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Investigation of Students' Perceptions of the Use of Artificial Intelligence in Writing Assignments

**A Thesis Submitted in Partial Fulfilment of the Requirements of the
Degree of Master of Arts in Applied English Language Studies**

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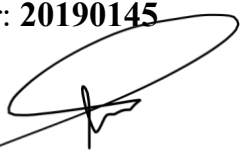
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Declaration

I declare that this work, which I submitted to the University of Bahrain, contains my own investigation. This research has not been previously accepted for any degree and is not currently considered for any other degree at any other university.

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Abstract

This thesis examines the use of ChatGPT in three dimensions. First, it explores the purposes for which English language learners use the generative pre-trained model ChatGPT. Second, it examines the perceived positive and negative impacts on students when utilizing this AI-powered tool to write their assignments. Third, it investigates instructors' perceptions of the positive and negative impact of students who utilize this chatbot in writing assignments. The study focuses on higher education students majoring in the English language, and instructors who teach English language in higher education institutions. The study adopts mixed-methods approach combining quantitative and qualitative methods. The first data collection method involved distributing a questionnaire to 50 students majoring in English language studies, with three types of questions: introductory items, Likert-scale, and open-ended questions, to answer the first and second research questions. For the third question, the researcher conducted semi-structured interviews with ten instructors. Findings revealed that students primarily use ChatGPT to clarify concepts and summarize information. Additionally, students' responses showed a positive attitude towards utilizing this AI-based tool in writing assignments. In the open-ended questions, students frequently reported that ChatGPT enriched their grammar and vocabulary and enhanced the cohesion of their composition. However, overdependence on automated assistance in writing was found to be a concern for the majority of participants. Students showed a raised awareness of the potential drawbacks of over-relying on AI technology in writing, with regard to hindering critical thinking, information privacy, plagiarism and ethical considerations. Instructors, on the other hand, demonstrated different attitudes: the majority have agreed on integrating the AI technology in the learning process under their instructions. Ultimately, the study underscores the importance for language instructors to be familiar with AI technology and stay current with its trends, enabling them to enhance the learning experience and help students maximize the benefits of AI while avoiding its potential pitfalls.

Keywords:

Artificial intelligence, ChatGPT, assignments, academic writing, perception, Generative AI, students, instructors.

Dedication

Throughout my journey towards achieving this chapter in my life, there are significant individuals towards whom I am very grateful. These people are the ones to whom I dedicate this work.

To my parents, who have made this world a better place to live in and shaped the person I am, making every challenge along the way more bearable.

To my siblings, I am genuinely grateful for their unwavering support and faith in my academic journey.

To my dear uncles, whose continued support and encouragement have been the backbone of my journey.

To my beloved homeland, To His Royal Highness Mohammed bin Salman bin Abdulaziz Al Saud. Your visionary leadership and unwavering support for Saudi Arabia's youth have shaped a brighter future for our nation and inspired me to pursue knowledge, ambition, and innovation. This work stands as a small reflection of the opportunities your vision has made possible for students like me.

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And finally, to myself, for enduring many hardships, persevering through tough times, and continuing forward and being resilient, to finally turn the page and begin a new chapter in my life.

And to everyone who ever believed in me, *this dissertation is dedicated to you.*

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﴿وَأَخِرُ دَعْوَاهُمْ أَنِ الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ﴾

First, I would like to thank Allah S.W.T., my Creator, my Lord, and the Most Merciful and the Most Gracious, for making my dream possible, for showing me that there is always sunlight after the rain. Allah S.W.T has shown me the importance of patience, in every situation I have been through, even in the times I felt the most upset. I would also praise May Allah bless peace and blessings upon his messenger, Prophet Muhammad (peace be upon him), who has guided and blessed me for a better life.

During this journey, I have always reminded myself of this verse from Quran:

(وَمَنْ يَتَوَكَّلْ عَلَى اللَّهِ فَهُوَ حَسْبُهُ إِنَّ اللَّهَ بَالِغُ أَمْرِهِ قَدْ جَعَلَ اللَّهُ لِكُلِّ شَيْءٍ قَدْرًا)

And whoever puts their trust in Allah, then He 'alone' is sufficient for them. Certainly, Allah achieves His Will. Allah has already set a destiny for everything.

I want to express my sincere gratitude to my Supervisor, Dr. Nuri Ageli, for his faith in me, his confidence in me, his patience, and his consistent encouragement throughout the completion of my Master's Degree.

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Table of Content

Subject	Page Number
Dedication	A
Defense Committee's Approval	B
Abstract	C
Acknowledgement	D
Table of Content	E
List of Tables	H
List of Figures	I
List of Appendices	J
Chapter One Introduction to the Research	
1.1 Introduction	2
1.2 Research Problem	3
1.3 Research Questions	4
1.4 Research Objectives	4
1.5 Research Significance	4
1.6 Terminology	5
Chapter Two Theoretical Framework and Literature Review	
2.1 Introduction	8
2.2 Theoretical Framework	9
2.2.1 Artificial Intelligence: Definition and Branches	9
2.2.2 Machine Learning and Deep Learning	10
2.2.3 Natural Language Processing	11
2.2.4 Large Language Models	11
2.2.5 Transformers and Generative Pre-Trained Transformer	12

2.3 Literature Review	14
2.3.1 Artificial Intelligence and Education	14
2.3.2 Challenges and Benefits of Artificial Intelligence	16
2.3.3 Students' Perceptions of Utilizing AI in Writing	19
Summary	21
Chapter Three Methodology and Procedures	
3.1 Introduction	24
3.2 Research Methods and Procedures	24
3.2.1 Research Approach	24
3.2.2 Quantitative Instrumentations and Data Collection	25
3.2.3 Qualitative Instrumentations and Data Collection	26
3.2.4 Research Population and Sampling	26
3.3 Data Analysis	27
3.4 Ethical Considerations	27
Summary	28
Chapter Four Results and Discussion	
4.1 Introduction	30
4.2 Research Findings	30
4.2.1 Results of Quantitative Data Retrieved from the Questionnaire	30
4.2.2 Results of Qualitative Data Retrieved from the Questionnaire	40
4.2.3 Results of Qualitative Data Retrieved from The Interviews with Instructors	40
4.3 Data Analysis and Discussion	44
4.3.1 General Discussion	44

4.3.2 Discussion of the First Research Question	49
4.3.3 Discussion of the Second Research Question	50
4.3.4 Discussion of the Third Research Question	53
Summary	57
Chapter Five	
Conclusion and Recommendations	59
References	61

List of Tables

No	Subject	Page Number
1	Table 1: Generative AI (GenAI) tools Students use the most	31
2	Table 2: Uses of ChatGPT	32
3	Table 3: Likert-Scale Questions Findings – Benefits of Using AI tools in Writing Assignments	32
4	Table 4: Likert-Scale Questions Findings – Potential Drawbacks of Using AI tools in Writing Assignments	33
5	Table 5: Most commonly used AI tool among students.	40
6	Table 6: Instructors' Perceptions of ChatGPT's positive impact on their writing quality.	41
7	Table 7: Instructors' Perceptions of ChatGPT's negative impact on their writing quality.	41
8	Table 8: The best and the worst aspects of students' utilization of the generative AI tool ChatGPT.	42
9	Table 9: Do instructors recommend Chatgpt?	43
10	Table 10: Generative AI tools that help in improving students' writing.	43

List of Figures

No	Subject	Page Number
1	Figure 1 The relationship between artificial intelligence (AI), machine learning (ML), artificial neural networks (ANN), deep learning (DL), large language models (LLMs), generative pre-trained transformers (GPT), GPT-4, and ChatGPT.	14
2	Figure 2: Count of ChatGPT has enhanced my writing abilities.	34
3	Figure 3: Count of ChatGPT has enriched both grammar and vocabulary.	35
4	Figure 4: Count of I have expanded my English vocabulary after using ChatGPT.	35
5	Figure 5: Count of I'm more encouraged and motivated to write my assignments.	36
6	Figure 6: Count of Using ChatGPT to write assignments has enhanced my critical thinking abilities	36
7	Figure 7: Count of I prefer using technology to improve my writing efficiency over the traditional methods.	36
8	Figure 8: Count of ChatGPT generates inaccurate information.	37
9	Figure 9: Count of I'm confused by the amount of information that ChatGPT provides.	38
10	Figure 10: Count of ChatGPT provides too general information.	38
11	Figure 11: Count of I'm concerned that depending on ChatGPT will hinder my critical thinking skills.	39
12	Figure 12: Count of ChatGPT has limited my ability to use the proper tense in writing.	39

List of Appendices

No	Appendix	Page Number
1	Students' Questionnaire	II
2	Semi-Structured Interviews	III
3	Figures of Quantitative Data of Questionnaire's Responses	V
4	Tables of Questionnaire Responses	XV
5	Students' Usage of AI-based Writing Tools	XV
6	Students' Attitudes Towards Using ChatGPT in Writing Assignments: Questionnaire's Responses	XVIII
7	Instructors' Perceptions of Students' Usage of ChatGPT in Writing Assignments: Interviews Results	XXII
8	Abstract Translated to Arabic	XXV

Chapter One

Introduction

Chapter One

1.1 Introduction

In his famous adage, Henry Ford verbalized his thoughts about creativity and innovation. This often sparks a debate. One side strongly argued that innovation should come from customer input or feedback. In contrast, others believe that innovation originates from visionary creators who focus on their own visions for a better future, rather than relying on customer input (Chen et al., 2020). This analogy supposes that we need to search beyond societal norms and, instead of making “horses faster”, we can innovate automobiles to jump quickly from one point to another. These approaches have driven computer scientists to pursue advancements in technology and systems over the past years. These advancements have continued to innovate machines capable of completing tasks that only machines with human-level intelligence are able to do. This is called Artificial Intelligence (AI). Ultimately, the advancements have led to the development of Generative Pre-Trained Transformers, large language model-based chatbots that can generate texts similar to those produced by humans. An example of these chatbots is ChatGPT, which was released by OpenAI in November 2022 and has become the fastest-growing application worldwide, exceeding 100 million users in a short period (Stohr et al., 2024).

The applications of Artificial Intelligence are of great importance for life, but more importantly, for education. According to Aldosari (2020), modern universities are no longer limited to delivering education alone; they now play a central role in promoting Sustainable Development (SD). The development in educational institutions can be achieved by integrating emerging technologies to make learning a more effective and easier process. Nonetheless, the integration of AI in educational contexts is now permanent, and writing has undergone significant alterations following the advent of artificial intelligence (Mahdi & Alkhateeb, 2025). The integration of Generative AI tools has brought about

remarkable changes to writing, summarizing, paraphrasing, and proofreading. As stated by Alharbi (2023), AI systems offer text generation and suggestions for completing the sentences, which aid students in every writing step.

Many researchers have examined the role of applications that are based on natural language processing (NLP) and large language models (LLMs) such as ChatGPT, on students' research and academic writing. Also, research has investigated how students perceive the positive and negative impact of this AI-based tool. It is crucial to explore how language learners perceive the use of this tool for writing, in terms of both positive and negative impact. Nevertheless, teachers' perceptions of students' utilization of this tool are equally important. In this respect, the present study aims to investigate the attitude of English language students in higher education towards utilizing ChatGPT in writing their assignments. Additionally, it examines language teachers' perceptions of this AI-powered tool in relation to language learners. The study also aims to explore the potential advantages and pitfalls of using AI-based writing tools to ultimately innovate techniques that aid students in optimizing the benefits of AI technology without completely relying on automated assistance.

1.2 Research Problem

Numerous researchers have explored the potential advantages, challenges, and limitations of utilizing the generative AI tool Chatgpt. However, despite significant advancements in artificial intelligence research, there remains a notable gap in understanding the dual-purpose impact of generative AI tools, such as ChatGPT, from the perspectives of both students and instructors. Existing studies inadequately address how students utilize ChatGPT, their perceptions of its potential benefits and drawbacks, and how teachers view its influence on students' learning experiences. This research aims to fill this gap by systematically investigating these dimensions, thereby contributing to a more

comprehensive understanding of the pedagogical implications of generative AI in educational contexts.

1.3 Research Questions

The study attempts to answer the following questions:

- 1- To what extent do students use ChatGPT to write their term papers and compositions?
- 2- How do students perceive the positive and negative impact of ChatGPT on enhancing students' writing?
- 3- How do teachers perceive the positive and negative impact of ChatGPT on enhancing students' writing?

1.4 Research Objectives

The objectives of the study can be stated as follows:

- 1- To explore the uses of the generative AI tool ChatGPT in academic writing.
- 2- To investigate the students' perception of the positive and negative impacts of using the AI tool ChatGPT.
- 3- To investigate the teachers' perceptions of the positive and negative effects of students' usage of ChatGPT.

1.5 Research Significance

With the maturation of technology and the continued development of computer systems, artificial intelligence has inevitably reached and influenced education in many ways. AI, mainly chatbots, is of great importance for university students, but it is more important for language learners. The present research is significant because it seeks to address and investigate how students use the generative AI ChatGPT for various purposes and to what extent they rely on automated assistance in writing their compositions, as stated in the first question.

The role of ChatGPT in revolutionizing writing efficiency has drawn the attention of linguists who want to explore AI's crucial role in the language learning process,

especially in writing. Thus, this research will contribute to benefiting linguists, educators, and administrators in the educational field by increasing their awareness of the various ways in which students utilize ChatGPT. Evaluating students' and educators' perceptions of the impact of using chatbots for academic writing and understanding the nature of this impact—whether positive or negative—will thus support educators and stakeholders in the educational sector in developing guidelines and instructions to promote the benefits of using AI in academic writing and mitigate the negative impact. Ultimately, the research aims to fill the existing gap and further enrich the existing literature.

1.6 Terminology

- **Artificial Intelligence**

Artificial Intelligence is an interdisciplinary field of science and engineering focusing on the theory and application of developing systems that demonstrate characteristics mimicking human intelligence (Tecuci, 2012).

- **Natural Language Processing (NLP)**

NLP is a branch of artificial intelligence and linguistics devoted to enabling computers to interpret and comprehend human language statements or words and producing human-like language (Khurana, Koli, Khatter, Singh, 2020)

- **Large Language Models (LLMs)**

LLMs are advanced artificial intelligence models trained to comprehend, process and generate human-like, coherent and contextually relevant texts, employing deep learning techniques. These models are trained on vast data sets and extensive corpora, enabling them to perform various natural language processing tasks (MacNeil et al., 2022).

- **GPTs**

(Generative Pre-trained Transformers) Alternatively, GPTs are a class of artificial intelligence models that leverage deep learning techniques built upon pre-trained transformer models. Developed by OpenAI, these models have the ability to generate texts that resemble human language (Radford et al., 2018).

- **Chatbot**

A chatbot is an AI application designed to simulate human agents in interaction using HCI or the Human-Computer Interaction model (Adamopoulou & Moussiades, 2020). One example of a chatbot is ChatGPT.

Chapter Two

Theoretical Framework and Literature Review

Chapter Two

Theoretical Framework and Literature Review

2.1 Introduction

The rapid growth of Artificial Intelligence has significantly impacted various sectors of our lives since its inception. This impact is gradually growing and expanding, and AI is now integrated into almost all sectors. The current chapter starts by surveying AI and its branches. Additionally, it will provide a comprehensive definition of key concepts, including natural language processing (NLP), large language models (LLMs), the Transformer architecture, and Generative Pre-Trained Transformer (GPT). One of the primary applications of AI and NLP is the development of chatbots. The chapter will mainly dive deeper into understanding the mechanism by which the chatbots generate natural language by uncovering artificial intelligence layers. Moreover, the chapter will preview an AI-based chatbot —specifically ChatGPT—and its role in transforming academic writing. Additionally, it will review previous studies to explore the various applications of ChatGPT as a generative AI tool. Similarly, the section will review existing literature on students' and educators' perspectives regarding the benefits and challenges associated with utilizing ChatGPT for writing composition.

Using a general-to-specific approach, the chapter begins by deconstructing the term "artificial intelligence" and providing a broad definition of this concept, following the categorization found in existing literature. Then, the chapter previews essential concepts such as Machine learning (ML), Deep Learning (DL), Natural Language Processing (NLP) and Large Language Models (LLMs). In reviewing the literature, the author employs a thematic approach. The studies are organized chronologically within each theme from the earliest to the most recent. The previous studies are categorized by themes as follows: artificial

intelligence and education, challenges and benefits of artificial intelligence, and students' perception of utilizing AI-powered tools in academic writing.

2.2 Theoretical Framework

2.2.1 Artificial Intelligence: Definition and Branches

Artificial intelligence (AI) in our modern world resembles living in a fantastical wonderland. The marvels of AI have brought technologies that once seemed like fantasy: image recognition systems, machine translation (MT) chatbots, smart speakers, and autonomous vehicles. Arthur Clarke, the writer of British science fiction, once stated that any technology that is sufficiently advanced is inseparable from magic, yet the magic disappears once we perceive technology. To understand the concept of AI, we need to deconstruct the phrase “Artificial Intelligence” initially. The word artificial means anything that is human-made. AI is a modern field of knowledge known to be an application of information systems concerned with understanding human intelligence nature and its imitations in order to create a new era of intelligent computers that can be trained to perform tasks that require a high degree of specific abilities that only humans can have which are “inference, deduction, and perception” (Aldosari,2020). It is the ability of systems to analyze outer data correctly, comprehend such data, and use this comprehension to achieve certain tasks employing flexible adaptation (Kaplan & Haenlien, 2019). Another definition by August and Tasima (2021) is that AI studies how to enable computers to perform tasks that require intelligence when accomplished by humans. A significant distinction between AI and human or animal intelligence is that AI lacks emotions and awareness (August et al., 2021).

Artificial intelligence can be classified in two ways. It can be classified by the intelligence types it exhibits as “analytical (cognitive intelligence), emotional (human-inspired intelligence), and social intelligence (humanized AI).” However, in its evolutionary stage, AI is classified as Narrow (weak) and General

(Strong) intelligence (Kaplan & Haenli, 2019). John Searle (1980), in his division of AI types, stated that weak AI is one that is merely capable of handling single or narrowly defined tasks and issues, which represents the most common type of AI used currently. Contrastively, general or strong AI; which researchers in this field aspire to reach, attempts to construct machines with the ability to think and use cognitive reasoning as humans do (Bartneck et al., 2020).

2.2.2 Machine Learning and Deep Learning

Machine learning (ML) is usually interchanged with AI. However, it is a sub-field of artificial intelligence concerned with using algorithms that can recognize patterns in data, learn from these data, improve them over time, and draw conclusions when faced with new information without an explicit need to be programmed (Ramlakhan et al., 2022). August and Tsamias (2021) clarified the concept by stating that machine learning is an algorithm that is able to cluster information based on its similarities and differences. To clarify further, it is the computer's ability to learn independently and automatically without being directly programmed. Machine learning seeks to codify knowledge into machines and automatically identify meaningful relationships and patterns within the available data and examples. Mitchell (1997) sub-categorized machine learning based on the learning type into three categories: supervised, unsupervised, and reinforcement learning. In supervised learning, the model is trained on labelled data to make predictions on new data. In unsupervised learning, contrastively, the model is trained on unlabelled data, aiming to allow computers to understand data patterns and structures related to each other and cluster such patterns rather than relying on predictions. The last type is reinforcement learning, in which the model is trained to interact with an environment and receive feedback as rewards and penalties.

