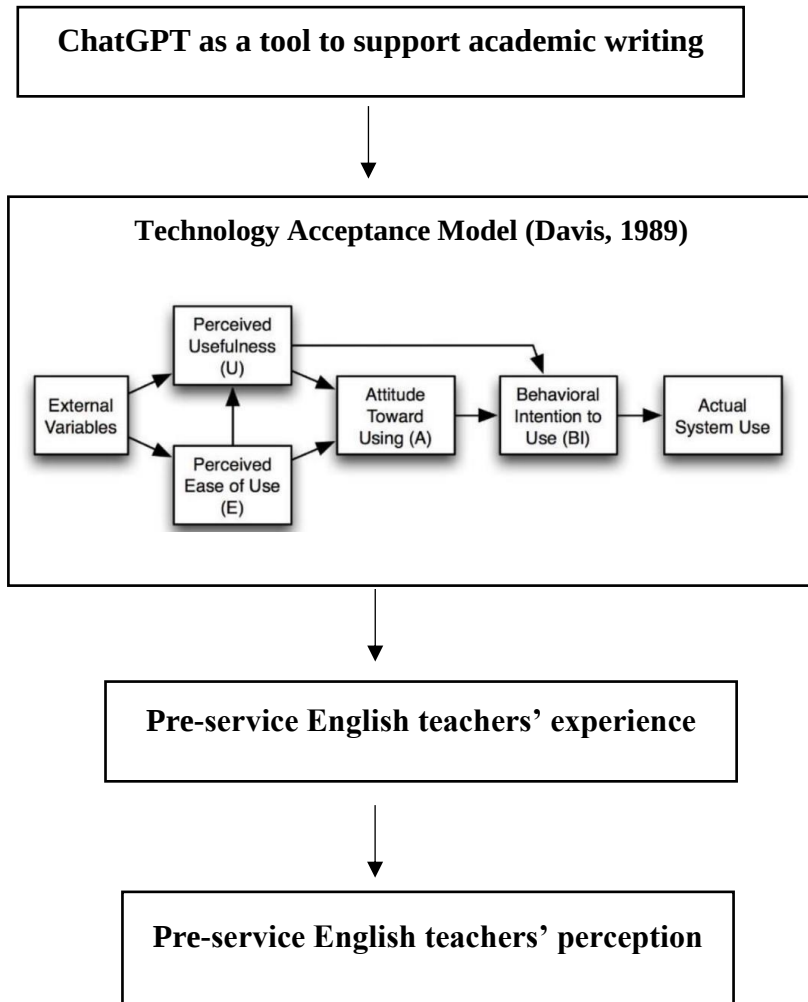


Figure 2.2 Conceptual Framework of the Study

The study's conceptual framework, which is based on Davis's TAM proposal, is depicted in the image.

In this study, ChatGPT as A generative AI tool that can support pre-service teachers to write their academic writing can be applied to the TAM proposed by Davis (1989). According to TAM, perceived usefulness and perceived ease of use are the two primary determinants of technology acceptance. In the context of ChatGPT as a generative AI tool to support academic writing, perceived usefulness refers to the extent to which pre-service English teachers perceive that using ChatGPT will support and help in their academic writing paper, while perceived ease of use refers to the degree to which pre-service teacher find it easy to use the platform (ChatGPT).

Pre-service English Teachers' perception of using ChatGPT as a generative AI tool that can support their academic writing comes from Pre-service English teachers' experience of using ChatGPT in their academic writing papers. Pre-service English teachers who have experience using ChatGPT as a Generative AI tool can support their academic writing and will be able to share their thoughts about their perception of using ChatGPT to support their academic writing paper. By utilizing this framework, all research questions and research objectives can be answered properly.

CHAPTER III

RESEARCH METHOD

This chapter includes the research design, research environment, research focus, participants, data gathering methods, and data analysis methods. In the discussion that follows, each is introduced.

A. Research Design

In this study, I used qualitative exploratory research that focuses on exploring and understanding pre-service English teachers regarding chat GPT as a generative AI tool to assist their English academic writing. I selected this design because exploratory research enables us to investigate regions that are not well-known or to see if a particular type of research might be conducted (Swaraj, 2019). In this case, a qualitative exploratory design was believed to be appropriate to examine pre-service English teachers in their experience of using ChatGPT as a tool to assist their English academic writing.

B. Time and Setting of the Research

This research was conducted over a period of three weeks, starting from the last two weeks of October 2024 and the first week of November 2024 at one of University in Semarang. The initial phase of the research involved designing and distributing a questionnaire, which was distributed online to participants. After the

questionnaire stage, participants asked for follow-up interviews to gain deeper insight into their experiences and perceptions.

C. Research Participants

The participants of this research were 9 seventh-semester students of pre-service English teachers from the English Department at one of the university in Semarang, Indonesia. They were selected from a total of 49 populations from the same field of study. To get participants, I distributed the questionnaire link to the participants via WhatsApp and conducted the interviews via Google Meet.

From the 49 populations who filled out a form according to the criteria, only 9 participants who agreed to the interview consent form. Their selection criteria were as follows: 1) pre-service English teacher who can run and use ChatGPT in writing, 2) have graduated from an academic writing course, 3) pre-service English teacher who are currently writing their theses, 4) have used ChatGPT as a tool to carry out their academic writing tasks, 6) agree to participate in this research voluntarily. Here the researcher will investigate English pre-service teachers' perception of the use of Chat GPT as a tool for assisting their English academic writing.

Table 3.1 Participants' Profile

No	Name	Experience using ChatGPT
1.	Participant 1	1 year
2.	Participant 2	1,5 years
3.	Participant 3	1 year
4.	Participant 4	1,5 years
5.	Participant 5	1 year
6.	Participant 6	3 years
7.	Participant 7	2 years
8.	Participant 8	1,5 years
9.	Participant 9	1 year

D. Research Focus

This research focuses on investigating pre-service English teachers' perceptions regarding ChatGPT as a generative AI tool to support their academic writing.

E. The Techniques of Collecting Data

The study employed two primary research instruments to collect data:

1. Questionnaire

The purpose of the questionnaire's background was to gather participants' private information. The goal is to comprehend the subject's history. The main questionnaire was designed to assess the key indicators used in this research related to the TAM concept, such as perceived ease of use, perceived usefulness, attitude toward using, behavioral intentions of use, and actual use. The questionnaire instrument was modified from Yilmaz, H., Maxutov, S., Baitekov, A., & Balta, N. (2023).

2. Interview

Semi-structured interviews were used to add qualitative insights to the questionnaire data. The interviews allowed participants to elaborate on their experiences, satisfaction, and challenges of using ChatGPT as a generative AI tool to assist their English academic writing paper. The interview instrument also modified from Nguyen & Dieu (2024) and linked with TAM (Davis, 1989).

3. Data Analysis Technique

The study's data analysis was rooted in thematic analysis, with a structured approach informed by the TAM. This model provided a framework for interpreting the findings, focusing on the following constructs: perceived ease of use, perceived usefulness,

attitude towards using, behavioral intention to use, and actual use. These constructs were instrumental in exploring and understanding pre-service English teachers' perceptions regarding ChatGPT as a generative AI tool to assist their English academic writing.

Table 3.2 Steps of thematic analysis (Braun & Clarke, 2006)

Steps	Description of the process
1. Familiarizing data:	Data transcription (if required), reading and rereading, and taking notes on preliminary concepts.
2. Generating initial codes:	Codes interesting features of the data systematically across the data set, organizing relevant data for each code.
3. Searching for themes:	Code collection into possible themes, collecting all information pertinent to each possible subject.
4. Reviewing themes	Constructing a thematic "map" of the analysis involves determining if the themes apply to both the coded extracts (Level 1) and the complete data set (Level 2).
5. Defining and naming themes:	Continuous examination to improve the details of each theme and the narrative it conveys, producing precise

6. Producing the report:	titles and definitions for each theme. The last chance for analysis. choosing instances of vivid, captivating extracts, analyzing the chosen extracts in the end, connecting the analysis to the literature and research topic, and creating an academic report on the analysis.
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CHAPTER IV

FINDING AND DISCUSSION

This findings and discussion section directly addresses the research question: (1) How do English Pre-service English teachers perceive the use of Chat GPT as a generative AI tool to assist their English academic writing? (2) What challenges do Pre-service English teachers face when using ChatGPT as a generative tool for assisting their English academic writing?

A. Findings

a. The way Pre-service English teachers' perceive the use ChatGPT as a generative AI tool to assist their English academic writing

The data was analyzed through the lens of the TAM aspect such as as perceived ease of use, perceived usefulness, attitude toward using, behavioral intention to use, and actual use represents an explanation of pre-service English teacher's perception:

1. Perceived Ease of Use

Based on the result from the questionnaire assessing the ease of use of ChatGPT as generative AI tool for assist in English academic writing, participants were asked to rated their experience on a Likert scale from 1 (very difficult) to 5 (very easy). The average participants answered 4, showed that most participants agreed that ChatGPT is easy to use to help create academic writing in English.

How easy is ChatGPT for you to use it for academic writing? (Seberapa mudah ChatGPT bagi Anda untuk menggunakannya dalam penulisan akademis?)

