وزارة التعليم العالي و البحث العلمي

MIINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE

ⴰⵢⵏⵉⵣⵔⵉⵓⵏⵎⵓⵜⵏⵉⵡⵉⵣⵣⵓⵔⵓⵜⵏⵜⵓⵙⵙⵏⵉⵡⵏ

ⵜⴰⵡⴰⵍⵜⵏⵎⵓⵏⵡⴰⵜⵉⵔⵔⵉⵜⵓⵣⵓ

ⵜⴰⵣⵣⴰⵍⵜⵉⵏⵜⵉⴽⵍⵉⵜⵉⵡⵜⵉⵣⵣⵓⵔⵓⵜⵏⵜ

Mouloud Mammeri University of Tizi-Ouzou	**جامعة مولود معمري تيزي وزو**
Faculty of Letters and Languages	**كلية الآداب واللغات**
Department of English	**قسم الإنجليزية**

Item Number.....
Serial Number.....

A Dissertation Submitted in Partial Fulfillment of the Requirement For the Degree of Master in English.

FIELD : Foreign Languages
Programme : English Language
Specialisation : Foreign Language Didactitcs

Title:

Exploring Ethical Considerations in Human-Machine Interactions in EFL: The Particular Challenges Faced by M2 Students in Using Chatbots in The Department of English at Mouloud Mammeri University

Submitted by:

Ms. Kenza SAIDOUN

Ms. Fedoua SAHRAOUI

Supervised by:

Dr. Akli AOUINE

Board of Examiners:

Chairwoman	Dr Katia BERBAR, MCA, Mouloud Mammeri University of Tizi-Ouzou
Supervisor	Dr Akli AOUINE, MCB, Mouloud Mammeri University of Tizi-Ouzou
Examiner	Mrs. Malika AKIR, MAA, Mouloud Mammeri University of Tizi-Ouzou

Cohort: 2024/ 2025

The master domiciliation laboratory.....

Dedications

To my dear parents,

To my siblings Louisa, Said, Aziz, and El nor.

Kenza SAIDOUN

To my beloved parents,

To my siblings Malika and Houda.

Fedoua SAHRAOUI

Acknowledgements

We would like to express our heartfelt thanks to our supervisor, Dr. Aouine for his unwavering guidance, support, and patience throughout this rigorous academic journey. As both a supervisor and a teacher, he has always shown exceptional generosity, sharing his knowledge and time with great kindness and integrity. His thoughtful advice and encouragement have been vital to the completion of this work.

We also express our profound gratitude to the panel of examiners, namely, Dr.Berbar Katia and Mrs. Akir Malika, who have accepted at this hectic time of the academic year to examine our work. We thank them in advance for all the insights that they can provide to us.

We are especially grateful to the students who generously agreed to participate in the interview and survey test. Their input and cooperation were essential to making this research possible.

Last but not least, our sincere gratitude goes to all the teachers who have contributed to our academic and personal development over the past five years. Their dedication has shaped us into the learners we are today.

Abstract

Algerian EFL learners, like many students around the world, are increasingly interacting with artificial intelligence tools such as chatbots in their academic lives. On this matter, the present study explores the ethical considerations surrounding human–machine interactions in EFL, focusing specifically on the challenges faced by Master 2 students enrolled at the Department of English at Mouloud Mammeri University of Tizi-Ouzou. This research has two main objectives. First, it aims to understand the main ethical concerns students face when using chatbots. Second, it investigates the learners' moral duty when using chatbots. It explores whether chatbots help students become better learners or if they make them less engaged and less accountable. To reach these aims, the study is founded upon Bloom's Taxonomy, the ADDIE Model, and Kant's Ethical Theories, and adopts a mixed-methods approach. An interview and a survey test were used to collect data, which were then analyzed through descriptive statistical analysis and thematic content analysis. The results indicate that whereas several students use chatbots to support their learning such as checking grammar or generating ideas, some express uncertainty about ethical boundaries, including issues of plagiarism and lack of accuracy. Others report a sense of responsibility and actively reflect on how to use these tools in a measured and honest way. Eventually, the study emphasizes the importance of promoting ethical awareness and responsible use of AI tools in EFL learning contexts.

Key words: Algerian EFL learners, artificial intelligence, chatbots, human–machine interactions in EFL, ethical considerations.

List of Abbreviations and Acronyms

- **ADDIE:** Analysis, Design, Development, Implementation, Evaluation
- **AI:** Artificial Intelligence
- **CUI**: Conversational User Interface
- **EFL**: English as a Foreign Language
- **ELT**: English Language Teaching
- **GPT:** Generative Pre-trained Transformer
- **HMI:** Human-Machine Interaction
- **M2:**Master 2
- **MMUTO:** Mouloud Mammeri University of Tizi-Ouzou
- **NLP:** Natural Language Processing

