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Exploring the Relationship between ELL Students' Attitudes towards the Use of Aigiarism and their Academic Achievements: A Mixed Method Study

A Thesis Submitted as Partial Fulfilment of the Requirements for the Degree of *Master* in Didactics.

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Declaration of Originality

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Dedication

This research is dedicated to my dear parents for their endless love, support, and encouragement.

To my dearest brothers and sister for lifting my mood when I was down, and for always being around.

To all my best friends without whom it would not be possible to carry out this work.

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Abstract

Artificial intelligence (AI) has drastically reshaped the field of education. While AI tools such as ChatGPT have shown potential benefits in the teaching-learning process, they also raise serious concerns about their utilization of plagiarism. Against this background, this study aims to examine the relationship between the attitudes of second-year EFL Master's students towards aigiarism and their academic achievements at Moulay Taher, Saida University. It seeks to elicit students' attitudes toward aigiarism and explore potential factors that affect this relationship. To fulfill the study's main aim, a sequential explanatory mixed method approach comprised of both quantitative and qualitative data is put into action. The participants of this study consist of 34 Master two students from the English department of Saida University. For the quantitative data, a questionnaire was used to elucidate students' attitudes toward aigiarism followed by a correlation study to examine the relationship between these attitudes and their academic achievements. As for the qualitative data, a semi-structured interview was conducted with students to explore possible factors that influence this relationship. The results obtained in this research investigation indicated that students hold positive attitudes towards aigiarism which positively correlates with their academic averages. In addition, factors like time pressure, procrastination, deadlines, ease of using AI, and customized responses are found to influence the correlation between students' attitudes and their academic outcomes. At last, the researcher concluded this research study by putting forward a series of recommendations and suggestions to later on take into consideration. These recommendations include further research on aigiarism inviting educators and stakeholders to establish clear policies and guidelines regarding the use of AI to prevent plagiarism and propose innovative strategies to uphold academic integrity in the age of AI.

Key words: academic achievements, aigiarism, artificial intelligence, attitudes, plagiarism

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List of Abbreviations

AI	Artificial Intelligence
CAI	Computer-Assisted Instruction
ELT	English Language Teaching
GAI	Generative Artificial Intelligence
GPA	Grade Point Average
GPT	Generative Pre-trained Transformer
ILEs	Interactive Learning Environments
ITS	Intelligent Tutoring Systems
SAT	Scholastic Assessment Test
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
VR	Virtual Reality

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GENERAL INTRODUCTION

General Introduction

The integration of AI in the field of education has brought a range of advantages and disadvantages that have reshaped the features of the educational sector. On the one hand, AI helps increase academic achievement through personal teaching and support in study especially in EFL learning. The availability and accessibility of AI tools such as ChatGPT can lead to academic misconduct as students harness the power of these tools to accomplish their assignments and research work by copy-pasting AI-generated text. This AI misuse paves the way for students to get involved in what is called today aigiarism. Despite the existing research on the use of AI technology to plagiarize, the previous studies lack an understanding of students' ethical viewpoints regarding this phenomenon. Consequently, this study delves into this critical gap by elucidating the relationship between Algerian EFL students' attitudes regarding aigiarism and their academic achievements.

In the light of the above, this research seeks to fill the gap in the field of education by making a substantial contribution. It intends to investigate the relationship between the attitudes of second-year EFL Master's students towards aigiarism and their academic achievements at Moulay Taher, Saida University. The study attempts to reveal insights into students' common attitudes in terms of aigiarism. Additionally, it aims to explore the influencing factors affecting this relationship.

The research's main objectives are to clarify EFL students' attitudes regarding Aigiarism, examine any correlation between students' attitudes and their academic achievements, and explore potential intervening factors between these attitudes and their academic achievements. To pursue that, the following questions are formulated:

1- What are the attitudes of EFL students towards aigiarism?

2- Is there a correlation between the attitudes of EFL students and their academic achievements?

3- Which factors interrelate these attitudes with their academic achievements?

In this regard, it is hypothesized that:

1- Students have positive attitudes towards Aigiarism.

2- There is a positive correlation between students' attitudes and their academic achievements.

3- Several factors influence this relationship including lack of time and accessibility of AI tools.

General Introduction

To test these hypotheses the research undertook a case study comprising 34 Master Two students from the academic year (2023-2024). For the sake of data gathering, the study followed a sequential explanatory mixed methods design. The first research tool is a questionnaire addressed to students (Appendix A) to investigate their attitudes towards AI in general and aigiarism particularly, followed by a correlation study using students' academic averages to examine the correlation between students' attitudes and their learning outcomes. The second research tool is a semi-structured interview held with students (Appendix B) to explore the possible factors affecting this relationship.

The present work is divided into three chapters; the first chapter is related to the literature review. It starts by tackling the concepts of AI, generative AI, and plagiarism including the evolution of Aigiarism. Additionally, it examines the integration of AI in education especially in EFL classes. The same chapter also explores students' attitudes towards plagiarism as well as AI and the relationship between AI and students' academic achievement. The second chapter deals with the methodology and research procedures as it highlights the research design, the population, data collection methods, and procedures used to analyze the data. Moreover, the third chapter focuses on the practical aspects of the study. It is devoted to data analysis and interpretation of the main findings.

The researcher encountered various barriers while conducting this research, for instance; the lack of sources related to this research area, especially when writing the literature review and providing several citations, as well as the small sample size which can reduce the study's power to look for correlations among the data.

CHAPTER ONE
LITERATURE REVIEW

1.1 Introduction

In recent months, artificial intelligence (AI) has permeated various domains of human life, including education. The utilization of this technology, particularly generative AI like ChatGPT in academic settings, has raised significant concerns regarding academic misconduct. The rapid proliferation of these AI generative tools and their accessibility has led students to engage in plagiarism, or what is commonly referred to as "Aigiarism," in their exams and assignments, as these tools enable them to generate human-like text in a matter of seconds.

In light of these developments, this chapter aims to elucidate the concepts of AI, generative AI, and plagiarism, including the evolution of Aigiarism. Additionally, it will explore the integration of AI in education, focusing especially on EFL classes. Furthermore, this chapter will delve into students' attitudes toward plagiarism as well as generative AI (GAI), and examine the relationship between AI and students' academic achievement.

1.2 Overview of AI, Generative AI, and ChatGPT

The increasing integration of Artificial Intelligence (AI) into various aspects of human life has resulted in a significant expansion of AI in the field of education in recent years (Jiang, 2022). AI refers to the capacity of a machine or computer system to imitate and execute tasks that often require human intellect, such as logical deduction, knowledge acquisition, and problem resolution. AI relies on the utilization of machine learning methods and technology to enable robots to replicate specific cognitive abilities and perform tasks autonomously or with minimal assistance (Morandín-Ahuerma, 2022).

Farrelly and Baker (2023) introduce Generative Artificial Intelligence (GAI) as a type of artificial intelligence that is designed to produce content like text, images, video, music, computer code, or a combination of these that closely resemble content created by humans. These systems use machine learning methods, particularly deep learning, to recognize and replicate patterns, styles, and structures present in the data they are trained on.

A significant subset of GAI models is the Generative Pre-trained Transformer (GPT) model, which forms the basis of ChatGPT tools (Farrelly& Baker, 2023); it is a form of GAI model that employs deep learning methods to generate natural language text (C.Chan, 2023). ChatGPT is a prominent AI chatbot developed by OpenAI. The software was initially launched on November 30, 2022, using GPT-3.5, and later upgraded on March 14, 2023, to utilize GPT-4 (Kamalov et al., 2023). It can comprehend and respond to a wide range of prompts with a

high level of proficiency and maintain an ongoing dialogue with the user. The system is capable of performing various linguistic tasks such as translation, summarization, question answering, and text generation that resembles human writing (Cotton et al., 2023).

After its release, ChatGPT has drawn global attention toward AI capabilities, leading numerous start-ups to work on GAI. Rudolph et al. (2023, p. 364) referred to this phenomenon as an "AI gold rush." This success has prompted other tech giants, such as Bing and Google, to swiftly integrate AI chatbots like Bing AI and Bard AI into their search systems (Chaka, 2023).

1.3 AI and Academic Integrity

The promising capabilities of AI introduce new challenges to academic integrity. While AI chatbots like ChatGPT present themselves as valuable tools for both students and researchers, their potential benefits are intertwined with concerns about academic integrity.

In their study "Using ChatGPT in Academic Writing is (not) a Form of Plagiarism: What Does the Literature Say?", Jarrah et al. (2023) assert that ChatGPT is a valuable resource for academic writing, advocating that using AI-generated content is appropriate as long as it is critically assessed, rephrased, and correctly cited. Similarly, Zhang (2023) emphasizes the potential of AI technology and ChatGPT in enhancing understanding of theories, clarifying concepts in writing, and boosting productivity among students and novice researchers. Nevertheless, this viewpoint raises concerns regarding the possible ambiguity between proper use and plagiarism. Many researchers agree that AI chatbots like ChatGPT pose a real threat to academic integrity (Kamalov et al., 2023; Khalaf, 2024). These tools can be misused by students to complete various tasks, including assignments, examinations, and even theses, making it easier for them to engage in AI plagiarism and other forms of cheating, ultimately undermining the foundation of academic honesty (C. K. Y. Chan, 2023; Lo, 2023; Mohammadkarimi, 2023; Tanvir et al., 2023).

The potential for AI misuse in academic settings is undeniable. As AI technology continues to evolve, students may increasingly engage in plagiarism. Consequently, the use of generated AI in their studies, particularly in academic writing, has led to the advent of a new term called "Aigiarism."

1.3.1 Plagiarism

Plagiarism is a common problem in educational settings that undermines the values of originality and integrity in scholarly endeavors. Although this phenomenon has become

widespread in the academic community, particularly among students, "plagiarism is a form of academic dishonesty which dates back to 1926" (Abdaoui, 2018, p. 375).

The term plagiarism originates from the Latin word "plagiare," which specifically denotes the act of kidnapping or abducting. In this respect, plagiarism is described as "unethical behavior" (Abdaoui, 2018, p. 375) and "intellectual thievery" (Kumar, 2022, p. 233). Most scholars define plagiarism as the act of taking someone else's work, creations, or any form of intellectual property without appropriate recognition or permission and presenting them as one's original work. This includes using another person's ideas, methods, data, results, or text without giving credit to the original author or source (Arab, 2022; C. K. Y. Chan, 2023; Helgesson& Eriksson, 2014; Muthalib et al., 2023). Proper recognition involves using quotation marks for direct quotes, crediting sources appropriately, and providing citations whenever adopting or referencing other people's ideas, methods, data, results, or text (Kumar, 2022). Nevertheless, there exists an exception for acknowledging the ideas and words one employs, known as "common knowledge." Citing common knowledge is unnecessary as it pertains to information widely recognized, unquestioned, easily confirmed, and typically not associated with a particular author (McCombes& Caulfield, 2022).

The phenomenon of plagiarism within academic research is not a recent development; however, its gravity has intensified in recent years, primarily due to advancements in technology and the widespread accessibility of AI tools. The increased utilization of AI-generated content in academia has led to a rise in instances of plagiarism, presenting a considerable challenge to students, professors, and educational institutions.

1.3.2 Aigiarism

The field of artificial intelligence rapidly captivated the world after the release of ChatGPT to the public. Higher institutions found themselves facing a new kind of plagiarism termed "Aigiarism," which means "AI-assisted plagiarism." The term was first coined by Mike Waters on October 27th, 2022, on Twitter (Crossplag, 2022). To gain a deeper understanding of what constitutes Aigiarism, C. K. Y. Chan (2023) provides the following definition:

AI-giarism refers to the unethical practice of using artificial intelligence technology, particularly generative language models, to generate content that is plagiarized either from original human-authored work or directly from AI-generated content, without appropriate acknowledgment of the sources or AI's contribution. (p. 4)

Therefore, Aigiarism means using AI to plagiarize. It occurs when one appropriates content produced by AI and presents it as their own. While it is acceptable to use AI tools like ChatGPT for tasks such as making lists or editing language, having it write a manuscript from scratch and presenting it as original work constitutes plagiarism.

AI-assisted plagiarism raises ethical issues. This is because ChatGPT can generate content that looks and reads like something a human would write. Submitting a manuscript created by this tool without acknowledging its involvement could be seen as plagiarism since it misrepresents the origin of the content. However, determining plagiarism in this scenario is complicated since ChatGPT does not meet the criteria to be considered an author. The downside of Aigiarism is not primarily concerned with improper credit allocation but rather with the potential spread of factual errors, misinterpretations, and biases, all of which impede the acquisition and understanding of knowledge. While revealing the use of AI when preparing a manuscript helps address these concerns, it continues to be a topic of discussion within publishing circles (Tang, 2023).

Relatedly, a study by Longoni and colleagues reveals that students have a higher inclination to plagiarize text provided by AI compared to material created by humans. Additionally, individuals evaluate this act as less morally wrong, more acceptable, and are less inclined to consider it as plagiarism. The introduction of AI consciousness has changed how ownership is understood and reduced the perceived variations in immoral behavior (Longoni et al., 2023). In the same vein, Khalaf (2024) suggests that instead of advocating for a ban on ChatGPT, it is important to acknowledge and tackle the risks, difficulties, and constraints linked to its application.

Overall, it is crucial to make a fair assessment and appropriately use these technologies without rejecting them outright. Therefore, there is an imperative for far-reaching investigation into the root causes of Aigiarism in colleges and universities going forward.