49 responses

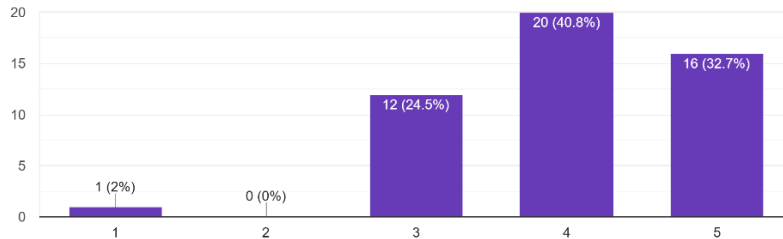


Figure 4.1 The ease of use of ChatGPT for assisting in English Academic Writing

Based on the interview results, most participants also agreed on the ease of use of ChatGPT as a tool to assist in writing English academic papers. However, it still requires significant effort for ChatGPT to be able to provide answers according to what we want.

(Participant 6)

I don't think it requires too much effort, because it's very easy, for the first time we have to register first, then we just write questions / commands.

(Participant 7)

Even though it is AI which can ask anything, it still requires effort, such as on facilities, we need to need a smartphone or laptop, then we also need an email account to enter ChatGPT.

As for the question that ChatGPT is ease to do what the users want to write in English academic paper, participants were asked to rated their experience on a Likert scale from 1 (very difficult) to 5 (very easy). The average participants answered 4, showed that most participants agreed that ChatGPT is easy ChatGPT to assisting pre-service English teacher in English academic writing.

It is easy to get ChatGPT to do what you want to do when you write your academic paper?
(Mudahkah membuat ChatGPT melakukan apa yang ...lakukan saat menulis makalah akademis Anda?)
49 responses

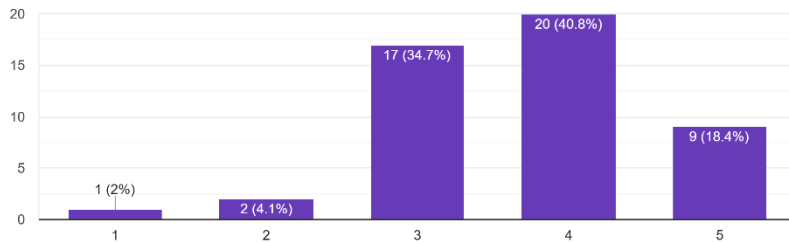


Figure 4.2 The ease of use of ChatGPT for assisting in English Academic Writing

While ChatGPT is easy to use, it also doesn't require much specialized knowledge. However, we must be able to write appropriate and significant prompts so that the resulting answers are what we want.

(Participant 2)

It's actually not difficult to make a command/prompt in ChatGPT, it's just that sometimes what we write is

misunderstood by the ChatGPT, so the results issued are different from what we want, but if we can make prompt properly, the answer will eventually match what we want, we just have to be smart in finding the command/prompt.

2. Perceived Usefulness

Regarding perceived usefulness, participants were asked to rate the usefulness of ChatGPT as generative AI on a scale from 1(strongly disagree) to 5 (strongly agree). The results showed an average score of 4, indicates that participants agreed that ChatGPT can find information quickly and easily when writing English academic paper.

To what extent do you agree that ChatGPT can help you find information quickly and easily when you write your academic paper? (Sejauh mana And...dah ketika Anda menulis makalah akademis Anda?
49 responses

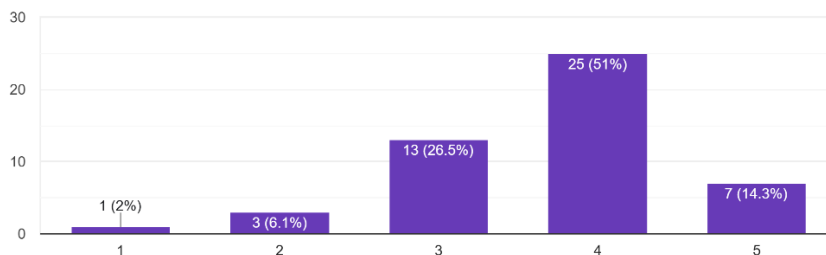


Figure 4.3 The usefulness of use of ChatGPT for assisting in English Academic Writing

As for the question of to what extent they are agree that ChatGPT is a valuable resource for answering questions about

academic paper, participants were asked to rate the usefulness of ChatGPT as generative AI on a scale from 1(strongly disagree) to 5 (strongly agree). The results showed an average score of 4, indicates that participants agreed that ChatGPT is a valuable resource for answering questions about topics for English academic writing.

To what extent do you agree that ChatGPT is a valuable resource for answering your question about your academic paper? (Sejauh mana Anda setuju b...rtanyaan Anda tentang makalah akademis Anda?)
49 responses

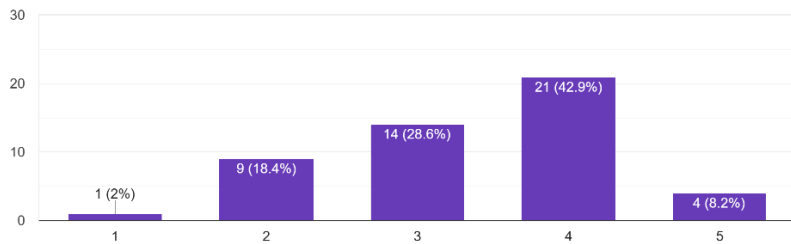


Figure 4.4 The usefulness of use of ChatGPT for assisting in English Academic Writing.

And then, the question of to what extent the users agree that ChatGPT enhance their ability to write their academic paper, participants were asked to rate the usefulness of ChatGPT as generative AI on a scale from 1(strongly disagree) to 5 (strongly agree). The results showed an average score of 4, indicates that participants agreed that ChatGPT improves their ability to write English academic paper.

To what extent do you agree that ChatGPT enhances your ability to write your academic paper?
 (Sejauh mana Anda setuju bahwa ChatGPT menin...ampuan Anda dalam menulis makalah akademis?)
 49 responses

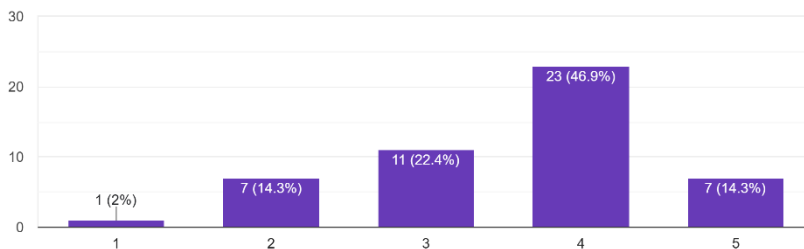


Figure 4.5 The usefulness of use of ChatGPT for assisting in English Academic Writing.

In addition, based on the interview results, most of the participants agreed that using ChatGPT can increase productivity, save time, and make it easier to write English academic papers.

(Participant 1)

ChatGPT is effective in helping with writing, helping to provide ideas, and also increasing productivity.

It can make it easier, because if we use ChatGPT, we can be more open to knowledge that we didn't know before, such as helping to find themes, what the elements of the content are, things that we didn't know before for scientific writing, especially English. So, it opens up more insights.

(participant 7)

I think it has slightly increased my productivity, because ChatGPT can save time and look for ideas beyond our

own. However, for the use of tools as grammar errors, I think it is still lacking.

3. Attitude toward Using

Based on the response result from the questionnaire assessing how enjoyable pre-service English teachers felt about using ChatGPT as generative AI tool for assist in English academic writing, the participants were asked to rate their feelings on a Likert scale from 1 (not enjoyable at all) to 5 (very enjoyable at all). On average, the participants answered 4. This indicates that most participants had a relatively enjoyable feeling towards the use of ChatGPT to assist pre-service English teachers in English academic writing.

How enjoyable are you to using ChatGPT for academic writing? (Seberapa menyenangkankah Anda menggunakan ChatGPT untuk penulisan akademis?)

49 responses

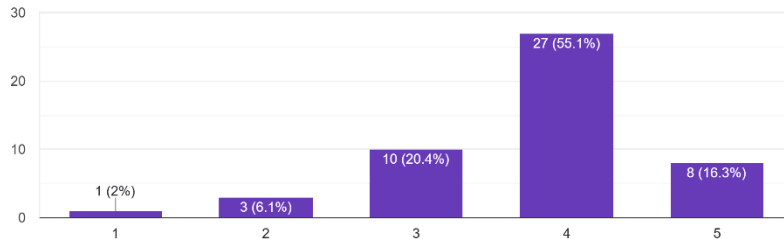


Figure 4.6 Attitude toward using ChatGPT to assisting Pre-service English teacher in English academic writing.

As for the question of how fun pre-service English teachers felt about using ChatGPT as generative AI tool for assist in English academic writing on a Likert scale from 1 (not fun at all) to 5 (very fun), on average they answered 4, indicating that the participants had relative fun when they were used ChatGPT to assisting pre-service English teacher in English academic writing.

How fun are you to use ChatGPT for academic writing? (Seberapa menyenangkan Anda menggunakan ChatGPT untuk penulisan akademik?)

49 responses

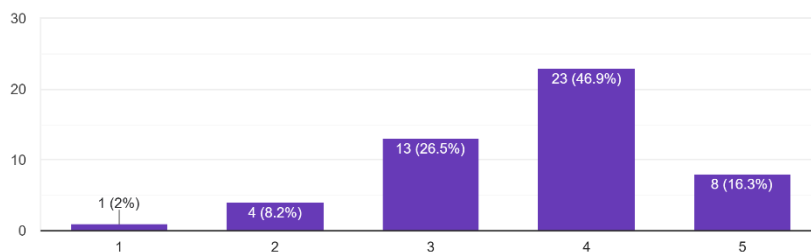


Figure 4.7 Attitude toward using ChatGPT to assisting Pre-service English teacher in English academic writing.