List of Diagrams

Table of Contents

General Introduction

Statement of the Problem

English Language Teaching (ELT) has seen a crucial shift in current years. With the rise of digital tools, students and teachers are no longer limited to traditional methods like textbooks and face-to-face lessons. Technology has become a central part of learning, especially with the introduction of AI-powered tools like chatbots. These tools are becoming more common in classrooms and individual studies, offering instant help with grammar, writing, and language practice. Guo et al. (2022, as cited in Xiao, Y., & Zhi, Y, 2023) mentioned, "One notable technological innovation in this realm is AI-powered chat-bots through natural language processing and machine learning techniques, these chat-bots engage learners in dialogue-based interactions, providing personalized and interactive language learning experiences". (p.2)

Additionally, Hassan Taj et al. (2017) and Loncar et al. (2021, as cited in Xiao, Y., & Zhi, Y, 2023) stated, "Technology provides unique opportunities for language learners to interact with the target language, offering authentic and interactive resources that facilitate the development of language skills in a more immersive and meaningful manner" (p.2). In addition, Chen et al. (2021) asserted, "They [technological innovations] have the ability to adapt to learners' proficiency levels, provide real-time feedback, and foster learner autonomy and self-correction" (p.2). In other words, chatbots may improve student's level, correct them instantly, and motivate them become independent by learning to fix their own mistakes. While these tools can support students in many ways, they also raise important questions especially ethical ones. This is particularly for Master2 (M2) students at Mouloud Mammeri University of Tizi-Ouzou (MMUTO), who are using chatbots more frequently in their English studies. Many of them rely on these tools for academic tasks, yet little is known about how this influences their learning or their awareness of the ethical issues involved.

Moreover, educational institutions are highly adopting AI-driven solutions; however, this trend presents certain risks. An overdependence on such technologies may accidentally sideline traditional teaching approaches, which are vital for developing critical thinking and problem solving abilities. Excessive use of AI tools could also hinder students' capacity to recognize and learn from their errors, thereby affecting the development of their studies and editing skills.

Different studies have been carried out at the national level concerning the use of technology in language learning. One of these studies is entitled "Investigating the Dynamic Interaction Between Human Language and Artificial Intelligence Tools: AI Writing Assistants as a Case Study", conducted by Laredj and Mebarek in 2024, at Ibn Khaldoun University of Tiaret, Algeria, with 30 English students and 12 teachers. The findings revealed that writing tools such as ChatGPT and QuillBot were well-known among students, especially for generating ideas and correcting grammar. While many students felt that these tools helped them enhance their writing, some problems were also mentioned, such as relying too much on the tools or copying their suggestions without thinking. Teachers pointed out the importance of helping students use these tools wisely, and they suggested ways to keep students active and creative in their learning.

The study mentioned above, which focused on the ethical use of chatbots in education, was carried out in foreign contexts, mostly in a developed country where artificial intelligence has already been widely integrated into learning environments. The study has explored many ethical concerns, including data privacy, academic honesty, and the influence of chatbot use on learners' independence and critical thinking. However, in the Algerian context, minimal attention has been given to this subject, especially in the field of English language learning. Despite the increasing use of chatbots like ChatGPT by university students, the ethical aspects of this practice remain largely unexplored.

That is why our research aims to narrow this gap by focusing on the national level, more precisely on Master 2 students in the Department of English at Mouloud Mammeri University of Tizi-Ouzou.

Aims and Significance of the Study

The overall aim of this research is to investigate the ethical issues that arise when M2 students use chatbots for English language learning. As the use of artificial intelligence continues to grow in higher education, especially in language learning, it is important to look at the challenges that come with it. While chatbots can help students by offering quick answers and support, their use also brings up concerns about ethics questions about authorship, honesty, and how responsible students are towards these tools.

This study has two main objectives. First, it aims to understand the main ethical concerns students face when using chatbots. These may include worries about unreliable information, authorship issues, subtle changes in students' writing, or AI's impact on students' thinking. Second, the research looks at learners' moral duty when using chatbots. It explores whether chatbots help students become better learners or if they make them less engaged and less accountable.

Despite AI tools are becoming more common in education, the ethical side of using them especially in language learning is still not fully understood. By focusing on students at MMUTO with different English proficiency levels and varying experience with AI tools, this study hopes to provide useful insights into how learners deal with these new tools. The findings of this research can help teachers adopt responsible and thoughtful practices while using chatbots in the classroom, ensuring that these tools help students' learning by raising their awareness of ethical concerns and encouraging more balanced and critical use of AI tools.

Research Questions and Hypotheses

To address the objectives outlined above, this research aims to investigate the following major questions:

Q1: What ethical challenges do M2 students face when using chatbots in their EFL studies?

Q2: How does the use of chatbots affect students' sense of responsibility for their own learning?

The following hypotheses are proposed in response to the research questions outlined above:

- Hp 1: M2 students encounter ethical challenges when using chatbots like lack of accuracy and reliability, plagiarism risks, invisible influence on argumentation and academic style, AI's impact on student thinking.

-Hp 2: Chatbot interaction encourages students to take greater responsibility for their own learning.