1.3.3 Types of Plagiarism

When thoroughly analyzing the phenomenon of plagiarism, it becomes apparent that it can manifest in two distinct categories: intentional and unintentional. Intentional plagiarism is the purposeful and conscious action of presenting another person's work as if it were one's own. This can encompass practices such as removing an author's name and substituting it with one's own, or directly duplicating content from sources without providing proper acknowledgment. Conversely, unintentional plagiarism, also known as accidental plagiarism, occurs when sources are not appropriately cited due to factors like misunderstanding of citation methods,

indifference, or ambiguity (Atrak, 2019). Students can engage in plagiarism in numerous ways, whether it is intentional or accidental. This section highlights the common types frequently encountered among students.

Among the most obvious forms of plagiarism that can be easily detected is "direct plagiarism," also known as "word-for-word" plagiarism. This type occurs when a researcher directly duplicates and inserts text from a source into their work without including appropriate citations. Similarly significant is the concept of "self-plagiarism," commonly referred to as duplicate publication, which is the act of submitting identical or similar work for publication in multiple places without appropriate citation. Although it does not involve the use of someone else's work, self-plagiarism violates ethical standards within academic writing.

Furthermore, the act of paraphrasing without adequate citation constitutes another significant form of academic misconduct. In this scenario, the author rephrases material sourced from external texts without providing appropriate acknowledgment, thereby requiring citation even when only minimal linguistic alterations are made. Additionally, "patchwriting" or "mosaic plagiarism" is a deceptive practice involving the appropriation of another's work with minor alterations, complicating detection efforts as the content may appear original. Finally, inaccurate citation practices, including citing sources that do not substantiate the information presented or failing to adhere to proper citation formatting, may also constitute a form of plagiarism (William, 2024).

In conclusion, plagiarism can be either accidental or deliberate, posing a threat to academic integrity. To mitigate this risk and uphold credibility, students must adopt preventive practices by understanding citation methods and adhering to ethical standards.

1.3.4 Motives behind Plagiarism

Plagiarism is universally acknowledged as unethical conduct that poses a significant threat to students' academic careers. Despite this awareness, students often engage in plagiarism willingly, influenced by a multitude of factors. As noted by Hung and Chen (2023), certain students exhibit traits of laziness and indifference in completing their academic tasks. This tendency may explain why students resort to incorporating directly generated AI responses into their academic tasks and assignments. Consequently, such practices impede the development of critical thinking skills among students and lead to the production of plagiarized content. Likewise, in her study "True Motives behind Algerian EFL Students' Plagiarism," Arab (2018) indicates that Algerian EFL students may have a blurred understanding of the concept of

plagiarism while others intentionally plagiarize with the belief that they can bypass detection. However, in both scenarios, students lack the fundamental writing skills to avoid plagiarism.

Similarly, Muthalib et al. (2023) reveal that student plagiarism stems from various underlying motives. First, the ease of accessing information in the digital age pushes students to resort to copying without proper attribution. Additionally, the pressure to excel academically and meet deadlines, combined with the fear of failure, can lead to plagiarism as students seek convenient solutions to their academic tasks. Furthermore, plagiarism often arises due to a lack of understanding regarding what constitutes plagiarism. Many students fail to recognize plagiarism and are unable to identify its different types.

Lastly, inadequate enforcement of academic integrity policies contributes to student cheating. Policies regarding plagiarism predominantly focus on faculty members, with prevention and punishment measures primarily directed at them. Therefore, students may perceive that the consequences of plagiarism are minimal, leading to a higher likelihood of engaging in such misconduct.

1.3.5 Avoiding Plagiarism

Preventing plagiarism is crucial to preserving integrity in academic settings and encouraging originality. Muthalib et al. (2023) highlight two key elements that EFL students need to be aware of to avoid plagiarism. First, students must understand what constitutes plagiarism and then develop essential academic writing skills. This includes mastering techniques like paraphrasing, summarizing, and synthesizing.

Paraphrasing entails comprehending information from various sources and then rewriting it in your own style while maintaining proper citations. Summarizing involves condensing information into concise statements without omitting important details, requiring advanced language proficiency and a deep understanding of source texts. Synthesizing, on the other hand, involves integrating paraphrased and summarized content from multiple sources into cohesive written work, demanding both advanced reading and writing skills.

Furthermore, Ober et al. (2012) provide five simple rules to avoid plagiarism. First, avoid directly copying text from any source, including one's own previously published work. While short quotations are acceptable with proper citation, copying without quotation marks and citations is flagrant plagiarism. Second, express your own ideas in your own words, minimizing reliance on paraphrasing. When paraphrasing is necessary, cite the original source at the end of the passage. Third, when uncertain, it is prudent to cite sources. Excessive citation

may suggest a lack of original writing and require rewriting. Common words and phrases do not necessitate citation or quotation marks, but any discussions involving commonly accepted concepts require proper attribution. Additionally, refrain from recycling images, figures, tables, or text from previous publications without citation, as this constitutes self-plagiarism. Lastly, seek copyright permission and attribute credit when using unpublished data or content created by others.

EFL students can effectively avoid plagiarism and maintain academic integrity by understanding the dimensions of plagiarism and upgrading the requisite skills of academic writing, including paraphrasing, summarizing, synthesizing, and referencing. Adhering to these guidelines ensures ethical writing practices and produces credible work.

1.4 Students' Attitudes and Plagiarism

Understanding the concept of "attitude" is crucial across various fields, particularly in the social sciences, where it significantly influences behaviors and perceptions. Plagiarism, a severe form of academic misconduct, necessitates a deep understanding of the attitudes and perceptions that underpin it to develop more effective preventive strategies. This part explores the historical and methodological development of the concept of attitude, tracing its evolution from an artistic term denoting physical posture to a psychological construct that can be empirically measured. By examining the role of attitudes in academic integrity, particularly in relation to plagiarism, we can gain insights into how to foster ethical behavior and reduce instances of misconduct in academic settings.

1.4.1 What is Attitude?

The concept of attitude has ventured across several fields before landing in the social sciences. Stemming from the Latin word “aptus,” it initially signified one’s ability to “fit” or “adapt.” Originally, the term “attitude” was used in an artistic context, such as paintings and sculptures, to denote the physical posture or bodily position of a depicted figure. As it transitioned into a social science concept, “attitude” came to encompass a broader psychological construct, its eclectic nature allowing it to be “elastic enough to apply either to the dispositions of single, isolated individuals or to broad patterns of culture” (Allport, 1935, p. 798).

William James often considered the father of American psychology, discussed attitudes in his book “Principles of Psychology.” James (1890) describes attitude as a “tendency to respond to an object in a certain way” (p. 12). He argues that an attitude is a psychological

construct reflecting a person's general evaluation of another person, an object, or an idea, involving beliefs, feelings, and behavioral tendencies toward the object of the attitude. Attitudes, spanning from positive to negative or neutral, shape the individual's perception and interaction with their environment. Myers (2012) defines attitudes as "a set of favorable or unfavorable evaluative reactions toward something or someone, exhibited in one's beliefs, feelings, or intended behavior" (p. 36). Likewise, Bogardus (1931) states that "An attitude is a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value" (p. 52).

There are three different types of attitudes that can be determined: affective, cognitive, and behavioral. Affective attitudes refer to the emotional reaction a certain object or concept evokes, e.g., having a positive attitude towards volunteering includes feeling joy and fulfillment when partaking in a similar activity. Cognitive attitudes, on the other hand, represent our thoughts and beliefs about the said object. Finally, behavioral attitudes reflect actions and intentions toward the target of the attitude. For example, while an individual with a cognitive attitude strongly believes that climate change is a pressing issue, a person with a behavioral attitude is more likely to actively participate in recycling programs (Jhangiani& Tarry, 2022).

Despite emerging as early as the mid-1860s, the concept of "attitude" gained prominence only after the statistically versatile psychologist Thurstone (1928) published his article "Attitudes Can Be Measured." Offering an empirical analysis for the otherwise inconclusive concept through clear measurement and operational methods paved the way for the further and wider adaptation of the term "attitude" (Allport, 1935).

1.4.2 Measuring Attitudes

The utilization of psychophysical methods by Thurstone marks a pivotal moment in the history of attitude measurement. Employing psychophysical methods, it is essential to view an attitude as a measure of preference or aversion toward a particular object or value. With this assumption, it becomes feasible to assess individuals' likings or dislikings towards said objects or values (Allport, 1935).

The Thurstone Scale, for example, involves a set of dichotomous questions where participants must select one answer per question. Each response is then assigned a score, and an individual's attitude score is the average of all the scale values of the items with which they agree. This scale systematically measures sentiments and opinions to gauge an individual's attitude. The Likert Scale is another widely utilized instrument for assessing a person's attitude or perception about certain objects or values. It is a psychometric tool that consists of a series

of questions or statements where respondents are prompted to indicate their level of agreement or disagreement with each item. Response options typically span from "strongly disagree" to "strongly agree," granting the participants the needed liberty to convey the intensity of their stance. The chosen options are then assigned values of 1, 2, 3, 4, and 5, allowing the resulting responses to be quantified on a numerical scale and facilitating the systematic analysis and interpretation of each individual's attitudes (Tiwari, 2021).

In recent years, numerous scales of this kind have been developed and made accessible for general utilization (Allport, 1935). However groundbreaking the notion of measurable attitudes has proved itself to be, it is equally important to detect the shortcomings of each tool to better accommodate the requirements of each field.

1.4.3 Students' Attitudes towards Plagiarism

Observed across all levels of academia, plagiarism stands as the most severe form of academic misconduct (Husain et al., 2017). Preventive strategies against plagiarism only prove effective when the underlying causes behind it are thoroughly examined. This highlights the crucial role of identifying perceptions and attitudes towards plagiarism, as they can significantly influence individual judgment and subsequent actions.

In an attempt to investigate students' attitudes and perceptions towards cheating and plagiarism, Waltzer and Dahl (2020) find that although an overwhelming majority of the participants exhibit an understanding of the concepts of cheating and plagiarism, they still engage in these unethical practices during examinations or while completing assessed coursework. Similarly, Rodhiya et al. (2022) reveal that students occasionally plagiarize despite recognizing plagiarism as academic misconduct. This, according to the researchers, may be attributed to the lack of oversight in their assignments and the absence of repercussions when plagiarism occurs.

In the same vein, Orluwene and Magnus-Arewa (2020) examine the attitude of postgraduate students towards plagiarism and find that most participants hold a favorable attitude towards plagiarism despite the severe measures the university has implemented to prevent it. Ramzan et al. (2012) examine the awareness of plagiarism among university students in Pakistan and suggest that graduate and postgraduate students are subjected to societal and familial pressure to achieve higher grades. Consequently, students may feel compelled to resort to acts of academic deceit such as plagiarism to improve their academic performance expeditiously. On a similar note, students cite the pressure of deadlines as the predominant

factor prompting them to resort to plagiarizing despite being well-informed about the unethical act (Zainuddin et al., 2021).

Madaan and Chakravarty (2017) conduct a study aiming to inspect the level of awareness towards plagiarism among postgraduate students at Dav College sector-10 in India. The research further attempts to investigate the different types of plagiarism and pinpoint the most commonly used by students, as well as explore the various factors leading to this academic misconduct and gather their opinions on how to combat it. A total of 141 postgraduate students were sampled across three distinct academic disciplines for the study. The results reveal that 78.7% of the participants opt for copy pasting from the internet despite possessing a basic understanding of plagiarism and acknowledging copy pasting as unethical behavior.

In a similar study, Dias and Bastos (2014) also attribute the widespread occurrence of plagiarism to the convenient availability of content on the internet. The motives behind this academic deceit, however, vary between teachers and students. Most teachers perceive "students' laziness" and "students' poor time management skills" as prominent factors that lead to plagiarizing, while students emphasize the pressure to attain high grades, laziness, inadequate time management, diminished learning objectives, as well as peer pressure.

In a study conducted by Ellery (2008), 151 students participated in an investigation into electronic source plagiarism in a first-year essay assignment. Results show that some students engage in plagiarism because they lack the needed skills to effectively integrate ideas and appropriately cite them in writing. Jereb et al. (2018) examine gender differences in students' awareness of plagiarism. The study identifies a significant gender-specific trend, notably showing that female students tend to hold a more negative view toward plagiarism compared to their male counterparts.

While many studies have explored students' attitudes toward plagiarism in different areas, research specifically addressing plagiarism within English Language Teaching (ELT) remains scarce. This deficiency poses a significant impediment to achieving a comprehensive understanding of the perception of EFL students regarding plagiarism (Birincibubar, 2023). Amiri and Razmjoo (2015) investigated Iranian EFL undergraduate students' perception of plagiarism by conducting a study that sampled twelve native Persian speakers. Findings reveal a shallow comprehension of the concept among undergraduate students as they struggle to provide a precise definition of plagiarism and exhibit uncertainty regarding different types of it. On the other hand, Amin and Mohammadkarimi (2019) assert in the results of their research

that while students fully understand the gravity of plagiarism as academic misconduct, most of them possess little to no knowledge of how to avoid it.

The relationship between English learning achievement and EFL learners' cheating attitudes and cheating behaviors was examined by Rahimi and Goli (2016) where 800 junior high school students were randomly selected. Results state that students consider plagiarism as an acceptable means to an end. Yıldırım and Razı (2018) explore attitudes toward plagiarism among undergraduates/postgraduates as well as three lecturers in the English Language Teaching department of a Turkish state university, and results reveal that most participants held a negative attitude toward plagiarizing.

Reviewing previous research regarding plagiarism illustrates that despite the variety of reasons behind the unethical act, students' awareness of plagiarism can be classified into three distinct groups: (1) those who recognize plagiarism but do not perceive it as morally or ethically wrong, (2) those who lack awareness of plagiarism entirely, and (3) those who are aware of plagiarism yet continue to engage in it despite acknowledging its unethical nature (Jereb et al., 2018).