Deep learning (DL) is known to be a subset of machine learning (ML) that uses Artificial Neural Networks (ANN)—networks that imitate the human brain in processing data—with hidden or *deep* layers in order to analyze and learn from

large amounts of information (Janiesch et al., 2021). It is effective with tasks that require models with a hierarchical nature, such as audio and speech recognition and natural language processing, through determining patterns and their representations. DL demands substantial computational power and a large set of data.

2.2.3 Natural Language Processing

Natural language processing (NLP) is a branch of artificial intelligence and linguistics concerned with enabling computers to comprehend words and statements of human language, purposefully to communicate with machines in natural language (Khurana et al., 2023). It is classified into natural language understanding, linguistics, and natural language generation (NLG). The former refers to understanding natural language, including all branches of linguistics, i.e., from phonology to pragmatics. After that, the task of the latter begins once human language is comprehended; natural language generation (NLG) enhances the task of processing language into producing naturally coherent texts from internal representations (Khurana et al., 2023).

2.2.4 Large Language Models

Artificial intelligence has achieved tremendous success in recent years, and one of the forms of the advent of the field is large language models. It is an advanced form of natural language processing in which models are trained on an extensive dataset of texts to perform tasks that are language-related with high accuracy and, thus, produce human-like texts (Kasneci et al., 2023). Kasneci et al. added that LLMs have reached state-of-the-art performance in various natural language tasks, such as translation, answering questions, and essay writing, as the models are trained on a massive web corpus, resulting in the production of coherent texts. It was also noted that large language models (LLMs) can support language learning and facilitate the development of various types of written texts. Furthermore, they are practical tools for middle and high school students as they

assist them in composing texts across a range of academic subjects. Similarly, LLMs assist university students and contribute to the development of various research skills while also supporting writing-related texts. This is attributed to the ability of LLMs to generate text outlines and summaries, which in turn help students organize their thoughts more effectively and understand the topic's key concepts. Recent studies have increasingly explored the crucial role of large language models in the educational field and how they can potentially enhance students' learning outcomes. Wang et al. (2024) reported that a growing body of research on large language models (LLMs) in the educational sector has demonstrated promising findings, particularly focusing on the effectiveness of LLMs in assisting students with tasks that are cognitively demanding, such as answering complex questions, correcting errors, and clarifying difficult concepts.

2.2.5 Transformers and Generative Pre-Trained Transformer

The transformer architecture, first introduced by Vaswani et al. in 2017, has become a foundational model in natural language processing. It is a type of deep learning (DL) and neural network architecture that excels at generating sequential data such as natural language. It is considered a basis for various state-of-the-art models, one of which is GPT. It is also the core architecture of large language models (LLMs). The Generative Pre-Trained Transformer (GPT) is an artificial intelligence model developed by OpenAI, designed to comprehend and produce human-like text (OpenAI, 2013). According to Aydin and Karaarslan (2023), Generative Pre-trained Transformer (GPT) models are trained on vast amounts of publicly available digital data within the field of Natural Language Processing (NLP). These models possess the capability to comprehend and generate human-like text in multiple languages and generate a wide variety of written content, including research papers across diverse subject areas. This transformer underwent four versions: GPT-1, GPT-2, GPT-3, and the most recent GPT-4. As the most recent version, GPT-4 exhibits superior speed and performance. It is a large-scale transformer-based architecture that performs at a

human level on a range of academic and professional benchmarks. It is trained on an extensive data set that, in turn, provides it with the ability to predict the next word and structure in a document. A prominent example of GPT is the widespread and commonly used application ChatGPT, which has achieved more than one million subscribers in one week since its maiden release on the 30th of November, 2022 (Baidoo-Anu & Ansah, 2023). It is an artificial intelligence chatbot powered by GPT-4, developed to interpret natural language inputs and produce real-time responses that closely resemble human communication. Trained on a vast and diverse corpus of multilingual internet texts, it is capable of generating written content across a wide range of languages, subjects, and textual formats.

As shown in Figure 1, artificial intelligence is a big umbrella under which many branches fall. One of these branches is machine learning (ML), a subfield of AI that utilizes algorithms to identify data patterns and then draw conclusions based on such data when faced with new patterns without the computer being explicitly programmed. A subset of machine learning is deep learning (DL), which relies on layered artificial neural networks that emulate the structure and functioning of the human brain. This architecture enables machines to interpret data in a human-like manner, facilitating capabilities such as speech and image recognition. Natural language processing (NLP) works to empower computers by helping them comprehend natural language and generate texts that mimic natural language. Through internal data representations, NLP enables systems to produce coherent and contextually relevant natural language outputs. Using a pre-trained neural network, generative pre-trained transformer (GPT) models are equipped to produce a wide range of text formats. These models are part of the broader category known as large language models (LLMs), trained on extensive publicly available online data. In this study, we are focusing on the AI-powered chatbot ChatGPT.

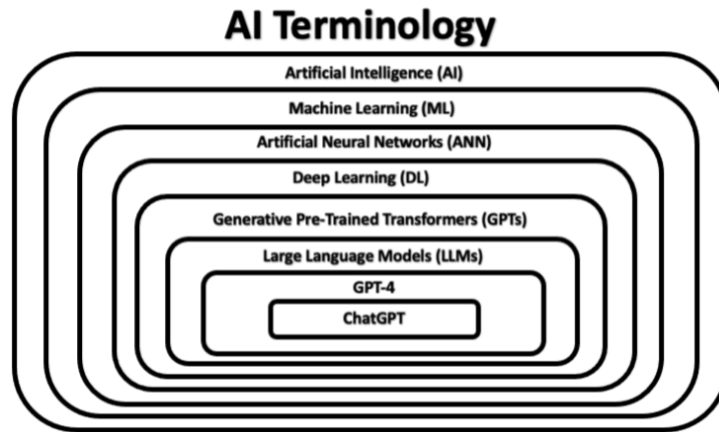


Figure 1: The relationship between artificial intelligence (AI), machine learning (ML), artificial neural networks (ANN), deep learning (DL), large language models (LLMs), generative pre-trained transformers (GPT), GPT-4, and ChatGPT.

2.3 Literature Review

2.3.1 Artificial Intelligence in Education

Due to mechanical advancements, the rapid development of technological systems has impacted and facilitated all aspects of people's lives around the globe. This advancement, referred to as artificial intelligence (AI), which has revolutionized the educational sector in recent years (Tri et al., 2021). According to Gabriel et al. (2022), AI acts like an effective learning aid that is crucial to refining the process of learning. The history of the phrase artificial intelligence dates back to 1956 when John McCarthy held a two-month workshop in the United States, particularly at Dartmouth University. In the proposal for this workshop, he explained that machines can be programmed to replicate any intelligence feature or cognitive function involved in learning (Pedró, 2020). Luckin and Holmes (2016), conversely, argue that artificial intelligence has been integrated into the educational field since the 1970s, focusing on developing systems that are computer-based in order to facilitate individualized learning and automate feedback and evaluation processes. This indicates that the term artificial intelligence has been present in education since then, and has gained attention in recent years due to its exposure in the media, as well as the increased public interest.

Artificial intelligence is permanently interrelated with education nowadays, marking a paradigm shift in learning. Aldosari (2020) highlighted that artificial intelligence applications are significant for universities and educational institutions to the point that they cannot be abandoned, as universities are not merely for learning but also contribute to society's sustainable development (SD). He added that universities are now requested to follow up on technological advancements by innovating new educational techniques. Emerging artificial intelligence in educational institutions functions as a tool to enhance learners' experiences, decrease dropouts, and provide an individualized learning atmosphere for learners (Pedro, 2020). One of the crucial contributions of AI in education is that it enables both educators and learners to thrive academically through peer-based learning and learning supervision (Papaspnyridis, 2020).

Earlier attempts at integrating AI in education were thought of as replacing teachers. However, JISC (2021) noted AI is now seen as a complement that supports teaching and learning rather than a substitution for instructors. Teaching is a complex process that is not limited to communicating knowledge but also improves socio-emotional skills; hence, artificial intelligence is unlikely to substitute educators as it lacks such abilities (Kolchenko, 2018). Instead, teachers' cultivation of AI literacy and their comprehension of it can contribute to successful teaching and learning outcomes. AI can also assist both learners and educators, with them being aware of how to avoid its drawbacks and maintain its potential challenges, especially those related to data protection, privacy, and ethics (Chan & Tsi, 2023). In this respect, and focusing on the research main objective, it is necessary to examine how teachers perceive the use of AI-based writing tools —ChatGPT in particular— in an effort to understand their views of the subject and consequently suggest how students can take the full potential of utilizing such technology and reduce its potential pitfalls. In a study conducted by Arguello et al. (2025), the authors analyzed teachers' perceptions of using ChatGPT and the impact of its usage in contemporary education. Employing

Davis's theory (TAM) or the Technology Adoption Model as a theoretical framework, and using a qualitative descriptive approach, they applied a questionnaire to 200 teachers in Higher Education Institutions (HEIs). Two mechanisms were used for questions: Likert-scale and closed-ended questions, and SPSS Statistics was used for data analysis. The findings revealed that addressing resistance to new policies concerning the ethical use of chatbots should be a shared responsibility of national governments and institutions of higher education (HEIs). These efforts must focus on encouraging the proper use of chatbots and students and teachers' understanding of digital literacy, which results in continuous adaptation and evaluation of the rapid changes in communication and information technology in education settings.

2.3.2 Challenges and Benefits of Artificial Intelligence

Alshater (2022), in his literature review, aimed to explore how AI, particularly ChatGPT, can advance academic research. The study reviewed the potential applications of ChatGPT in finance and economics, providing a list of tasks and technologies that AI performs, such as decision-making, data interpretation, and communication and presentation. He also explained how ChatGPT functions and analyzes the given parameters and constraints to generate financial reports that ultimately assist in making decisions and data analysis. More importantly, the paper provided a list of the advantages and challenges of advanced bots in research. The advantages included efficiency in research, accuracy, flexibility by providing several options, speed of the research process, and many other benefits. After that, the paper listed the challenges and limitations of ChatGPT. The limitations included the dependency of the chatbot on data quality, where the research produced depends heavily on the data provided by the user. Another limitation is the lack of accuracy due to the limited knowledge of ChatGPT in the research domain. The author finally emphasized the potential of AI and NLP tools in advancing research. Meanwhile, researchers need to take into account the limitations of these tools while using chatbots.

Perkins (2023) examined the new technologies students started using in the post-pandemic period, mainly AI tools that use large language models (LLMs). The paper aimed to explore AI tools' new opportunities in digital writing and the challenges and concerns related to academic integrity, such as plagiarism and academic misconduct. Also, the author attempted to clarify whether students' use of digital tools is acceptable academic practice or an attempt to violate academic integrity. Thus, the alignment of using GPTs for educational purposes with academic standards will be ensured. The author concluded by mentioning that there is a remarkable increase in dishonesty cases in academic practices in the post-pandemic world. Nevertheless, LLMs tools have the potential to produce a coherent, original manuscript that students can use in their assignments with no chance of being detected as AI-generative text.

In their exploratory study, Baidoo-Anu and Ansah (2023) examined the benefits and drawbacks of using ChatGPT and its role in revolutionizing teaching and learning. The paper discussed how the generative AI model ChatGPT reflects on teachers, researchers and students. One of the crucial benefits mentioned is that ChatGPT provides explanations tailored to students' level of understanding and their misconceptions of specific complex points, resulting in improved learning outcomes. Additionally, studies have found that using natural language models will most benefit non-native students and those who have a language disability or find difficulties in learning.

Zohery (2023) demonstrated several advantages of using ChatGPT in academic writing and publishing, particularly for students and early-career researchers. He explained in his explanatory study how the artificial intelligence chatbot facilitates scientific writing and publishing despite its challenging and time-consuming nature, making the process easier and faster. This chatbot has the potential to generate hypotheses, write literature reviews, select journals and references, paraphrase, edit, summarize, and provide many other techniques. ChatGPT can quickly analyze a large amount of data, allowing researchers to

accelerate the research process and assist researchers in saving time and concentrating on other aspects of research.

Despite all, unlike what Zohery (2023) claimed in the previous study, Baidoo-anu and Ansah (2023) noted that several inherent limitations of using AI-powered tools exist, such as providing wrong answers and generating fake reports, references, and articles. Therefore, even though ChatGPT can assist students, teachers, and researchers, they must be cautious when using automated assistance and consider the limitations.

Using the noticing-collecting-thinking approach, Islam and Islam (2024) explored the potential opportunities and challenges associated with using ChatGPT in academia. They reviewed a range of online resources such as journals, online books, technical reports, preprints, news articles, websites, and blogs. Their investigation findings showed that ChatGPT significantly contributes to facilitating research tasks and activities. Additionally, it serves as a valuable tool for education and knowledge access, offering special and personalized tutoring. Most importantly, the study revealed that ChatGPT has a significant role in revolutionizing language skills, enhancing the creation of content, fostering critical thinking, and improving users' technological skills. Nevertheless, the author also acknowledged several challenges linked to the use of the AI-driven writing tool. They claimed that ChatGPT offers machine-generated responses, which may generate false or biased replies, making it an unreliable tool for research. Furthermore, the output of this tool depends highly on providing concise and accurate input, i.e., writing an inaccurate statement of the question may lead to an inaccurate response. As ChatGPT uses the transformer architecture model, it was developed for producing texts and cannot provide images, graphs or links. This, hence, may cause difficulties for individuals in writing compositions as the tool cannot authenticate statements by providing references. Other challenges included misinformation, weakening

critical thinking and content creation, and over-reliance on automated assistance in writing.

2.3.3 Students' Perceptions of Utilizing AI in Writing

Phan (2023) attempted to explore students' perceptions of integrative AI technology in English writing classes. Combining both quantitative and qualitative approaches, 100 students from General English classes were engaged in the study to answer the questionnaire, aiming to collect the quantitative data. As for the qualitative data, the author later interviewed the selected participants using in-depth interviews, to obtain more real and accurate data and to understand their thoughts towards using AI technology as a writing tool in English language writing classes. The data analysis demonstrated that most students have a favourable attitude towards using such technology as a writing assistant tool, primarily due to its simplicity, flexibility, and accessibility. Meanwhile, the study pointed out some inevitable challenges concerning students' anxiety towards technology and the lack of tool options.

Utami et al. (2023) examined the influence of utilizing artificial intelligence on students' writing, including their views regarding its benefits, challenges they encounter, and recommendations to leverage the use of such technology. The research is a case study in Central Java, Indonesia, mainly focused on three senior high schools to investigate students' perceptions of using AI as a writing aid. The study employed both qualitative and quantitative methods, gathering data through a Likert-scale questionnaire and in-depth interviews. The results of the investigation indicated that using an AI-based writing tool supports students in various ways, such as conducting research by facilitating research planning and drafting. The tools were also noted for their flexibility and user-friendly features. Additionally, many students think that integrating AI technology in learning makes the process more interesting. On the other hand, some obstacles are associated with the use of AI writing tools in learning. A key concern was the decline in the quality of academic papers of

students who heavily rely on AI technology in writing their papers. Therefore, the author recommended adding features to these AI-based writing tools, mainly for the Indonesian language. These include improved capabilities to detect and edit texts, such as checking spelling, syntax, and word choice.

Almassaad et al. (2024) explored students' perceptions of using Generative Artificial Intelligence (GenAI) tools in Saudi Arabia among students in higher education. Their study aimed to investigate students' utilization of the tools and their perceptions of the potential benefits and challenges associated, employing the Technology Acceptance Model (TAM) and the Task-Technology Fit (TTF) theory. 859 responses were received using a cross-sectional questionnaire method. The questionnaire results showed that 78.7% of participants use AI-powered tools frequently, whereas 21.3% of students are less interested and lack knowledge of using such tools. It was also found out that ChatGPT is the most used tool by students, followed by Gemini and other AI writing tools such as Socratic and CoPilot. Students usually use the writing assistant tools to clarify concepts, summarize, translate, and generate ideas. Primary potential challenges included subscription, misinformation, and less interaction between humans. The results also drew attention to the importance of balancing the integration of generative AI tools to optimize their benefits, while highlighting potential drawbacks and providing guidance on developing policies and support systems within higher education.

A quantitative descriptive study by Keumalasari et al. (2024) investigated the students' perceptions of utilizing artificial intelligence (AI) as a language learning tool in Indonesia. A mixed-methods approach was employed, engaging 40 participants. Students in the first approach are asked to participate in a Likert-scale survey. Afterwards, they were interviewed using semi-structured interviews to examine their attitude towards the use of AI and how it impacts their motivation and the development of language skills (reading, writing, listening, speaking). The findings showed that most students positively perceive using AI

in language learning. The benefits included increasing motivation and fostering comprehension of the English language material. Similar to what Almassaad et al. (2024) stated, the author highlighted that using artificial intelligence under humans' instructions is essential to creating a balance between the AI's immediate reaction and teachers' individualized assistance.

Laili et al. (2024) examined students' views of utilizing artificial intelligence, specifically ChatGPT, in learning the English language. The study is concerned with identifying the benefits and drawbacks attributed to the usage of artificial intelligence techniques in writing. Adopting a qualitative research approach, 45 students majoring in health science who incorporate ChatGPT into their English writing were asked to participate in the survey. The author also used purposive sampling and selected 10 participants for semi-structured interviews to understand their experiences comprehensively. The investigation uncovered that using ChatGPT contributed to students' vocabulary expansion, comprehension of complex ideas, and assistance in the writing process. Nevertheless, some drawbacks were noted, such as generating a load of information and over-relying on AI assistance besides needing individualized responses. Also, the author emphasized on that human interaction is necessary along with the use of AI techniques in learning the English language. Moreover, there is a need for harmony between traditional teaching techniques and technology in teaching. The study finally insisted on the need for teachers to be aware of issues regarding over-relying on artificial intelligence writing tools, as it impacts the quality of writing due to the lack of quality in the information they generate.

Summary

This chapter discussed the theoretical framework and reviewed the literature of the current study. It started by providing a broad definition of the theoretical framework, i.e., artificial intelligence, and explaining its branches that are related to the present research. Artificial intelligence refers to enabling

computers to perform tasks that require high levels of inference, reasoning, and comprehension. It is a big umbrella that holds many branches. The author discussed those branches by reviewing the literature, including machine learning (ML), deep learning (DL), natural language processing (NLP), large language models (LLMs), GPTs and ChatGPT. The impact of artificial intelligence on education and language learners was also previewed. Later, the chapter discussed the previous studies of the impact of utilizing AI-based writing tools in language learning and how students and educators perceive this utilization, in addition to their recommendation concerning maximizing its benefits and avoiding its pitfalls.