Research Techniques and Methodology

This study investigates the ethical issues involved in the use of chatbots for English language learning, with a particular focus on the challenges faced by Master 2 students in the Department of English at MMUTO when interacting with Al-powered tools in an academic context. To achieve the research objectives, the study relies on both quantitative and qualitative approaches. Interviews are conducted with Master 2 students engaged in language studies (Didactics of Foreign Languages and Literature & Civilization) at the Department of English at MMUTO to learn about their personal experiences with chatbots and the ethical concerns they have encountered. A survey test is also employed, and students are asked to complete specific language learning tasks like grammar, vocabulary exercises. For data analysis, the study uses thematic content analysis to interpret qualitative data and descriptive statistical analysis to analyze quantitative data.

Structure of the Dissertation

The dissertation follows the traditional structure, which includes a general introduction, four main chapters, and a general conclusion. The general introduction outlines the research problem, the objectives and relevance of the study, the research questions and hypotheses, research methodology, as well as a brief overview of the dissertation's organization. The first chapter, titled Literature Review, presents the main theoretical frameworks and key concepts that are directly related to the research topic. The second chapter, named Research Design and Methodology, provides a detailed account of the procedures used to collect and analyze data. The third chapter, Presentation of the Findings, reports on the outcomes obtained from the research tools, giving a clear description of the results. The fourth chapter, Discussion of the Findings, focuses on analyzing and interpreting the results. It also provides clear answers to the research questions. The general conclusion summarizes the main points of the research, emphasizes its contributions, acknowledges its limitations, and proposes possible directions for future studies.

Chapter One: Literature Review

Introduction

This chapter paves the way for the current study by exploring the main concepts related to the use of artificial intelligence in language education. It consists of four main sections. The first begins with a brief history of AI and offers some basic definitions, before proceeding to how AI particularly chatbots is being used in EFL classrooms. It also highlights both the advantages and disadvantages that come with this technology. The second section turns to the idea of human machine interaction (HMI), explaining what it means and how chatbots are being used in real language learning situations. The third section takes a closer look at the ethical questions involved in using AI tools in EFL. It addresses subjects like data privacy and informed consent, academic honesty, and authorship. The final part the theoretical frameworks that guide this research, including ideas about students' experiences with chatbots and digital ethics in education. Altogether, these sections help to create a clear understanding of the issues this study aims to explore.

I.1. Artificial Intelligence in Education: Brief History and Definition

Although the term "artificial intelligence" did not yet exist, Warren McCulloch and Walter Pitts introduced their model of artificial neurons in 1943, which is widely regarded as the first artificial intelligence (McCulloch & Pitts, 1943, as cited in Iberdrola, 2025). Later, in 1950, the British mathematician Alan Turing published an article in the magazine Mind titled "Computing Machinery and Intelligence" in which he posed the question: Can machines think? (Iberdrola, 2025). He suggested an experiment that became known as the Turing Test, which, according to the author, would enable the determination of whether a machine could exhibit intelligent behavior that is either indistinguishable from that of a human or similar.

Additionally, Coursera Staff (2025) stated:

> Artificial intelligence (AI) is the theory and development of computer systems capable of performing tasks that historically required human intelligence, such as recognizing speech, making decisions, and identifying patterns. AI is an umbrella term that encompasses a wide variety of technologies, including machine learning, deep learning, and natural language processing (NLP) (p.6)

In other words, this field focuses on building computer systems that can do tasks usually done by humans, such as understanding speech, making decisions, and finding patterns. It includes different methods like helping computers learn from data and understand human language.

Furthermore, a more recent perspective about AI is defined by Popenici and Kerr (2017) as "a set of computational systems that can learn, adapt, synthesize, self-correct, and use data for complicated processing tasks in the same way as humans can" (as cited in Ezzaim et al., 2022, p.2). In sum, AI systems are designed to function in ways that closely resemble human thinking. They can improve themselves over time, learn from data, correct their mistakes, and solve complex problems in the same way a human brain would do when learning from experience.

I.2 The integration of AI and Chatbots in EFL Contexts

Artificial Intelligence (AI) has significantly altered the educational system, particularly in the realm of language acquisition. In the English as a Foreign Language (EFL) classroom, AIdriven technologies, such as chatbots, offer personalized learning experiences, instant adaptive feedback, and enhanced interactive tools that adapt to the unique requirements of each learner (Urbaite, 2025).Natural Language Processing (NLP) enables these systems to provide more accurate and meaningful interaction, thereby assisting students in overcoming language barriers and enhancing their communicative competence (Peng, 2024). The effective incorporation of these AI technologies into EFL instruction can improve learner engagement, motivation, and achievement (AlTwijri&Alghizzi, 2024; Wei, 2023).

Integrating AI into the field of English as a Foreign Language (EFL) is the most important thing to do (Baskara, 2023, as cited in Zhang, X., & Umeanowai, K.O, 2024). It is important that AI can go beyond normal limits and offer new ways to learn languages. This function does not just help with technological progress (Zhang, X., & Umeanowai, K.O, 2024). This is a big change in how language skills are tested and improved (Zhang, X., & Umeanowai, K.O, 2024). Using AI-based tools to help students with their specific problems is a clear example of this new way of thinking in the EFL setting. According to Karsenti et al. (2020, as cited in Zhang, X., & Umeanowai, K.O, 2024), "These tools offer context-sensitive support, enhancing the learning experience and providing educators with valuable insights into students' progress, thereby fostering more effective teaching methodologies". (p.2)

In recent decades, there has been a significant increase in the use of artificial intelligence in the field of education. AI-based adaptive learning technologies are claimed to be "prominently featured as important developments in educational technology" (New Media Consortium. 2018)

Gadeet al.(2020) asserted that AI applications are being implemented to enhance university services, enable educators to provide more effective instruction, and enhance student learning. That is to say, AI technologies are being used in universities not only to enhance the efficiency of administrative services but also to assist teachers in providing better instruction and to give students more personalized learning support.