1.5 Students' Attitudes and AI

In the context of EFL classrooms, studies reveal that students generally have positive attitudes toward AI tools like chatbots, recognizing their benefits for language learning, interactivity, and support. However, some concerns about dependency and creativity persist. The successful integration of AI in education relies heavily on user acceptance, as evidenced by improved learning experiences and enhanced language proficiency among students using these technologies.

1.5.1 Technology Acceptance Model (TAM)

Over the last three decades, the Technology Acceptance Model (TAM) has established itself as a pivotal theoretical framework in elucidating individuals' attitudes toward the acceptance, rejection, and utilization of information technologies (Liu & Ma, 2023). It is an effective mechanism for understanding the key factors influencing users' decisions to adopt new devices or technologies for data communication within the respective field.

Davis first introduced the Technology Acceptance Model (TAM), rooted in the Theory of Reasoned Action (TRA), in 1989 as a theoretical framework wherein users' perceptions of the usefulness and ease of using new technology are influenced by various external factors. These factors, in turn, indirectly influence both the adoption of the new technology by users

and their attitudes toward it (Na et al., 2022). Perceived usefulness refers to the extent to which an individual believes that integrating a new technology will improve their performance. Perceived ease of use, on the other hand, pertains to the degree to which the individual expects the adoption of the new technology to be straightforward, without requiring substantial physical effort or a steep learning curve (Na et al., 2022).

1.5.2 Students' Attitudes towards AI

As artificial intelligence becomes increasingly prevalent in EFL classrooms, it is essential to examine how students perceive and embrace this technology when incorporating it into educational practices. A crucial factor to take into account when integrating this novel tool is the extent to which students accept it since the successful implementation of technological innovations relies heavily on user acceptance (C. K. Y. Chan, 2023).

In two research initiatives, Chen et al. (2023) sampled 215 undergraduate students in an attempt to gauge their perspectives on the possible advantages and obstacles when utilizing chatbots as intelligent aids. Findings reveal positive feedback, with students reporting improved learning experiences attributed to the chatbot's responsiveness, interactivity, and confidential support. Other studies also note a favorable behavior regarding the perceived ease of use and perceived usefulness of AI in education. Students display a positive view of ChatGPT that is associated positively with their willingness to utilize it for writing tasks (Sumakul et al., 2022; Zhang & Huang, 2023).

Upon investigating the use of AI in language classrooms, studies reveal that students acknowledged the utility of AI tools such as chatbots and Plot generator in enhancing language acquisition. These tools assist them with grammar, facilitate idea generation, and improve communication in the target language (Bailey et al., 2021; Sumakul et al., 2022). Aiming to investigate the application of AI chatbots for teaching a foreign language, Nghi et al. (2019) conducted empirical research by sampling 200 students and dividing them into experimental and control groups. Students displayed a clear preference for using intelligent aids, stating that "human-to-human dialogues are easier lost than human-to-chatbot dialogues".

Nonetheless, Jeffrey (2020) designed a study to understand college students' perception of artificial intelligence at Campbellsville University. The findings suggest that individuals with a better comprehension of AI concepts and more awareness of current AI advancements tend to hold a strong belief in the positive societal impact of AI and its benefits to personal well-being. Simultaneously, they exhibit increased concerns about rapid AI progress potentially replacing human jobs and surpassing human intelligence.

In the EFL context, Haristiani (2019) in his research aims to identify and examine the various types of chatbot-based intelligence and assess their potential as mediums for language learning. The results indicate that chatbots are highly effective for language learning, serving as both tutors for language practice and standalone learning aids. Language learners are drawn to chatbots due to their accessibility, enabling anytime/anywhere use, and they exhibit increased confidence in their language abilities when utilizing chatbots compared to traditional human tutoring methods.

Likewise, Kim (2016) investigates the effect of voice chat on Korean EFL learners' speaking abilities according to their proficiency level by sampling 181 college students. The study observes significant enhancements in speaking proficiency among participants of all skill levels following engagement in voice chat sessions as they reported more positive perceptions of English language learning upon the sessions. This suggests that voice chat offers EFL learners valuable opportunities for speaking practice, helps reduce negative feelings, fosters positive attitudes toward language learning, and ultimately enhances speaking skills. Kim (2019) also delves into the use of artificial intelligence chatbots to enhance English grammar skills, studies have shown that engaging with chatbots leads to improved proficiency, with a statistically significant difference in improvement observed between the chatbot and human groups, highlighting the superior efficacy of chatbot use. In a position paper, Kasneci et al. (2023) discuss the opportunities and challenges presented by large language models in education, affirming the role of integrating ChatGPT into higher education to cultivate critical thinking and problem-solving skills.

Jiao et al. (2023) evaluate the efficiency of ChatGPT as a translation machine. Their findings indicate that ChatGPT demonstrates comparable performance to commercial translation products like Google Translate for high-resource European languages but exhibits significant limitations for low-resource or distant languages. Aisyi (2023) attempted to gauge EFL students' attitudes toward the use of artificial intelligence in academic writing through semi-structured interviews with a sample of ten EFL students. The findings reveal that while most students reported a positive impact of Artificial Intelligence on their English Academic Writing skills, some encountered challenges such as laziness, dependency, lack of creativity, and issues with plagiarism.

1.6 AI in Higher Education

The origins of AI in higher education can be historically traced back to the 1960s, with the development and implementation of early computer-assisted instruction (CAI) systems at universities. Since then, AI has played an increasingly significant role as institutions have sought to integrate technology into their curricula and operations. This integration has been particularly noteworthy during the global COVID-19 pandemic, where educational institutions worldwide have increasingly turned to both synchronous and asynchronous AI-driven courses as a means of adapting to the challenges of remote learning environments (Zhang, 2023).

The integration of AI in education, as noted by Jarrah et al. (2023), has expanded horizons by breaking down physical barriers and offering online access to learning resources. AI's role in education extends beyond traditional technological applications, encompassing content creation, teaching methods, student evaluation, and teacher-student communication. This broadening scope is made feasible through various platforms and tools, such as interactive learning environments (ILEs), intelligent tutoring systems (ITS), adaptive learning systems, and emerging technologies like virtual reality (VR) and 3D simulations. Furthermore, Baskara (2023) emphasizes that AI enables the creation of immersive learning activities like simulations and games, prompting students to engage critically and apply their knowledge practically. These experiences facilitate the development of advanced cognitive abilities such as analysis, synthesis, and evaluation by replicating real-world scenarios within virtual environments.

Moreover, integrating AI in education empowers computer systems to emulate human-like capabilities such as learning, adapting, and processing complex data. A prominent illustration of AI is the GPT-3 system, which is capable of generating text autonomously or with minimal human input. AI technologies, including text summarization, real-time captioning, machine translation, and libraries of idiomatic expressions, enrich educational accessibility and inclusivity by enhancing language comprehension and communication. Nevertheless, educators in higher education must grasp AI's nuances, differentiating its supportive functions from its potential for facilitating academic dishonesty. While AI advancements are significant, the indispensability of human qualities like problem-solving, critical thinking, and inquiry remains paramount. Thus, educators must actively engage in scholarly discourse surrounding AI's integration into higher education to steer future initiatives effectively (Baskara, 2023).

Despite its potential advantages in instruction and assessment when utilized within established frameworks, the absence of defined policies in most educational institutions poses

significant challenges for AI implementation. For instance, tools like ChatGPT hold promise in enhancing accuracy and productivity while providing students with additional avenues to demonstrate their skills. However, ensuring the equitable application of AI to prevent any form of bias is imperative. Consequently, the utilization of AI in educational contexts presents both potential benefits and drawbacks, as highlighted by recent studies (Jarrah et al., 2023).

1.6.1 Benefits of AI

In recent years, the integration of AI into education has emerged as a transformative force. The undeniable leap of AI across various fields, especially in education, has compelled educators to shed light on the numerous advantages AI provides as it continues to make significant strides in the educational sphere.

One of the major benefits of AI in education is its ability to personalize the learning experience by offering tailored instructions and services to meet students' requirements (Zhang, 2023). For instance, ChatGPT can offer customized educational assistance to students by adapting its responses to address their individual needs, queries, or uncertainties. Serving as a virtual tutor, it furnishes explanations, instances, and elucidations on intricate subjects or ideas. This personalized aid helps students surmount learning obstacles and foster a deeper comprehension of their studies, thereby enhancing academic achievements (Koos&Wachsmann, 2023).

Another significant advantage of AI generators, particularly for EFL students, is offering support and feedback on their writing. Tools like ChatGPT empower students to brainstorm and refine their work effectively. Additionally, they serve as valuable research aids, assisting in idea generation, information synthesis, and summarization of large text datasets. This functionality is instrumental in aiding researchers in data analysis and composing their written work (Chan & Hu, 2023).

Furthermore, AI helps educators analyze students' performance by generating personalized learning routes that adjust to the individual needs and preferences of each student. This is achieved through the utilization of algorithms and machine learning techniques to analyze data on students' performance (Baskara, 2023). Moreover, AI technologies such as ChatGPT have the capability to foster collaboration and teamwork among students, offering them increased opportunities to learn through experimentation and hands-on experience (Mhlanga, 2023). These tools can establish immersive and interactive learning environments where students can collaborate and gather insights from one another. Such an approach brings

up a sense of community and belonging in the classroom, facilitating the growth of personal connections between students and teachers (Baskara, 2023).

Finally, AI tools like ChatGPT can provide educational support by constructing teaching methods (Mhlanga, 2023) and serving as a foundational resource for crafting course syllabi, developing teaching materials, and designing assessment tasks (Lo, 2023). AI can also provide recommendations for books, websites, and educational resources tailored to students' interests and needs, as well as study guides and lecture notes to enhance students' understanding of the material (Cotton et al., 2023).

In conclusion, the integration of AI technology into education represents a paradigm shift with a multitude of advantages for learning outcomes. By personalizing learning experiences, facilitating administrative tasks for educators, and enhancing foreign language students' overall writing skills, AI has proved to possess the potential to revolutionize education.

1.6.2 Drawbacks of AI

Higher education faculty often voice their primary concern regarding the impact of AI on student learning. Numerous scholars have casually acknowledged apprehensions about students potentially exploiting AI tools for plagiarism in assignments or for the improper use of AI in handling research data (Crawford et al., 2023). This concern is underscored by evidence showing that students utilizing ChatGPT are more prone to plagiarism compared to those who don't use it, thereby compromising academic integrity and the fundamental purpose of assessments, which is to fairly evaluate student learning (Lo, 2023).

The opaque nature of ChatGPT's text generation process further exacerbates these concerns, particularly in academic writing where proper citation is essential (Koos & Wachsmann, 2023). Since ChatGPT draws from existing data to generate responses, there's a risk of unintentionally incorporating copied content from published sources, leading to serious academic misconduct and potential disciplinary actions from the school (Hung & Chen, 2023).

Moreover, several recent articles have highlighted the challenges and concerns of the public regarding the use of AI in education, particularly focusing on the issue of detecting the authenticity and originality of student work (Zhang, 2023). The lack of transparency regarding the sources used to train ChatGPT raises concerns about the originality and authenticity of academic work. This lack of clarity also challenges educational institutions' ability to uphold

academic standards and effectively detect potential instances of plagiarism (Koos & Wachsmann, 2023).

Another aspect that raises concern is that ChatGPT, being essentially a text-generating machine, lacks the ability to comprehend the information it produces or assess its accuracy and relevance (Mhlanga, 2023). While ChatGPT is highly capable, it is important to acknowledge that there can be instances where it might provide inaccurate or incomplete information. This could be due to its training on large datasets, which may contain outdated or incorrect data. As a result, users should exercise caution and cross-reference information when relying on the AI tool for research or academic purposes (Koos & Wachsmann, 2023).

Furthermore, ChatGPT has the potential to produce fabricated information, which poses a significant challenge for students who depend on the system for their learning (Lo, 2023). Koos and Wachsmann (2023) find that ChatGPT can produce content that appears credible but is entirely fabricated, a phenomenon known as "hallucination." Due to the absence of a built-in fact-checking mechanism, the AI system may generate material relying on non-existent or inaccurate sources. When prompted to locate references for their drafts, students predominantly received hallucinated references, including fabricated authors and conference papers from fictitious events. Students utilizing ChatGPT for academic purposes should exercise caution and independently verify any information sourced from the AI system.

1.6.3 Integrating AI in EFL Learning

Viewed from a pedagogical angle, the integration of AI tools offers a pathway to enhance the quality of EFL education. Advanced chatbots and virtual learning tutors enhance feedback mechanisms, fostering interactive discussions and assisting learners in refining their grammar skills. Moreover, the utilization of AI in EFL education yields multiple benefits, including the delivery of personalized learning experiences tailored to individual learners' needs (Alghamdy, 2023). According to Koos and Wachsmann (2023), integrating AI tools like ChatGPT into classroom instruction not only assists students in developing essential skills to responsibly and effectively utilize these technologies but also aligns with their increasing importance across various professional domains.

In a heterogeneous EFL classroom characterized by diverse language backgrounds, proficiency levels, and learning preferences, traditional teaching methods may struggle to accommodate the unique requirements of non-native English speakers. However, AI's adaptive capabilities enable it to tailor content to address each learner's specific needs, thereby creating

a supportive and engaging learning environment (Iftanti et al., 2023). Additionally, students can benefit from engaging in written or spoken dialogues with AI chatbots, and receiving immediate feedback on language usage, pronunciation, and comprehension. These interactions provide a low-pressure environment for students to practice and enhance their language skills. Furthermore, AI tools like ChatGPT can support teachers by offering supplementary resources, addressing common language queries, and facilitating language activities, thus alleviating their administrative burden and enabling them to focus on delivering personalized instruction and support (Amine, 2023).

Despite the growing adoption of AI in EFL education and its associated advantages, stakeholders express concerns regarding ethical implications and other challenges. While AI-driven learning programs offer promising opportunities, they also pose risks to fundamental aspects of the learning process, such as human interactions and critical thinking (Alghamdy, 2023).