And then, the question how interesting the participants were interacting with ChatGPT when they used it for English academic writing on a likert scale from 1 (not interesting at all) to 5 (very interesting att all), on average they also answered 4, indicating that they were in relative interesting on it.

How interesting to interact with ChatGPT when you use it for academic writing? (Seberapa menarikkah berinteraksi dengan ChatGPT ketika Anda menggunakannya untuk penulisan akademis?)

49 responses

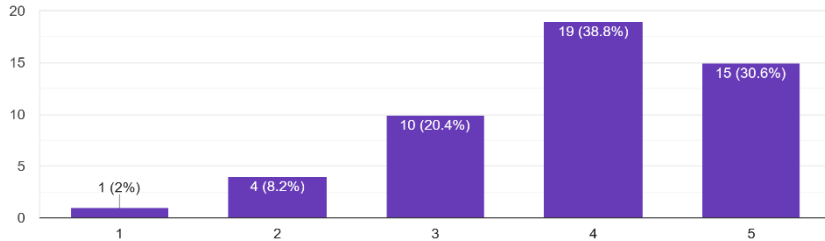


Figure 4.8 Attitude toward using ChatGPT to assisting Pre-service English teacher in English academic writing.

Meanwhile, the positive feeling when using ChatGPT to assisting pre-service English Teacher in English academic writing, on average, participants felt so interesting, happy, excited, curious, and beneficial.

(Participant 2)

Yes, sometimes when I use ChatGPT, I feel excited because the ideas that I have not previously thought of, the ideas / topics that I will write about, I ask ChatGPT for help, then ChatGPT gives me ideas / topics that I can discuss, besides that it can also provide the content of the topic.

Meanwhile, participant 7 who felt helped by the existence of ChatGPT to help in English academic writing, but also felt that there were negative things about the existence of ChatGPT because it could make him lazy to think for himself.

(Participant 7)

I think there are many positives because I feel helped in the writing process, especially for making my final project. And it is very interesting for me because it can help and save my work. But I also feel negative, namely when we use this AI, it makes us lazy to think and be dependent.

4. Behavioral Intention

To measure participants' behavioral intention to use the ChatGPT as generative AI tool to assist in English academic writing, this question reflects the likelihood of participants to continue using ChatGPT in the future. The participants were asked to rate their intention on a Likert scale from 1 (very unlikely) to 5 (very likely).

How likely are you to use the ChatGPT tool to support your academic writing in the future?

(Seberapa besar kemungkinan Anda akan menggun... penulisan akademis Anda di masa mendatang?)

49 responses

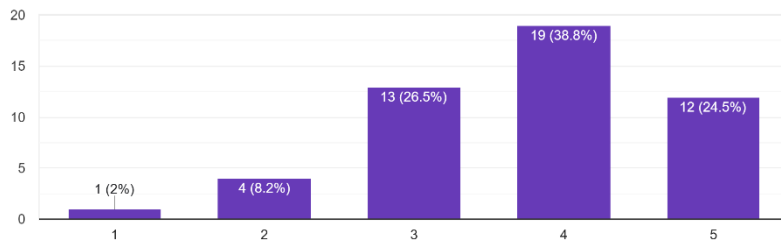


Figure 4.9 Behavioral intention in using ChatGPT to assisting Pre-service English teacher in English academic writing.

And then, the question of how to expect the users to use ChatGPT tool to support their academic writing in the future than they do now. The participants were asked to rate their intention on a Likert scale from 1(very unlikely) to 5 (very likely).

How to expect are you to use the ChatGPT tool to support your academic writing in the future than you do now? (Bagaimana harapan Anda untuk meng...a depan daripada yang Anda lakukan sekarang?)
49 responses

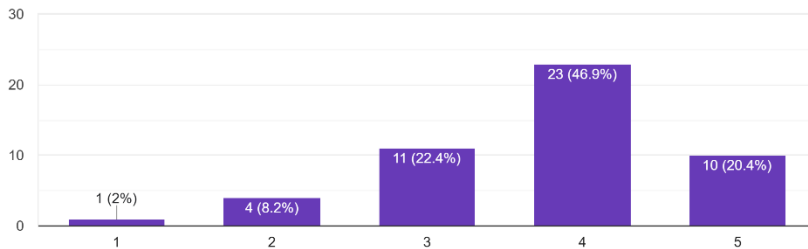


Figure 4.10 Behavioral intention in using ChatGPT to assisting Pre-service English teacher in English academic writing.

The result showed that the average answered 4, indicating a strong behavioral intention among the pre-service English teachers to use ChatGPT to assisting in English academic writing. This positive tendency may be influenced by the perceived of use and usefulness of this AI as a generative tool for assisting in English academic writing. As well as their attitude toward using this AI. However, some of the interview participants stated that they would

still use it, perhaps only for creating timelines, finding ideas, and developing topics, but if there is an AI that has better features, they would prefer to use another one

(Participant 1)

Maybe if it's just writing words, it helps a little, but I think it's still lacking, because it doesn't provide clear academic references.

(Participant 9)

Not continuously, but I will still use ChatGPT when I need to in the future because of its great benefits in improving the efficiency and quality of my writing.

But, some participants stated that they did not know and would not use ChatGPT again in the future due to lacking features such as not providing clear academic references.

(Participant 3)

I'm not sure if it's a yes or no, and it depends on the future situation.

(Participant 5)

For the future I am not too sure to continue using ChatGPT because in the future there will definitely be more AI developing.

In addition, all participants also agreed that they would recommend ChatGPT to their friends and other who have need this

AI to assisting in writing academic not just English academic writing.

(Participant 1)

I would recommend ChatGPT to people who are struggling with words, but already have a lot of resources. For people who don't have a clear idea of what they're aiming for and sources, it's probably just for word processing.

(Participant 3)

Of course I will recommend it to my friends, and I will encourage them to search for information on ChatGPT, and maybe I can help by writing prompts.

5. Actual Use

In assessing the use of ChatGPT to support in English academic writing, participants were asked to rate the frequency of using ChatGPT for assisting in English academic writing-related content on a Likert scale from 1 (never) to 5 (very frequently). On average, participants answered 4, which indicates that most of them frequently used ChatGPT to assist their English academic writing.

How frequently do you use the ChatGPT tool to support your academic writing? (Seberapa sering Anda menggunakan alat ChatGPT untuk mendukung penulisan akademis Anda?)

49 responses

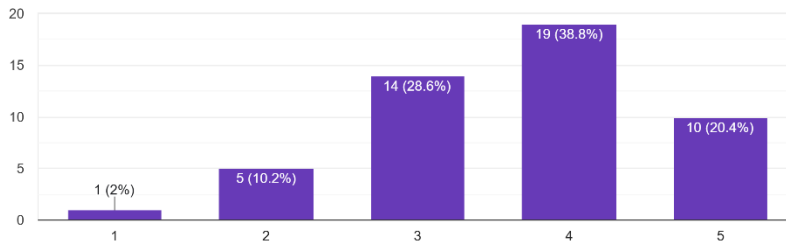


Figure 4.7 Actual use in using ChatGPT to assisting Pre-service English teacher in English academic writing.

On average, participants answer 4, which indicates that most of participants use ChatGPT quite often for assisting in English academic writing. While a real example of actual use are participants shared their experiences in using ChatGPT to assist in writing English academic papers such as helping with outlines and ideas, helping with article writing such as creating data tables or graphs with narrative suggestions, helping with language proofreading and editing such as grammar and academic style, helps provide explanations of theories or concepts relevant to the topic to complement the literature review information, helping with paraphrasing and avoiding plagiarism, and search for journals with the google scholar journal feature.

(Participant 3)

I usually use it to check grammar, paraphrase sentences, help explain theories or concepts relevant to my topic.

(Participant 8)

I sometimes use the google scholar search journal feature on ChatGPT to make it easier for me to find journals according to the topic I want.

b. Challenges of Pre-service English teachers face when using ChatGPT as a generative tool for assisting their English academic writing

The challenges faced by English pre-service teachers in using ChatGPT to assist their English academic writing require further analysis, as, despite its potential benefits, its use also presents significant obstacles. One of the primary challenges is the limitation in understanding deeper contexts, as well as the over-reliance on technology, which can impact the development of more critical and independent writing skills.

1. Issues of Factual Inaccuracies

While ChatGPT has the ability to generate responses within seconds, research has also shown that the output generated by ChatGPT is sometimes inappropriate or misleading. For example, when she asked ChatGPT to create references for her literature search, some of her responses were incorrect, as she could not find the suggested references on Google scholar, PubMed, or other platforms.

(Participant 1)

In my opinion, there are no challenges when I use ChatGPT. The only minus is that it doesn't provide clear scientific references. Maybe, if this ChatGPT has a complete package like perplexity, it will be more worth it once used.

(Participant 2)

The challenge is that ChatGPT does not provide clear sources/references, while academic writing definitely requires sources/references, so, we have to look for references. Meanwhile, we use the ChatGPT to find ideas/topics, but we can also find references from the ChatGPT, however, sometimes when we search, the results do not match what we want.

2. Issues of Overdependence on ChatGPT

With the ease of use and benefits provided by ChatGPT can create the issue of dependency on the use of AI. This can arise when pre-service English teachers use ChatGPT to generalize the entire writing task without applying their critical and analytical thinking skills. This also affects the critical thinking and problem solving skills of its users.

(Participant 7)

The challenge is, when creating a ChatGPT prompt. So, when we want to get a specific answer, we have to make the prompt more specific too. And sometimes when I try to ask about someone's character, this AI doesn't want to give an answer. Then with AI I feel dependent and lazy to think from my own brain, and it's inherent in me.