Artificial Intelligence (AI) avatars and chatbots have attracted considerable attention in the field of English as a Foreign Language (EFL). According to Kim (2017, as cited in Kim, H., Cha, Y., & Kim, N, 2021) such technologies are particularly beneficial for enhancing learners' communication skills. Similarly, Haristiani (2019, as cited in Kim, H., Cha, Y., & Kim, N, 2021) argues that chatbots provide foreign language learners with opportunities to practice the target language through interactive conversations. This is especially valuable in EFL contexts where

opportunities for authentic language practice are limited (Fryer & Carpenter, 2006). Furthermore, Kim, Kim and Cha (2021) noted," With the advancement of AI technology, educators and educational practitioners have continuously investigated whether this advanced technology is indeed effective for foreign language teaching and learning*".* (p.713)

However, there is still a scarcity of empirical research on AI chatbots in EFL disciplines (Kim, H., Cha, Y., & Kim, N, 2021), and there are numerous unanswered concerns regarding the chatbot's implementation (Kim, H., Cha, Y., & Kim, N, 2021). Additionally, previous research has yielded inconsistent findings regarding their efficacy in relation to proficiency levels. For example, according to Fryer and Carpenter (2006), "Chatbots are most useful to accomplished or higher-level foreign language students, but they are not good for beginner-level students who still have to master the basics". (p.714) This is because the chatbots were originally designed to interact with native speakers, and thus, they are generally incapable of, or are poor at noticing pronunciation, spelling, grammar mistakes. However, Kim (2016, as cited in Kim, H., Cha, Y., & Kim, N, 2021) reported that, "all students at different proficiency levels-novice, intermediate, and advanced - can benefit from learning with an AI chatbot". (p.714)

I.3. Benefits and Drawbacks of AI in EFL Learning

The use of AI-based tools in EFL learning provides multiple benefits; however, it also raises significant concerns that may affect the learning process.

I.3.1. Benefits of AI in EFL Learning

I.3.1. 1. Personalized Learning Experiences

One of the major advantages of applying AI in EFL classrooms is the ability to offer each student a customized learning experience. Artificial intelligence (AI) algorithms can assist in customizing materials and activities for each student by analyzing student data such as performance, interests, and learning preferences (Vera 2023, as cited in Eliott, L, 2023).That is to

say, AI help teachers give each student learning materials and activities that fit their own strengths, weaknesses, and preferences. Instead of everyone learning the same way, AI looks at how each student performs and what they like, then adjusts the lessons to match their individual needs. This makes learning more effective and personal for each student in the classroom. Furthermore, students could receive customized feedback from AI-powered systems that highlight their areas of weakness and offer them specialized coaching (De la Vall & Araya, 2023, as cited in Eliott, L, 2023). Put differently, AI provides students with personalized feedback, offering them what to improve.

I.3.1. 2. Enhanced Language Practice and Feedback

Artificial intelligence (AI) techniques, such as chatbots, improve language practice and feedback in EFL classes. Through engaging and everyday interactions, these intelligent technologies assist students in developing their speaking and listening skills in a risk-free setting (Jeon, 2022). Students get the opportunity to practice English in scenarios they could really encounter when they employ chatbots that mimic real-life discussions. This enhances their capacity to communicate in many contexts and helps children comprehend how the language functions (Kim et al., 2021).While interactive elements like chatbots and gamified platforms increase engagement and motivation (Yin & Fathi, 2025; Zou et al., 2023, as cited in Yuan, H, 2025), several studies have shown that AI tools can help students expand their vocabulary, improve their grammar, and use language more effectively overall (Yuan, H. 2025).

I.3.1. 3. Creating Learning Assessment

Zhai (2023, as cited in Sok, S., & Heng, K, 2023) asserted that teachers could use ChatGPT to make assessments for learning faster and easier by following a standard structure. This might even improve the quality of the questions. Using ChatGPT's characteristics, teachers could make open-ended question prompts that fit with the classes' learning goals and success criteria (Baidoo-Anu

& Ansah, 2023, as cited in Sok, S., & Heng, K, 2023). Also, ChatGPT can be used as an automated grading tool that gives useful feedback, which is very important for helping students learn better. It can be used to automate the assessment process by finding out what a student is good at and what they need to work on (Kasneci & al., 2023, as cited in Sok, S., & Heng, K, 2023). ChatGPT helps teachers find out what their students are having trouble with and how well they are doing by giving them information about specific areas where students may be struggling (Sok, S., & Heng, K, 2023).