Several studies investigated the benefits and challenges of utilizing artificial intelligence technology in language learning. The existing literature either investigated students' perceptions or instructors' perceptions. However, the current study is concerned with investigating the impact of using this technology, specifically the generative pre-trained transformer ChatGPT, as a writing assistant tool on English language students. Unlike other studies, the present research takes into consideration investigating the impact of AI from two perspectives: students and instructors. The former will provide a comprehensive explanation of how students perceive utilizing this technology in writing and, hence, will assist students in avoiding ChatGPT's drawbacks. The latter, however, will assist instructors in exploring ways of guiding students to use ChatGPT adequately without being over-reliant, and taking into account ethical considerations. This will be achieved through a mixed-methods research design using different types of questions in both methods. Further explanation is provided in Chapter Three.

Chapter Three

Methodology and Procedures

Chapter Three

Methodology and Procedures

3.1 Introduction

The current chapter previews the research methodology, including methods, samples, and instrumentation, to answer the research questions. It starts by introducing the methods and samples chosen for this research and explaining the rationale behind the choices. It also provides a detailed description of the tool used in data collection and analysis. To achieve the research objectives, the present study employs a mixed-methods approach, combining qualitative and quantitative methods, and utilizes two data collection methods. This allows the researcher to reinforce the investigation process.

3.2 Research Methods and Procedures

3.2.1 Research Approach

This study adopts a mixed-methods research paradigm, integrating both qualitative and quantitative approaches. By adopting triangulation, i.e., utilizing multiple sources of data rather than relying on a single method, the study employs a mixed-methods approach, combining survey and semi-structured interviews, which is suitable for investigating the uses, benefits, drawbacks, and attitudes toward using the generative AI tool Chatgpt in writing assignments. According to Paradis et al. (2016), using various sources to collect data serves to increase the research's validity. The first method employed is a survey partly adapted from Laili, Wirawati, and Nashir's paper (2024), which discussed students' perceptions of using ChatGPT to learn the English language, including challenges and benefits. Nevertheless, the survey was edited, and some refinements were made to ensure that the survey corresponded to the study objectives. The questionnaire was revised by three professors: Dr Nuri Ageli, Dr Madani Othman, and Dr Mervat Bufalsa, all of whom are professors specializing in

Applied Linguistics at the University of Bahrain. With the intention of reducing participants' attrition, the survey would be doable in no more than 5 minutes. A form of the questionnaire is included in Appendix 1.

To investigate educators' perceptions, semi-structured interviews were conducted, involving seven questions. The interview questions were inspired by the work of Phan, T.N.L. (2023), with a few adjustments purposefully to ensure that it will collaborate with the quantitative method and eventually answer the research questions. See Appendix 2.

3.2.2 Quantitative Instrumentations and Data Collection

The study was conducted in two phases. The first was the quantitative phase, where the author investigated students' usage of intelligent writing assistance and how they perceive the use of AI in their writing. The data of this phase were collected from an online questionnaire published using Google Forms. The questionnaire consists of four parts, where the first three questions were introductory and used closed-ended questions. The first question concerned education level, while the second and third investigated whether the students had heard of or used AI assistance in writing. To investigate the students' usage of ChatGPT, the second part of the questionnaire consists of two questions about the AI writing tools and for what purposes students use these tools, allowing students to choose more than one option. The two questions in part two stemmed from the first research question. This is followed by Part Three, which consists of 26 questions using a Likert scale scoring system (1-5) to evaluate the agreement level. Several themes were explored in the survey regarding the perception of AI's impact, including motivation, clarifying concepts, expanding grammar and vocabulary, understanding complex grammar, improving writing quality, and enhancing critical thinking abilities. These questions were intentionally designed to identify Chatgpt's benefits and drawbacks precisely. Finally, to allow students to share their opinions and write about additional impacts not addressed in the questions, the last question, an open-ended question,

focused on the impacts they encountered when using the writing assistant tool ChatGPT. Although this question was included in the survey, the data collected in this part will be illustrated using thematic coding.

The survey was administered in March 2025, in the second semester of the Academic year 2024/2025. The participants selected for this study were English as a Second Language students who use ChatGPT in their writing. Therefore, the survey was published in English, and translation into Arabic was deemed unnecessary.

3.2.3 Qualitative Instrumentations and Data Collection

For the qualitative phase, and in order to elaborate on the survey data, in-depth semi-structured interviews were conducted with instructors specializing in English language teaching. The interview consisted of seven questions, beginning with two introductory ones—participant name and academic position—followed by core questions addressing key themes. The interview explored the benefits and challenges of students' usage of AI assistance tools in writing from the perspective of instructors, in addition to the advantages and challenges that are most effective. Notably, one of the questions investigated whether instructors recommend using AI as a writing assistant. This question is crucial in understanding language teachers' perceptions and their essential role in guiding students to use generative AI applications properly. Qualitative data were collected using the messaging application WhatsApp, utilizing the (MIMI) or Mobile Instant Messaging Interview technique. This method offers significant time efficiency and detailed data, as well as allows the interviews to be conducted at any time and place, providing flexibility for both the researcher and participants (Kaufmann & Peil, 2020).

3.2.4 Research Population and Sampling

Utilizing random sampling for both qualitative and quantitative data, the survey was administered to students from different educational levels and studied

English language in different places to collect data from students with different perspectives. Nevertheless, the survey primarily targeted students who use AI-generated tools to write their English assignments. Participants included individuals at the diploma, bachelor's, higher diploma, master's, and doctoral levels. A total of 50 students participated in the survey to share their perceptions of using ChatGPT for academic writing. For the qualitative component, semi-structured interviews were conducted with 10 English language instructors with various academic levels.

3.3 Data Analysis

Following data collection, the quantitative data in this research were analyzed using descriptive statistics through the calculation of percentages to summarize students' use of the generative AI tool ChatGPT, as well as the perceived benefits and drawbacks. Survey responses were exported from Google Forms into Google Sheets to facilitate the analysis process. The survey data were exported from Google Forms to Google Sheets for analysis.

The qualitative data were analyzed through thematic coding, to identify different issues and patterns raised by teachers, which will, consequently, illustrate how teachers perceive the impact of using AI assistance tools on students in writing their compositions. This combination of data analysis methods yields a comprehensive understanding of how students perceive the potential benefits and drawbacks of utilizing artificial writing aids, such as ChatGPT, in their writing. Simultaneously, it will provide a thorough understanding of how teachers recognize the impacts of Generative AI tools —whether positive or negative— and in which way they can guide students to maximize its benefits and mitigate its drawbacks. A detailed analysis is provided in the next chapter.

3.4 Ethical Considerations

The Deanship of Graduate Studies and Scientific Research at the University of Bahrain ethically approved this research prior to its conduct.

Additionally, prior to participating in the study, students provided informed consent and a holistic overview of the research. The researcher also asked for permission before interviewing teachers to ensure privacy and confidentiality. Participants in this study were aware of anonymity and their right to disengage from the research without providing a reason.

Summary

This chapter discussed the research design used to answer the research questions, combining two methods and using various data sources to ensure the validity of this research. It also explained the instruments and procedures through which the data were collected. Adapting descriptive statistics to the data obtained from the survey, percentages were analyzed and described. Thematic coding was employed to organize the data obtained from interviews into themes, presenting recurring ideas and issues related to the research questions. Finally, the chapter concludes by confirming that this study aligns with the ethical guidelines of scientific research.

Chapter Four

Results and Discussion

Chapter Four

Results and Discussion

4.1 Introduction

The current chapter consists of two parts. The first part, titled Results, previews the research results, starting with the quantitative data collected from the survey and followed by the qualitative data collected from the semi-structured interviews. In the second part, namely the discussion, the researcher analyzes the collected data in two phases, as mentioned previously in Chapter Three. The first phase involves a descriptive analysis of the quantitative data collected from surveys of students' perceptions of using Chatgpt for writing assignments. The analysis begins with a table, which illustrates the quantitative data collected. Then, each question is analyzed individually, with responses categorized as 'agree,' 'disagree,' and 'neutral'. Following this, and using the thematic coding approach, the second phase involves analyzing qualitative data collected from interviews with instructors to investigate their attitudes towards students' use of ChatGPT in writing compositions. It also includes students' responses to the open-ended questions in the questionnaire. The analysis focuses on the main findings that contribute to answering research questions and meeting the study objectives.

4.2 Research Findings

4.2.1 Results of Quantitative Data Retrieved from the Questionnaire

As mentioned in Chapter Three, the first three questions in the survey were introductory, where the first investigated students' educational level, and the second and third examined whether students have heard of AI or used the AI-based writing assistance tools in writing compositions. The analysis of the data collected from these questions can be illustrated in three points as follows:

1- Out of the 50 participants, 39 are bachelor's students, 8 are master's students, and 3 are doing their PhD

2- All (50) participants have heard of artificial intelligence.

3- 42 participants use AI writing assistance tools, while the remaining eight do not.

The research also attempted to identify which generative AI (GenAI) tools are most common among students. To answer this inquiry, question four in the survey examined the AI writing tools students use in writing their assignments. The analysis showed that 84% (42 out of 50) of the participants use ChatGPT as a writing assistant tool. Quill Bot comes after ChatGPT, reaching 30% (15 out of 50 participants). Other writing tools, however, are less common among participants, as shown in Table 1 below.

Table 1: Generative AI (GenAI) tools Students use the most

Generative AI tool	Frequency	Percentage
ChatGPT	42	84%
Gemini	9	18%
Quill Bot	15	30%
CoPilot	2	4%
Socratic	1	2%
Galileo AI	1	2%
Chat Sonic	0	0
Ginger Writer	1	2%
Claude	1	2%
Grok	1	2%
Le Chat	1	2%
Poe	3	6%
Deepseek	1	2%
None	3	6%

Question five from the questionnaire aimed to answer the first research question mentioned in Chapter One. It examines the extent to which students utilize the generative AI tool ChatGPT in writing, specifically the purposes for which they employ this technology. The results show that most students use ChatGPT to clarify concepts, representing 80% of the research participants (40 out of 50). Furthermore, 64% of students use the application for summarizing texts. Proofreading accounts for 54% of ChatGPT's usage by students. Following

this is the translation of selecting resources, which reaches 44% and 42% respectively. In addition to the writing purposes included in the survey, some participants added other purposes for which they use ChatGPT. This includes code generation, letter writing, project planning, and generating ideas on various topics. Table 2 below presents the findings of this question, including purposes, the number of students, and the percentage for each purpose.

Table 2: Uses of ChatGPT

Purpose	Frequency	Percentage
Clarify concepts	40	80%
Translation	22	44%
Editing	15	30%
Proofreading	27	54%
Summarizing	32	64%
Paraphrasing	14	28%
Selecting resources and references	21	42%
Code generation	1	2%
Letter writing	1	2%
Creating project plan	1	2%
Generating ideas about different topics	1	2%
None	1	2%

The third part of the survey, as mentioned previously, included 26 Likert scale questions. As the current research focuses on English writing, the analysis will be concerned with data related to students' attitudes towards writing. Table 3 and 4 below will display the five scale results. Later on, the results of each question will be discussed separately.

Table 3: Likert-Scale Questions Findings – Benefits of Using AI tools in Writing Assignments

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6	ChatGPT is easy to access and use.	7.1%	0%	0%	35.7%	57.1%
7	ChatGPT has enhanced my writing abilities.	4.8%	14.3%	31%	31%	19%
8	ChatGPT has enriched both grammar and vocabulary.	4.8%	4.8%	26.2%	38.1%	26.2%
9	I have expanded my English vocabulary after using ChatGPT.	4.8%	21.4%	310%	21.4%	21.4%
10	ChatGPT has improved the quality of my writing	4.8%	4.8%	28.6%	35.7%	26.2%
11	ChatGPT has many features and provides various writing tasks,	2.4%	0%	7.1%	33.3%	57.1%

	such as editing, summarizing and paraphrasing.					
12	ChatGPT saves time and helps finish assignments faster.	2.4%	0%	7.1%	40.5%	47.6%
13	ChatGPT assisted me in understanding complex grammar.	2.4%	7.1%	26.2%	28.6%	35.7%
14	ChatGPT helped me to write my assignments more cohesively.	4.8%	0%	16.7%	38.1%	38.1%
15	I'm more encouraged and motivated to write my assignments.	2.4%	7.1%	31%	19%	40.5%
16	Using ChatGPT to write assignments has enhanced my critical thinking abilities.	2.4%	23.8%	33.3%	23.8%	16.7%
17	Using ChatGPT in writing compositions has aided me in getting the learning outcomes for the subjects.	0%	4.8%	33.3%	38.1%	21.4%
18	Using ChatGPT in writing assignments has positively impacted my exam performance.	2.4%	7.1%	40.5%	28.6%	21.4%
19	I prefer using technology to improve my writing efficiency over the traditional methods.	0%	4.8%	21.4%	28.6%	42.9%
20	Overall, I have a positive attitude towards using ChatGPT in writing my assignments.	2.4%	0%	19%	40.5%	35.7%
21	Artificial Intelligence is essential today and has to be engaged in education to help language learners improve their academic writing.	2.4%	9.5%	19%	35.7%	33.3%

Table 4: Likert-Scale Questions Findings – Potential Drawbacks of Using AI tools in Writing Assignments

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22	ChatGPT generates inaccurate information.	4.8%	21.4%	23.8%	35.7%	14.3%
23	I lack the digital knowledge to use ChatGPT.	38.1%	33.3%	19%	7.1%	2.4%
24	I'm concerned about over-relying on ChatGPT to write my assignments.	4.8%	7.1%	21.4%	42.9%	23.8%
25	Depending on ChatGPT to write assignments has limited my writing ability.	19%	21.4%	21.4%	31%	7.1%
26	I'm concerned that depending on ChatGPT will hinder my critical thinking skills.	7.1%	9.5%	31%	28.6%	23.8%

27	I have difficulties finding proper resources to verify the information provided by ChatGPT.	9.5%	14.3%	23.8%	35.7%	16.7%
28	I'm confused by the amount of information that ChatGPT provides.	7.1%	31%	33.3%	21.4%	7.1%
29	ChatGPT provides too general information.	11.9%	21.4%	33.3%	26.2%	7.1%
30	Relying on ChatGPT to write my assignments has negatively impacted my exam performance.	19%	40.5%	28.6%	7.1%	4.8%
31	ChatGPT has limited my ability to use the proper tense in writing.	19%	40.5%	23.8%	11.9%	4.8%

In Question 7 of the questionnaire, the findings showed that out of 42 participants, eight (19%) strongly agreed to that ChatGPT has enhanced their writing abilities. Additionally, 13 students (31%) agreed, 11 students (31%) chose a neutral response, and six students (14.3%) disagreed. Two students strongly disagree that utilizing ChatGPT in writing has enhanced their writing abilities. This, however, shows a greater agreement range (a total of 25 out of 42 participants) than disagreement (8 out of 42). Figure 2 below shows the percentage of each agreement scale.

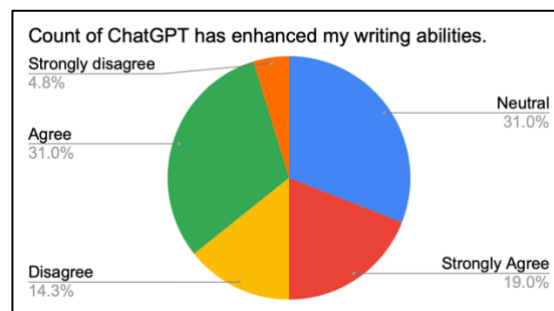


Figure 2: Count of ChatGPT has enhanced my writing abilities.

One crucial aspect of writing is grammar; Similarly, vocabulary plays an equally significant role in writing compositions. Therefore, the study also shed light on these two aspects. The survey's analysis of questions 8 and 9 shows that 64.3% of students agree that using Chatgpt has enriched their grammar, and 42.8% agree that it has expanded their vocabulary. In contrast, 29.6% of participants disagree that using ChatGPT has strengthened their grammar, and

the other 26.2% disagree that it has broadened their vocabulary. Equally, 26.2% of the students in question 8 and 31% in question 9 were neutral respondents. Figures 3 and 4 below illustrate the results.

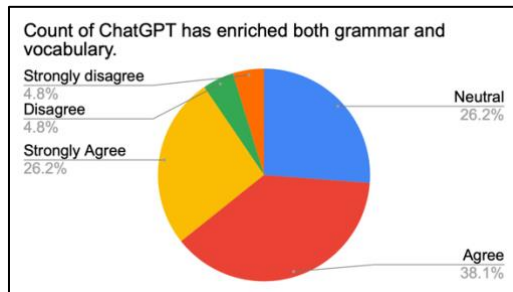


Figure 3

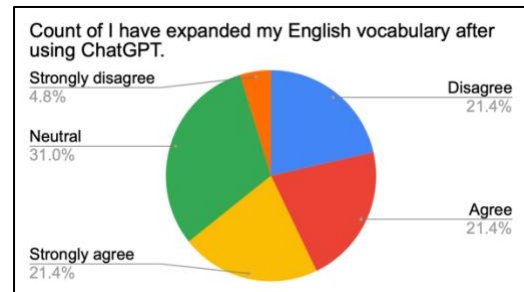


Figure 4

Question 10 in the questionnaire examines the agreement scale regarding whether utilizing ChatGPT in writing has improved students' writing quality. The analysis revealed that 61.9% of students agree, compared to 9.6% who disagree. Additionally, 12 participants responses were neutral (See Figure 8 in Appendix 3).

Another aspect measured in the survey is understanding complex grammar. The data analysis of this question showed a general agreement of 64.3% among participants and a disagreement of only 9.5% (See Figure 8 in Appendix 3). Another general agreement was demonstrated in the investigation of ChatGPT's assistance in cohesive writing, with 76.2% of participants expressing agreement, while 4.8% expressed disagreement (See Figure 12, Appendix 3). In question 15, the aim was to investigate whether students are more encouraged to write their assignments when they use ChatGPT to assist them in writing. The data analysis indicates that 59.5% of students are more encouraged to write their assignments, while 9.5% disagree with this statement. Figure 5 below shows the percentage of each agreement scale.

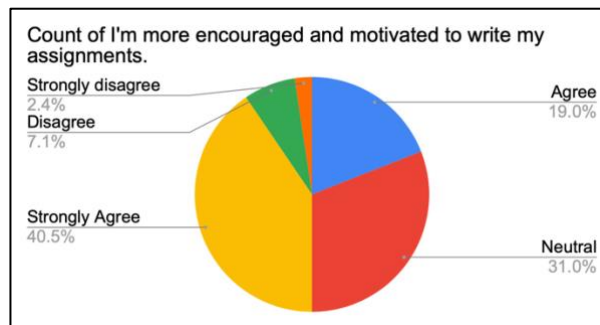


Figure 5: Count of I'm more encouraged and motivated to write my assignments.

Critical thinking is a crucial cognitive skill in language learning, a point also emphasized by current research. Question 16 of the survey examined whether the use of the generative AI tool ChatGPT in writing has contributed to enhancing students' critical thinking abilities. The results indicated that 19 students (38%) agreed with this statement, 14 (28%) disagreed, and 17 (34%) neither agreed nor disagreed. See Figure 6.