3. Issues of Biased Information

Although ChatGPT is very flexible and provides answers in a few seconds, sometimes there is still a lot of information provided by ChatGPT that is not in accordance with what is instructed, the answers provided by ChatGPT can deviate, this can happen because of writing prompts that are less specific and detailed. ChatGPT is able to produce satisfactory answers when we are able to write clear and specific prompts. so if we want the right information answers, we must write clear and specific prompts.

(Participant 9)

A challenge I've encountered when using ChatGPT is ensuring that the responses are relevant and accurate to the context of my paper. Sometimes, I need to do some double-checking of the responses to get the right result. However, this is not a big problem.

B. Discussion

The utilization of ChatGPT as a tool to support English academic writing has become increasingly common among pre-service English teachers, as evidenced by recent studies. This discussion examines the insights and data related to the application of ChatGPT in the context of academic writing in English. By analyzing the perception and experiences of students, it seeks to provide a deeper understanding of the benefits and challenges associated with employing ChatGPT as an assistive tool in the process of composing English academic papers.

ChatGPT is extensively utilized by pre-service English teachers as an aid in composing English academic papers, primarily due to its user-friendly design and functional utility. Empirical data indicates that the majority of pre-service English teachers perceive ChatGPT as a valuable tool in the English academic writing process. Its ease of use and usability influence their perceptions, behavioral intentions, and attitudes toward adopting ChatGPT as a generative AI-based writing assistant.

a. Pre-service English teachers' perception toward assisting ChatGPT as generative AI tool to assisting in English academic writing.

Idris & Andini (2023) explored the implementation and effectiveness of ChatGPT in enhancing English academic writing

skills among university students. This study aligns closely with my ongoing research, which also examines the utilization of ChatGPT for writing English academic paper; however, my research specifically focuses on the perceptions of pre-service English teachers. In contrast, Idris & Andini (2023) emphasizes the impact of ChatGPT on students' learning motivation and writing skills, exploring how this technology supports the educational process. Furthermore, while Idris & Andini (2023) employs a quantitative descriptive methodology, my research adopts a qualitative exploratory approach utilizing the Technology Acceptance Model (TAM) developed by Davis in 1989.

The overall results indicate that nearly all participants hold a positive perception of ChatGPT as a writing assistant, recognizing its numerous functions that are advantageous for their writing development. This finding aligns with the previous studies' findings by Firat (2023); Limna et al. (2018); T. T. H. Nguyen (2023); and Imran & Almusharraf (2023). ChatGPT has been increasingly recognized as a valuable tool for writing across various fields of study. According to Imran and Almusharraf (2023), the tool facilitates creative, academic, and scientific writing by providing support in key aspects of the research process. Specifically, ChatGPT assists in generating research questions, developing methodologies, analyzing data, and drafting manuscripts.

Based on the findings of my current research, related to perceived ease of use, most participants were satisfied with the ease of use of ChatGPT as a tool in writing English academic papers. This result is consistent with study by Baidoo-Anu & Owusu Ansah (2023). The current study indicates that while operating ChatGPT as an AI writing tool is relatively easy but still requires effort to achieve optimal results. Users need to know how to create clear and effective prompts to ensure the answers provided are accurate and relevant. Sometimes, the responses may not match the intended context, so users need to review and refine their prompts accordingly. Despite this, the tool does not require specialized knowledge, as its user interface is simple, and its features are designed to be easily comprehensible.

Furthermore, related to perceived usefulness, most of participants reported that ChatGPT was highly effective as a generative AI tool for writing English scientific papers. They highlighted its ability to enhance productivity by reducing the time required for idea generation and revisions. These findings align with Yan (2023) who observed that utilizing ChatGPT as a writing assistant significantly improves efficiency in the composition process. Similarly, a study by Punar Özçelik & Yangın Ekşi (2024) demonstrated that ChatGPT has the potential to support students in improving their writing skills, particularly in developing self-editing abilities.

Regarding behavioral intention of using ChatGPT as a generative AI tool to assisting in English academic writing, pre-service English teachers to continue utilizing ChatGPT as an AI-based writing tool, particularly in the context of thesis writing. The tool's utility lies in its ability to assist with generating ideas, drafting texts, and facilitating brainstorming, thereby enhancing time efficiency in academic tasks. Moreover, participants indicated a tendency to personalize ChatGPT for their specific needs and expressed interest in exploring other AI tools with more advanced features, especially for academic writing that demands clear, reliable, and scientific references.

Regarding recommendations, many pre-service teachers expressed willingness to suggest ChatGPT to peers, junior students, and future learners. However, some reservations were noted, including concerns about its occasional provision of inaccurate information, unreliable scientific references, and the risk of over-dependence on the tool. Additionally, apprehensions were raised about the applicability of ChatGPT for novices and young students because of its linguistic difficulty and the potential challenges in fostering critical analysis skills when interpreting the information provided.

These findings contrast with those of Lan & Tung (2023), who emphasized that ChatGPT offers effective language support across various levels of English proficiency. Additionally, the

results diverge from the conclusions of Punar Özçelik & Yangın Ekşi (2024), who highlighted the advantages of ChatGPT for novice writers while debating its relevance for advanced English learners, suggesting that the latter group possesses the capability to complete tasks independently without relying on ChatGPT for assistance.

Pre-service English teachers' experiences are described based on two main aspects of TAM, such as attitude towards using and the actual use of ChatGPT to assist in writing English academic papers and using ChatGPT to assist in writing English academic papers.

Regarding attitudes towards using ChatGPT to assist in writing English academic papers, this study identified a range of emotions that pre-service teachers experience when using ChatGPT to assist in writing English academic papers. Most of the participants felt positive emotions such as interest, excitement, curiosity and benefit when using ChatGPT to assist in writing English academic papers. The sense of interest arises when they find the answers generated by ChatGPT in real-time and do not have to wait for a long time. The pre-service teachers also felt that it was beneficial, especially when used in writing their thesis, as they found it helpful and time-efficient when searching for ideas, composing texts, and so on. However, in some of their opinions, the use of ChatGPT can become addictive and lazy in thinking.

Nguyen & Dieu (2024) also investigated students' perceptions regarding the use of ChatGPT as an artificial intelligence (AI)-based writing aid. The difference between this study and my current study is that the participants of this study were third-year students in an English Language Education (ELT) program in Vietnam, whereas the participants of my current study were 9 pre-service English teachers from a university in Semarang, Indonesia. This research used a case study, while my current research uses exploratory qualitative. The study aims to assess students' level of familiarity and utilization of ChatGPT, as well as to understand their views on the adoption of this tool in the writing learning process, whereas my current study aims to explore pre-service teachers' perceptions of using ChatGPT as a generative AI tool to assist in the writing of English academic papers.

Related to the actual use of ChatGPT to assist in writing English academic papers, participants shared their experiences in using ChatGPT to assist in writing English academic papers such as helping with outlines and ideas (see appendix 4 figure 2), helping with article writing such as creating data tables or graphs with narrative suggestions (see appendix 4 figure 3), helping with language proofreading and editing such as grammar and academic style (see appendix 4 figure 4), helps provide explanations of theories or concepts relevant to the topic to complement the literature review information (see appendix 4 figure 5), helping with

paraphrasing and avoiding plagiarism (see appendix 4 figure 6), and search for journals with the Scholar GPT feature (see appendix 4 figure 7).

b. Pre-service English teachers' challenges of ChatGPT as a generative AI tool for assisting in writing English academic

However, while ChatGPT offers many benefits, it also brings certain challenges. Based on the interview findings, several challenges were identified in pre-service English teachers' use of ChatGPT to assist with English academic writing. These findings align with those reported by P. H. Nguyen & Dieu (2024) and Seelro & Khan (2024) especially in terms of concerns about the accuracy and relevance of the information generated by ChatGPT. Information from ChatGPT can influence readers, as sometimes the information provided can be biased or biased information. Again, this raises doubts about whether all AI-based content is genuine or part of the tool's.

This research also in line with Yue (2024) dependency on the tool, the use of ChatGPT which is currently being widely used allows students to become dependent on technology, can make the ability to innovate and think independently become reduced in terms of writing, because the ability of this ChatGPT can regenerate text, so this makes lazy to think, reduced skills to analyze, and decreased creativity. this also has an effect on their future career development.

Additionally, another challenges also faced by pre-service English teachers, they should need to write effective prompt-generation skills to optimize its efficiency. This can affect the results given by ChatGPT, because the clearer the prompts we write, the more different answers will be given, ChatGPT can generalize the answers from what we want and be more detailed.

However, this study also uncovered additional challenges not highlighted in Nguyen and Dieu's research, including limitations related to non-subscription accounts that restrict daily usage, issues with vocabulary selection and grammatical accuracy, and the absence of references to scholarly sources, which undermines the credibility of the information provided.

CHAPTER V

CONCLUSION AND SUGGESTION

This chapter explains the conclusion and suggestion. The ultimate study conclusion is included in the conclusion. Future researchers, teacher educators, and pre-service English teachers are among the stakeholders involved in this study issue for whom suggestions are meant.

A. Conclusion

This study investigated pre-service English teachers' perceptions towards using ChatGPT as a generative AI tool to assist in their academic writing. The results of this study indicate that most pre-service English teachers generally perceive ChatGPT as an effective generative AI tool for academic writing. In line with the TAM framework, the participants recognized the perceived ease of use and perceived usefulness of ChatGPT, which significantly influenced their attitudes, behavioral intentions, and actual use of an easy-to-use and valuable resource.