1.7 AI and Academic Achievements

Students' academic achievement serves as the focal point of the entire education system, determining the success or failure of educational institutions (Narad& Abdullah, 2016). As AI integration becomes increasingly prevalent in higher education, researchers must investigate the influence of AI technology on students' academic achievements.

According to Steinmayr et al. (2014), academic achievement signifies the performance outcomes that reflect the degree to which an individual has attained specific goals targeted within instructional environments, particularly in educational settings such as schools, colleges, and universities. As denoted by Zheng and Mustappha (2022), "academic" typically indicates the outcomes of school-related activities, such as test scores or grades. Conversely, when "achievement" is utilized as a noun, it often pertains to the results attained in one's career or professional endeavors. Academic achievement is gauged by standardized assessments like the SAT (Scholastic Assessment Test) or the GPA (grade point average) (Steinmayr et al., 2014), which evaluate a student's academic performance over a specific period, typically a semester (Abbas et al., 2024), and plays a pivotal role in determining a student's educational trajectory. These metrics often dictate whether a student can pursue further education, such as attending a university. Consequently, academic achievement not only shapes access to higher education but also influences one's career prospects based on the educational degrees obtained (Steinmayr et al., 2014).

In their study, Shehri et al. (2023) examined the direct correlation between ChatGPT usage and students' academic performance. The findings indicate a positive relationship between the utilization of ChatGPT and students' academic achievements, influencing aspects such as learning, work quality, and creativity. Similarly, research conducted by Caratiquit and Caratiquit (2023) on 178 students illustrates that utilizing ChatGPT leads to improved academic performance by enhancing learning motivation. When ChatGPT is utilized responsibly and ethically, it serves as a vital tool in promoting positive educational outcomes and supporting academic success by strengthening students' motivation to participate actively in learning.

In the same vein, Peras et al. (2023) conducted a research study involving first to fourth-year Bachelor of Physical Education students, which underscores the significance of AI integration in enhancing academic performance. Their findings emphasize that incorporating AI technologies into educational environments can have a positive influence on students' learning outcomes, indicating a noteworthy correlation between AI involvement and academic achievement. In contrast, Abbas et al. (2024) examined the impact of ChatGPT on academic performance among university students. Their findings reveal that high academic workload and time constraints led to heightened usage of ChatGPT. However, excessive reliance on ChatGPT was associated with adverse effects on students' personal and academic outcomes. Consequently, students who heavily depend on ChatGPT may ultimately exhibit low academic achievement.

As the nature of AI is rapidly evolving, researchers should conduct studies that delve deeper into the relationship between the use of this technology and students' academic achievement and investigate other variables that might affect this relationship.

1.8 Conclusion

Undoubtedly, the field of education has undergone a profound transformation in the age of AI. Therefore, integrating AI into higher education, particularly in EFL learning, is imperative. However, it is crucial to recognize that along with great potential comes great responsibility. AI offers significant benefits for education, yet it also carries inherent drawbacks that can jeopardize academic integrity if not used ethically and responsibly.

This chapter provided a general background on AI and GAI, such as ChatGPT, while also delving into the intersection of AI and academic integrity. It explored concepts like plagiarism, aigiarism, and students' perceptions of both plagiarism and AI. Additionally, the chapter discussed the role of AI in education and its potential impact on students' academic achievements.

CHAPTER TWO

RESEARCH METHODS AND PROCEDURES

2.1. Introduction

After covering the theoretical section, the investigation moves toward the practical part. This chapter delves into the specific methodology employed in this research, highlighting the research design, population, data collection methods, and procedures used to analyze the data. This study aims to examine the relationship between students' attitudes toward plagiarism and their academic achievements.

2.2. Research Design

This study employed a sequential explanatory mixed-methods design, combining both quantitative and qualitative data to thoroughly investigate the relationship between students' attitudes toward plagiarism and their academic achievement. The research is conducted in two distinct phases.

The first phase focuses on quantitative data collection, where a questionnaire is administered to Master Two students of didactics at the University of Moulay Tahar – SAIDA - to measure their attitudes toward plagiarism. This phase also includes a correlational study to determine the relationship between these attitudes and students' academic achievement. After the quantitative data has been gathered and analyzed, the study advances to the next phase, which involves gathering qualitative data. In this phase, interviews are conducted with students to uncover the reasons behind the relationship identified in the first phase, delving deeper into the factors influencing their attitudes toward AI plagiarism and how these attitudes affect their academic performance. This approach offers a thorough analysis of the correlation between students' attitudes toward plagiarism and their learning outcomes.

2.3. Population

The participants of this study are Master 2 students of didactics at Dr. Moulay Tahar SAIDA University within the Department of English Language. This population was selected due to their advanced level of study, which ensures they have a substantial understanding of both academic integrity and the use of AI tools in their academic work. A random sampling technique was employed during the data-gathering procedures to enhance the generalizability of the findings, contributing to the study's validity and reliability, and providing a solid foundation for understanding the relationship between students' attitudes toward plagiarism and their academic achievements. All participants voluntarily agreed to participate in the study,

ensuring that ethical standards were maintained. This voluntary participation is crucial in obtaining honest and reflective responses, particularly given the sensitive nature of the topic.

2.4. Data Collection

To address the research questions of this study, a questionnaire was administered to gather data on the attitudes of EFL Master Two students in didactics at the University of Moulay Tahar SAIDA toward plagiarism. Additionally, a correlation study was conducted to assess whether there is a relationship between students' attitudes and their academic achievement. After analyzing the quantitative data, interviews were conducted as a qualitative instrument to explore the reasons behind the relationship identified in the first phase.

2.4.1 Quantitative Data

2.4.1.1 Students' Questionnaire

The questionnaire serves as a quantitative instrument to measure students' attitudes towards the use of AI tools in academic settings, particularly focusing on plagiarism. The questionnaire was designed following the Technology Acceptance Model (TAM) and was delivered to 34 students of didactics during the first semester, providing a sample size for the study. It uses predominantly closed-ended and Likert scale questions to quantify students' attitudes and behaviors regarding AI tools and plagiarism. The Likert scale questions range from 1 (strongly disagree) to 5 (strongly agree) to capture the intensity of students' attitudes. The questionnaire is divided into four sections: Demographics, Awareness and Use, Attitudes toward Using ChatGPT and Chatbots in Addressing Plagiarism, and Intention and User Behavior.

The Demographics section collects basic information such as age and gender. The Awareness and Use section assesses participants' familiarity with and frequency of AI model usage like ChatGPT. In the Attitudes section, students rate their agreement with statements about the ethical implications and perceived morality of using AI tools in academic work on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Finally, the Intention and User Behavior section explores students' future intentions to integrate AI tools into their academic workflows.

This quantitative instrument is designed to systematically measure students' attitudes toward the use of AI tools in academic settings, focusing on ethical considerations surrounding

plagiarism. By following the TAM model, the questionnaire aims to understand how students perceive the usefulness and ease of use of these technologies, which can inform educational strategies and policies regarding AI tools in academia.

2.4.1.2 Correlation Study

A correlation study is a research method that helps define the nature of the relationship between two variables and measure the extent of their connection. The basic concept is to identify whether variations in one factor are related to variations in another. This does not mean there is a cause-and-effect relationship between the two variables; it only means that the two are related in some way. In this research, the correlation study aims to examine the relationship between students' attitudes toward plagiarism and their academic achievement.

Using the correlation coefficient ranging from -1 to +1, it is possible to provide an objective conclusion about the connection between students' attitudes toward plagiarism and their academic achievement. A positive correlation coefficient implies that as students' favorable attitudes toward plagiarism increase, their academic performance tends to improve. Conversely, a negative correlation coefficient indicates that as students' favorable attitudes toward plagiarism increase, their academic performance declines. However, when the value of the correlation coefficient is close to 0, it indicates that there is no linear correlation between the two variables.

For this purpose, the data collection consists of students' attitudes gathered using the questionnaire and their academic achievement corresponding to the averages obtained in the first semester of 2024, which were retrieved from the English language department. By calculating the coefficient of correlation, the results help to understand the kind of relationship present between the variables. A positive or negative correlation represents a strong relationship, while a low correlation denotes a weak relationship.

2.4.2. Qualitative Data

2.4.2.1 Students' Interview

As a tool for collecting and analyzing qualitative data, the interview aims at identifying and outlining the relationship between students' attitudes toward plagiarism and their academic achievements. This interview seeks to gather detailed insights and personal experiences from students about their use of AI tools in their academic workflows. The primary goal is to identify

the possible factors that might affect this relationship and to investigate the rationale, attitudes, concerns, and expected effects of using AI tools in students' academic processes.

The semi-structured interview focuses on eight open-ended questions concerning particular aspects of students' experiences and attitudes toward AI technologies. The questions encourage elaborate answers and personal observations that help provide a thorough insight into participants' views. Some of the issues include why students prefer to use AI tools rather than internet browsers, the capability of handling the use of AI responsibly, the concern arising from the misuse of AI tools, the pressure that students experience from using AI tools, the ease of cheating using AI as opposed to traditional means, and the effect of AI on learning as well as their performance. The last question invites students to reflect on the overall relationship between their use of AI tools and their academic success.

The interview was conducted face-to-face with 12 students at Moulay Taher University in SAIDA. On average, all the interview sessions lasted for approximately 30 to 40 minutes. All answers were recorded with the consent of the students to ensure accuracy before analysis. Special emphasis was placed on anonymous participation to ensure participants were comfortable with their opinions and responses.

To ensure reliability, the interview questions were generalized and equally administered to all participants. To further maintain reliability, the responses given by the students were recorded, and a systematic method of analyzing the data was followed, involving transcribing and coding the results impartially to minimize biases and errors. Validity was ensured by ensuring the questions captured all various aspects of students' attitudes and experiences, were well-worded, relevant, and reflective of the study's objectives. This helped gather credible, honest responses, enhancing the validity of the data collected.

2.5. Data Analysis Methods

Data collection is a vital component of research, but it is only a small part of the overall process of data analysis. The data collected has to be organized, analyzed, and summarized by the researcher. As the research instruments were devised to facilitate both quantitative and qualitative data, data analysis in this study can be broadly classified under these two categories.

The data collected from the questionnaire is analyzed using statistical treatment, with both descriptive and inferential statistics applied to measure Master Two students' attitudes regarding AI plagiarism. Descriptive statistics include frequencies, percentages, means, and

standard deviations, while inferential statistics include correlation analysis using Pearson's correlation coefficient to measure the strength and direction of the linear relationship between students' attitudes and their academic success. After analyzing and interpreting the quantitative data, the qualitative data from the interviews is analyzed using thematic analysis to identify common themes and patterns in students' responses, offering a deeper understanding of the relationship between the aforementioned variables and uncovering possible factors that may influence this correlation.

2.6. Limitations

It is crucial to acknowledge the limitations encountered during the study, as they are strong determinants of the research results and conclusions. One such limitation is the sample size; having a small group of participants limits the study's power to find correlations among the data. It is important to note that the sample size should have been increased to obtain results that are more accurate. Additionally, there is a limitation due to the lack of previous studies in the research area. The lack of literature may compromise the foundation of the study and reduce the scope and depth of the discussions. By identifying these limitations and describing how they affected the research findings, the comprehensibility and generalizability of the results are improved, thus increasing the overall reliability and validity of the research.

2.7. Conclusion

This chapter outlined the methodology and procedures used to investigate the relationship between students' attitudes toward plagiarism and their academic achievements. The study used a sequential explanatory mixed-methods approach, where quantitative data was collected using a questionnaire followed by correlation analysis among Master 2 students of the University of Moulay Tahar SAIDA, while qualitative data was obtained from interviews. This section laid the foundation for understanding the intricate correlation between these two variables, setting the stage for the analysis and discussion in the next chapter.

CHAPTER THREE
DATA ANALYSIS AND DISCUSSION

3.1 Introduction

This chapter forms the final part of the research process by providing the analysis and discussion of the findings. It examines the relationship between students' attitudes toward aigiarism and their academic performance using questionnaire, correlation study, and interviews. The aim is to present the findings in a clear and concise manner by eliciting the correlation between the attitudes of students and their academic outcomes along with the factors that influence this relationship.