I.3.1. 4. Availability of Language Resources

Students who learn English as a foreign language using AI have a lot of different language resources to choose from. Platforms with AI capabilities may provide digital resources including interactive exercises, real texts, multimedia materials, and language learning apps. Students may study on their own outside of the classroom using these resources, which are available at any time and from any place (Voskoglou & Salem, 2020, as cited in Eliott, L, 2023). In other words, they have access to many different language learning materials such as interactive exercises, real-life texts, videos, and apps. These resources are available online, this is why students can study outside of regular class hours.

I.3.1. 5. Learners' Experience with Chatbots

Fryer and Carpenter (2006) said that chatbots could help students feel less nervous as they practice their language since talking to a computer is less scary than talking to a real person. Chatbots are being used to provide information and answer questions. Researchers that study language instruction are interested in chatbots because they can talk to users in the target language (Fryer et al., 2019; Jia et al, 2012; Tegos Demetriadis, & Karakostas, 2015, as cited in Huang,W., Hew, K.F, & Fryer, L.K, 2021). That is to say, students use chatbots to get answers and learn new

information. When students practice social interactions, meaning negotiation, and active listening in a rich learning environment, it helps them connect with other people and may help them improve their communication skills (Kim et al. 2021).

I.3.2. Drawbacks of AI in EFL Learning

I.3.2. 1. Limited Human Interaction

AI chatbots can imitate conversations, but they cannot fully understand the nuances and dynamics of talking to someone in person. (Jeon, 2022) Students may face difficulties in understanding things like tone, body language, and context when they do not interact with each other in person or get nonverbal cues. Without these nonverbal signals, it can be harder for learners to fully understand the meaning behind what others are saying, which may affect how effectively they communicate and respond.

I.3.2. 2. Risk of Overdependence

AI technologies may assist and make learning simpler, however if students use them in an exaggerated way in the EFL classroom, they might not be as active in their academic process. Learning becomes less active when AI provides learners with a pre-made knowledge and automated feedback (De la Vall & Araya, 2023, as cited in Eliott, L, 2023). To get better at higher-order thinking skills, students need to be engaged and focused, think critically, and solve problems. This way of learning that does not involve the learner restricts all of them. Students may encounter troubles to study on their own, think critically, and look at information that is not part of the AI's pre-programmed algorithms and responses if they rely too much on AI systems (Eliott, L, 2023).

I.4. Human Machine Interaction (HMI) and Chatbots

I.4.1. Definition and Scope

In today's fast-changing technological world, human-machine interaction (HMI) has taken a major leap forward with the rise of voice assistants and chatbots. In this regard, Caldarini, Jaf, and McGarry (2022) asserted that:

> Chatbots are intelligent conversational computer programs that mimic human conversation in its natural form. A chatbot can process user input and produce an output. Usually, chatbots take natural language text as input, and the output should be the most relevant output to the user input sentence. (p.2)

In other words, chatbots are conversational computer programs that are intelligent and imitate the natural form of human conversation. User input can be processed by a chatbot, which can then generate an output. Chatbots typically accept natural language text as input, and the output should be the most pertinent to the user input sentence.

According to Traymbak et al. (2024, as cited in Bozkurt, A., & Sharma, C.R, 2024) "Chatbot is a software application designed for online interaction via text or text-to-speech, becoming a prominent feature alongside generative AI advancements". (p.3) Put differently, a chatbot is a computer program made to communicate with people through messages or voice. It has become very common today, especially with the progress of artificial intelligence that can create content or respond in a human-like way. Chatbots, also known as bots, chatterbots, smartbots, intelligent computational agents, digital assistants, or conversational assistants (Gupta et al., 2020; Mazón, 2021, as cited in Bozkurt, A., & Sharma, C.R, 2024), are not real machines; but virtual beings. These algorithms make it possible for people to interact without being there in person by using a Conversational User Interface (CUI) (Bozkurt, A., & Sharma, C.R, 2024).

Additionally, personal assistants usually use a digital voice to give useful answers to user questions. These interactions have slowly changed from using a small number of preprogrammed

responses to giving more personalized, specific, adaptable, and meaningful answers. There is still space for development, particularly in the context of addressing challenges such as the difficulty of comprehending heavier dialects, user typographical errors, or disorientation caused by a lack of contextual awareness (Adamopoulou &Moussiades, 2020).

Over the past ten years, it has become more common to interact with virtual people, especially through games and voice chat applications which are made just for that purpose (Wadley, Carter & Gibbs, 2015). Voice chatbots still often misunderstand what users say and give answers that are not relevant, even though they have improved (Mahmood et al., 2025). In order to interpret meaning and align with their conversation companion, individuals rely on both verbal and nonverbal cues, including tone, facial expressions, and gestures, during natural conversation (Clark, 1996, as cited in Mahmood et al., 2025). Although some chatbots emulate this multimodal interaction through thoughtful design, they continue to encounter challenges: they may repeat themselves, misinterpret context, or unexpectedly fail to respond, thereby disrupting the conversation's flow (Mahmood et al, 2025).