Most participants appreciated ChatGPT's ability to increase productivity, simplify the writing process, and generate relevant ideas, however, although many participants had a positive attitude towards using ChatGPT, they also recognized challenges such as the reliance on AI, the need to create clear and specific prompts, and the lack of credible academic references were also

noted, emphasizing areas for improvement in the functionality of this tool.

In addition, this study highlights the broader implications of the TAM constructs, perceived usefulness and perceived ease of use on the acceptance of ChatGPT as an educational tool. Positive behavioral intentions to continue using ChatGPT, along with willingness to recommend it, reflect the potential of this tool to be integrated into teacher training programs and academic contexts. However, ethical concerns and the risk of reduced critical thinking skills due to over-reliance on AI point to the need for balanced integration. Future development needs to address these limitations for ChatGPT to serve as a complementary tool to human expertise in academic writing and pedagogy.

B. Suggestion

There are some suggestions that I consider after conducting this research:

1. Pre-Service English teachers

Pre-service English teachers can utilize ChatGPT as a supporting tool to improve academic writing skills, such as helping to find ideas, compose texts, and improve grammar. However, must to remain critical and creative in combining ChatGPT results with other credible sources to maintain the quality and authenticity of

their writing and avoid over-reliance. This will provide new insights and ease in writing English academic work by utilizing technology.

2. Teacher Educators

Teacher educators can integrate ChatGPT into the teacher training curriculum as a learning tool. Focus on teaching effective prompt design skills and ethical use of AI in academic writing. In addition, encourage pre-service teachers to utilize AI as a support, not a replacement, in the teaching-learning process.

3. Future Researchers

Future researchers can further explore the effectiveness of ChatGPT in educational contexts, especially in improving academic writing skills at various learning levels. Research can focus on developing ChatGPT features that better support academic needs, such as the addition of credible scientific references and improving the AI's ability to understand the local context of education.

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APPENDICES

Appendix 1: Questionnaire

<https://forms.gle/Gz4sFmwkVRewFD54A>

Section 1 of 2

Pre-Service English Teacher's Perception of Chat GPT to Support English Academic Writing

B *I* U ↗ ~~X~~

Form description

Email *

Short answer text

Participant's Background

Description (optional)

Name *

Short answer text

WhatsApp Number *

Short answer text

Gender *

- ☐ Male
- ☐ Female

Have you ever heard about ChatGPT? (Pernahkah anda mendengar tentang ChatGPT?) *

- ☐ Yes
- ☐ No

Section 2 of 2

Consent Form

Description (optional)

Are you willing to be participant in this research? (Apakah anda bersedia menjadi partisipan dalam penelitian saya?) *

B *I* U  

☐ Yes

Interaction with the account

Description (optional)

Have you ever used ChatGPT for writing purpose (e.g assignment, paper, article, thesis, etc)? *

(Pernahkah anda menggunakan ChatGPT untuk tujuan kepenulisan seperti membuat tugas, makalah, artikel ilmiah, skripsi dll)?

B *I* U  

☐ Yes

☐ No

Are you currently writing your theses? (Apakah saat ini anda sedang menulis skripsi?) *

☐ Yes

☐ No

Technology Acceptance Model

B *I* U  

Description (optional)

B *I* U    

Perceive Ease of Use

B *I* U  

1: Very Difficult, 2: Mostly Difficult, 3: Neutral, 4: Mostly Easy, 5: Very Easy

B *I* U    

How easy is ChatGPT for you to use it for academic writing? (Seberapa mudah ChatGPT bagi Anda untuk menggunakannya dalam penulisan akademis?) 

Very Difficult 1 2 3 4 5 Very Easy

☐ ☐ ☐ ☐ ☐

It is easy to get ChatGPT to do what you want to do when you write your academic paper? (Mudahkah membuat ChatGPT melakukan apa yang ingin Anda lakukan saat menulis makalah akademis Anda?) 

Very Difficult 1 2 3 4 5 Very Easy

☐ ☐ ☐ ☐ ☐

Perceive Usefulness

1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree

To what extent do you agree that ChatGPT can help you find information quickly and easily when you write your academic paper? (Sejauh mana Anda setuju bahwa ChatGPT dapat membantu Anda menemukan informasi dengan cepat dan mudah ketika Anda menulis makalah akademis Anda?) *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Agree

To what extent do you agree that ChatGPT is a valuable resource for answering your question about your academic paper? (Sejauh mana Anda setuju bahwa ChatGPT adalah sumber daya yang berharga untuk menjawab pertanyaan Anda tentang makalah akademis Anda?) *

1	2	3	4	5
☐	☐	☐	☐	☐

To what extent do you agree that ChatGPT enhances your ability to write your academic paper? (Sejauh mana Anda setuju bahwa ChatGPT meningkatkan kemampuan Anda dalam menulis makalah akademis?) *

	1	2	3	4	5	
Strongly Disagree	☐	☐	☐	☐	☐	Strongly Disagree

Attitude Toward Using

B *I* U  

Description (optional)

How enjoyable are you to using ChatGPT for academic writing? (Seberapa menyenangkankah Anda menggunakan ChatGPT untuk penulisan akademis?) *

1 2 3 4 5
Not Enjoyable at All ☐ ☐ ☐ ☐ ☐ Very Enjoyable

How fun are you to use ChatGPT for academic writing? (Seberapa menyenangkankah Anda menggunakan ChatGPT untuk penulisan akademik?) *

1 2 3 4 5
Not Fun at All ☐ ☐ ☐ ☐ ☐ Very Fun

How interesting to interact with ChatGPT when you use it for academic writing? (Seberapa menarikkah berinteraksi dengan ChatGPT ketika Anda menggunakannya untuk penulisan akademis?) *

1 2 3 4 5
Not Interesting at All ☐ ☐ ☐ ☐ ☐ Very Interesting

Behavioural Intention of Use

Description (optional)

B *I* U    

How likely are you to use the ChatGPT tool to support your academic writing in the future? (Seberapa besar kemungkinan Anda akan menggunakan alat ChatGPT untuk mendukung penulisan akademis Anda di masa mendatang?) 

B *I* U  

Very Unlikely 1 2 3 4 5 Very Likely

☐ ☐ ☐ ☐ ☐

How to expect are you to use the ChatGPT tool to support your academic writing in the future than you do now? (Bagaimana harapan Anda untuk menggunakan alat ChatGPT untuk mendukung penulisan akademis Anda di masa depan daripada yang Anda lakukan sekarang?) 

Much Less 1 2 3 4 5 Much More

☐ ☐ ☐ ☐ ☐

Actual Use

B *I* U  

Description (optional)

How frequently do you use the ChatGPT tool to support your academic writing? (Seberapa sering Anda menggunakan alat ChatGPT untuk mendukung penulisan akademis Anda?) 

B *I* U  

Never ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ Very Frequently

Appendix 2: Interview Guideline

Variable	Questions
Perceived Usefulness	1. Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper? 2. Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
Perceived Ease of Use	3. Do you think that using ChatGPT as a generative AI tool does not require significant effort? 4. Do you think using ChatGPT as generative AI tool does not need special knowledge?
Attitude Toward Using	5. Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
Behavioral Intention to Use	6. Do you likely to continue using ChatGPT as a generative tool in the future? 7. Do you likely to recommend ChatGPT as a generative tool to others?

Actual Use	8. Can you describe specific instances when you used ChatGPT to assist in writing English academic paper? 9. What challenges have you encountered while using ChatGPT to support your academic writing paper?
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Adapted from (P. H. Nguyen & Dieu, 2024)

Appendix 3: Interview Transcript

Participant 1

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	ChatGPT is effective in helping with writing, helping to provide ideas, and also increasing productivity.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	It can make it easier, because if we use ChatGPT, we can be more open to knowledge that we didn't know before, such as helping to find themes, what the elements of the content are, things that we didn't know before for scientific writing, especially English. So, it opens up more insights.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	Using ChatGPT also requires effort, because if we don't know the basics, what's the point. At least we know first what we will look for and need, well, from there, this AI will help discuss more broadly about the theme we are discussing.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	Not really, because ChatGPT helps us to understand difficult words, for example we don't know how to write a method, now we can just write what a method is, with that ChatGPT immediately answers, the important thing is the basics, we know what we are going to do
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	Personally, I feel positive, but if you only rely on ChatGPT it is lacking, it must be balanced with other knowledge, such as looking for journals or articles, maybe it should be helped with other sources, because ChatGPT we don't know the source. So for ChatGPT, I feel positive but I can't rely 100% on ChatGPT.

Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	Maybe if it's just writing words, it helps a little, but I think it's still lacking, because it doesn't provide clear references.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I would recommend ChatGPT to people who are struggling with words, but already have a lot of resources. For people who don't have a clear idea of what they're aiming for and sources, it's probably just for word processing.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I usually use it to make a sentence into a standardized sentence, then find the conclusion of a paragraph.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	In my opinion, there are no challenges when I use ChatGPT. The only minus is that it doesn't provide clear references. Maybe, if this ChatGPT has a complete package like perplexity, it will be more worth it once used.