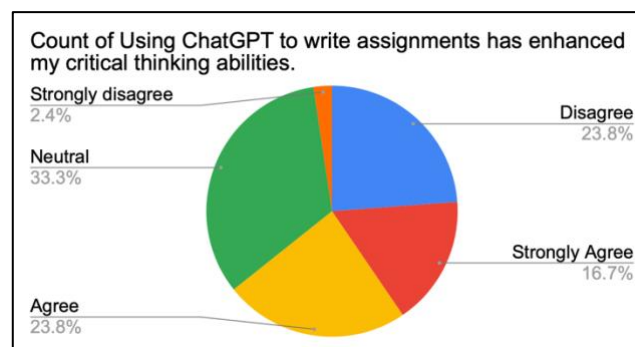


Figure 6: Count of Using ChatGPT to write assignments has enhanced my critical thinking abilities.

It was also found that 71.5% (31 out of 42) of students prefer using advanced technology in writing, such as artificial intelligence-based writing tools over traditional methods. Only two students showed their disagreement with this statement. Figure 7 below provides further explanation of the findings.

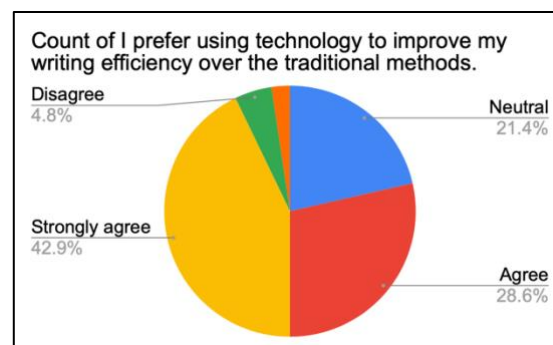


Figure 7: Count of I prefer using technology to improve my writing efficiency over the traditional methods.

The statement in question 20 in the survey aimed to determine whether students have an overall positive attitude towards their usage of ChatGPT in writing assignments. The results showed that 76.2% of the students (33 out of 42) agreed, 2.4% (1 student) disagreed, and 19% (8 students) responded neutrally (see Appendix 3, Figure 18). Students were also asked in question 21 if integrating artificial intelligence technology is essential for language learners to enhance their academic writing. The analysis revealed that 69% of the students agreed, while 11.9% (5 out of 42) disagreed. The remaining 19% (8 students) responded neutrally (See Figure 19 in Appendix 3.).

Among the primary challenges associated with generative pre-trained transformers are information-related. In this study, the researcher addressed three information-related challenges to investigate students' perceptions of this aspect. They have been dealt with in questions 22, 28, and 29. Question 22 investigates the misinformation or inaccurate information provided by ChatGPT. The analysis of students' responses revealed that 50% agree, 26.2% disagree, and 23.8% of students are neutral respondents. See Figure 8 below.

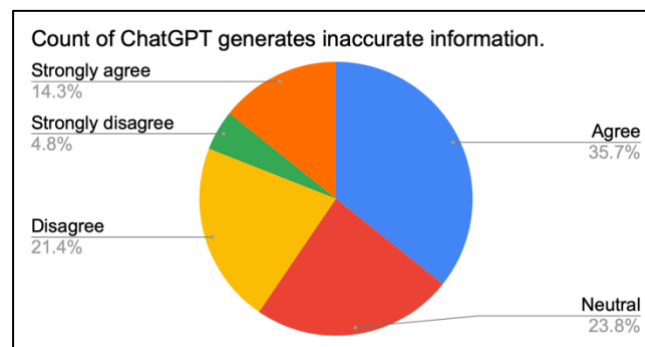


Figure 8: Count of ChatGPT generates inaccurate information.

Another issue examined in the survey is the difficulty students encounter in finding resources to verify the information provided by the generative AI tools. This was included in question 27 in the questionnaire, in which results revealed that 22 students agreed, 10 students were neutral respondents, and 10 others

disagreed. The last information-related issue addressed in question 28 is the confusion students face due to the amount of information that GPT provides.

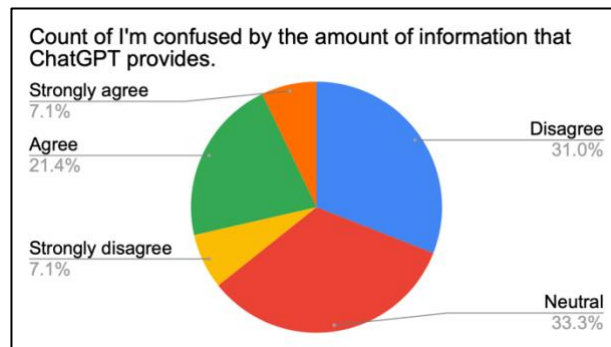


Figure 9: Count of I'm confused by the amount of information that ChatGPT provides.

Data analysis showed relatively balanced responses as follows: 28.5% agreement, 38.1% disagreement, and 33.3% unbiased responses, as shown in Figure 9 above. Similarly, in question 29, the percentages were too close when investigating students' views of ChatGPT's generation of too general information. The results showed that 33.3% (14 out of 42) agreed on the statement, 14 disagreed, and 14 were unbiased. See Figure 10 below.

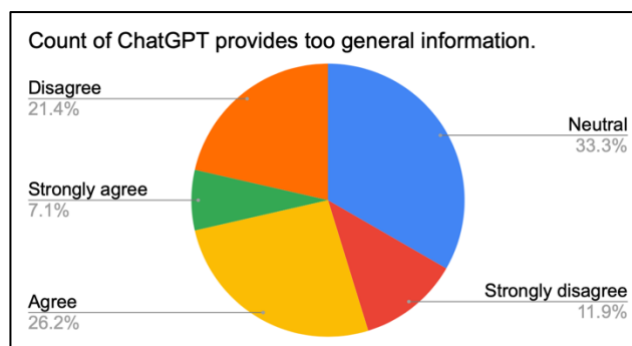


Figure 10: Count of ChatGPT provides too general information.

Over-reliance represents a significant concern about students' usage of writing tools based on artificial intelligence, which may lead to multiple consequences. This issue was also addressed in the investigation, particularly in question 24. It was found that 66.7% of students are concerned about over-relying on using ChatGPT in writing assignments, while only 11.9% (5 out of 42) have the opposite point of view, and nine students (21.4%) remained unbiased (See Figure 22, Appendix 3). The questionnaire also examined whether dependence on automated assistance would impact students' writing ability, as stated in

question 25. The data gathered indicate that 40.4% of students disagree that their writing ability has been limited because of this technology, 38.1% agree, and 21.4% were unbiased (See Figure 23, Appendix 3).

Reliance on AI-based writing tools can potentially affect students' performance in various ways. In question 26, the author aimed to explore students' views about the negative impact of ChatGPT on their critical thinking skills. The results revealed that 52.4% (24 out of 42) expressed concern that depending on ChatGPT in writing compositions will hinder their critical thinking skills. In contrast, seven students did not agree with this view, and 13 students provided unbiased answers, as shown in Figure 11 below.

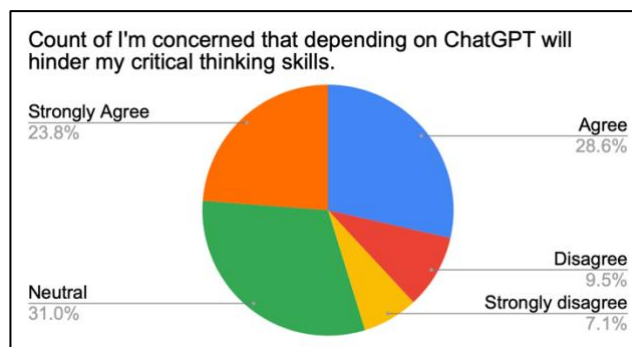


Figure 11: Count of I'm concerned that depending on ChatGPT will hinder my critical thinking skills.

Grammar is the most important aspect of writing. Accordingly, question 31 in the questionnaire investigated students' perceptions regarding the impact of ChatGPT on the use of the proper tense in writing and inquired whether using such technology has limited their ability to use proper grammar in the text. Results showed the opposite: 59.5% or 25 students think that ChatGPT has no such impact, while 16.7% or seven students agreed, and ten students are in the undecided group, as shown in Figure 12 below.

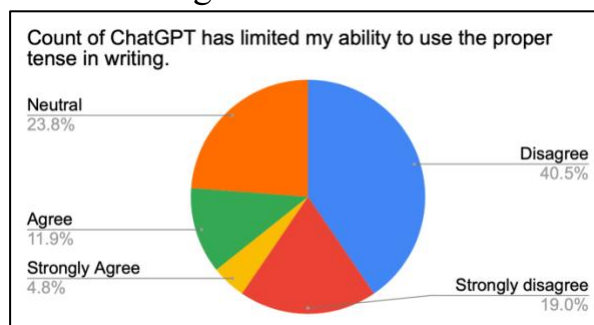


Figure 12: Count of ChatGPT has limited my ability to use the proper tense in writing.

4.2.2 Results of Qualitative Data from the Questionnaire

The questionnaire concluded with an open-ended question, primarily aimed at comprehensively understanding students' attitudes towards ChatGPT, and whether it has impacted their writing, either positively or negatively. This question allowed students to freely describe and specify areas of writing that ChatGPT has influenced. All the answers are available in Appendix 5. However, the main findings will be discussed in detail in section 4.3.2.

4.2.3 Results of Qualitative Data from the Interviews with Instructors

Semi-structured interviews were conducted with ten instructors specialized in teaching the English language using the MIMI technique, as outlined in Chapter Three. After introducing themselves, the instructors were asked about their academic rank. The group included one professor, one associate professor, four assistant professors, and four lecturers. In response to the third question — whether students use artificial intelligence in their writing— all of them answered with yes, except for one who replied with “sometimes”. However, these initial three questions were introductory in nature.

Following the earlier discussion, the present study explores the most commonly used generative AI tool among students, as identified in the students' questionnaire. When the instructors asked about this, eight mentioned ChatGPT, and one added Grammarly. One instructor replied with “I don't know: maybe editing and generating text, and one of them replied with “I am unaware of that”. All responses are presented in Table 5 below.

Table 5: Most commonly used AI tool among students.

No	What is the most common generative AI tool students use in writing their assignments?
1	ChatGPT
2	ChatGPT / Grammarly
3	Chat GPT
4	ChatGPT
5	ChatGPT
6	I don't know. ChatGPT?

7	I don't know: maybe editing and generating text
8	I am unaware of that
9	ChatGPT
10	ChatGPT

It is crucial to investigate the positive and negative impact of utilizing AI technology on students in order to answer the third question and explore how instructors perceive students' usage of ChatGPT in writing. The fifth question in the interview attempted to explore how positively ChatGPT impacts students' writing from the instructors' point of view. The results of the interviews with ten instructors are presented in Table 6 below.

Table 6: Instructors' Perceptions of ChatGPT's positive impact on their writing quality.

No	In what way do you think ChatGPT can benefit students in terms of improving their writing quality
1	It allows them to imitate the structure of an academic writing
2	Suggest vocabulary and sentence structure
3	It depends on teachers' instruction. I personally believe that ChatGPT has the potential to be used as an effective language learning tool
4	Maybe in providing correct examples of a type of writing. Also, generating outlines or ideas to start the writing assignment
5	It can correct their language mistakes and also provide them with ideas they can incorporate into their writing
6	It generates ideas for them to write
7	Highlighting mistakes
8	If they used it in a way that improves their performance and language skills
9	organize their ideas in a logical manner
10	Editing and paraphrasing

On the other hand, question six examines the potential negative impact of Chatgpt on students' writing. Table 7 below previews the instructors' answers to this question.

Table 7: Instructors' Perceptions of ChatGPT's negative impact on their writing quality.

No	In what way do you think using ChatGPT can negatively affect students' writing?
1	It will make them. More dependent on machines
2	Generate full essays with no student involvement

3	When students totally depend on it to generate the writing text
4	They might plagiarize answers-rely heavily on the app without using it to improve themselves properly
5	They rely heavily on
6	The will always suffer from writer's block because they always rely on AI to generate ideas for them
7	Making them unable to think and write
8	If they used it to cheat and get ready answers
9	Make them reliant on it without actually thinking their assignments through
10	Plagiarism and dependency

In addition, the interview aimed to explore the benefits and drawbacks of students' utilization of ChatGPT in composing their assignments from instructors' perspectives. This was discussed in question seven; the answers are presented in Table 8 below.

Table 8: The best and the worst aspects of students' utilization of the generative AI tool ChatGPT.

No	What are the best and the worst aspects of using the generative AI tool ChatGPT among the benefits and drawbacks you have mentioned?
1	The best: AI will organize their thought and make them write more professionally if they did not depend on it 100% otherwise, it will be a destructive tool if they were over dependent on them.
2	Mentioned above
3	The worst: it is easy to generate human-like texts, discouraging students to think for themselves .The best: with good instruction (guided by the teacher) it may inspire students with some ideas. It also can be used as a self directed learning tool if students are learned how to ask ChatGPT to assess their own writing and explain how to edit and improve it
4	Best: easy access and availability / Worst: no account of personal growth and development
5	It can aid students in writing correcting their grammatical and other mistakes and also provide some useful information about the topic. On the other hand, students may rely heavily on ChatGPT to do their assignments.

6	It is a game changer when it comes to writing because it can generate many writing prompts which make writing tasks take less time than usual.
7	Good for literature review and bad for ethical reasons
8	Cheating
9	As previously mentioned, it's useful as a helping hand. Students use it to do their job for them.
10	Unlimited sources of information

Instructors' understanding of AI technology enables them to evaluate its potential benefits and challenges. Accordingly, they will be able to recommend what technology is more beneficial for language learners. In this respect, question eight in the interview aimed to explore whether instructors recommend the use of ChatGPT in academic writing. The answers are presented in Table 9 below.

Table 9: Do instructors recommend Chatgpt?

No	Do you recommend students' usage of ChatGPT to write their assignments?
1	Of corse no
2	Yes, in an ethical way while having an awareness of limits of use.
3	Yes, to edit rather than to write the assignment from a scratch
4	in language courses, it is not preferable
5	They can use it to review their writing
6	No.
7	In some areas
8	No
9	Yes
10	With being cautious and mindful

Similarly, the instructors were asked to recommend generative AI tools that, from their perspective, can help students improve their academic writing. Their answers are presented in Table 10 below.

Table 10: Generative AI tools that help in improving students' writing.

No	What AI tools do you think are helpful in improving students' writing?
1	
2	
3	I prefer ChatGPT since it is the most popular among students
4	I am not familiar with any, unfortunately
5	I have no idea
6	ChatGPT
7	I don't know
8	I am not sure
9	Each AI tool has its benefits. Depends your purpose
10	Google semantic and perplexity

4.3 Data Analysis and Discussion

4.3.1 General Discussion

As outlined in the methodology chapter, the questionnaire was divided into four parts to investigate students' attitudes towards using ChatGPT for composing their assignments. Each part adds to the comprehension of the extent to which students rely on this chatbot, as well as their perception of utilizing this AI technology, particularly the most commonly used chatbot among language learners. Similarly, instructors were asked several questions aimed at gaining insights into their perceptions of students' usage of ChatGPT in English writing.

When students were asked in the third question of the questionnaire about whether they use AI-powered tools to write their assignments, it was found that 84% of students frequently use these tools, and the other 16% selected "no". This aligns with the findings mentioned in the Almassaad et al. (2024) study, which showed that 78.7% of participants use generative AI tools in writing. Additionally, the study has also investigated the most commonly used AI writing tools among students. The findings indicate that ChatGPT is the most commonly adopted tool among students, followed by the generative AI tools Gemini, Socratic, and CoPilot. Compared to that, the data analysis of the fourth question in the survey aligns with Almassaad et al.'s (2024) finding that ChatGPT is the most popular AI-powered writing tool among students. However, in this study, QuillBot was found to be the second frequently used writing tool, as presented in the previous section, followed by Gemini. Additionally, some students identified other generative AI tools not originally listed in the survey, as shown in Table 1 (Section 4.2.1). This suggests that students are exploring various AI-based tools, to benefit from what this technology offers by enhancing the quality of their academic work.

Part Three of the survey aimed to gain a comprehensive understanding of students' perceptions of using AI technology in academic writing, exploring

several aspects, some of which are writing-related. However, other aspects addressed included time-saving strategies, motivation, critical thinking, and the integration of technology and traditional learning methods. A significant number of surveyed participants (88.1%) agreed that using ChatGPT to write their assignments helped them complete their tasks more quickly. The results are consistent with the study by Zohery (2023), which notes that using Chatgpt in research writing is a time-saving approach, as this chatbot has the potential to analyze a large amount of data in a very short time. This also corresponds to Alshater (2022)'s paper, highlighting that ChatGPT provide speed in the research process. One of the responses related to this feature is stated below:

- *“it is a great tool and saves a lot of time.”*

As far as motivation is concerned, findings in Utami et al. stated that integrating AI technology in learning makes the process more interesting and motivating, as indicated by students' responses. Additionally, the findings in Laili et al. (2024) indicate that 67% of respondents agreed that using ChatGPT makes English language learning more enjoyable, and 64% agreed that it motivates them to learn English. Moreover, the investigation in a study by Phan (2023) has noted that most students are more motivated, interested, and engaged in learning when they use an AI-based writing assistant tool. In comparison, the results in this study showed that 59.5% of students are motivated to write assignments using ChatGPT, and 71.5% of participants noted that they prefer integrating AI technology in writing to improve their writing over traditional methods. This finding also aligns with the results of Keumalasari et al. (2024), who state that students' motivation increases when they use an AI model in language learning. This suggests that students are more interested and motivated to engage with this technology, making the learning process easier, faster, and more exciting.

With regard to accessibility, ease of use and accessibility are considered a distinctive feature of ChatGPT. The results demonstrate a significant proportion of students (92.8%) agreed on these as characteristics of this AI-powered tool.

Similar findings were also underscored by Baidoo-Anu and Ansah (2023), who highlighted that students have positive views of AI-based writing tools due to their simplicity, adaptability, and accessibility. Although students nowadays have sufficient knowledge to use technology, i.e., only very few individuals lack knowledge of technology, ChatGPT offers ease of use and accessibility, allowing students of all stages to leverage this technology easily. As stated by Utami et al. (2023), these AI tools are known for their flexibility and user-friendly features.