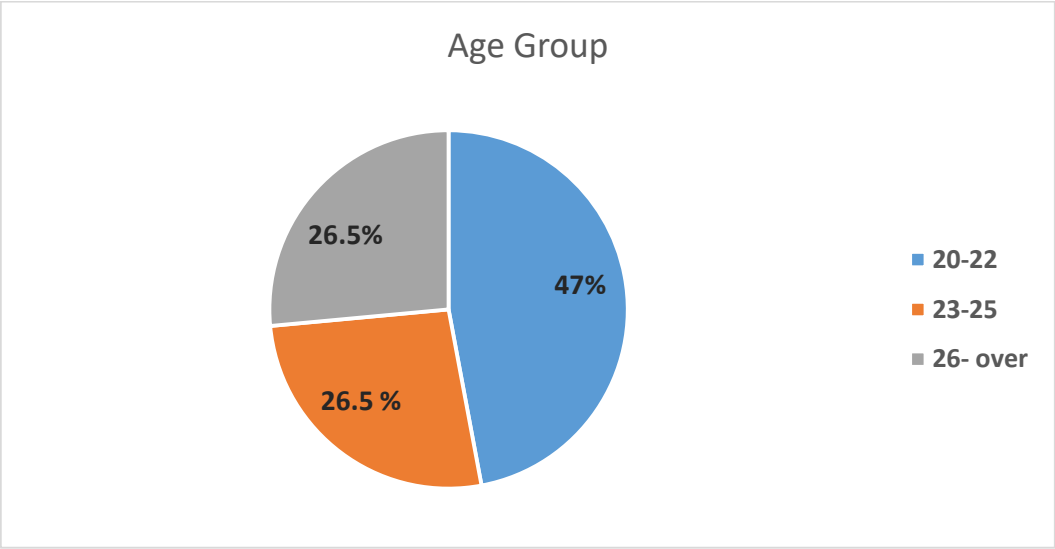
3.2 Students' Questionnaire

3.2.1 Section 01 : Demographics

3.2.1.1 Students' Age

Figure 3.1

Students' Age

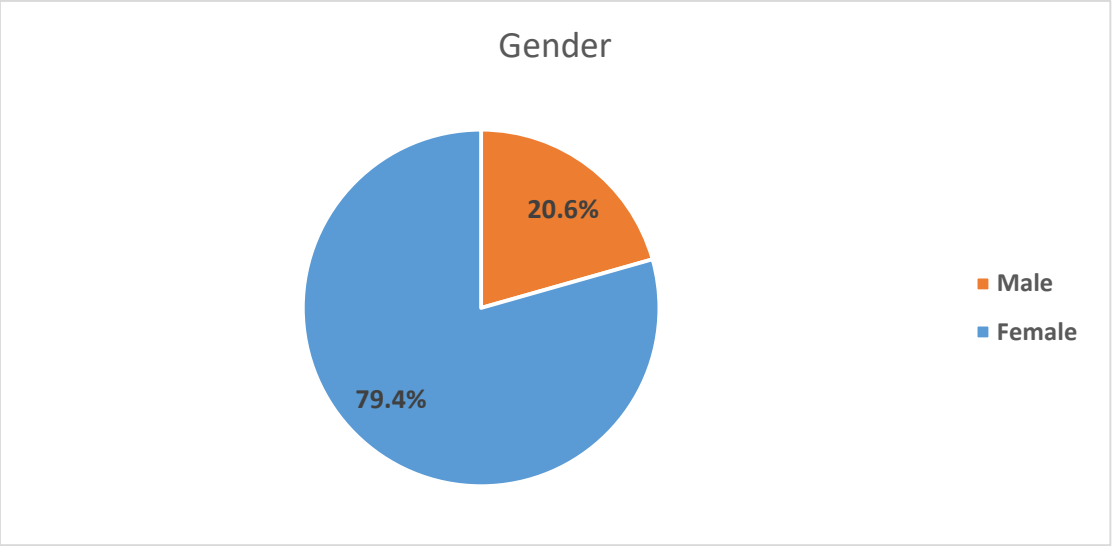


The pie chart above demonstrates the different age group of participants. The majority of respondents (47%) fall within the age group 20- 22 years, followed by equal representation (26.5%) each in the 23-25 years and 26 and over groups. This indicates the participants have broad range of ages.

3.2.1.2 Gender

Figure 3.2

Students' gender



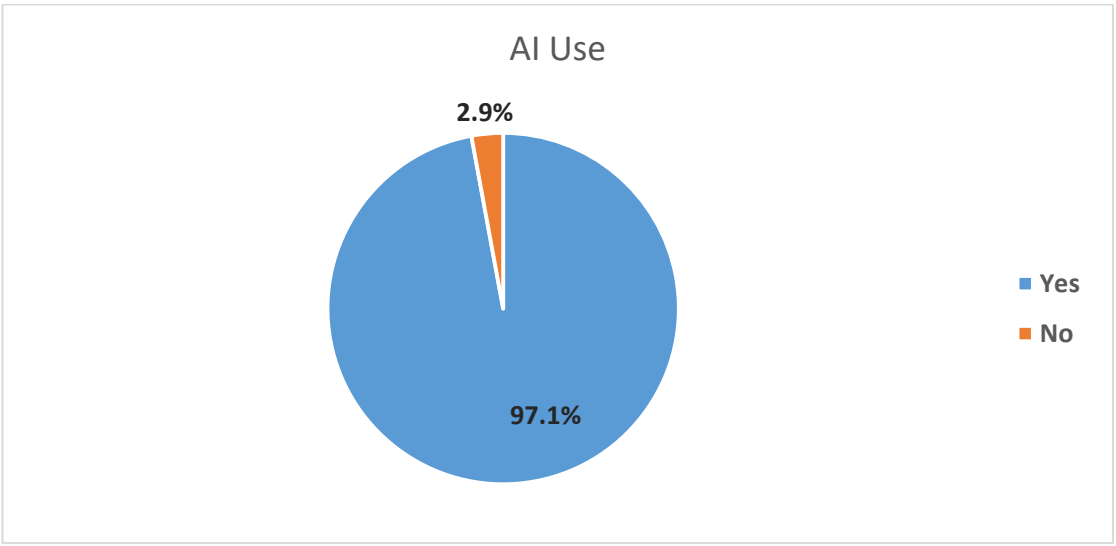
The pie chart illustrates the gender distribution of participants. The results reveals that the majority of informants 79.4% representing 27 students are female, while males account for 20.6%. This implies a higher female participation rate in this research.

3.2.2 Section 02: Awareness and Use

3.2.2.1 Have You Ever Used Ai Models to Facilitate Your Assignment or Research Writing?

Figure 3.3

AI use for assignment and research



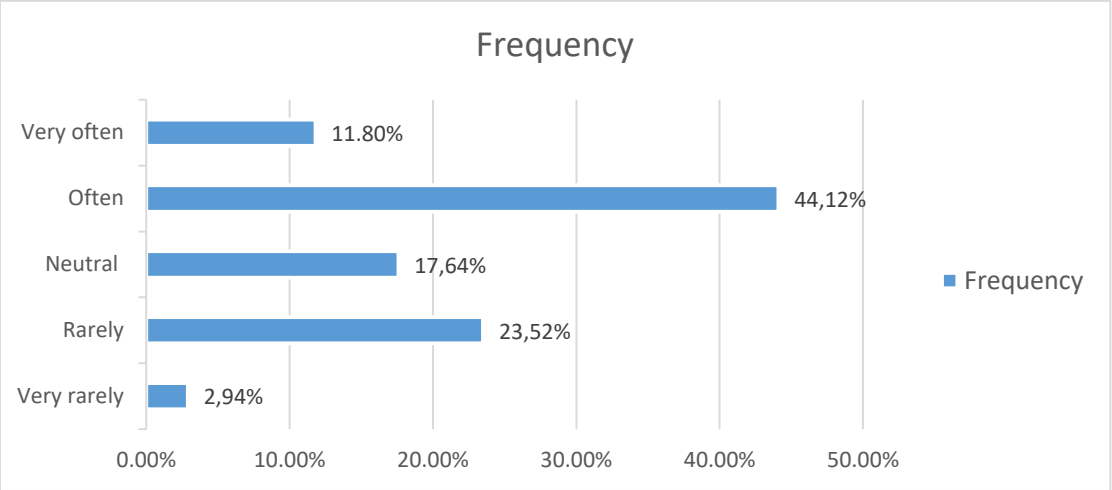
The chart shows the usage of AI models among participants. A vast majority 97.1% have used AI for their assignments and research, whereas only 2.9% have never used these tools

before. The results indicate that students have high awareness and adoption of AI technologies in their academic settings.

3.2.2.2 How Often Do You Use ChatGPT or Chatbots for Your Research?

Figure 3.4

Frequency of using ChatGPT and Chatbot

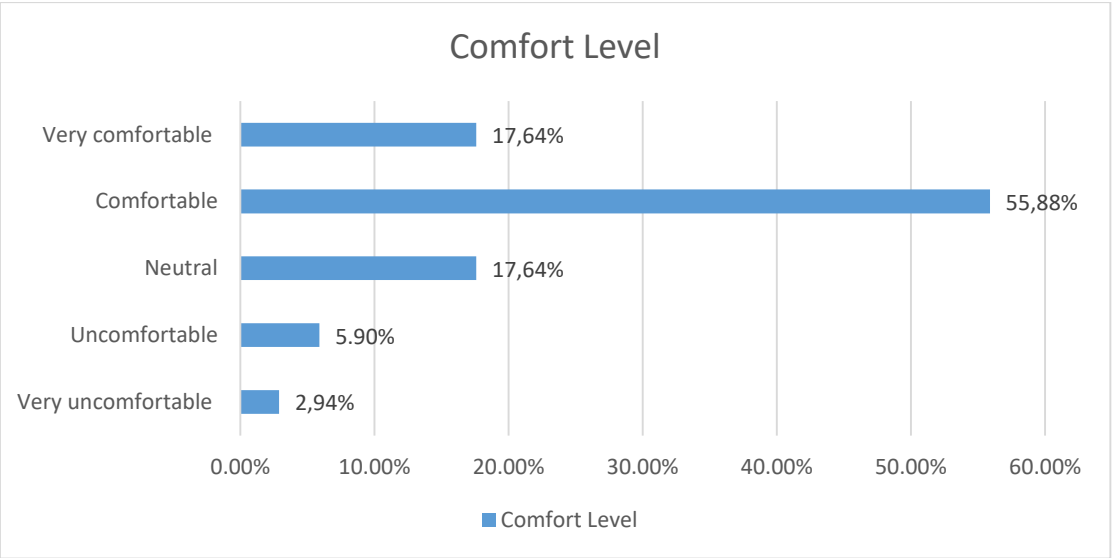


The graphic above illustrates the frequency of ChatGPT and chatbot usage for research purposes. A substantial portion of respondents 44.12% use AI tools often and 11.80% use them very often, indicating strong engagement in incorporating AI into their research activities. About 23.52% use these tools rarely, while 17.64% are neutral, suggesting uncertainty about their usage. A small segment of 2.94% uses these tools very rarely, reflecting minimal resistance.

3.2.2.3 How Comfortable Do You Feel Using AI Generated Tools?

Figure 3.5

Students' comfort level of using AI tools

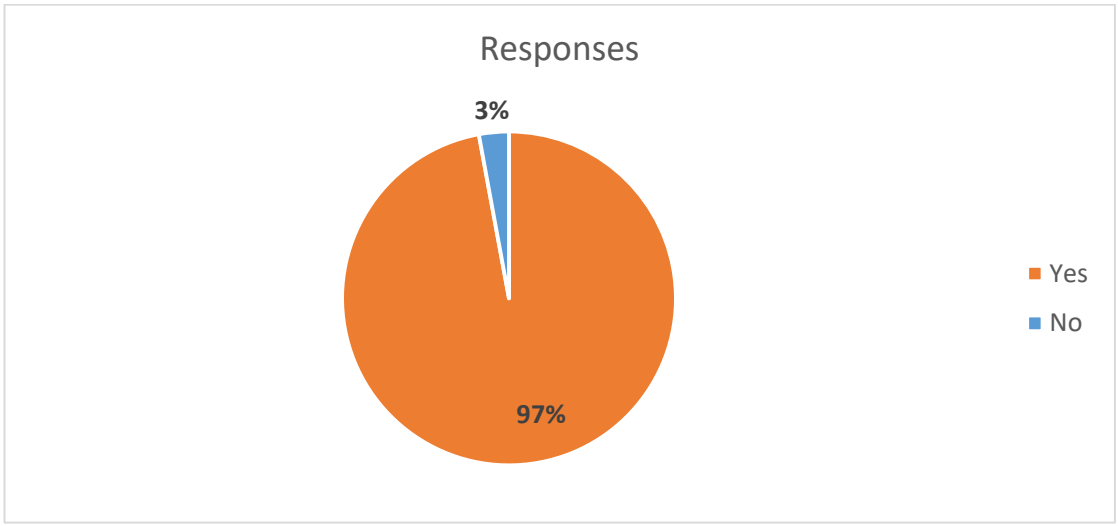


The graphic above depicts students' comfort levels with using AI-generated tools. Most students feel comfortable 55.88% or very comfortable 17.64%. Neutral responses account for 17.64%, while a small minority feel uncomfortable 5.9% or very uncomfortable 2.9%. This reflects a generally positive perception towards AI tools.

3.2.2.4 Do You Think Using AI Tools Like ChatGPT Improves the Quality of Your Work?

Figure 3.6

AI tools as a mean to enhance work quality

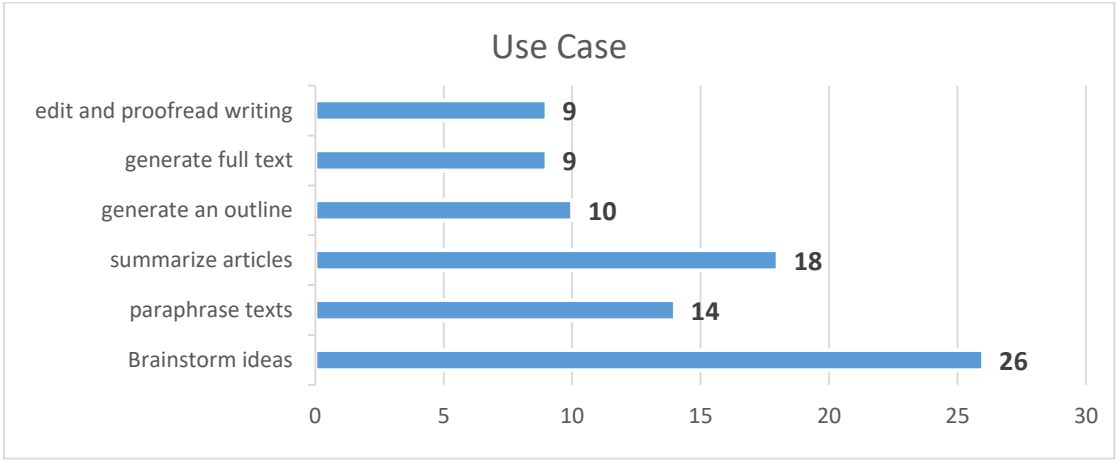


The pie chart above shows students' opinions on the impact of AI tools on their work quality. The majority of respondents 97.1% believe that AI tools enhance their work quality, while only 2.9% disagree. These results indicate that students have great confidence in the benefits of AI tools.