I.4.2. Human Machine Interaction in Language Learning: Chatbot Use Cases

Virtual reality, artificial intelligence, and wearable devices have significantly contributed to the personalization and adaptability of education for individual learners in recent years (Chen, Zou, Xie, & Cheng, 2021). In other words, technologies have started to change how learning works. They make it easier for students to learn in ways that suit them best, depending on their own pace, style, and needs.

Furthermore, AI-based instructors have become increasingly prevalent in language education, providing students with adaptable and flexible assistance (Kukulska-Hulme & al, 2020, as cited in Caldarini, G., Jaf, S., &McG arry, K, 2022). Dai et al. (2024) stated,“A growing trend to enhance

human-machine interaction involves replacing simple that mimic human appearance and behavior, creating more natural and intuitive interactions". (p.2) Put differently, there is a rising trend where machines are being designed to feel more natural when people use them. Instead of just looking or acting a little like humans, they are now being built in ways that help people interact with them more easily and comfortably.

I.5. Ethical Considerations in Using AI Tools in EFL

I.5.1. Data Privacy and Informed Consent

AI language learning platforms progressively collect student data, which raises major concerns about privacy. Xu and Yuan (2021, as cited in Butarbutar, R, 2024) noted, "the importance of safeguarding privacy within AI-fueled language learning platforms" is a key issue. In other words, when students use these platforms, their personal data must be protected to prevent misuse or exposure. They further emphasized the need for "clear data protection policies and consent mechanisms". Put differently, students should be clearly informed about what data is being collected, how it will be used, and must give their permission before it is processed.

I.5.2.Academic Integrity and Authorship

Teachers are confronted with an increasing number of challenges as AI transforms the educational landscape, including the issue of academic dishonesty in student writing. The accessibility of artificial intelligence (AI) tools has undermined academic integrity by facilitating the act of plagiarism or cheating among students. Educators can address this issue by implementing preventative strategies to support honest academic practices, encouraging ethical conduct in their classrooms, and remaining informed (Mohammadkarimi, E, 2023).

Sevimel-Sahin (2023, as cited in Mohammadkarimi, E, 2023) defined academic dishonesty as, "any kind of cheating or unethical behavior in the classroom that breaches fairness and honesty principles" (p.2). In the other hand, Crawford et al. (2023, as cited in Mohammadkarimi, E, 2023)

noted, "Some of the AI-powered tools that have made academic misconduct simpler than ever for today's students include essay generators, online essay mills, and custom writing services". (p.2) That is to say, These AI tools help students cheat more easily by creating essays or selling written work, making academic dishonesty more common.

Teachers as well play a crucial role in teaching students how to avoid and deal with cheating in their academic learning. For the education system to be honest and trustworthy, it needs to be able to spot cheating and plagiarism. While the quick development of advanced AI tools has made it harder for teachers to consistently spot dishonest behavior, students learn how to change AI-generated content to look like their own work, it may become harder for teachers to tell the difference between plagiarism and real content (Mohammadkarimi, E, 2023).

Also, the fact that a growing number of schools are using artificial intelligence (AI) has changed the way people think about writing for school. Many students might be tempted to stop working on their critical thinking, research, and creativity when they use these tools to get good grades or finish their work quickly. The worry that affects students' long-term learning, especially their ability to develop the intellectual and analytical skills that are important for both personal growth and success in their future careers is serious (Mohammadkarimi, E, 2023).

I.5.3. Digital Ethics In Education

Nowadays, technology is significant in education, hence students and teachers should know its ethical issues in digital use in order to utilize it in a conscientious manner.

According to Santosh Kumar (2024, as cited in Feishherz, B., & Millar, G, 2024):

> Digital tools introduce interactive elements into the learning process, making the educational content more engaging. Virtual simulations, multimedia presentations, and gamified learning modules attract students 'attention, helping to better understand complex concepts. The dynamic nature of digital content permits educators to tailor materials to meet individual student needs and to promote personalized learning experiences (p.157).

Put differently, digital tools help make learning better by making it more hands-on and letting teachers change lessons to suit each student.

Furthermore, digital tools incorporate interactive components into the learning process, thereby increasing the level of engagement with educational content. Educators, as Kumar (2024, as cited in Feishherz, B., & Millar, G, 2024) explained, one must understand "the nuances of fair use, public domains, and licensing terms when using digital resources" and ensure "transparent attribution and the acknowledgment of intellectual property" (pp. 162–163). This means recognizing original creators and constructing clear rules for sharing and collaborating on content, especially when using digital platforms.

Additionally, Frischherz and Millar (2024) asserted that the increasing prevalence of digital tools in our society, including robots, algorithms, and personal data collection, necessitates the establishment of appropriate ethical guidelines and the identification of how various ethical attitudes can be implemented in everyday situations. Put differently, it deals with establishing honest and appropriate standards about how people might act since technology becomes a part of daily life. It focuses on addressing what is moral and immoral when using digital tools, and how these ideas apply in real situations.

I.6. Theoretical and Analytical Framework

This study is about the ethical considerations in human machine interactions in EFL (English as a Foreign Language) context, mainly focusing on the challenges encountered by Master 2 students while using chatbots in the Department of English at MMUTO. To guide the analysis, three theories have been selected: Bloom's Taxonomy, the ADDIE Model, and Immanuel Kant's theory of deontological ethics. All together, these frameworks give a comprehensive lens in order to examine the cognitive, pedagogical, and ethical dimensions of integrating AI tools specifically chatbots into language learning.