Critical thinking is an essential cognitive skill that enables the individual to systematically evaluate information, question it, form assumptions, and provide alternative perspectives. This research found that when surveyed, 52.4% of participants expressed concern that using this AI model would hinder their critical thinking skills. Similarly, the current study examined students' concerns about over-relying on ChatGPT in academic writing; their responses emphasized their knowledge about the potential consequences. By comparison, and considering that critical thinking is a mental process, it was pointed out by Islam and Islam (2024) that students and teachers' over-reliance on this AI-powered tool may result in weakening an individual's critical thinking skills. It may, hence, impair individuals' cognitive function, resulting in a reduction of their ability to produce or create content. Below are some responses of surveyed students who are concerned about the negative impact of ChatGPT on their critical thinking skills:

- *"It helps me improve my language, but i'm in fear that it has hindered my critical thinking skills"*
- *"Using chatGPT has reduced my critical thinking"*
- *"However, I tend to write them by myself after. - My opinion as a language student, is that we shouldn't rely of AI for generating text and ideas as it could hinder out ability on both writing and critical thinking. You shouldn't let AI write for you but can use it to refine your text and brainstorming."*

- *“It helped me a lot to realize my weaknesses in writing, so I started to correct them, but I think that my critical and creative thinking has decreased.”*
- *“ChatGPT not always giving rights information and lacking of self thinking which (NEVER lets our brain cell to activities”*

This, however, reflects students’ awareness of the potential drawback of over-relying on automated assistance in writing. Thus, students’ awareness of these pitfalls helps them leverage AI technology while avoiding these drawbacks. This was also demonstrated in students’ responses related to over-relying:

- *“ChatGPT can weaken writing skills by making you over-reliant on it. It’s helpful, but once you start using it, thinking feels harder, and you let AI do the work.”*
- *“Well he’s help me to understand it more and explain me the difficulties things with easier examples he could help but its just an AI we can’t rely on it in everything”*

In comparison, 40.5% believed that ChatGPT had enhanced their cognitive thought. A higher proportion was noted by Almassaad et al. (2024), who reported that 55% of students agreed that their critical thinking and problem-solving skills had been enhanced after using ChatGPT. This suggests that incorporating an AI model into writing may encourage critical thinking. Nevertheless, over-reliance on such technology has been identified in many studies as having drawbacks that impair thought processes. Wang et al. (2024) emphasized that large language model generative models have impressed the world with their extraordinary performance, and thus, there is significant concern about students’ overdependence on model applications. They added that students’ overdependence on these models will impair their ability to think independently, and consequently, will hinder their critical thinking skills.

In terms of the information provided by ChatGPT, several issues were investigated in the questionnaire, as mentioned in the results section. The findings indicate that 50% agreed that this AI model generates inaccurate information. The statement aligns with Almassaad et al. (2024)’s findings, as their investigation

into students' perceptions of AI-based writing tools revealed misinformation as one of the primary potential challenges of these tools. Also, 52.4% of participants find difficulties in finding proper resources to validate the information provided by the chatbot. Additionally, similar proportions were found regarding confusion about the amount of data provided by ChatGPT: 38.1% disagreed, and 28.5% agreed. Finally, 33.3% of students reported that ChatGPT provides too general information, while the other 33.3% disagree. However, several studies discussed the information-related issues and the quality of the responses provided by this writing assistance tool. Alshater (2022) noted that one of the limitations of ChatGPT is that its output heavily depends on the input provided by the user. In a similar vein, Islam and Islam (2024) highlighted that students are aware of the potential information-related issues associated with ChatGPT. As machine-generated responses, these responses have a tendency to be false or biased, and thus, are unreliable for use in research or academic writing. They also reaffirmed Alshater's point (2022), stating that the produced responses depend on providing accurate and concise input. Here are some reactions from students related to information and resources:

- *"Also the references cannot be trusted you have to go back to them and make sure they have the information mentioned. So it's good I finding the references but it does not filter it properly."*
- *"The AI doesn't care about what's right or wrong, it responds to me in the most general way possible, often times making mistakes or misunderstanding my question."*
- *"From my perspective, I feel ChatGPT is a good aid for helping in providing information and summarizing and paraphrasing certain things. Moreover, it helps me to read a lot and to different information."*

The findings suggest that students exhibited diverse attitudes towards utilizing this technology. The findings of this study indicate that students possess both AI literacy and an awareness of AI limitations, particularly in selecting the proper resources, validating the information provided, and providing accurate

input to ensure the accuracy of the output. This is obvious from the responses provided by students:

- *“however students should be very careful with it because its an online tool after all.”*
- *“A lot of the times, Chatgpt only feeds me what i feed it. if i keep telling Chatgpt certain information, it will save that into its data.”*

4.3.2 Discussion of the First Research Question

ChatGPT can be used for various purposes. It is not limited to language learners; rather, it is utilized by anyone who seeks to complete tasks more intelligently and efficiently through artificial intelligence. However, the current study focuses on English language learners and aims to explore the purposes for which they use ChatGPT. Question five in the questionnaire is triggered to answer the first question, stated as *“To what extent do students use ChatGPT to write their term papers and compositions?”*. Using check boxes, participants were asked to select the purposes for which they use ChatGPT, allowing them to add other purposes that were not mentioned among the options. The purposes included clarifying concepts, translation, editing, proofreading, summarizing, paraphrasing, and selecting resources and references. As presented in Table 2 in Section 4.2.1, the findings indicate that students mostly use ChatGPT to clarify concepts, where 80% of students selected this application. In addition, 64% of the surveyed participants reported summarizing, and 54% reported proofreading. Students’ responses regarding their perceptions of the benefits and challenges of using ChatGPT as a writing assistance tool included the purposes for which they use the tool. Some related reactions are shown below:

- *“I use it mostly as a paraphrasing tool, sometimes to give a general overview of some concepts..”*
- *“It helped my generate ideas about areas I am unfamiliar with”*
- *“Sometimes i ask it to help me form a sentence and then i would paraphrase it because my brain is jammed”*

Additionally, a significant proportion of participants employ this chatbot for text translation (44%) and selecting resources and references (42%). Small proportions reported that using it for editing (30%), and paraphrasing (28%) and four participants mentioned other uses of the generative AI ChatGPT, including letter writing (2%), creating project plans (2%), generating ideas about different topics (2%), while one student responded with “none”. The findings align with Almassaad et al.’s (2024) report, which also noted that clarifying concepts is one of the primary purposes for which students use ChatGPT, along with translation, summarizing, proofreading, and editing.

Interestingly, one student reported using ChatGPT as an aid to generate code. The use of generative AI tools for code generation has been reported by several studies, including Pan et al. (2024). This reflects that these advanced technologies are now widely integrated into academic settings and have the potential to automate various tasks. Students are employing these technologies, aiming at enhancing their productivity and improving the quality of their academic assignments.

4.3.3 Discussion of the Second Research Question

Several writing-related aspects were addressed in the questionnaire to answer the second research question: *“How do students perceive the positive and negative impact of ChatGPT?”*. These aspects included writing ability and writing quality, vocabulary and grammar, text cohesion, overall attitude, integrating AI in education to improve academic writing, and over-reliance. Regarding writing ability and quality, 50% of the surveyed students agreed that ChatGPT has a positive impact on enhancing their writing ability, while 61.9% reported that it improved the quality of their compositions. When the students inquired whether the dependence of this model has limited their ability to write English texts, 40.4% disagreed with this statement, whereas other 38.1% agreed. Students have also mentioned their perceptions of the positive and negative impact of utilizing

ChatGPT through the responses to the open-ended question. Overall, students' responses indicated generally positive attitudes, as outlined below:

- *“it impacted my writing positively due to the huge number of new vocabulary with the help of how to differentiate between complex and compound sentence structure.”*
- *“ChatGPT, and specifically Poe.com, has positively impacted my writing abilities, vocabulary, grammar, cohesion, and coherence. It has extended my research skills as well as my vocabulary and has helped make my essays more organized, direct, and clear.”*
- *“ChatGPT's writing quality is outstanding which impacts positively in my writing style by providing a proper grammar, rich vocabulary, and cohesive and coherent paragraphs”*

Students' positive attitudes towards using GPT, particularly in terms of writing ability and quality, have been acknowledged by a few researchers. Islam and Islam (2024) highlighted that students' use of GPT has significantly contributed to revolutionizing their language skills. Additionally, Alshater (2022) noted that utilizing ChatGPT as an assistant tool would enhance research efficiency. This finding also aligns with Phan's (2023) paper, which states that the majority of students agreed on the role of Chatgpt in enhancing the quality of their writing. The findings suggest that students' utilization of such AI tool has positively impacted their writing, and hence, improved their language performance.

Two related aspects were addressed in the questionnaire, and yet, the most frequently reported by students in the open-ended question were vocabulary and grammar. 64.3% or 27 students agreed that their use of ChatGPT have enhanced their vocabulary and grammar. Similarly, 64.3% of the participants reported that the chatbot has helped them better understand complex grammatical structures. The last question in the Likert-scale section inquired whether the chatbot has limited their ability to select the proper tense, only 16.7% agreed. These findings were further supported by students' comments in the open-ended section:

- *“My vocabs are gotten enhanced, also Grammar and spelling checkers help me a lot (positive)”*
- *“ChatGPT, and specifically Poe.com, has positively impacted my writing abilities, vocabulary, grammar, cohesion, and coherence.”*
- *“ChatGPT has improved vocabulary and grammar, making writing more precise and clear.”*

Similar findings have been reported in other studies. Laili et al.’s (2024) investigation identified the contribution of ChatGPT in expanding students’ vocabulary. This also aligns with the findings reported by Phan (2023), who highlight that both students’ lexical knowledge and syntactic skills have improved. As vocabulary and grammar represent two essential elements in language learning, the role of ChatGPT in developing students' vocabulary and syntactic abilities offers meaningful insights into their overall progress in language learning.

Cohesion and coherence are two essential components in writing, especially in academic and language learning contexts. A cohesive text is one that is grammatically and lexically well-structured, and the significance of this aspect of writing is one of the key reasons for its inclusion in this study. Furthermore, this concept has only been explored in one reviewed research study. Therefore, the lack of attention to this issue in previous studies highlights the need for further investigation, which this research aims to fulfil. As explained by Perkins (2023), ChatGPT has the ability as a large language model-based tool to generate a coherent original text. Students were asked whether writing assignments with the aid of ChatGPT helped them produce a cohesive text. Results revealed that 76.2% of students’ writing has improved in terms of cohesion and solid texts. Some statements of students related to cohesion and coherence are presented below:

- *“It makes my overall narrative look more cohesive”*
- *“It improves the coherence and cohesion of my writing”*

- *“It has a positive impact on my study in different ways, such as vocabulary, grammar, cohesion, and coherence”*

Understanding the overall attitude of students' perceptions of the advantages and limitations of the generative AI model ChatGPT is one of the objectives of the current study. Students showed a positive view towards utilizing such technology. Notably, 69% reported that AI integration in education, primarily in language learning, can fundamentally improve academic writing. These findings align with those of Keumalasari et al. (2024), who also reported students' positive perceptions of AI in language learning contexts.. However, students' caution and awareness of the potential drawbacks of over-relying on and misusing this AI tool indicate their thoughtful understanding of this technology, allowing them to leverage it to its advantages. Below are some responses that demonstrate students' overall attitude as well as their familiarity with the potential drawbacks of ChatGPT:

- *“To be honest it helps sometimes when i want to find synonyms like (pay-purchase) to make the sentence more formal, but i don't rely on it entirely, because sometimes Ai's writing style is noticeable, i mean i often can recognize if the text was written by Ai. In my opinion, it helps to enhance vocabulary and explaining grammar, but i dont think i will use it to write a whole essay, i will would rather ask him for some tips to improve my essay.”*
- *“Everything in this world has negative and positive implications. Positively, I consider ChatGPT my private teacher. I always seek clarification from it when I'm confused about grammar rules that I find difficult, I usually study with ChatGpt and I find it really fun. And would constantly ask ChatGpt to give me advice on how to improve my writing skills. However, I fear getting attached and obsessive, I tend to ask AI or ChatGpt, as for now, I really want to ask ChatGpt if this paragraph is grammatically correct, instead of finding the grammatical error by myself. I personally, as a future teacher, would definitely encourage my students to use ChatGptt or AI to encourage their problem-solving skills and critical thinking. The main thing is to understand how to use it effectively with caution, and limitations”*

4.3.4 Discussion of the Third Research Question

Another gap in the literature is the exploration of teachers' views on students' use of AI technology in academic writing tasks. The third research question aims to provide a comprehensive understanding of instructors' attitudes towards ChatGPT and the positive or negative influence it can have on students' writing skills. The question is stated as: *"How do teachers perceive the positive and negative impact of ChatGPT?"*. The interviewed instructors, as explained in the results section, are ten English teaching instructors with different academic ranks. Eight of ten participants reported that Chatgpt was the most frequently used AI tool among students in question four, aligning with the students' responses and the findings from the previous studies. Interestingly, when asked about the best AI tool to use for writing, four instructors admitted to have no or limited knowledge about these applications. One instructor said, *"Each AI tool has its benefits. Depends your purpose"*, while another mentioned: *"Google semantic and perplexity."*. Although these two responses reflect the instructors' awareness of the various tasks and features that AI tools offer, there is still a lack of AI literacy among instructors. Instructors need to deepen their understanding of AI applications, and as emphasized by Gabriel et al (2022), and Aldosari (2020), they have become an effective and essential tool that cannot be neglected in education contexts.

In question five, instructors were asked to share their insights about how ChatGPT can potentially serve to enhance students' academic writing. Their responses can be categorized into four themes: sentence structure, mistake correction, language learning tool, and idea generation. Two of the ten instructors believe that ChatGPT suggests vocabulary and proper sentence structure to use in their writing, thereby imitating the academic writing style. Instructor (4) stated that *"ChatGPT provides correct examples of a type of writing"*. Researchers have highlighted the role of the AI model ChatGPT in enhancing academic writing, such as Alshater (2022) and Utami et al. (2023). The second theme, mistakes

correction, emerged from comments by several instructors who suggested that ChatGPT aids students by identifying writing mistakes and offering suggestions for improvement.

Additionally, some instructors perceive this AI as a practical learning tool, and it is likely to improve learners' linguistic skills. Similarly, Baidoo-Anu and Ansah (2023) reported that ChatGPT enhances learning outcomes by providing explanations tailored to align with students' diverse learning needs. They added that large language model-based tools will be more beneficial for non-native language learners who face obstacles in learning. Furthermore, Islam and Islam (2024) emphasized the crucial role ChatGPT plays in revolutionizing language skills. Supporting this, Keumalasari et al. (2024) conducted SS interviews with students, who reported that ChatGPT assists in developing the four language skills. Collectively, these findings reaffirm the significance of integrating AI into educational settings, and particularly, in language learning, where various language techniques facilitate the learning process.

Generating ideas was the most frequently mentioned benefit by instructors, who view this AI-powered tool as an assistant to help guide students on what to write. They also noted that the tool helps them organize their ideas logically and coherently. However, Baidoo-Anu and Ansah (2023) pointed out some inherent limitations of ChatGPT, one of which is the generation of incorrect and misleading responses. Therefore, users of AI must consider its limitations and exercise caution when using AI-powered tools. Table 6 in Appendix 6 presents the responses of instructors.

Overdependence is a key concern when using an AI-based writing tool. Interviewed instructors were asked about their perceptions of ChatGPT's negative impact, and interestingly, overdependence was the common theme among respondents, although it has been expressed in varied ways. Some expressions are presented below.

- *“Generate full essays with no student involvement “*

- *“The will always suffer from writer’s block because they always rely on AI to generate ideas for them”*
- *“Make them reliant on it without actually thinking their assignments through”*

Plagiarism was also highlighted by instructors and linking it with overdependence. Many researchers have raised this concern about utilizing an AI writing tool in academic writing, as it represents a serious threat to students' linguistic and cognitive skills. This concern was reported by Alshater (2022), Islam and Islam (2024), Utami et al. (2023), and Laili et al. (2024). These findings highlights the importance of utilizing this AI technology under the supervision of a language instructor, who can guide students how to leverage it effectively without compromising their language skills. Most importantly, instructors themselves must develop AI literacy, i.e., both a clear understanding of AI technology and awareness of its impact on language learners. As pointed out by Chan and Tsi (2023), students and teachers’ awareness of AI allows them to diminish its potential challenges and avoid its pitfalls.

Question 7 of the interview focused on identifying the most positive and negative aspects of ChatGPT, as perceived by the instructors. The majority of instructors reaffirmed points they mentioned in the previous question. Below are selected responses that emphasized the aforementioned statements. All responses are included in Appendix 6.

- *“The worst: it is easy to generate human-like texts, discouraging students to think for themselves The best: with good instruction guided by the teacher) it may inspire students with some ideas. It also can be used as a self-directed learning tool if students are learned how to ask ChatGPT to assess their own writing and explain how to edit and improve it “*
- *“It can aid students in writing correcting their grammatical and other mistakes and also provide some useful information about the topic. On the other hand, students may rely heavily on ChatGPT to do their assignments.”*

Other responses included “*ethical considerations*” and “unlimited resources of information” as the worst aspects of using ChatGPT. In contrast, the best aspects noted by the instructor were accessibility, time-saving, and reviewing literature.

Question 8 explored whether instructors would recommend the use of this AI-powered tool for academic writing. Four instructors strongly discourage students’ utilization of this technology, with one stating “*In language courses, it is not preferable*”. On the other hand, six instructors recommended the usage of such technology under certain conditions. The conditions included students being aware of AI limits, adhering to the ethical guidelines, and using it for specific purposes, such as editing and paraphrasing, rather than overly relying on it for writing the text “*from scratch*”. These findings align with students’ earlier statements and reinforce key concerns raised in the existing literature.

Summary

This chapter presents the data collected during the research process and analyzes it using two data analysis techniques. Quantitative data were analyzed using descriptive statistics, while qualitative data was analyzed using thematic coding approach. The analysis began by presenting the students' responses and the quantitative data gathered from the first three parts of the questionnaire. This is followed in the next section by the qualitative data obtained from the students’ survey responses. It was further supplemented with qualitative data retrieved from semi-structured interviews with instructors. The findings revealed a positive attitude among students towards utilizing the widely used AI application ChatGPT. Additionally, the results indicated that some students exhibit awareness of how to use AI technology, minimize its potential writing-related drawbacks, and, most importantly, take into account ethical considerations.

The investigation of teachers’ perceptions of students' use of AI-based writing tools revealed their key concern about students' overuse of such tools. The discussion also highlights the need for students and teachers to cultivate AI literacy and stay up-to-date with the rapid changes in this technology to enhance

the learning process. As AI is now permanently integrated into educational contexts, it is essential for instructors to be acquainted with AI technology and its applications, along with benefits and pitfalls associated with its usage, which would enable students to use this technology responsibly and effectively. This will ultimately revolutionize learners' experiences (Aldosari, 2020). Unlike previous research, the findings of this study provided new insights that have not been reported, by integrating the perceptions of both students and instructors, thereby contributing to the development of strategies and techniques that enhance the teaching and learning process.

Chapter Five

Conclusion and Recommendations

Chapter Five

Conclusion and Recommendations

5.1 Conclusion

This thesis aimed to explore students' and instructors' views on integrating and utilizing AI technology, specifically ChatGPT, within academic settings. The research focused on language learners in higher education and their attitudes towards utilizing ChatGPT as a writing assistant tool in completing their assignments. The study explored the benefits and drawbacks students encounter while using this tool. Additionally, the investigation revealed the purposes for which students use ChatGPT. The research also included insights from instructors specializing in English language teaching in higher education. Given the fact that AI is now present in education and plays a significant role in enhancing the learning process, the study highlights the need to develop AI literacy among both students and instructors to ensure its effective and ethical use.