Participant 2

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	Because with ChatGPT I can find ideas that I haven't thought of before or for example if I already have a topic, but don't know what to write about it, I can ask in ChatGPT, what things can be discussed about the topic.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	Yes, ChatGPT can make it easier for me, because as I answered in number 1, ChatGPT helps me to find ideas to discuss on a

	particular topic or can also ask ChatGPT for help if I am too confused to think about what to continue or stuck, and I can ask ChatGPT for help in the form of paragraphs or the next sentence or topic or other ideas.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	In my opinion, it still requires effort because ChatGPT sometimes, the answers produced, the layout of the sentence is the same, so inevitably we have to check it again, read, and change a little so that the sentence is neatly arranged, and not the same as other sentences.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	It's actually not difficult to make a command or prompt in ChatGPT, it's just that sometimes what we write is misunderstood by the ChatGPT, so the results issued are different from what we want, but if we can play the command, the answer will eventually match what we want, we just have to be smart in finding the command or prompt.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	Yes, sometimes when I use ChatGPT, I feel excited because the ideas that I have not previously thought of, the ideas or topics that I will write about, I ask ChatGPT for help, then ChatGPT gives me ideas or topics that I can discuss, besides that it can also provide the content of the topic.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	Yes, I will probably continue to use ChatGPT whether in academics or not, because I am sure that in the future, ChatGPT will have various interesting features that it does not have at present.
Q	Do you likely to recommend ChatGPT as a generative tool to others?

A	I highly recommend ChatGPT to everyone, because ChatGPT is very helpful in any case, whether in academics or not.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I use it to search for topics and discussions, it helps to create data tables or graphs with narrative suggestions
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	The challenge is that ChatGPT does not provide clear sources or references, while academic writing definitely requires sources or references, so, we have to look for references. Meanwhile, we use the ChatGPT to find ideas/topics, but we can also find references from the ChatGPT, however, sometimes when we search, the results do not match what we want.

Participant 3

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	Of course, so in using ChatGPT it is very helpful when I want to develop ideas, because maybe we have ideas, but we can't write them in a structured word, especially to save time, so it is very, very useful.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	Of course, because our background is English education, but if we are only given google translate to do thesis, I think it is very, very lacking, and with AI we can summarize something journal article, so we can just read the conclusion, make it easier for us when making an introduction when we are still lacking sentences, with that, we can be helped to make an introductory paragraph and according to what we want.

Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	In my opinion, we still need it, because if we don't make an effort, for example making a detailed and detailed prompt, for example if we want to make an introduction, we have to make the prompt longer and more detailed, then the results will be different from just writing a short and sober prompt.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	In my experience, if the person has used AI frequently, it won't be difficult. Because, I make the prompts according to my heart and thoughts, so even though my sentences are messy, but what I say will be in accordance with what I want, and the answers are sometimes 80% appropriate, so it's not so difficult.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I think it's positive, because AI really helps us a lot, and I also feel facilitated by the existence of AI. But, sometimes I think what if we are dependent, but never mind, the important thing is that the task is completed.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	I'm not sure if it's a yes or no, and it depends on the future situation.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	Of course I will recommend it to my friends, and I will encourage them to search for information on ChatGPT, and maybe I can help by writing prompts.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I usually use it to check grammar, paraphrase sentences, help explain theories or concepts relevant to my topic.

Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	The challenge is that sometimes the vocabulary provided is not grammatical, and sometimes the usage is not right.

Participant 4

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	yes, I find using ChatGPT quite helpful in increasing productivity. When looking for ideas or correcting grammar mistakes.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	ChatGPT helps me to structure my ideas in a more organized way. For example, when I need additional explanation or ideas in a certain area, I can ask and get relevant answers.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	I think, yes, ChatGPT is quite easy to use. I just need to enter a question, and then ChatGPT provides a response.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	in general, ChatGPT is easy to use without any special skills. However, there is a bit of a challenge in framing the right questions so that the answers are appropriate.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I found it curious and interesting.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?

A	yes, I plan to use ChatGPT in the future, but not continuously just as a tool.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I would recommend ChatGPT to a friend, but for those who are not familiar with AI, there may be some challenges in understanding how to use it.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I used ChatGPT to develop sentences, then it helped to create data tables in a paper and it was very helpful for me.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	one of the main challenges is when ChatGPT gives inappropriate or irrelevant answers. Sometimes, it takes a few tries to get an answer that actually fits the need.

Participant 5

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	Yes, ChatGPT can help me save time in finding ideas for writing.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	ChatGPT is quite helpful in terms of finding ideas when I am confused about what to write, but I still have to develop the idea myself.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?

A	I think it still requires effort because we have to think about writing the right prompt so that the results issued are what we want.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	I think it requires special knowledge because if we write the wrong prompt, then the results obtained can be inappropriate.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I feel quite positive about ChatGPT. The feeling that arises when using ChatGPT is interesting because seeing the results issued so quickly.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	For the future I am not too sure to continue using ChatGPT because in the future there will definitely be more AI developing.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	Yes, maybe I will recommend it to others.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I use it to help me brainstorm ideas and create sentences.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	When I ask to be given an idea along with its source, I often find that the source is not valid and when I search for the source it is not found.

Participant 6

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
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A	I think ChatGPT is very helpful, especially when we are stuck for ideas, often I have found ideas, but still confused to string sentences to make a title, so I ask ChatGPT for help. But, if it's to fix grammar errors, I'd rather use other AIs like Grammarly and others.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	It makes it very easy for me, first, we can determine the title, for the content, we can order on ChatGPT with details and according to what we want. And ChatGPT is also very helpful for getting ideas/sentences to be able to write.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	I don't think it requires too much effort, because it's very easy, for the first time we have to register first, then we just write questions or commands.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	I think it's just a matter of being smart enough to choose the right answer.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I find it helpful and positive. We can ask anything. And I feel that ChatGPT is beneficial and interesting.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	I don't know, but the development of technology is very rapid, but lately ChatGPT is the hype, if there is AI or other more sophisticated tools tomorrow, maybe I will follow it.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I would recommend it, but I would suggest, don't rely too much on ChatGPT, we need to be able to sort out what's appropriate and what's not.

Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I would recommend it, but I would suggest, don't rely too much on ChatGPT, we need to be able to sort out what works and what doesn't.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I've used it to paraphrase, check grammar, summarize an article, create effective sentences, then expand sentences into paragraphs.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	The challenge is, when the account we use has reached the limit, we cannot use ChatGPT anymore. Then, sometimes ChatGPT issues answers that do not match what we want, and we have to keep correcting the answers given.

Participant 7

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	I think it has slightly increased my productivity, because ChatGPT can save time and look for ideas beyond our own. However, for the use of tools as grammar errors, I think it is still lacking.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	I think ChatGPT is very helpful for writing English scientific papers, because it not only answers in Indonesian, but can also translate into English. Then the answers given are not only monotonous but diverse.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?

A	Even though it is AI which can ask anything, it still requires effort, such as on facilities, we need to need a smartphone or laptop, then we also need an email account to enter ChatGPT.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	You still have to have specialized knowledge, especially when asking something, such as writing prompts that are written from general to significantly detailed, so that the answers given are not far off. As for the writing of the prompts themselves, it's easy, but they must be detailed so that our questions can be answered.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I think there are many positives because I feel helped in the writing process, especially for making my final project. And it is very interesting for me because it can help and save my work. But I also feel negative, namely when we use this AI, it makes us lazy to think and be dependent.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	Maybe I don't use ChatGPT too much, because there are other AIs that provide more accurate answers.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I don't recommend it to people, because ChatGPT is less accurate in providing answers and sometimes the answers are still not what we want.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I used it to construct sentences and develop my ideas, as well as to ask about the effectiveness of the sentences I made before.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	The challenge is, when creating a ChatGPT prompt. So, when we want to get a specific answer, we have to make the prompt

	more specific too. And sometimes when I try to ask about someone's character, this AI doesn't want to give an answer. Then with AI I feel dependent and lazy to think from my own brain, and it's inherent in me.
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Participant 8

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	Yes because, ChatGPT makes it easy for me when I am confused to string words, then I just write the prompt I want and information, then the words will be generated automatically, but there needs to be a check and recheck about what is written in ChatGPT.
Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	very easy, for example when we ask to make a paragraph topic, in ChatGPT it is also accompanied by sources that match the writing, so when it is included in my research, there are still citations.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	too easy to use if you understand good prompts, otherwise it will be difficult.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	I need it because if it's just random and not specific, it will be bad and the writing will be too general, so I need to do my own research on what prompts are good, you can search through YouTube or the internet or join a ChatGPT for writing seminar.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I quite like it, because it offers a lot of convenience.

Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	I will definitely use it to make it easier for me to find ideas or something else.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I recommend this for writing scientific papers because it is flexible and can be used anytime.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I often use ChatGPT to paraphrase sentences and also make sentences look more academic, because sometimes the language I write does not look ambiguous and needs to be corrected to make it look more academic and pleasant to read, I sometimes use the google scholar search journal feature on ChatGPT to make it easier for me to find journals according to the topic I want.
Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	I sometimes find it difficult if I haven't found the right and good prompt so that what I am told is not what I want, and also ChatGPT is good in version 4, and that has a limit, making me have to wait again for a while to be able to use it, and when using version 4 and below the results are less satisfying.

Participant 9

Q	Do you think that using ChatGPT as a generative AI tool can improves your productivity in writing academic paper?
A	Yes, I think ChatGPT can increase my productivity in writing English scientific papers. ChatGPT can save me time when I am confused to find ideas for my writing.