I.6. 1. Bloom's Taxonomy: A Model for Cognitive Engagement

Fastiggi (2024) stated that Anderson and Krathwohl revised the Bloom's taxonomy model in 2001, believing that learning doesn't always follow one strict order, therefore they made the levels more flexible. The new version includes:

Remembering: bringing information back from memory.

Understanding: making sense of your learning.

Applying: using that knowledge in new ways.

Analyzing: looking closely at information and how parts relate.

Evaluating: judging ideas based on certain standards.

Creating: putting things together to create something original.

Rhul (2025), referring to Shabatura (2013), explained that these steps build on each other. You need to remember something before you can understand it. You need to understand it before you can apply it. Before you can evaluate, you need to analyze, and creation usually comes last, after careful thinking and evaluation. This process helps students move from just learning

information to actually thinking deeply and asking questions. Rhul mentioned as well how important the higher levels, analyzing, evaluating, and creating, are in today's education. These skills help students go beyond memorizing. They learn to think for themselves, solve problems, and come up with new ideas on their own.

The cognitive framework used to analyze student-bot interactions in educational contexts is Bloom's Revised Taxonomy. This hierarchical approach provides a structured framework for evaluating students' use of AI tools, particularly for identifying their responses demonstrate simple engagement or advanced cognitive processing. Projecting student behaviors and reflections onto the taxonomy's levels allows us to evaluate the challenges students' face when using chatbots such as improving or hindering autonomous knowledge creation, critical thinking, and problem-solving in the context of EFL instruction.

I.6.2. The ADDIE Model: Instructional design

The ADDIE framework is developed by Branch (2009), which is a widely used approach in instructional design. ADDIE is not a firm model but a flexible and organized process for creating learning experiences. It consists of five main stages: Analyze, Design, Develop, Implement, and Evaluate. According to Branch (2009), "ADDIE is responsive because it accepts whatever goals are established as its orientation. ADDIE is context sensitive, proactive, interactive and is a vehicle for communicating ideas to all stakeholders" (p. 2).These characteristics make ADDIE adaptable to different learning situations and audiences. In the Analyze phase, the designer examines the current situation to understand the learners' needs and the causes of any learning problems. The Design phase involves planning the learning objectives, tasks, and methods that will be used to measure success. During the Develop phase, the real learning materials and content are created and tested (pp. 83–131). The Implement phase is when the instruction is delivered to the learners, and both teachers and students are prepared for the process (pp. 133–149). Finally, in the Evaluate

phase, the effectiveness of the instruction is taught, and feedback is collected to make improvements. This research uses the ADDIE framework (Branch, 2009) to structure the investigation of how students engage with chatbots during their learning process. The five phases of ADDIE help identify how students analyze their needs, design their learning goals, develop strategies using chatbots, implement them in practice, and evaluate the outcomes.

This study uses the ADDIE model as a theoretical framework, it looks at how students engage with chatbots during their learning journey. Each section of the concept is designed to show how students use AI tools in their learning process in different ways. During the Analyze phase, the emphasis is on whether students identify their learning gaps or needs and leading them to get help from the chatbot. In the Design phase learners formulate their learning objectives and choose techniques for integrating chatbot assistance into their academic activities. In the Develop phase the focus is on how students create or modify insights with chatbots, improving writing and grammar, producing explanations, enhancing arguments, or structuring ideas.The Implement phase examines how students use chatbots in their real learning situations completing projects, composing essays, or making personalized notes. Ultimately, the Evaluate step pertains to how students appraise the utility and precision, reviewing chatbot effectiveness.

I.6. 3. Kantian Ethics Theory

Sandle (2024) asserted that Kantian ethics is an ethical framework formulated by the German philosopher Immanuel Kant, a crucial figure of the Enlightenment. Kant posited that the moral worth of an action is solely dependent on the motivation that underlies it. It is interlocked in multiple of Kant's writings, with the most significant book *Groundwork of the Metaphysics of Morals*. In Groundwork, Kant seeks to establish the foundations of morality, demonstrate the undeniable existence of a universal moral code, and explain the components of this moral code.

The Groundwork delineates the most renowned principles of Kantian ethics: good will, duty, and the categorical imperative.

According to Kant (2012), it is impossible to conceive of any object in the world, or even beyond it, that could be considered good without restriction, with the exception of a good will. Intellect, wit, discernment, and similar cognitive abilities, along with courage, determination, and determination in pursuing one's objectives, are undoubtedly beneficial and desirable for various purposes. However, these traits can also be profoundly detrimental and harmful if the will that employs these innate gifts whose unique composition is termed character is not virtuous. It is analogous with gifts of fortune. Power, wealth, honor, health, and the comprehensive well-being known as happiness often engender boldness and frequently arrogance, unless tempered by a good will that mitigates their influence on the mind. This, in turn, rectifies the fundamental principle of action, aligning it with universal objectives. In addition, a fair reasonable person finds no joy in seeing someone thrive continuously if that person lacks a good and moral will, suggesting that a good will is an essential prerequisite for deserving happiness. (p. 112).Furthermore, a good will is not deemed good due to its consequences or achievements, nor because of its suitability to achieve a specific goal, but solely due to its intention; it is intrinsically good and, when considered in isolation, is to be esteemed far above all that it might merely produce in service of any inclination, or indeed, the aggregate of all inclinations. Even if, due to an unfortunate twist of fate or the inadequate provision of a step motherly nature, this will should entirely lack the ability to fulfill its intentif, although its utmost efforts, it should accomplish nothing and only goodwill remains (not merely as a wish but as the mobilization of all means within our control).