While many researchers (Wang et al., 2024), Alshater (2022), Islam and Islam (2024), Utami et al. (2023), and Laili et al. (2024) have expressed concerns about students' overreliance on AI writing tools, which will consequently limit their critical thinking and language skills, Almassaad et al (2024) held an opposite view. In their study, 55% of students reported that ChatGPT had enhanced their cognitive thinking abilities. Similarly, surveyed students in the current study were found to demonstrate a high level of awareness of how to properly utilize Chatgpt and other AI-based writing tools. They also showed an understanding of key considerations, including the tools' benefits and limitations, issues of data privacy, plagiarism, and academic integrity. Nonetheless, it remains essential for instructors to develop an adequate level of AI literacy, beside staying up-to-date with artificial intelligence-based learning tools to optimize the advantages of such technology.

5.2 Limitations

Several limitations should be acknowledged in this study. The first limitation is that the examined sample is small; thus, it may affect the generalizability of the findings. Second, the study focuses exclusively on two groups: English language students in higher education and instructors who teach English at higher education institutions. Therefore, students with other specializations are outside the scope of this research; the perception of instructors from other majors may differ from that of English language instructors.

Furthermore, the impact of utilizing the AI technology may vary for students with limited English language proficiency. Finally, although the generative pre-trained tools employ similar techniques for writing, another limitation of the study is that it does not account for other AI assistant writing tools that may offer additional writing-related techniques not reported in this study.

5.3 Recommendations for Further Research

The study has revealed the role of the generative AI tool ChatGPT in shaping the academic writing practices of English language students in higher education. Further research may examine students in other specializations who aim to enhance their performance in the English language. Another area of investigation would be to explore the role of ChatGPT in enhancing users' technical skills. From the author's point of view, overdependence on AI assistance in writing has poses serious concerns, particularly for language learners. One of the most harmful consequences is limiting students' cognitive skills. Therefore, it is crucial to explore whether over-reliance on automated assistance leads to barriers such as fossilization that prevent language learners from achieving native-like fluency.

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Appendices

Appendix 1

Students' Perception of the Use of Artificial Intelligence in Writing Assignments

Thank you for participating in my thesis research. I am conducting this survey as part of my Master's dissertation, " Artificial Intelligence and Academic Writing."

The survey targets undergraduate and postgraduate students in higher education. Your responses will remain confidential and will only be used for academic purposes. Your honest and thoughtful answers are greatly appreciated.

The questionnaire will take 3-5 minutes to complete.

Thank you once again for your time and support in completing my thesis!

Part 1: Introductory questions

No.	Question	Select			
1	What is your current education level?	Diploma	Bachelor	Master	Doctoral
2	Have you heard about Artificial Intelligence (AI)?	Yes		No	
3	Do you use any AI-based tool for writing assignments?	Yes		No	

Part 2: AI applications and uses

No.	Question	Select all the answers that apply	
4	Generative AI is a tool that can produce texts that resemble human language. Which of the following generative AI tools do you use to write your assignments?	ChatGPT	
		Gemini	
		Socratic	
		CoPilot	
		Quill Bot	
		Chat Sonic	
		Galileo AI	
		Others:.....	
5	ChatGPT is an accessible, easy-to-use application that is widely used by students for a variety of writing tasks. For what purposes do you use ChatGPT?	Clarify concepts	
		Translation	
		Editing	
		Proofreading	
		Summarizing	
		Paraphrasing	
		Selecting resources and references	
		Others:.....	

Part 3: Positive and negative impacts

Circle the number that best describes your answer.

Strongly disagree	Disagree	Neutral	Agree	Strongly disagree
1	2	3	4	5

No.	Statement	Likert Scale				
6	ChatGPT is easy to access and use.	1	2	3	4	5
7	ChatGPT has enhanced my writing abilities.	1	2	3	4	5
8	ChatGPT has enriched both grammar and vocabulary.	1	2	3	4	5
9	I have expanded my English vocabulary after using ChatGPT.	1	2	3	4	5
10	ChatGPT has improved the quality of my writing	1	2	3	4	5
11	ChatGPT has many features and provides various writing tasks, such as editing, summarizing and paraphrasing.	1	2	3	4	5
12	ChatGPT saves time and helps finish assignments faster.	1	2	3	4	5
13	ChatGPT assisted me in understanding complex grammar.	1	2	3	4	5
14	ChatGPT helped me to write my assignments more cohesively.	1	2	3	4	5

15	I'm more encouraged and motivated to write my assignments.	1	2	3	4	5
16	Using ChatGPT to write assignments has enhanced my critical thinking abilities.	1	2	3	4	5
17	Using ChatGPT in writing compositions has aided me in getting the learning outcomes for the subjects.	1	2	3	4	5
18	Using ChatGPT in writing assignments has positively impacted my exam performance.	1	2	3	4	5
19	I prefer using technology to improve my writing efficiency over the traditional methods.	1	2	3	4	5
20	Overall, I have a positive attitude towards using ChatGPT in writing my assignments.	1	2	3	4	5
21	Artificial Intelligence is essential today and has to be engaged in education to help language learners improve their academic writing.	1	2	3	4	5
22	ChatGPT generates inaccurate information.	1	2	3	4	5
23	I lack the digital knowledge to use ChatGPT.	1	2	3	4	5
24	I'm concerned about over-relying on ChatGPT to write my assignments.	1	2	3	4	5
25	Depending on ChatGPT to write assignments has limited my writing ability.	1	2	3	4	5
26	I'm concerned that depending on ChatGPT will hinder my critical thinking skills.	1	2	3	4	5
27	I have difficulties finding proper resources to verify the information provided by ChatGPT.	1	2	3	4	5
28	I'm confused by the amount of information that ChatGPT provides.	1	2	3	4	5
29	ChatGPT provides too general information.	1	2	3	4	5
30	Relying on ChatGPT to write my assignments has negatively impacted my exam performance.	1	2	3	4	5
31	ChatGPT has limited my ability to use the proper tense in writing.	1	2	3	4	5

Part 4: Overall attitude towards using ChatGPT in writing assignments

No.	Question	Answer in a short paragraph
32	How did ChatGPT impact your writing, either positively or negatively? Please describe and specify how it influenced your writing? Example: vocabulary, grammar, cohesion and coherence.	

Appendix 2

Teachers' Perceptions of Students' Usage of ChatGPT in Writing Assignments

Semi-Structured Interviews

Questions:

- 1- Do students use AI applications in English writing?
- 2- What is the most common generative AI tool students use in writing their assignments?
- 3- In what way do you think ChatGPT can benefit students in terms of improving their writing quality?
- 4- In what way do you think using ChatGPT can negatively affect students' writing?
- 5- What are the best and the worst aspects of using the generative AI tool ChatGPT among the benefits and drawbacks you have mentioned?
- 6- Do you recommend students' usage of ChatGPT to write their assignments?
- 7- What AI tools do you think are helpful in improving students' writing?

Appendix 3

Questionnaire's Answers

Figure 2: Students' level of education.

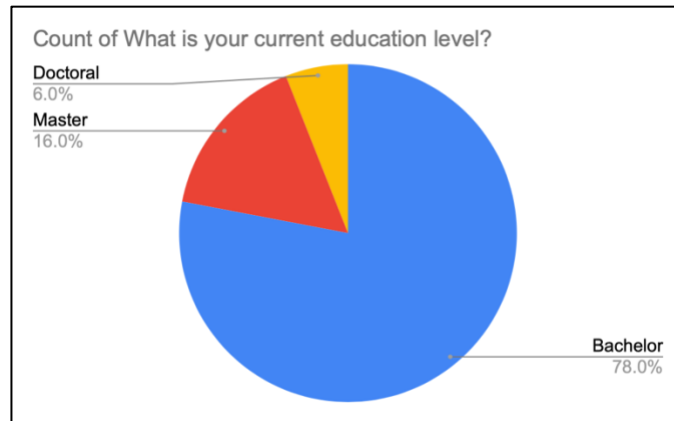


Figure 3: Students' usage of AI-based writing tool.

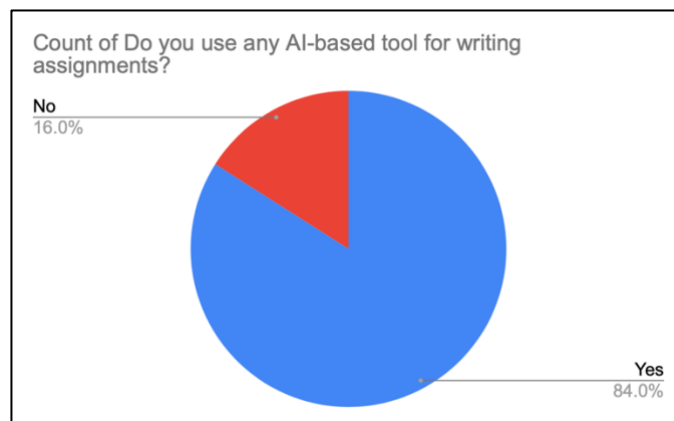


Figure 4: Count of ChatGPT is easy to access and use.

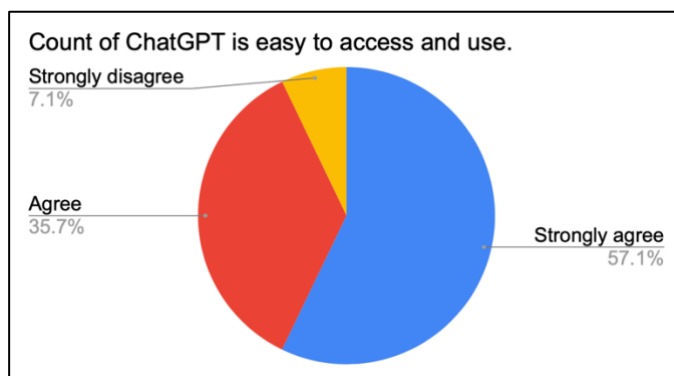


Figure 5: Count of ChatGPT has enhanced my writing abilities.

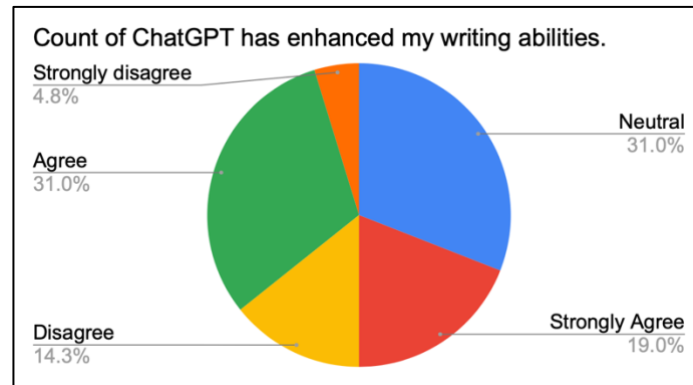


Figure 6: Count on ChatGPT has enriched both grammar and vocabulary.

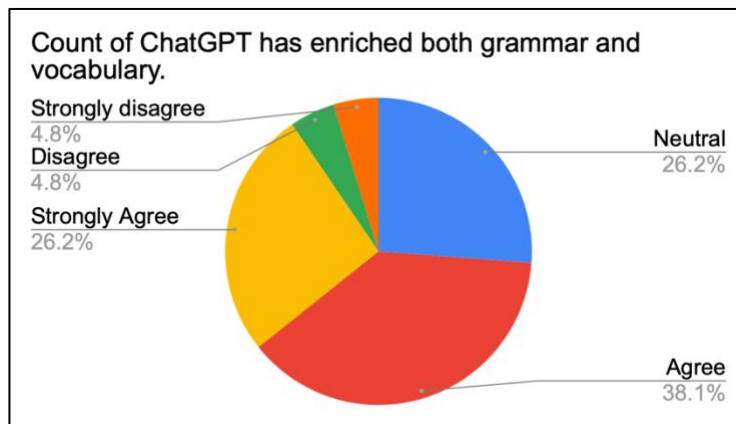


Figure 7: Count of I have expanded my English vocabulary after using ChatGPT.

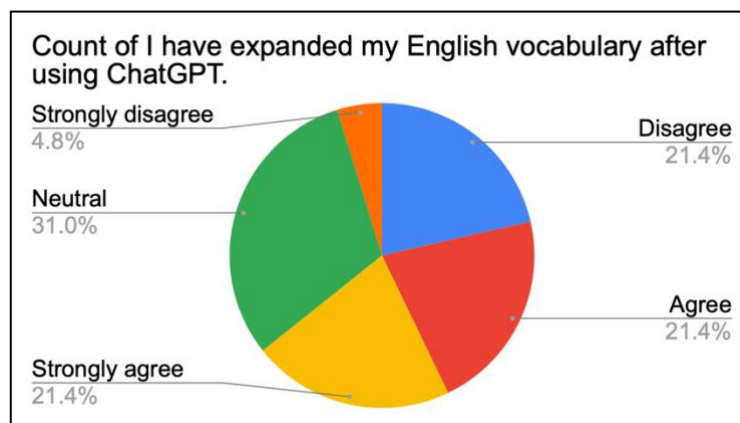


Figure 8: Count of ChatGPT has improved the quality of my writing.

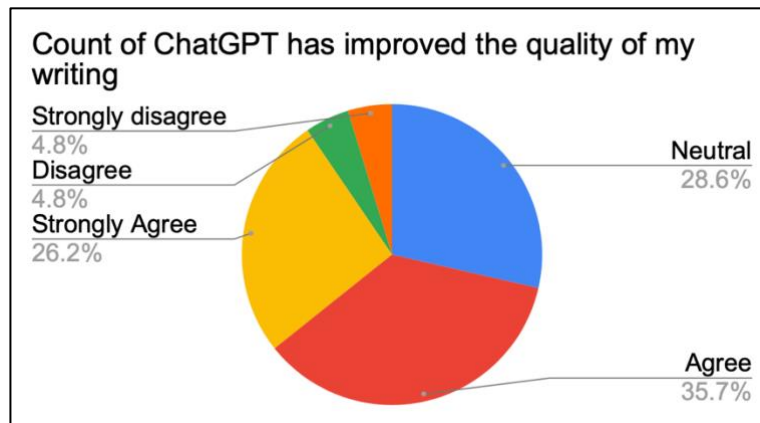


Figure 9: Count of ChatGPT has many features and provides various writing tasks.

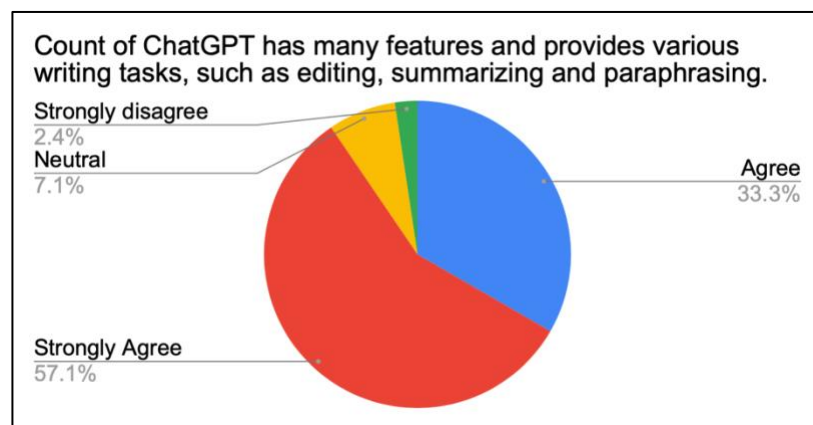


Figure 10: Count of ChatGPT saves time and helps finish assignment faster.

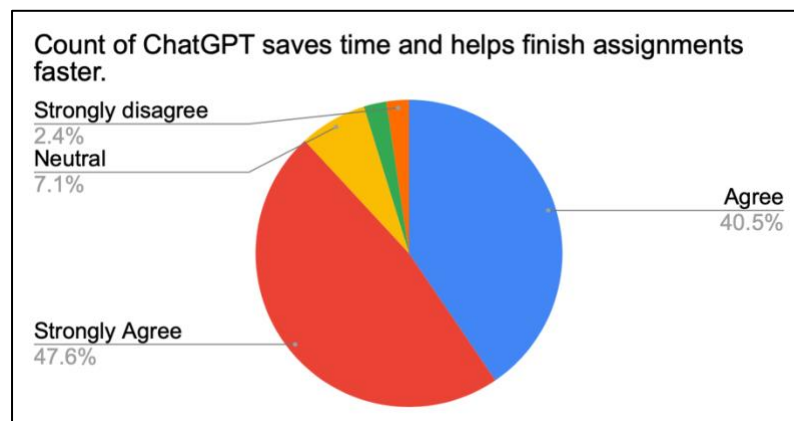


Figure 11: Count of ChatGPT assisted me in understanding complex grammar.

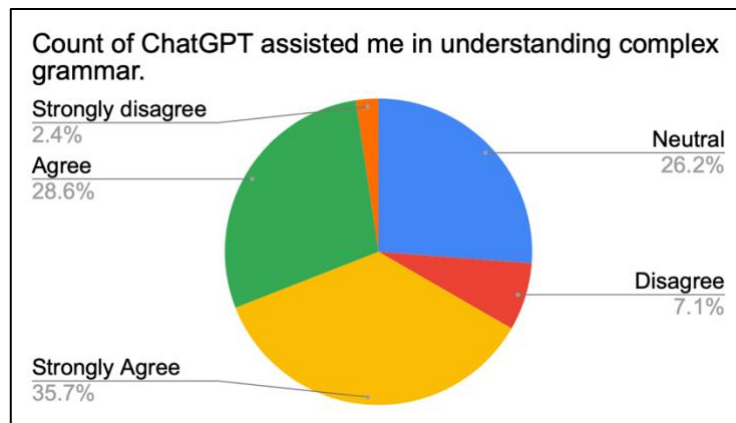


Figure 12: Count of ChatGPT helped me to write my assignments more cohesively.

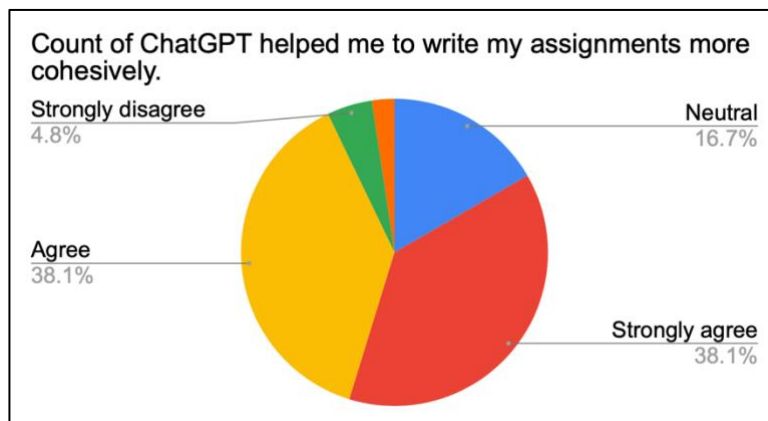


Figure 13: Count of I'm more encouraged and motivated to write my assignments.