3.2.2.5 How Do You Typically Use AI Tools?

Figure 3.7

AI tool use



The graph shows the distribution of the use of the AI tools by the participants. The most common purpose of the AI tools is for generating ideas (26 responses), summarizing articles (18 responses), and paraphrasing (14 responses). Others include; coming up with outlines (10 responses), coming up with full text (9 responses) and editing/proof reading of written work (9 responses). This variation in application assert the versatility of AI tools in accomplishing academic work.

3.2.3 Section 03: Attitudes toward Using Aigiarism

3.2.3.1 Using ChatGPT Without Proper Citation Is a Form of Plagiarism

Table 3.1

Using ChatGPT without citation is plagiarism

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	5	1	6	16	6	3.50	1.24
%	14.7%	2.9%	17.7%	47.0%	17.7%		

The table shows a general agreement with the statement that using ChatGPT without proper citation constitutes plagiarism. The majority of respondents 47.0% agreed, while a significant portion 16.7% strongly agreed. Only a small fraction strongly disagreed 13.9% or disagreed 2.8%. With a mean of 3.50 and a standard deviation of 1.24, the results indicate a negative attitude towards using ChatGPT without proper citation.

3.2.3.2 Using AI to Complete Assignments Constitutes Cheating

Table 3.2

Using AI to complete assignments is cheating

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	5	7	8	10	4	3.03	1.25
%	14.7%	20.6%	23.5%	29.4%	11.8%		

The table illustrate divided viewpoints on whether using AI to complete assignments constitutes cheating. While 29.4% agreed and 11.8% strongly agreed that it is cheating, a notable portion disagreed 20.6% or strongly disagreed 14.7%, and 23.5% remain neutral. The mean response is 3.03 with a standard deviation of 1.25 reflecting varying attitudes among respondents.

3.2.3.3 The Possibility of Using AI Ethically to Complete Assignments

Table 3.3

AI ethicality to accomplish assignments

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	1	3	9	13	8	3.71	0.99
%	2.9%	8.8%	26.5%	38.2%	23.6%		

The results show there is a tendency to believe that AI can be used ethically to complete assignments. The majority agreed 38.2% or strongly agreed 23.6% with this statement, while a smaller group strongly disagreed 2.9% or disagreed 8.8%, and 26.5% have neutral stance. With a mean of 3.71 and standard deviation of 0.99, there is a positive attitude towards the possibility of using AI ethically to complete assignments.

3.2.3.4 Using AI Tools to Help Complete Assignments Is Morally Wrong

Table 3.4

The morality of using AI for assignments

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	3	7	15	8	1	2.82	0.93
%	8.8%	20.6%	44.1%	23.6%	2.9%		

The table illustrates respondents' moral stance whether using AI tools to complete assignments is morally wrong. A significant number of respondents were neutral 44.1%, while others disagreed 20.6% or strongly disagreed 8.8%. A portion of 23.6% agreed or strongly agreed 2.9% with the statement. The mean is 2.82 with a standard deviation of 0.93 indicate that the respondents have negative attitudes towards the idea that using AI tools to complete assignments is morally wrong, suggesting that most do not view the use of AI as inherently immoral.

3.2.3.5 AI Tools Should Be Permissible in Educational Settings

Table 3.5

The permissibility of AI in education

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	6	2	6	14	6	3.12	1.43
%	17.7%	5.8%	17.7%	41.1%	17.7%		

The findings reveal the permissibility of AI tools in education. A great proportion of participants 41.1% agreed and 17.7% strongly agreed that AI tools should be allowed, whereas 17.7% have neutral attitudes. The other respondents disagree 5.8% or strongly disagree 17.7%. With a mean of 3.12 and a standard deviation of 1.43, the attitudes of participants are slightly positive towards the tolerance of AI in educational settings.

3.2.3.6 Using AI to Paraphrase Texts Is Ethical

Table 3.6.

The ethicality of AI for paraphrasing

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	1	7	5	17	4	3.32	1.05
%	2.9%	20.6%	14.8%	50%	11.7%		

The table above demonstrates that the majority of respondents consider using AI to paraphrase texts as ethical. Half agreed 50% or strongly agreed 11.7%, while fewer disagreed 20.6% or were neutral 14.8%, and only 2.9% strongly disagreed. With a mean of 3.32 and a standard deviation of 1.05, the attitudes towards using AI to paraphrase texts are positive indicating acceptance of AI-assisted paraphrasing as a legitimate practice.

3.2.3.7 AI-Generated Ideas Supplemented by Own Ideas is Not Plagiarism

Table 3.7

AI-generated ideas supplemented by own ideas is not plagiarism

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	1	4	6	14	9	3.65	1.11
%	2.9%	11.8%	17.7%	41.1%	26.5%		

The results show a significant agreement with the idea that AI-generated ideas supplemented by personal ideas do not constitute plagiarism. Most respondents agreed 41.1% or strongly agreed 26.5%, while a smaller fraction disagreed 11.8% or strongly disagreed 2.9%, and a portion of 16.7% remained neutral. The mean response is 3.65 with a standard deviation of 1.11 denote a positive attitude towards the idea of supplementing personal ideas with AI-generated ones, implying that AI can be used ethically when integrated with original thought.

3.2.3.8 Using AI to Rephrase One's Own Writing Is Ethical

Table 3.8.

Using AI to rephrase writing is ethical

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	0	3	5	19	7	3.82	0.88
%	0.0%	8.8%	14.8%	55.8%	20.6%		

The results a significant agreement regarding the ethicality of using AI to paraphrase. A majority agreed 55.8% or strongly agreed 20.6%, and no respondents strongly disagreed. Only 8.8% disagreed and 14.8% were neutral. A high mean of 3.82 and a low standard deviation of 0.88 reflect strong positive attitudes towards using AI to rephrase writing, indicating widespread acceptance of this practice.

3.2.3.9 Using ChatGPT Undermines Research Integrity

Table 3.9.

Using ChatGPT undermines research integrity

Category	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	Std. Dev.
N	1	5	12	16	0	3.26	0.80
Percentage	2.9%	14.7%	35.3%	47.1%	0.0%		

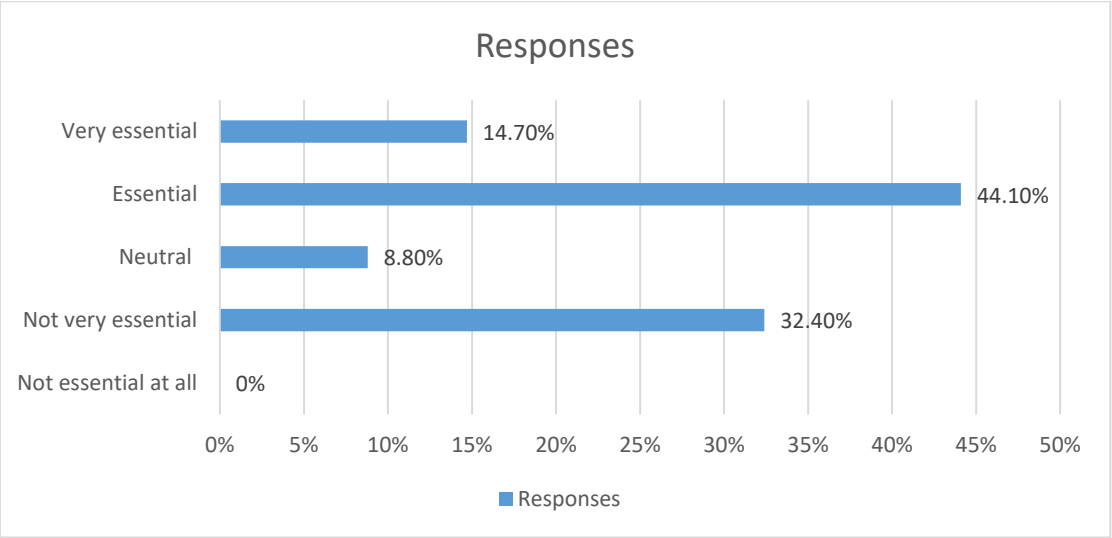
The results reveal the different viewpoints of participants regarding the statement that using ChatGPT undermines research integrity. The majority agreed 47.1% or were neutral 35.3%, while only 14.7% disagreed and 2.9% strongly disagreed. No respondents strongly agreed. The mean score of 3.26 and the standard deviation of 0.80 reflect positive attitudes, indicating a prevalent concern about the potential negative impact of ChatGPT on research integrity.

3.2.4 Section 04: Intention and User Behavior

3.2.4.1 To What Extent Do You Believe AI Technology Will Become Essential in Your Academic Workflow?

Figure 3.8

AI technology as a part of students' academic workflow

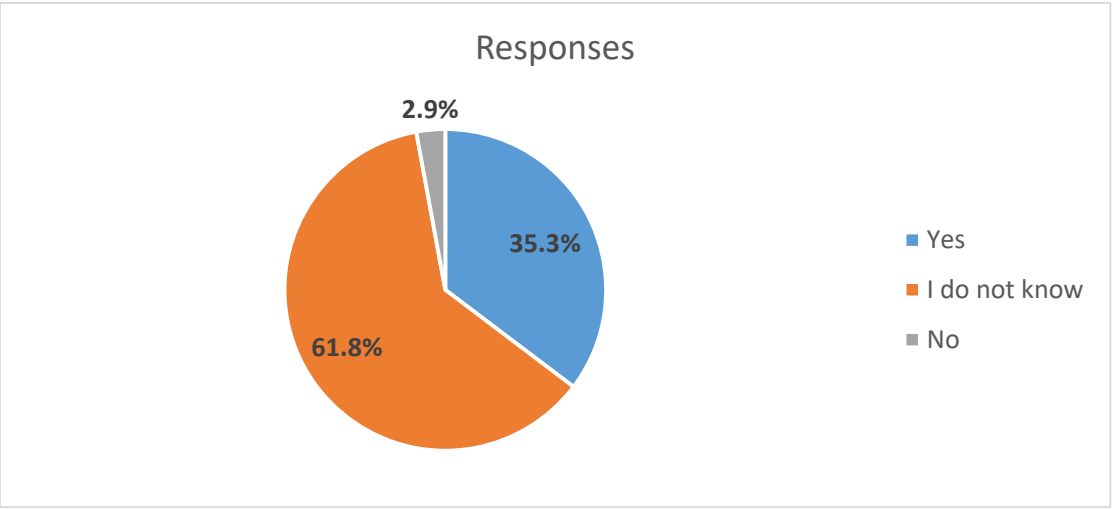


The bar chart demonstrates students' beliefs about the future essentiality of AI technology in their academic workflow. Large portion 44.1% consider it essential, and 14.7% very essential. Neutral responses account for 8.8%, while 32.4% view it as not very essential at all; these findings indicate overall recognition of AI's importance.

3.2.4.2 Do You Predict Using AI Chatbots in Your Educational Needs for The Next 6 Months?

Figure 3.9

Students' AI use prediction

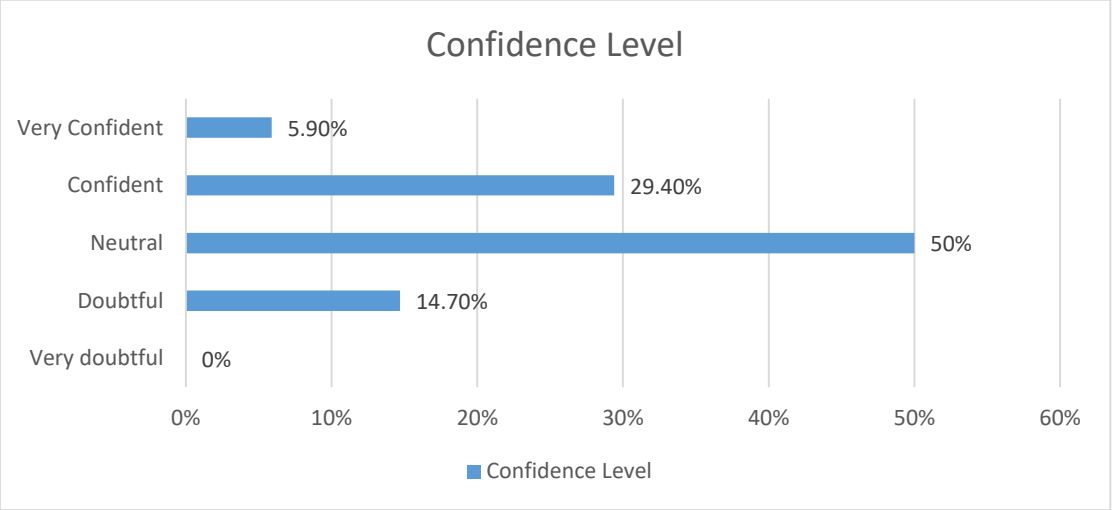


The results above show the participants prediction about AI Chabot usage. Around 35.3% of respondents, plan to use AI Chabot, while 61.8% are uncertain and about 2.9% do not plan to use them. This reflect the majority is uncertain about future AI usage.