Q	Do you think that using ChatGPT as generative AI tool makes your writing academic paper easier to complete?
A	I think ChatGPT makes it very easy for me, it can give me ideas that I can use, sentence structure suggestions, improve grammar. In addition, ChatGPT can also help me understand certain topics that I don't know with simple language.
Q	Do you think that using ChatGPT as a generative AI tool does not require significant effort?
A	When using ChatGPT, it does not require significant effort, because ChatGPT is very easy to use for all users.
Q	Do you think using ChatGPT as generative AI tool does not need special knowledge?
A	When using ChatGPT does not require special knowledge, because the sentences we make are easy to understand and processed by ChatGPT.
Q	Do you feel positive about using ChatGPT as a generative AI tool in your academic writing?
A	I feel that ChatGPT has a very positive impact as a generative AI tool in academic writing. I am very happy and interested in ChatGPT.
Q	Do you likely to continue using ChatGPT as a generative tool in the future?
A	Not continuously, but I will still use ChatGPT when I need to in the future because of its great benefits in improving the efficiency and quality of my writing.
Q	Do you likely to recommend ChatGPT as a generative tool to others?
A	I would highly recommend ChatGPT to others, such as friends and relatives because ChatGPT can help them save time and improve their writing quality.
Q	Can you describe specific instances when you used ChatGPT to assist in writing English academic paper?
A	I use it to help find the meaning of a sentence, correct a sentence and inquire about the content of an article.

Q	What challenges have you encountered while using ChatGPT to support your academic writing paper?
A	A challenge I've encountered when using ChatGPT is ensuring that the responses are relevant and accurate to the context of my paper. Sometimes, I need to do some double-checking of the responses to get the right result. However, this is not a big problem.

Appendix 4: Example of ChatGPT as generative AI tool to assist in English academic writing

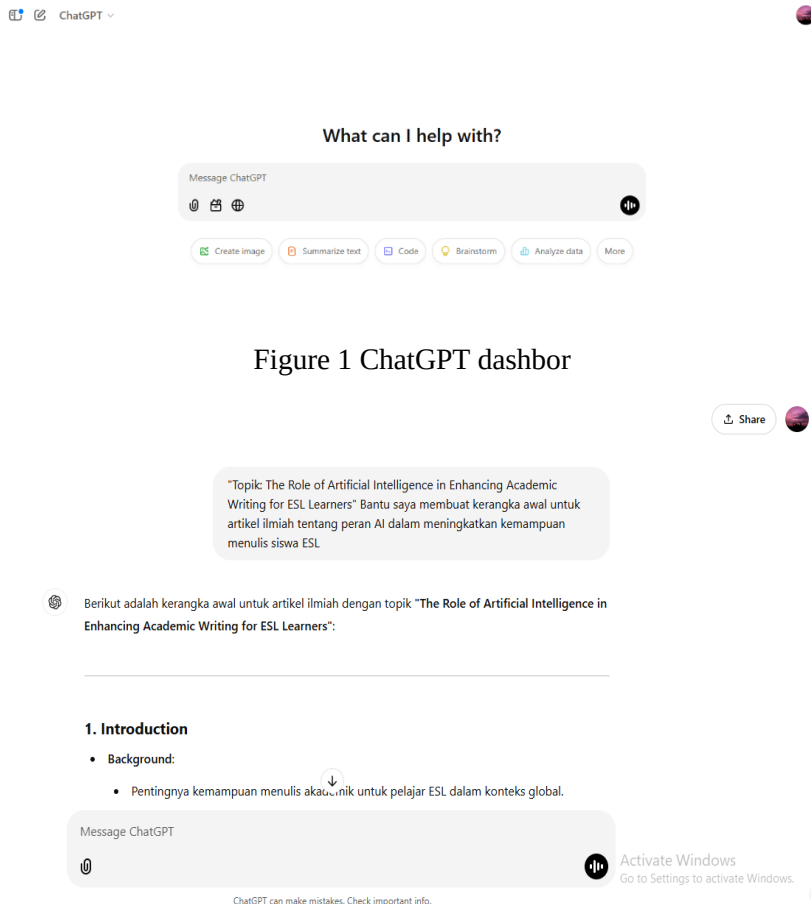


Figure 2 ChatGPT in helping outlines and ideas of topic

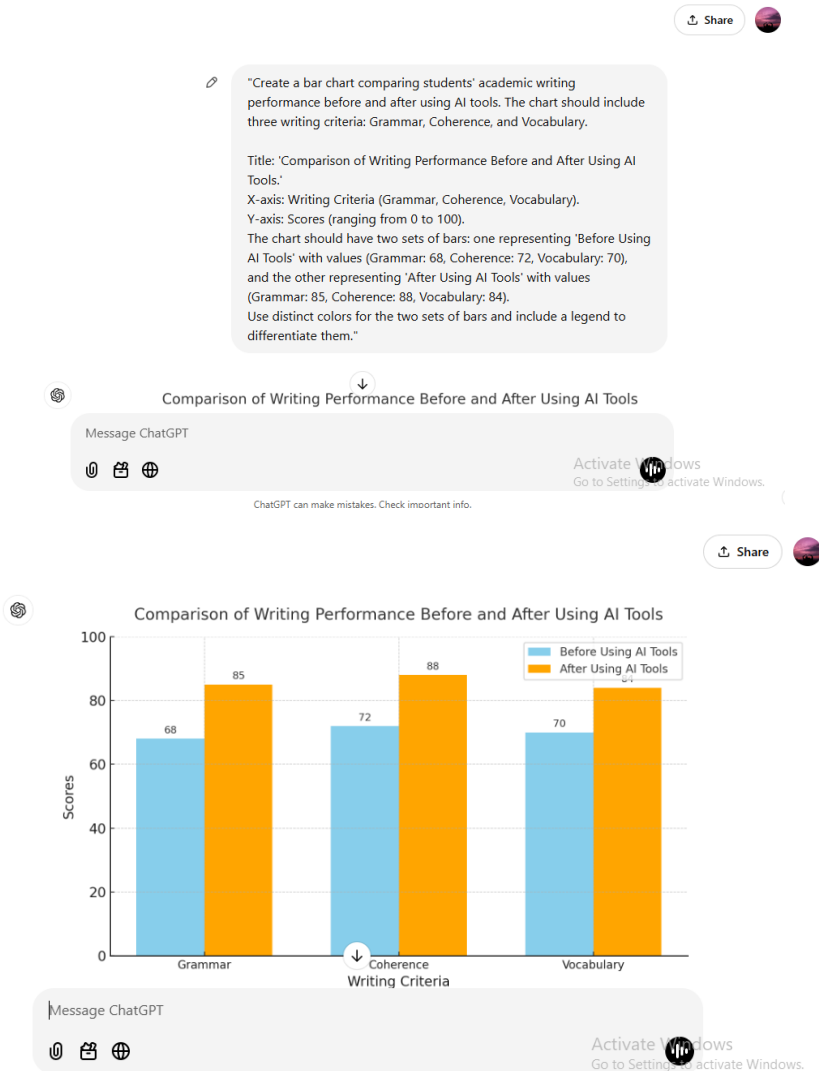


Figure 3 ChatGPT helping to creating data tables or graphs with narrative suggestions

"The research aims to investigate the pre-service English teachers perception about AI-based writing tools and how its use influences their writing skills improvement. Despite of the potential advantages, many teacher still hesitate to utilize these tools because of fears of plagiarism or over-reliance to technology." koreksi dan perbaiki paragraf ini, lalu buat kalimatnya menjadi gaya penulisan akademik



Berikut adalah versi yang telah dikoreksi dan ditingkatkan menjadi gaya penulisan akademik:

Koreksi dan Penyempurnaan:

"This study seeks to explore pre-service English teachers' perceptions of AI-based writing tools and examine how their use impacts the development of writing skills. Although these tools offer significant potential advantages, many teachers remain reluctant to adopt them due to concerns regarding

Message ChatGPT



Activate W
Go to Settings

Penjelasan Perubahan:

1. Tata Bahasa:

- "perception about" → diubah menjadi "perceptions of" (preposisi yang lebih tepat).
- "its use influences their writing skills improvement" → disempurnakan menjadi "how their use impacts the development of writing skills" agar lebih formal dan jelas.
- "Despite of" → diubah menjadi "Although" (karena "despite" tidak diikuti "of" dalam bahasa Inggris).
- "many teacher still hesitate" → disesuaikan menjadi "many teachers remain reluctant" agar lebih sesuai tata bahasanya dan bernuansa akademik.

2. Diksi Akademik:

- "aims to investigate" → diubah menjadi "seeks to explore" untuk menambahkan variasi gaya.

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ChatGPT can make mistakes. Check important info.

Figure 4 ChatGPT in language proofreading and editing.

judul skripsi saya yaitu "THE INVESTIGATING EFL STUDENTS' PERCEPTION REGARDING CHAT GPT AS A GENERATIVE AI TOOL TO ASSISTING ENGLISH ACADEMIC WRITING" apa hubungan generative AI dengan English Academic writing?



Hubungan antara **Generative AI** dan **English Academic Writing** dapat dijelaskan dari beberapa aspek berikut:

1. Kemampuan Generative AI untuk Mendukung Penulisan

Generative AI, seperti ChatGPT, dirancang untuk memahami bahasa manusia dan menghasilkan teks yang koheren, relevan, dan sesuai dengan konteks. Dalam English Academic Writing, ini berfungsi untuk:

- **Menyusun Kalimat dan Paragraf:** Membantu siswa EFL (English as a Foreign Language) membuat teks dengan struktur tata bahasa yang benar.
- **Memberikan Ide dan Saran:** AI dapat membantu brainstorming ide untuk topik penelitian atau

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Figure 5 ChatGPT in provide explanations of theories or concepts relevant to the topic

"The use of artificial intelligence (AI) in academic writing has been increasingly popular. It offers writers tools to enhance their productivity and accuracy in producing scholarly work."
bantu saya untuk memparafrase kalimat tersebut dengan gaya bahasa akademik



Tentu! Berikut adalah parafrase dari kalimat yang Anda berikan dengan gaya bahasa akademik:

"The application of artificial intelligence (AI) in academic writing has gained significant traction in recent years. It provides scholars with tools designed to improve both the efficiency and precision of their academic output."