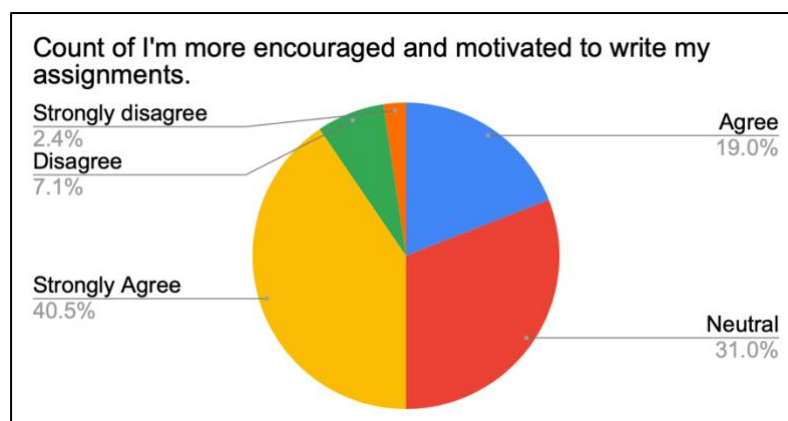


Figure 14: Count of Using ChatGPT to write assignments has enhanced my critical thinking abilities.

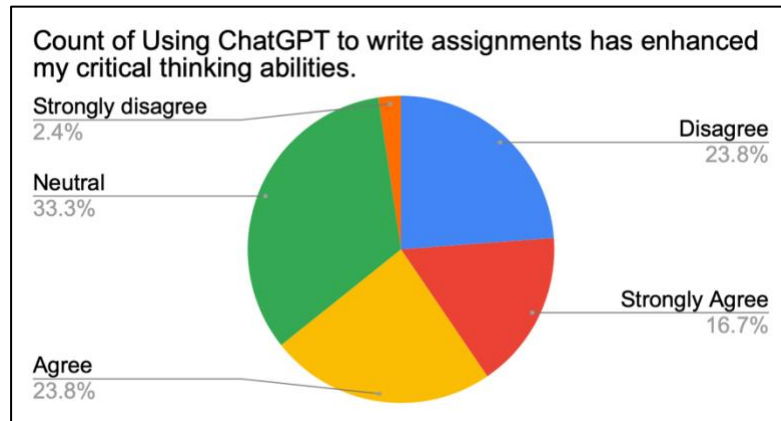


Figure 15: Count of Using ChatGPT in writing compositions has aided me in getting the learning outcomes for the subjects.

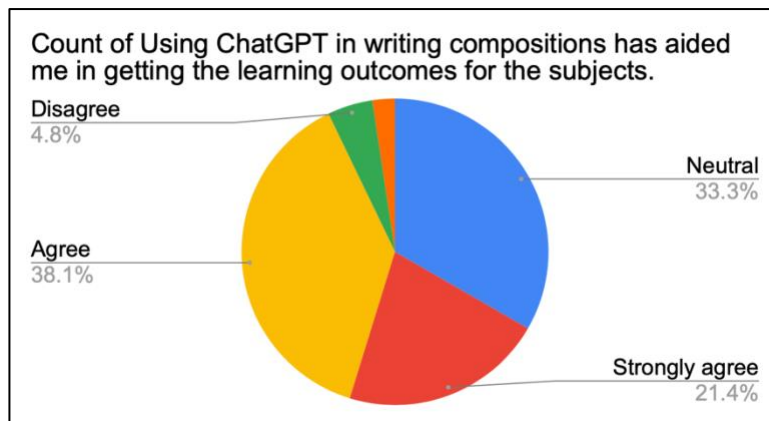


Figure 16: Count of Using ChatGPT in writing assignments has positively impacted my exam performance..

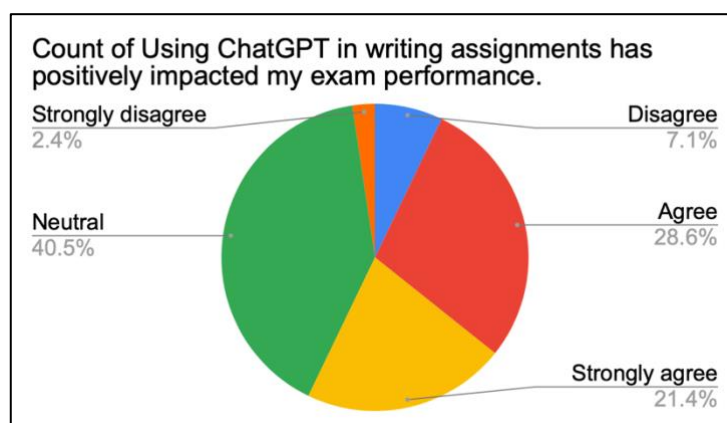


Figure 17: Count of I prefer using technology to improve my writing efficiency over the traditional methods.

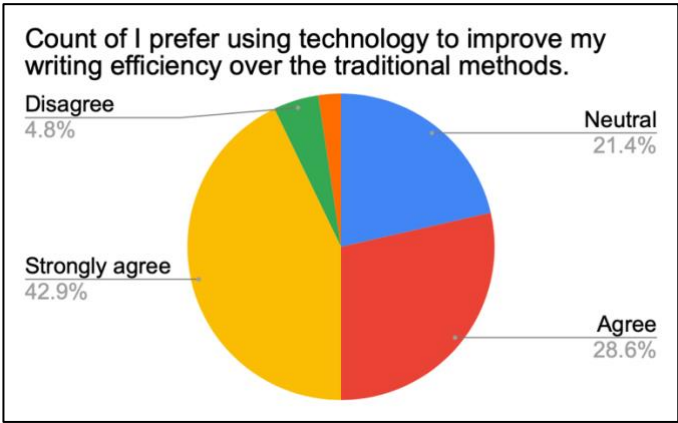


Figure 18: Count of Overall, I have a positive attitude towards using ChatGPT in writing my assignments.

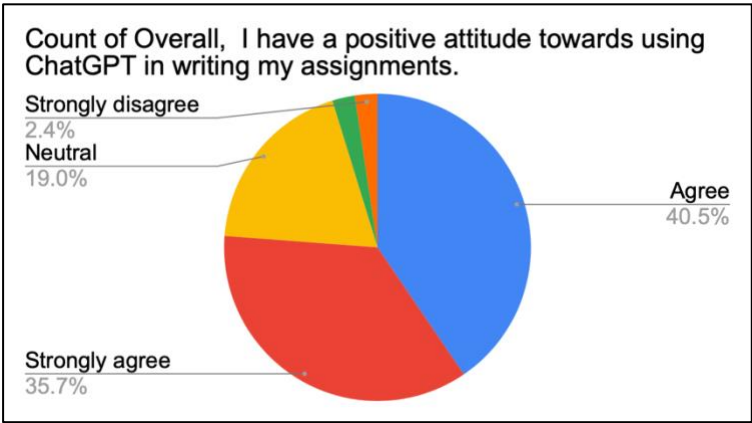


Figure 19: Count of Artificial Intelligence is essential today and has to be engaged in education to help language learners improve their academic writing.

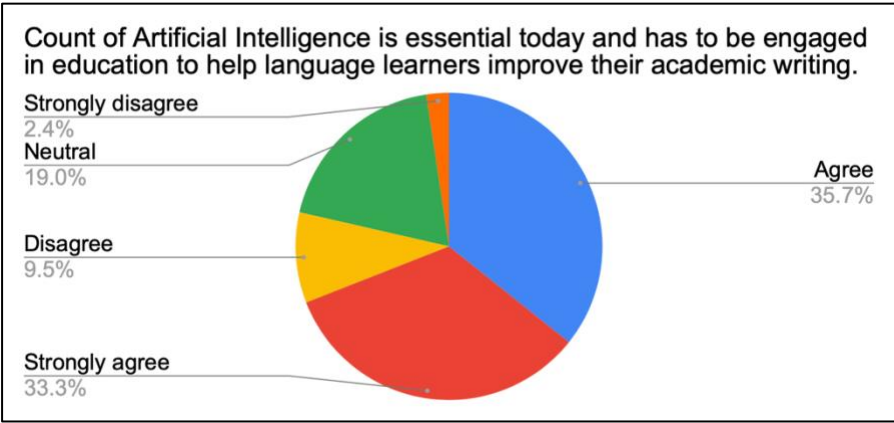


Figure 20: Count of ChatGPT generates inaccurate information.

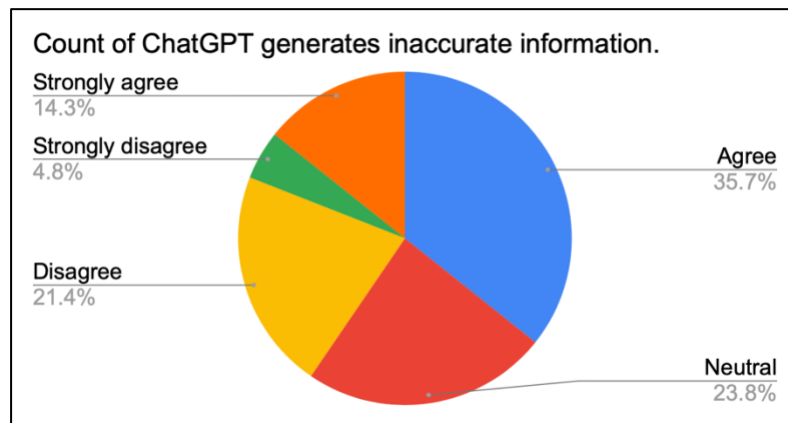


Figure 21: Count of I lack the digital knowledge to use ChatGPT.

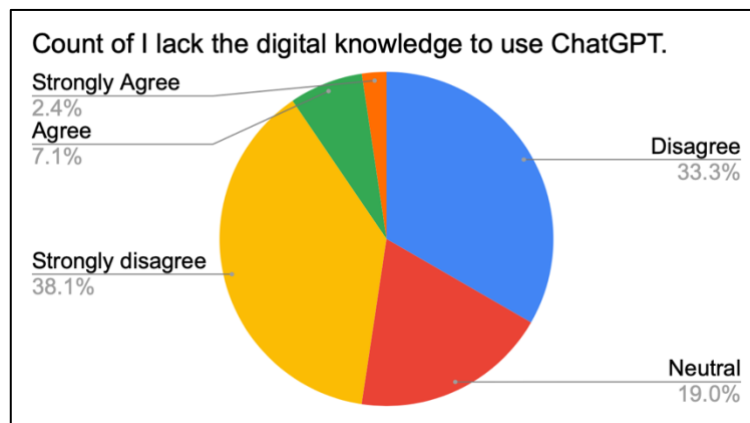


Figure 22: Count of I'm concerned about over-relying on ChatGPT to write my assignments.

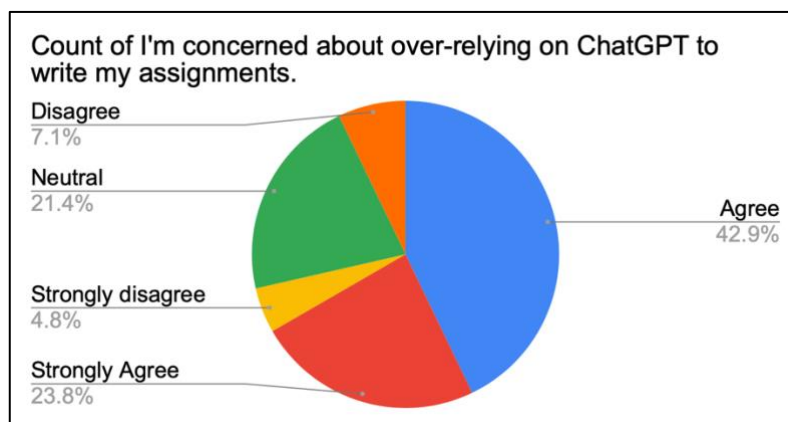


Figure 23: Count of Depending on ChatGPT to write assignments has limited my writing ability.

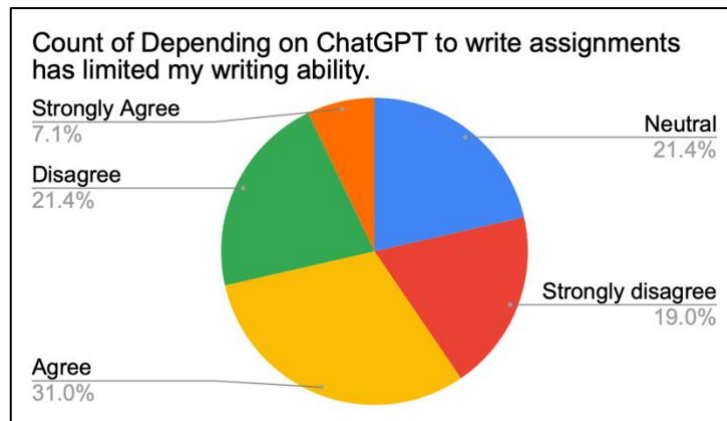


Figure 24: Count of I'm concerned that depending on ChatGPT will hinder my critical thinking skills.

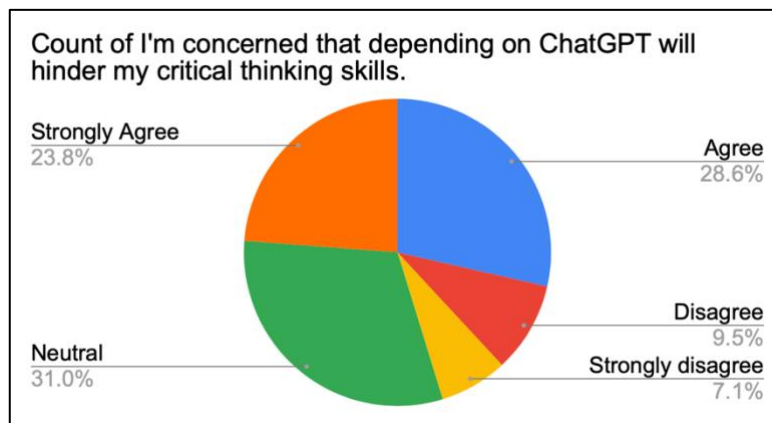


Figure 25: Count of I have difficulties finding proper resources to verify the information provided by ChatGPT.

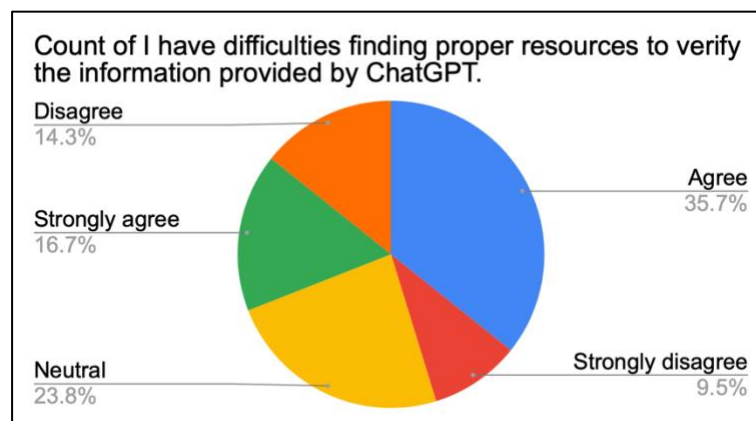


Figure 26: Count of I'm confused by the amount of information that ChatGPT provides.

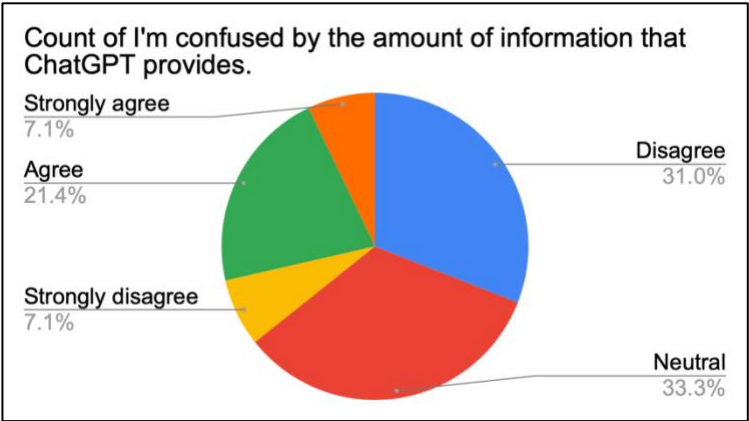


Figure 27: Count of ChatGPT provides too general information.

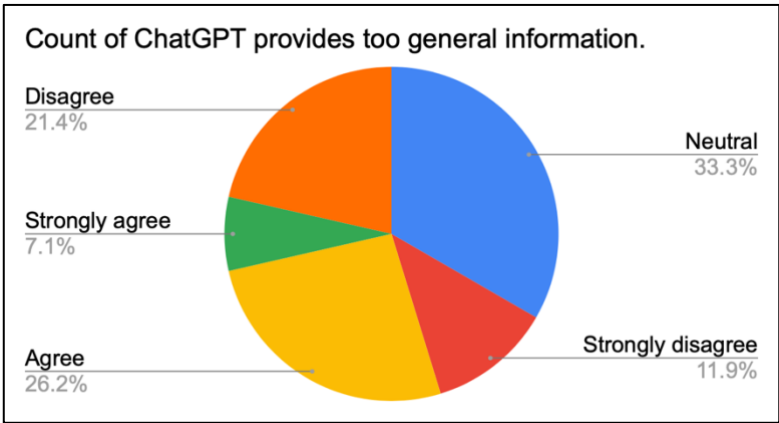


Figure 28: Count of Relying on ChatGPT to write my assignments has negatively impacted my exam performance.

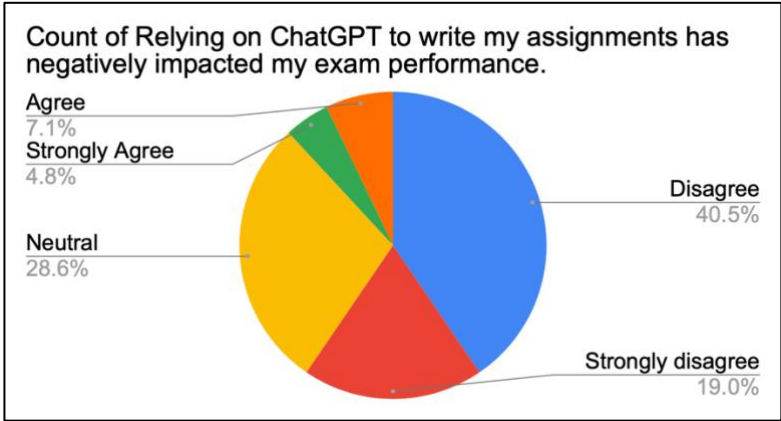
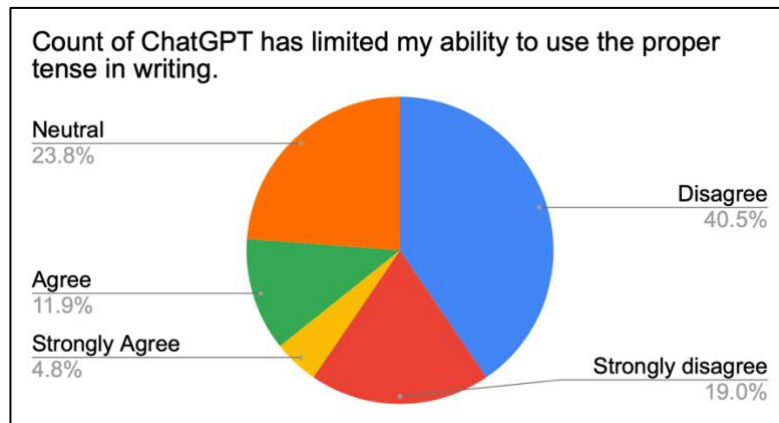


Figure 29: Count of ChatGPT has limited my ability to use the proper tense in writing.