3.2.4.3 How Confident Are You in Integrating AI Chatbots into Future Academic Tasks?

Figure 3.10

Students' confidence level for future integration of AI

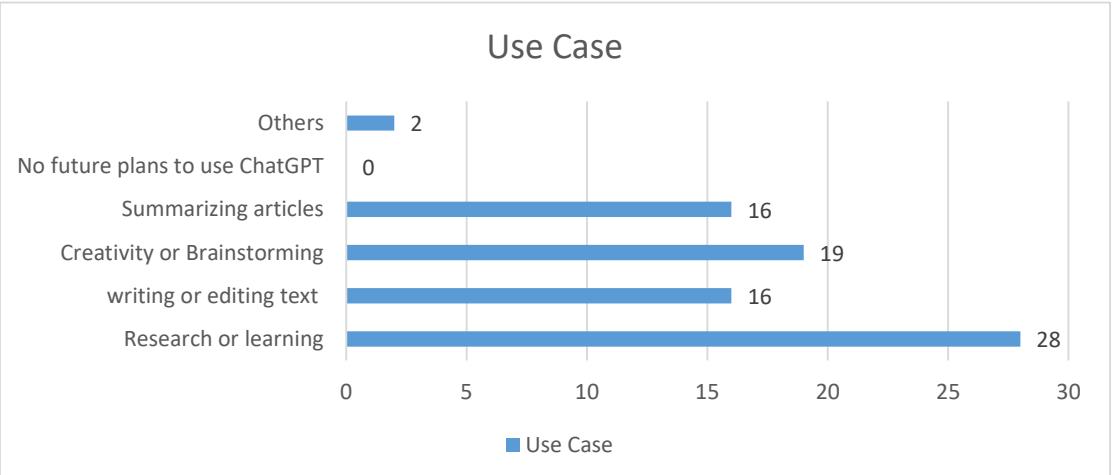


The bar chart above depicts confidence levels in integrating AI Chatbots. 29.4% of participants feel confident and 5.9% very confident. Half of the respondents belong to the neutral category, 14.7% are doubtful, and none is very doubtful, indicating a moderate confidence levels overall.

3.2.4.4 How Do You Plan to Use ChatGPT and Other Chatbots to Support Your Studies?

Figure 3.11

Students' plan for using ChatGPT



The chart above categorizes intended uses of AI tools. Primary uses include research or learning (28 responses), creativity or brainstorming (19 responses), writing or editing text (16 responses), and summarizing articles (16 responses). "Others" category (2 responses) includes searching for book titles and paraphrasing. No respondents indicated having no plans to use ChatGPT. The results reflect a positive outlook towards the integration of AI and Chatbots in educational settings, with students recognizing their potential to enhance various aspects of their academic experience.

3.3 Correlation Analysis

To complete the correlation study, each student's attitude score was calculated according to questionnaire response. The total scores of students' attitudes are then merged with their academic grades to perform the correlation study.

3.3.1 Students' Attitude Scores

Table 3.10

Total attitude scores for students

Attitude Scores	N	%
20-25	06	17.65%
26-30	06	17.65%
31-38	22	64.70%

The majority of students 64.70% have high attitude scores ranging from 31 to 38. Followed by equal representation of 17.65% in the range 26 to 30 and 20 to 25. This indicates that a significant portion of the students have higher attitude scores, suggesting a positive attitude towards aigiarism.

3.3.2 Students' Academic Semi-annual Averages

Table 3.11

Total students' averages

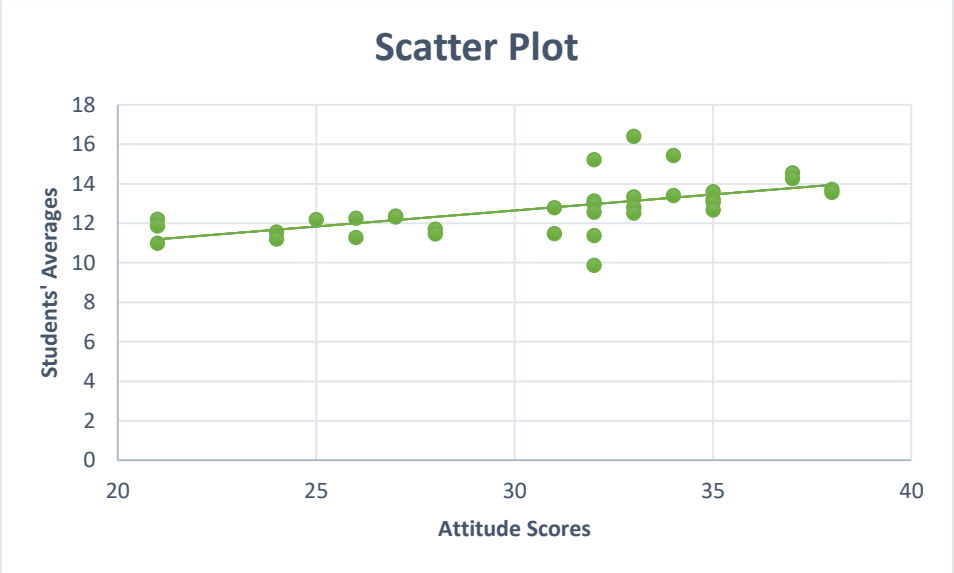
Students' Averages	N	%
0-9	01	2.94%
10-12	20	58.83%
13-16	13	38.23%

Most of the students 58.83% have academic averages in the 10-12 range, with a smaller but substantial portion 38.23% scoring between 13 and 16. Only 2.94% of students have averages below 10, indicating that the majority perform moderately to well academically.

3.3.3 Students' Attitudes in Relation to their Academic Grade

Figure 3.12

Correlation between students' attitudes and their academic averages



The scatter plot above examines the relationship between students' attitudes regarding aigiarism and their academic outcomes. Given the Pearson correlation coefficient of 0.58, the findings indicate a moderate positive relationship between these attitudes and students' academic performance. Most students have high attitude scores and moderate to good academic averages. This implies that students who have higher positive attitudes regarding aigiarism could potentially achieve higher academic performance.

3.4 Students' Interview

3.4.1 Motivation for AI Integration

The primary motivation for integrating AI tools into academic workflows is their significant efficiency and timesaving capabilities. Respondents appreciate the immediate and precise answers AI tools provide, which streamline the research process compared to traditional internet browsing.

"Personally, I feel like it is easier to use and it gives precise answers. It also saves a lot of time comparing to regular internet browser" participant 9.

The ease of use and ability to handle complex information concisely makes AI tools particularly appealing for tasks like thesis writing and brainstorming. Additionally, the adaptability of AI to customize responses based on specific queries enhances its utility.

"Using AI tools is a lot less difficult than using other websites/ information sources since the answer to your question is provided almost immediately (as soon as you press the sending button) so it saves a lot of time, and more often than not the answer tends to be exactly what you're looking for, instead of having to browse through several websites to get what you want" participant 1.

Thus, from the participant's comments the choice of AI is driven by its potential to save time, its ease of use and its customized answers.

3.4.2 Managing AI and Academic Integrity

The respondents express confidence in their ability to use AI tools responsibly and ethically in academic writing and research. They emphasize that AI serves as a supportive tool to enhance their work, rather than replacing their own critical thinking and original ideas. Many respondents highlight practices such as paraphrasing AI-generated content, proofreading, and reformulating sentences to maintain academic integrity.

"Yes, I can. When using AI, I'm just saving time; I'm not aiming to plagiarize at all. Instead of searching for hours, I do use it and get exactly what I need without reading too much and come up with a specific understanding about any given topic. Even when I use it to summarize or paraphrase, I do always proofread the content and change it on my own so that the result belongs to me not to the AI generator. That's why I believe that using AI for academic purposes doesn't always lead to academic misconduct" participant 3.

"Yes, I can manage to use AI properly by paraphrasing the provided information using my own style to avoid plagiarism and other academic misconduct" participant 12.

3.4.3 Concerns about AI Misuse

When students were asked about the potential consequences of AI misuse, the comments were contradictory regarding their answers to the previous question. Whereas previously students showed their confidence that they could use AI properly, in this question, few are unconcerned, trusting their ethical use, however, most of students expressed their fear that they would fall into plagiarism using these tools.

"Even though I use AI technologies and it helps a lot in doing the job, I'm extremely worried when thinking about its consequences since it is totally forbidden to use them for academic

purposes especially in thesis writing which is acceptable to some extent since you cannot produce a thesis that's written by an AI generator however, it shouldn't be totally refused in universities since students do not have the time required to finish writing a thesis, by using AI generators to paraphrase and stuff especially in the first chapter(literature review)that really needs effort it would be helpful to finish earlier and easier" participant 3.

"Yes, it kills creativity and I have a huge fear that I will depend AI in writing which will lead to plagiarism and no one wants to be in w a such position" participant 7.

"For sure, especially sometimes we fail in or commit plagiarism unintentionally" participant 11.

3.4.4 Pressure to Use AI Tools

Most of the responses reveal the pressure to use AI tools for academic tasks. Several students felt pressured due to lack of time, procrastination, and the need for perfection in writing. Some mentioned last-minute work and anxiety about deadlines as significant factors. A few students reported no pressure, emphasizing ethical use and proper acknowledgment of sources.

"Yes, main reasons are the lack of time and procrastination" participant 7.

"Yes, when it comes to accomplishing my academic tasks, I always feel pressured to use AI tools. The main reason that leads me to such pressure is my procrastination, although I always have enough time to finish my work, I do it at the last minute the thing which raises my anxiety about not having enough time to finish it all, therefore, I go for the use of AI tools which turn into the best way that helps in accomplishing my tasks without requiring a lot of time" participant 9.

"Yes, I have felt pressured to use AI tools to accomplish my academic tasks due to the lack of time sometimes or when I failed to produce high quality of work so I use AI" participant 10.

Overall, time constraints, procrastination, and the desire for efficient task completion are the primary reasons behind the pressure to use AI tools.

3.4.5 Plagiarism and AI Tools

The responses show a consensus that AI tools can make plagiarism easier compared to traditional methods. Many students believe that AI's ability to quickly rewrite, paraphrase, and generate precise answers from various sources makes it simpler to commit undetectable plagiarism. Some mention that AI-generated content can be easily altered to evade detection,

making it harder to identify as plagiarism, however, few students note that plagiarism detection software can still identify copied content.

"Well I'm not that professional in using AI tools but I hear from friends that it is much easier to do so with them rather than traditional methods since there is an AI generator that humanize the ChatGPT or any other tool's content which make it harder to detect plagiarism" participant 3.

"Yes, it is easier, most of the students think that it is not plagiarism however in fact it. AI tools take from different sources and give you the right precise answer you need so when a student copies the answer, he copies from different sources easily" participant 7.

"Absolutely yes, I believe that plagiarism using AI tools is easier compared to traditional methods. The reason is that it is difficult to detect this plagiarism despite the development of technology due to the change in the writing style using paraphrasing tools, which are also considered as AI tools" participant 8.

3.4.6 Impact on Learning Experience

When asked if AI tools enhances their learning experience, many students appreciate how AI tools facilitate a deeper understanding of complex subjects by providing well-structured information and offering immediate assistance when needed. Some respondents note improvements in their writing skills, citing AI's assistance with academic writing style and grammar.

"Yes it has, understanding information for me relies heavily on relating it to other constructs that I find easier and more comprehensible, so when searching profoundly about something using AI tools this helps me understand the bigger picture and thus grasp the lesson/ task better, which also counts as brainstorming" participant 1.

"For sure it did. AI generators make the learning experiences more enjoyable. You don't feel bored when reading its articles since they are well structured and when you don't like certain way of writing or you need more or different you can ask for a new one and it happens immediately" participant 3.

"Certainly, I believe that AI has helped me enhance my learning experience because it became very in tune with my requirements as a researcher and provides me with more accurate information compared to traditional learning methods. Besides, I use it as a guide to outline my work" participant 8.

3.4.7 Influence on Academic Achievements

The responses indicate that the use of AI tools has had a multifaceted influence on students' academic achievements. Many students note enhancements in their work, such as improved quality of ideas and writing, better learning and information processing, and the development of writing skills and vocabulary. Additionally, AI tools provide access to diverse perspectives, aid in formalizing work, and save time by streamlining tasks and providing quick access to information.

"It has definitely enhanced my academic achievements, good quality of ideas (which I provide) coupled with decent quality of narrating those ideas (which AI provides) equals better marks" participant 1.

"It improves the writing skills, it enhances the vocabulary repertoire, it gives the opportunity to read different articles and different scholars' views about you issue within seconds" participant 3.

"The use of AI tools has positively impacted my academic achievements. It has made my learning more objective and helped improve my understanding of complex topics. In addition, integrating AI tools has helped me complete routine tasks with less time and effort" participant 8.

"As I stated before, the advantage of using AI tools is enhancing writing which is an essential part of academic achievement" participant 9.

Only one student has mentioned that AI have no influence on their academic achievement, stated that:

"It has not influenced my academic achievement because I don't know how to use it excessively. I only check articles, journals, etc. from the internet. Due to the teachers' warnings and also my lack of trust in its reliability" participant 12.

3.4.8 Perceptions of AI and Academic Achievements

It is evident from the responses that the relationship between students' use of AI tools and their academic achievements is generally viewed as positive and beneficial. Many students appreciate the efficiency and support AI tools provide in their academic endeavors, whether it is accessing information, enhancing productivity, or developing learning materials. Overall, students recognize the value of AI tools in complementing their learning experiences but emphasize the need for responsible and balanced usage.

"AI leads to fast academic success, satisfaction, gaining understanding, and achieving accomplishment so fast" participant 4.

"I would say that the use of AI tools has positively affected my academic achievement as it provided me with a large amount of information, enhanced my ability to analyze data, enriched my vocabulary, and increased the level of my productivity. However, what needs to be emphasized here is that I have benefited from all of these advantages because I always made sure to use AI tools properly, I have been always striking a balance and tried not to overly rely on AI as my critical thinking skills are also essential and need to be present. Otherwise, AI tools could have resulted in more harm than good" participant 9.

"During my learning experience and my use of AI ،it was a really helpful and supportive tool to enhance my learning, doing my presentation and projects and develop my academic achievement in general" participant 11.