Jika ada tambahan atau perubahan yang ingin Anda lakukan, beri tahu saya!

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Figure 6 Paraphrasing and avoiding plagiarism



Scholar GPT

By awesomegpts.ai

Enhance research with 200M+ resources and built-in critical reading skills. Access Google Scholar, PubMed, JSTOR, Arxiv, and more, effortlessly.

★ 4.2

Ratings (5K+)

#1

in Research & Analysis
(EN)

7M+

Conversations

Conversation Starters

Find the latest research about
AI

I'll provide a research paper
link; Please analyze it

Start Chat

find a research about automated writing evaluation, and the result is about it can reduce grammar error and can enhance self directed learning



Talked to sider.ai ▾

Here are several academic studies and papers addressing the role of **Automated Writing Evaluation (AWE)** tools in reducing grammatical errors and enhancing self-directed learning. This selection provides a broad perspective on the topic:

Key Findings Overview

Automated Writing Evaluation tools such as Grammarly, Quillbot, and similar platforms significantly reduce grammatical errors, improve writing fluency, and enhance self-directed learning among learners. These systems leverage automated feedback mechanisms to promote active engagement in writing improvement, enabling learners to independently identify and correct their mistakes. Such

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Selected Studies

1. "Evaluating Automated Grammar Corrective Feedback Tools: A Comparative Study of Grammarly and QuillBot in ESL Expository Essays"
 - **Authors:** Mustapha, A., & Adam, A.
 - **Findings:** The study revealed that using AWE tools allows students to focus more on self-directed learning. These tools reduce the time spent on error analysis and improve grammatical accuracy in writing.
 - **Link:** [Read the full study \(PDF\)](#)
2. "Integrating Self-Directed Learning in Facilitating Writers' Engagement through Grammarly"
 - **Authors:** Setiawan, S., & Mustofa, A.
 - **Findings:** Grammarly users reported reduced grammatical errors and appreciated the automated feedback for its role in fostering self-directed learning practices.
 - **Link:** [Access the article \(PDF\)](#)

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Figure 7 The Scholar GPT feature

Appendix 5: Documentation



Figure 5 Interview with participant 1

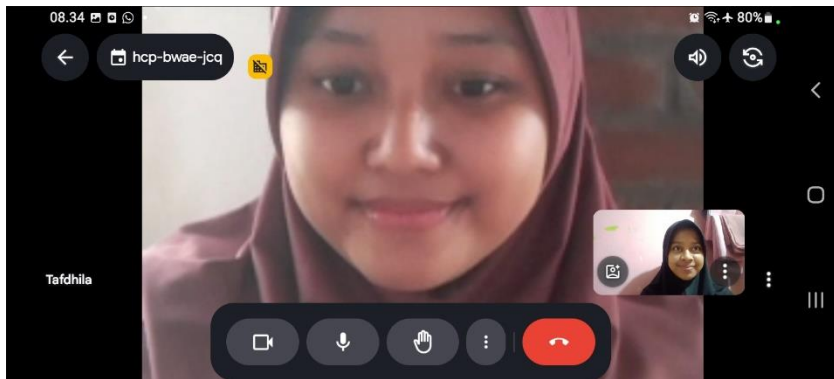


Figure 5 Interview with participant 2



Figure 5 Interview with participant 3

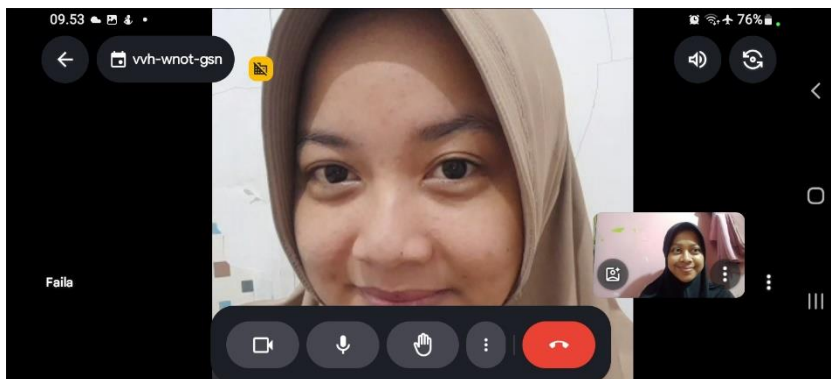


Figure 5 Interview with participant 4

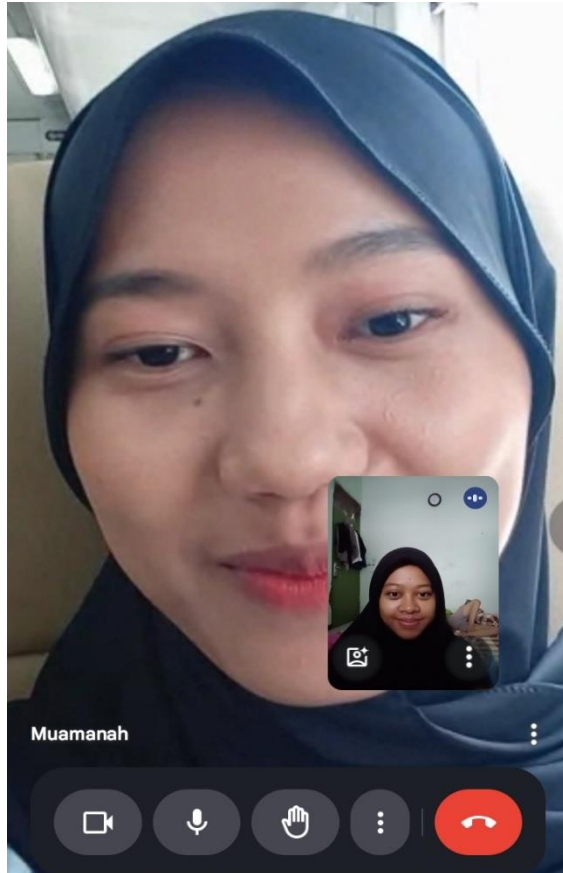


Figure 5 Interview with participant 5



Figure 5 Interview with participant 6

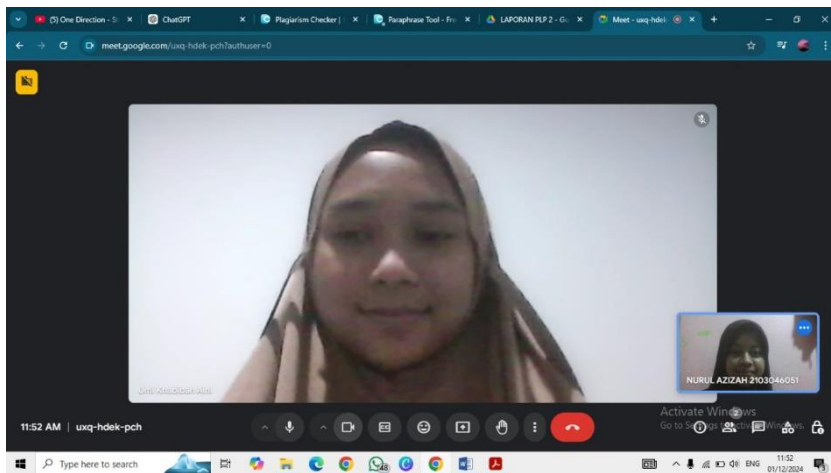


Figure 5 Interview with participant 7



Figure 5 Interview with participant 8

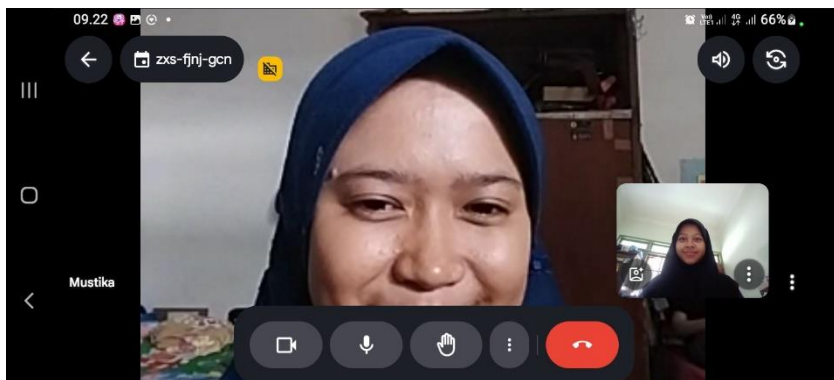


Figure 5 Interview with participant 9

Appendix 6: Curriculum Vitae

1. Personal Details

Name : Nurul Azizah
Student Number : 2103046051
Place and Date : Demak, 13rd March 2002
Birth
Address : Ds. Bungo, Rt 04 Rw 05,
Wedung, Demak, Central Java,
Indonesia
Gender : Female
Marital Student : Single
Religion : Moslem
Phone Number : 085972524253
Email : nurulazizh13@gmail.com

2. Formal Education

- a. SD Negeri Bungo 1
- b. SMP Negeri 1 Wedung
- c. SMA Negeri 1 Wedung
- d. English Education Department of Walisongo State Islamic
University Semarang