Appendix 4

Students Usage of AI-based writing tools

Q4: Generative AI is a tool that can produce texts that resemble human language. Which of the following generative AI tools do you use to write your assignments?

Table1: Generative AI (GenAI) tools Students use the most

Generative AI tool	Frequency	Percentage
ChatGPT	42	84%
Gemini	9	18%
Quill Bot	15	30%
CoPilot	2	4%
Socratic	1	2%
Galileo AI	1	2%
Chat Sonic	0	0
Ginger Writer	1	2%
Claude	1	2%
Grok	1	2%
Le Chat	1	2%
Poe	3	6%
Deepseek	1	2%
None	3	6%

Q5: ChatGPT is an accessible, easy-to-use application that is widely used by students for a variety of writing tasks. For what purposes do you use ChatGPT?

Table2: Uses of ChatGPT

Purpose	Frequency	Percentage
Clarify concepts	40	80%
Translation	22	44%
Editing	15	30%
Proofreading	27	54%
Summarizing	32	64%
Paraphrasing	14	28%
Selecting resources and references	21	42%
Code generation	1	2%
Letter writing	1	2%
Creating project plan	1	2%
Generating ideas about different topics	1	2%
None	1	2%

Table 3: Likert-Scale Questions Findings – Benefits of Using AI tools in Writing Assignments

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6	ChatGPT is easy to access and use.	7.1%	0%	0%	35.7%	57.1%
7	ChatGPT has enhanced my writing abilities.	4.8%	14.3%	31%	31%	19%
8	ChatGPT has enriched both grammar and vocabulary.	4.8%	4.8%	26.2%	38.1%	26.2%
9	I have expanded my English vocabulary after using ChatGPT.	4.8%	21.4%	310%	21.4%	21.4%
10	ChatGPT has improved the quality of my writing	4.8%	4.8%	28.6%	35.7%	26.2%
11	ChatGPT has many features and provides various writing tasks, such as editing, summarizing and paraphrasing.	2.4%	0%	7.1%	33.3%	57.1%
12	ChatGPT saves time and helps finish assignments faster.	2.4%	0%	7.1%	40.5%	47.6%
13	ChatGPT assisted me in understanding complex grammar.	2.4%	7.1%	26.2%	28.6%	35.7%
14	ChatGPT helped me to write my assignments more cohesively.	4.8%	0%	16.7%	38.1%	38.1%
15	I'm more encouraged and motivated to write my assignments.	2.4%	7.1%	31%	19%	40.5%
16	Using ChatGPT to write assignments has enhanced my critical thinking abilities.	2.4%	23.8%	33.3%	23.8%	16.7%
17	Using ChatGPT in writing compositions has aided me in getting the learning outcomes for the subjects.	0%	4.8%	33.3%	38.1%	21.4%
18	Using ChatGPT in writing assignments has positively impacted my exam performance.	2.4%	7.1%	40.5%	28.6%	21.4%
19	I prefer using technology to improve my writing efficiency over the traditional methods.	0%	4.8%	21.4%	28.6%	42.9%
20	Overall, I have a positive attitude towards using ChatGPT in writing my assignments.	2.4%	0%	19%	40.5%	35.7%
21	Artificial Intelligence is essential today and has to be engaged in education to help language learners improve their academic writing.	2.4%	9.5%	19%	35.7%	33.3%

Table 4: Likert-Scale Questions Findings – Potential Drawbacks of Using AI tools in Writing Assignments

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
22	ChatGPT generates inaccurate information.	4.8%	21.4%	23.8%	35.7%	14.3%
23	I lack the digital knowledge to use ChatGPT.	38.1%	33.3%	19%	7.1%	2.4%
24	I'm concerned about over-relying on ChatGPT to write my assignments.	4.8%	7.1%	21.4%	42.9%	23.8%
25	Depending on ChatGPT to write assignments has limited my writing ability.	19%	21.4%	21.4%	31%	7.1%
26	I'm concerned that depending on ChatGPT will hinder my critical thinking skills.	7.1%	9.5%	31%	28.6%	23.8%
27	I have difficulties finding proper resources to verify the information provided by ChatGPT.	9.5%	14.3%	23.8%	35.7%	16.7%
28	I'm confused by the amount of information that ChatGPT provides.	7.1%	31%	33.3%	21.4%	7.1%
29	ChatGPT provides too general information.	11.9%	21.4%	33.3%	26.2%	7.1%
30	Relying on ChatGPT to write my assignments has negatively impacted my exam performance.	19%	40.5%	28.6%	7.1%	4.8%
31	ChatGPT has limited my ability to use the proper tense in writing.	19%	40.5%	23.8%	11.9%	4.8%

Appendix 5

Students' Attitudes Towards Using ChatGPT in Writing Assignments: Questionnaire's Responses

Table 5: Students' Perceptions of Benefits and Drawbacks of ChatGPT

NO	How did ChatGPT impact your writing, either positively or negatively? Please describe and specify how it influenced your writing? Example: vocabulary, grammar, cohesion and coherence.
1	I use it mostly as a paraphrasing tool, sometimes to give a general overview of some concepts.. never for references because of the “AI hallucinations”
2	I did not use it to write assignments however chatgpt did educate me on how to write research
3	it impacted my writing positively due to the huge number of new vocabulary with the help of how to differentiate between complex and compound sentence structure.
4	I avoid it as much as possible because I don't trust that my text will not have plagiarism so I just skim what ever the chat got present to grasp some ideas and write in my own way. Also the references cannot be trusted you have to go back to them and make sure they have the information mentioned. So it's good I finding the references but it does not filter it properly. I also noticed people who are over dependent on chat got can no longer produce a text or think properly without the aid of chat got, which in a way made them more stupid and dumb. Good luck dear.
5	It makes my overall narrative look more cohesive
6	Posotively
7	It helped my generate ideas about areas I am unfamiliar with but finding resources took time but in general it is a great tool and saves a lot of time.
8	It became amazing...
9	ChateGPT not always giving rights information and lacking of self thinking which (NEVER lets our brain cell to activities) but somehow provide new vocabulary in advance way. And helps in organizing the information very well
10	chatGPT strongly helps me in do my assignments in general, in case of important assignments, I do them by myself and send it to chatGPT to do some modifications and correct my grammar. I also asked it if we can add other good ideas In case of less important assignments and I don't have time to do them, I simply use

	chatGPT, this looks like it is not helping me because i rely on it 100% in this situation but sometimes it really saves my time to do more important tasks.
11	ChatGPT can weaken writing skills by making you over-reliant on it. It's helpful, but once you start using it, thinking feels harder, and you let AI do the work.
12	-My vocabs are gotten enhanced, also Grammar and spelling checkers help me a lot (positive) -Formal writing to doctor, proposal ,and any other formal written tasks make my writing worse because it dose present AI not human "No emotion, Highly proficient english level, and my confidence to write getting worse (Negative)
13	I think it has a somewhat positive effect because I use it to edit my writing. Therefore, it helps me fix any mistakes and improves the flow of my words.
14	ChatGPT, and specifically Poe.com, has positively impacted my writing abilities, vocabulary, grammar, cohesion, and coherence. It has extended my research skills as well as my vocabulary and has helped make my essays more organized, direct, and clear. I always make sure not to copy it 100% but using it as guidance helps ensure a fastly accomplished and cohesive assignment as opposed to not using it.
15	it helps me improve my language but i'm in fear that it has hindered my critical thinking skills
16	The impact was positively astonishing, as it changed the way I write and helped with recognising and correcting my mistakes regarding the extended writings.
17	Grammar
18	For me, I use ChatGpt for providing resources and papers.
19	.
20	It improves the coherence and cohesion of my writing
21	I don't use it for writing
22	ChatGPT has improved vocabulary and grammar, making writing more precise and clear.
23	Restructuring sentences really well. As I am aware of its limitations, I did not find it confusing or negatively impacting my performance.
24	-
25	It helped me a lot to realize my weaknesses in writing, so I started to correct them, but I think that my critical and creative thinking has decreased.

26	It helps me know the right grammar and spelling, but it makes me not relying on myself and make me less confident about my knowledge
27	.
28	It has a positive impact on my study in different ways, such as vocabulary, grammar, cohesion, and coherence
29	Increased my performance positively
30	I don't use ChatGPT
31	By choosing the appropriate terms for my assignment's
32	Using chatGPT has reduced my critical thinking
33	It helps me a lot
34	Not much because I write everything myself I just use it as a summary or reading essay practice. However, enhancing my skills? No it didn't. More importantly, Drs must stop giving more marks to students who uses the AI for their assignments and tests it's not fair
35	Grammar
36	٥
37	Well he's help me to understand it more and explain me the difficulties things with easier examples he could help but its just an AI we can't rely on it in everything
38	A lot of the times, Chatgpt only feeds me what i feed it. if i keep telling Chatgpt certain information, it will save that into its data. The AI doesn't care about what's right or wrong, it responds to me in the most general way possible, often times making mistakes or misunderstanding my question. I generally use Chatgpt to understand the material for my studies and to make lists of the most important points in a PDF, I never use it for written assignments.
39	I usually ask chat gpt to asses the tone of my witting. And make sure that I used the same tense throughout the text. If its a long essay I ask it the find gaps or weird transitions between subjects. However, I tend to write them by myself after. - My opinion as a language student, is that we shouldn't rely of AI for generating text and ideas as it could hinder out ability on both writing and critical thinking. You shouldn't let AI write for you but can use it to refine your text and brainstorming.
40	Using it for looking up information, giving me reliable articles and essays helped me in making a layout for my writing
41	.

42	It mainly expand my vocabulary + made my writing more coherent and cohesive
43	It expanded my vocabulary
44	To be honest it helps sometimes when i want to find synonyms like (pay-purchase) to make the sentence more formal, but i don't rely on it entirely, because sometimes Ai's writing style is noticeable, i mean i often can recognize if the text was written by Ai. In my opinion, it helps to enhance vocabulary and explaining grammar, but i dont think i will use it to write a whole essay, i will would rather ask him for some tips to improve my essay.
45	ChatGPT's writing quality is outstanding which impacts positively in my writing style by providing a proper grammar, rich vocabulary, and cohesive and coherent paragraphs
46	It helped me with creativity and gave me the ability to design my thoughts in a clear way
47	Everything in this world has negative and positive implications. Positively, I consider ChatGpt my private teacher. I always seek clarification from it when I'm confused about grammar rules that I find difficult, I usually study with ChatGpt and I find it really fun. And would constantly ask ChatGpt to give me advice on how to improve my writing skills. However, I fear getting attached and obsessive, I tend to ask AI or ChatGpt, as for now, I really want to ask ChatGpt if this paragraph is grammatically correct, instead of finding the grammatical error by myself. I personally, as a future teacher, would definitely encourage my students to use ChatGptt or AI to encourage their problem-solving skills and critical thinking. The main thing is to understand how to use it effectively with caution, and limitations.
48	From my perspective, I feel ChatGPT is a good aid for helping in providing information and summarizing and paraphrasing certain things. Moreover, it helps me to read a lot and to different information.
49	It helps me to understand concepts better and gives me an outline on what to write.
50	I only use it to find resources and websites that would help me with analysis. It worries me to use it for writing as ive heard it leads to palagiarism and sharing content online. Sometimes i ask it to help me form a sentence and then i would paraphrase it because my brain is jammed, however students should be very careful with it because its an online tool after all.

Appendix 6

Instructors' Perceptions of Students' Usage of ChatGPT in Writing Assignments: Interview Results

Q4: What is the most common generative AI tool students use in writing their assignments?

Table 6

No	What is the most common generative AI tool students use in writing their assignments?
1	ChatGPT
2	ChatGPT / Grammarly
3	Chat GPT
4	ChatGPT
5	ChatGPT
6	I don't know. ChatGPT?
7	I don't know: maybe editing and generating text
8	I am unaware of that
9	ChatGPT
10	ChatGPT

Q5: In what way do you think ChatGPT can benefit students in terms of improving their writing quality?

Table 7

No	In what way do you think ChatGPT can benefit students in terms of improving their writing quality
1	It allows them to imitate the structure of an academic writing
2	Suggest vocabulary and sentence structure
3	It depends on teachers' instruction. I personally believe that ChatGPT has the potential to be used as an effective language learning tool
4	Maybe in providing correct examples of a type of writing. Also, generating outlines or ideas to start the writing assignment
5	It can correct their language mistakes and also provide them with ideas they can incorporate into their writing
6	It generates ideas for them to write
7	Highlighting mistakes
8	If they used it in a way that improves their performance and language skills
9	organize their ideas in a logical manner
10	Editing and paraphrasing

Q6: In what way do you think using ChatGPT can negatively affect students' writing?

Table 8

No	In what way do you think using ChatGPT can negatively affect students' writing?
1	It will make them. More dependent on machines
2	Generate full essays with no student involvement

3	When students totally depend on it to generate the writing text
4	They might plagiarize answers-rely heavily on the app without using it to improve themselves properly
5	They rely heavily on
6	The will always suffer from writer's block because they always rely on AI to generate ideas for them
7	Making them unable to think and write
8	If they used it to cheat and get ready answers
9	Make them reliant on it without actually thinking their assignments through
10	Plagiarism and dependency

Q7: What are the best and the worst aspects of using the generative AI tool ChatGPT among the benefits and drawbacks you have mentioned?

Table 9

No	What are the best and the worst aspects of using the generative AI tool ChatGPT among the benefits and drawbacks you have mentioned?
1	The best: AI will organize their thought and make them write more professionally if they did not depend on it 100% otherwise, it will be a destructive tool if they were over dependent on them.
2	Mentioned above
3	The worst: it is easy to generate human-like texts, discouraging students to think for themselves .The best: with good instruction (guided by the teacher) it may inspire students with some ideas. It also can be used as a self directed learning tool if students are learned how to ask ChatGPT to assess their own writing and explain how to edit and improve it
4	Best: easy access and availability / Worst: no account of personal growth and development
5	It can aid students in writing correcting their grammatical and other mistakes and also provide some useful information about the topic. On the other hand, students may rely heavily on ChatGPT to do their assignments.
6	It is a game changer when it comes to writing because it can generate many writing prompts which make writing tasks take less time than usual.
7	Good for literature review and bad for ethical reasons
8	Cheating
9	As previously mentioned, it's useful as a helping hand. Students use it to do their job for them.
10	Unlimited sources of information

Q8: Do you recommend students' usage of ChatGPT to write their assignments?

Table 10

No	Do you recommend students' usage of ChatGPT to write their assignments?
1	Of corse no
2	Yes, in an ethical way while having an awareness of limits of use.
3	Yes, to edit rather than to write the assignment from a scratch
4	in language courses, it is not preferable

5	They can use it to review their writing
6	No.
7	In some areas
8	No
9	Yes
10	With being cautious and mindful

Q9: What AI tools do you think are helpful in improving students' writing?

Table 11

No	What AI tools do you think are helpful in improving students' writing?
1	
2	
3	I prefer ChatGPT since it is the most popular among students
4	I am not familiar with any, unfortunately
5	I have no idea
6	ChatGPT
7	I don't know
8	I am not sure
9	Each AI tool has its benefits. Depends your purpose
10	Google semantic and perplexity

الخلاصة

تتناول هذه الدراسة استخدام تطبيق شات جي بي تي في ثلاثة أبعاد. البعد الأول هو الأغراض التي يستخدم من أجلها متعلمو اللغة الإنجليزية نموذج شات جي بي تي التوليدي. ثانياً، الآثار الإيجابية والسلبية المتصورة على الطلاب عند استخدام هذه الأداة التي تعمل بالذكاء الاصطناعي لكتابة واجباتهم الأكاديمية. البعد الثالث للدراسة هو أنها تدرس تصورات المعلمين للتأثير الإيجابي والسلبي للطلاب الذين يستخدمون هذا النموذج في كتابة الواجبات الأكاديمية. تركز الدراسة على طلاب التعليم العالي المتخصصين في اللغة الإنجليزية، والمعلمين الذين يدرسون اللغة الإنجليزية في مؤسسات التعليم العالي. تعتمد الدراسة على منهجية مختلفة تجمع بين الأساليب الكمية والنوعية. وقد تضمنت طريقة جمع البيانات الأولى توزيع استبانة على 50 طالباً متخصصاً في دراسات اللغة الإنجليزية، حيث تضمنت ثلاثة أنواع من الأسئلة: أسئلة تمهيدية، وأسئلة بمقياس ليكرت، وأسئلة مفتوحة، وذلك للإجابة على سؤالي البحث الأول والثاني. أما بالنسبة للسؤال الثالث، فقد تمت الإجابة عنه من خلال مقابلات شبه منظمة مع عشرة مدرسين. وقد كشفت النتائج أن الطلاب يستخدمون شات جي بي تي بشكل أساسي لتوضيح المفاهيم وتلخيص المعلومات. بالإضافة إلى ذلك، أظهرت ردود الطلاب موقفاً إيجابياً تجاه استخدام هذه الأداة القائمة على الذكاء الاصطناعي في مهام الكتابة. في السؤال المفتوح، أفاد الطلاب بشكل متكرر أن شات جي بي تي ساهم في إثراء قواعدهم النحوية ومفرداتهم وعزز كتابتهم لنصوص متماسكة لغوياً. ومع ذلك، وُجد أن الإفراط في الاعتماد على المساعدة الآلية في الكتابة كان مصدر قلق لغالبية المشاركين حيث أظهر الطلاب وعياً متزايداً بالعيوب المحتملة للإفراط في الاعتماد على تقنية الذكاء الاصطناعي في الكتابة، بما في ذلك ضعف مهارات التفكير النقدي وخصوصية المعلومات والانتحال والاعتبارات الأخلاقية. من ناحية أخرى، أظهر المدرسون مواقف مختلفة؛ إذ اتفقت الأغلبية على دمج تقنية الذكاء الاصطناعي في عملية التعلم بشرط أن يكون ذلك تحت إشرافهم وتوجيههم لتعليماتهم. وفي الختام، تؤكد الدراسة على أهمية أن يكون متعلمو اللغة على دراية بتقنية الذكاء الاصطناعي ومواكبين لأحدث تطوراتها، لتمكينهم من تحسين تجربة التعلم، ومساعدة الطلاب على تحقيق أقصى استفادة من هذه التكنولوجيا، مع تجنب آثارها السلبية المحتملة.



دراسة تصورات الطلاب حول استخدام الذكاء الاصطناعي في المهام الكتابية

أطروحة مقدمة استيفاء لمتطلبات الحصول على درجة الماجستير في دراسات اللغة
الإنجليزية التطبيقية

مقدمة من قبل الطالبة:

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الرقم الجامعي ٢٠١٩٠١٤٥

بإشراف

الدكتور: نوري العجيلي

(أستاذ مشارك)

جامعة البحرين

مملكة البحرين

أكتوبر ٢٠٢٥