3.5 General Discussion

The findings of this chapter elucidate students' attitudes regarding aigiarism. The results showed students' attitudes about cheating and how these opinions are related to their academic achievement. In addition, the results shed light on the factors affecting this relationship

Starting with the questionnaire, the responses revealed that students have high awareness and frequent use of AI tools like ChatGPT for assignments and research, demonstrating a strong engagement with these technologies. The majority felt comfortable using AI tools and believed that these tools improve the quality of their work, reflecting generally positive attitudes towards AI.

However, attitudes towards the ethicality and permissibility of AI use varied, with significant portions agreeing that using AI without proper citation is plagiarism and that AI can be used ethically if integrated with original thought. These findings suggest a nuanced understanding among students about the benefits and ethical considerations of AI use in academia. Although students have some knowledge about aigiarism when they were asked if using AI to complete assignment is morally wrong, students reveal negative attitude toward this statement. Likewise, students have positive tolerance of AI integration in education, emphasizing on the fact that using AI to paraphrase text is acceptable. Thus, when students are asked directly about the use of AI generated content for assignments, they perceived it as a serious academic misconduct. However, for more nuanced scenarios including supplementing their ideas with AI-generated ones or using Ai to elevate their work quality, students demonstrate favorable attitudes.

Additionally, the majority agreed on the last statement whether using ChatGPT would undermine the research integrity.

In general, these finding indicate that students have diverse understanding of what constitute aigiarism and the ethical consideration of using AI. In fact, when scrutinizing students' responses to AI plagiarism, students tend to have positive attitudes towards aigiarism. In the absence of clear guidelines, and due to the complexity of AI plagiarism, it is difficult for both teachers and students to identify what is AI misconduct.

As for the correlation analysis, the scatter plot visually represents the relationship between students' attitudes toward aigiarism and their academic performance. The upward trend reveals a moderate positive correlation, suggesting that students with high positive attitudes scores tend to have better academic outcomes. This correlation indicates that students who have positive attitudes toward AI assisted plagiarism might have higher academic achievements. However, it is crucial to consider that correlation does not imply causation; it simply shows how one variable affects the other.

The interviews provided qualitative insights into students' motivations for integrating AI tools into their academic workflows and their perspectives on managing AI use while maintaining academic integrity. In their turn, students noted that the advantages of the AI tools usage are in the possibilities to search very effectively and quickly, and to receive the necessary information without spending much time on it. They reported perceiving the utility of using AI and the function it provided them with allowing them to receive individual replies to their questions while conducting their investigation and in writing. In particularly, students described the efforts to become the responsible consumers of AI by paraphrasing and avoiding the direct copying of texts generated by AI by combining with own ideas and proofreading them. These responses are of a responsible approach to using AI in education and identified appreciation of the usefulness of AI while not compromising the reliability of pedagogical processes. Overall, based on students' answers, several factors can be inferred that would affect the relationship of students' attitudes regarding aigiarism and their academic achievement, which can be summarized as follow: Time and effort saving, ease of use, procrastination and deadlines, enhanced research and customized responses.

3.6 Conclusion

This chapter aimed at analyzing and interpreting the data collected from the questionnaire, the correlation study, and the interview. The findings of this research confirm and assist the hypotheses. The results show a significant relationship between EFL master 2 students' attitudes towards aigiarism and their academic achievements, unraveling positive attitudes toward plagiarizing using AI. Furthermore, the influencing factors were uncovered including, (1) time and effort saving, (2) ease of use, (3) procrastination and deadlines, (4) enhanced research and customized responses.

GENERAL CONCLUSION

General Conclusion

Education is one of the fields, where AI is actively changing the existing paradigm and offering new technologies and teaching material. Nevertheless, as the use of technologies is becoming more widespread in learning environments, their use of potential cheating exploitation is stirring up concern. Another issue is the emergence of a new type of plagiarism called aigiarism, where students use AI tools such as ChatGPT to write a work that the student himself subsequently submits as his own.

The motivation behind investigating the topic was to explore the intricate relationship between students' attitudes towards aigiarism and their academic achievements. To investigate that, the researcher used the following research tools; a questionnaire, a correlation study, and an interview. The researcher incorporated two theoretical chapters and a practical one; the first chapter started by reviewing the existing literature by providing a theoretical and conceptual framework related to the key concepts of the investigation. The second chapter discussed the research methods and procedures followed in this study. Finally, The third chapter analyzed and interpreted the data gathered from the questionnaire that was disseminated to 34 Master Two students of English at the level of Saida University, the correlation study that combines both students' attitudes regarding aigiarism and their academic averages, and the interview that was addressed to 12 students. All are set for providing reliable findings since they helped the researcher confirm the hypotheses and answer the research questions.

The results of this study confirmed the hypotheses. They unravel that students hold positive attitudes toward aigiarism. They also uncovered there is indeed a positive relationship between students' attitudes and their academic achievements. Additionally, the findings reveal the influencing factors that contribute to the existing relationship such as time constraints, and the accessibility of AI. The results also uncover other factors including procrastination and deadlines, and customized answers that enhance the research.

As with any other work, it is important to address the limitations of this study. Thus, the researcher while conducting this study encountered some difficulties such as the lack of literature in this specific area of study. In addition to the small size of the sample which may affect the study's power to look for correlations among the data.

Based on the findings and analysis presented in this study, the following recommendations are proposed to address the identified challenges and enhance future research and practice in this field. Therefore, the researcher recommends further research studies on

aigiarism, requests higher institutions to adopt clear guidelines regarding the use of AI to prevent plagiarism and propose authentic tactics to uphold academic integrity in the age AI.

This humble research may pave the way for further studies; such as investigating the impact of aigiarism on students' motivation, other studies may also include exploring the perceptions of educators, and examining the effectiveness of various strategies to prevent aigiarism.

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APPENDICES

Appendix A

Students' Questionnaire

Dear Participant,

We appreciate your willingness to participate in this survey, which aims to explore and understand the relationship between your attitudes toward Aigiarism - ChatGPT and chatbots – and educational achievements. Your valuable insights will contribute to our understanding of how technological tools are perceived by students in the realm of academic integrity.

SECTION 01: DEMOGRAPHICS

1.1.Age: ☐ 20-22 ☐ 23-25 ☐ 26- over

1.2.Gender: ☐ Male ☐ Female

SECTION 02: AWARENESS AND USE

2.1 Have you ever used AI models (ChatGPT, Google Bard, etc.…) to facilitate your assignment or research writing?

☐ Yes ☐ No

2.2 How often do you use ChatGPT or Chatbots for your research?

☐ Very rarely ☐ Rarely ☐ Neutral ☐ Often ☐ Very often

2.3 How comfortable do you feel using AI generated tools?

☐ Very uncomfortable ☐ Uncomfortable ☐ Neutral ☐ Comfortable ☐ Very comfortable

2.4 Do you think using AI tools like ChatGPT improves the quality of your work?

☐ Yes ☐ No

2.5 If yes, how do you typically use them? Please select all that apply.

☐ To brainstorm ideas

☐ To paraphrase texts

☐ To summarize articles

☐ To generate an outline

☐ To generate full text

☐ To edit and proofread your writing

SECTION 03: ATTITUDES TOWARD USING CHATGPT AND CHATBOTS IN ADDRESSING PLAGIARISM

Please rate your agreement with the following statements regarding the use of Aigiarism on a scale of 1 to 5 (1 = strongly disagree, 2 = disagree, 3= neutral, 4= agree, 5 = strongly agree).

3.1 Using ChatGPT and Chatbots without proper citation and attribution is form of plagiarism.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.2 Using AI technologies like ChatGPT to complete assignments constitutes cheating or plagiarism.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.3 It is possible to use AI generated Chatbots in an ethical and responsible way to help complete assignments and research.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.4 Using AI tools to help complete assignments and research is morally wrong.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.5 AI tools like ChatGPT should be permissible in educational settings.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.6 Using ChatGPT and other Chatbots to paraphrase some parts of articles, acknowledging the use of AI tools is ethical.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.7 Using AI assisted Chatbots to generate the initial ideas, and then supplemented them with your own ideas is not Aigiarism.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.8 Using AI to rephrase some of my own writing content in order to improve the writing quality is ethical.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

3.9 Using ChatGPT in academic research undermines the integrity of the research process.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

SECTION 04: INTENTION AND USER BEHAVIOR

4.1 To what extent do you believe AI generated technology like ChatGPT and Chatbots will become an essential part of your academic workflow in the future.

☐ Not essential at all ☐ Not very essential ☐Neutral ☐Essential ☐Very essential

4.2 Do you predict using AI Chatbots in your educational needs for the next 6 months?

☐ Yes ☐ I do not know ☐ No

4.3 How confident are you in your ability to integrate AI Chatbots into your future academic tasks, project or studies?

☐ Very doubtful ☐ Doubtful ☐ Neutral ☐ Confident ☐ Very confident

4.4 In which of the following ways do you plan to use ChatGPT and other Chatbots to support your studies in the future? Please select all that apply.

☐Research or learning

☐Write or editing text

☐Creativity, inspiration or brainstorming

☐Summarizing articles and research papers

☐No, I do not plan to use ChatGPT or other Chatbots in the future

☐Others: …….

Appendix B

Students' Interview

Thank you for agreeing to participate in this interview. The purpose of this interview is to explore the potential factors that may influence the relationship between your attitudes towards AI Plagiarism and your academic achievements, particularly in the context of your experience with AI tools. It is important to note that your responses will be treated with the utmost confidentiality and anonymity to ensure your privacy and comfort throughout the interview process. Let's begin.

Part one : Part 1: Motivation for AI Integration

1- What motivated you to integrate AI tools into your academic workflow instead of using your regular internet browser?

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Part two : Managing AI and Academic Integrity

2- Taking into account that AI can lead to academic misconduct and plagiarism, particularly in the context of academic writing and research, do you think you can manage to use AI properly? Elaborate, please.

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……
……

Part three : Concerns about AI Misuse

3- Given the accessibility of AI technologies such as ChatGPT, students have been warned against using them for academic assignments, particularly for significant tasks like thesis writing, are you concerned about the potential consequences of AI misuse?

……
……
……
……

Part four : Pressure to Use AI Tools

4- Have you ever felt pressured to use AI tools to accomplish your academic tasks, and if so, what were the reasons behind this pressure?

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……

Part five : Plagiarism and AI Tools

5- Do you think it is easier to plagiarize using AI tools compared to traditional methods (copying from sources)? Why or why not?

……

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……
……

Part six : Impact on Learning Experience

6- With several advantages that AI provided compared to traditional learning methods, do you think that AI has helped you enhance your learning experience?

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……

Part seven : Influence on Academic Achievements

7- In what ways do you believe your use of AI tools has influenced your academic achievements?

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Part eight : Perceptions of AI and Academic Achievements

8- Reflecting on your academic journey so far, how do you perceive the relationship between your use of AI tools and your academic achievements?

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……

Thank you for taking the time to answer the questions fully and thoughtfully.

الملخص

لقد أعاد الذكاء الاصطناعي تشكيل مجال التعليم بشكل جذري .في حين أظهرت أدوات الذكاء الاصطناعي مثل ChatGPT فوائد محتملة في عملية التدريس والتعلم، فإنها تثير أيضًا مخاوف جدية بشأن استخدامها للانتحال .في هذا السياق، تهدف هذه الدراسة إلى فحص العلاقة بين مواقف طلاب الماجستير في اللغة الإنجليزية كلغة أجنبية في السنة الثانية تجاه الانتحال بواسطة الذكاء الاصطناعي وإنجازاتهم الأكاديمية في جامعة مولاي طاهر بسعيدة. تسعى الدراسة إلى استجلاء مواقف الطلاب تجاه الانتحال بواسطة الذكاء الاصطناعي واستكشاف العوامل المحتملة التي تؤثر على هذه العلاقة. لتحقيق الهدف الرئيسي للدراسة، تم اتباع نهج مختلط توضيحي تتابعي يتضمن بيانات كمية ونوعية. يتكون المشاركون في هذه الدراسة من 34 طالب ماجستير من السنة الثانية في قسم اللغة الإنجليزية بجامعة سعيدة. بالنسبة للبيانات الكمية، تم استخدام استبيان لتوضيح مواقف الطلاب تجاه الانتحال بواسطة الذكاء الاصطناعي تلاه دراسة ارتباطية لفحص العلاقة بين هذه المواقف وإنجازاتهم الأكاديمية. أما بالنسبة للبيانات النوعية، فقد تم إجراء مقابلة شبه منظمة مع الطلاب لاستكشاف العوامل المحتملة التي تؤثر على هذه العلاقة. أشارت النتائج التي تم الحصول عليها في هذا البحث إلى أن الطلاب يحملون مواقف إيجابية تجاه الانتحال بواسطة الذكاء الاصطناعي والذي يرتبط إيجابيًا بمعدلاتهم الأكاديمية. بالإضافة إلى ذلك، وجدت الدراسة أن عوامل مثل ضغط الوقت، التسويف، المواعيد النهائية، سهولة استخدام الذكاء الاصطناعي، والاجابات المخصصة تؤثر على العلاقة بين مواقف الطلاب ونتائجهم الأكاديمية. وأخيرًا، اختتم الباحث هذه الدراسة البحثية بطرح مجموعة من التوصيات والاقتراحات التي يجب أخذها في الاعتبار لاحقًا. وتتضمن هذه التوصيات إجراء المزيد من البحوث حول الانتحال باستخدام الذكاء الاصطناعي ودعوة المعلمين وأصحاب المصلحة إلى وضع سياسات وإرشادات واضحة فيما يتعلق باستخدام الذكاء الاصطناعي لمنع الانتحال واقتراح استراتيجيات مبتكرة لدعم النزاهة الأكاديمية في عصر الذكاء الاصطناعي.

الكلمات المفتاحية: الإنجازات الأكاديمية، الانتحال بواسطة الذكاء الاصطناعي، الذكاء الاصطناعي، المواقف، الانتحال