According to Misselbrook (2013), Kant posited that morality is not determined by the outcomes of our actions, our feelings, or any external influences. It is characterized by obligations, and an activity is deemed moral if it is driven by duty. Duties are the principles that direct our

behavior. Duties are mandates that dictate our actions. Kant distinguishes between two types of imperatives: hypothetical and categorical. An imperative is fundamentally a duty; something I must perform. Hypothetical imperatives are directives that dictate my conduct contingent upon the possession of specific aims or interests. These obligations are wholly contingent upon my objectives or preferences. For him, certain obligations are non-negotiable. These are the responsibilities to perform specific acts. Kant designates this broad class of obligation as a categorical imperative, meaning the action is necessary due to its classification within a certain category. Kant acknowledges the challenge of discerning one's motives; hence he differentiates between behaving in accordance with obligation and acting out of duty.

Moreover, Kant believes that the idea of responsibility is fundamental to ethics. These are not discovered in nature; they arise from pure reasoning. Consequently, philosophy is founded on human rationality. It is entirely unrelated to psychological information. Of fact, numerous guidelines can be applied generally. Nonetheless, if they are scientifically substantiated, they may be classified as practical principles; however, they can never be regarded as moral laws. Ethical principle. The rule is founded on scientific evidence and logical reasoning. Exposure to the myriad horrors of Morality poses a risk of corruption, necessitating a thorough examination of practical principles in abstract reasoning. Distinguishing the authentic from the counterfeit will be straightforward if we comprehend the rationally pure principle of Morality. This is the reason the ethical value is paramount. (Hasan, 2022.p.7).

According to Lewis (2019), Kantian ethics comprises three distinct principles, which Kant developed from his philosophical notion known as the categorical imperative. He defined an imperative as any claim that asserts a specific action or inaction as obligatory. A categorical imperative is an absolute and unqualified obligation that must be adhered to in every situation.

The initial formulation, "Formula of Universality and the Law of Nature," posited that an activity is morally permissible just if its maxim or underlying principle aligns with the responsibility to the moral law. According to Acton (1970, as cited in Hasan, M.L, 2022) Kant explicitly confirmed, “Act only on that maxim through which you can at the same time will that it should become a universal law”.(p. 21). The second which is, "The Formula of Humanity.” advocates for regarding humanity as an ultimate end. Contending that all rational action must establish not only a principle but also an objective. It explicitly advocates for regarding humanity as an intrinsic end.

Kant asserted, the third formulation, “The Formula for Autonomy” presumes that a moral agent is compelled to adhere to the categorical imperative not due to external pressures, instead as a result of their rationality. The clarification of the categorical imperative encompasses the ideas of both the first and second imperatives, while emphasizing the autonomy of the moral agent. (Sandle, 2024).

In this study, Kantian ethics is used to understand how students think about the right and wrong ways of using chatbots. It helps show whether their use is based on honest effort and a sense of duty, or simply for convenience. This framework makes it possible as well to explore if students act out of responsibility and respect for learning, or if they rely on AI without thinking about the moral side of their choices.

Conclusion

This chapter has been devoted to the review of all the relevant literature that explains the major concepts of our study. At the beginning, it has provided definitions of "artificial intelligence", discussed its integration into EFL education, along with its benefits and drawbacks.

Then, it has explored the concept of human-machine interaction, underlining the role of chatbots in language learning settings. After that, it has addressed key ethical concerns such as data privacy,

informed consent, and academic integrity in the use of AI tools. Eventually, it has introduced the theoretical frameworks of the study, including Bloom's Taxonomy, the ADDIE model, Kantian ethics, which together form the analytical framework on which this study is based.

Chapter Two: Research Design and Methodology

Introduction

The present chapter presents the methodology adopted for this study, which seeks to explore the ethical considerations surrounding human-machine interactions in EFL, with particular attention to the challenges encountered by M2 students when using chatbots in the Department of English at MMUTO. It is divided into three main sections: the first section presents the research approach and design that support the investigation. The second one, named "data collection procedure" details the steps taken to gather data. This includes the research context, participant sample, and the instruments used to collect information specifically, an interview and a test. The final section, "data analysis procedure" describes the methods used to analyze the data, employing qualitative and quantitative techniques.

II.1 Research Method and Design

The present study relies on a mixed-methods research. It is a research methodology that combines both qualitative and quantitative methods to achieve a more comprehensive and complete understanding, as well as to verify findings from multiple perspectives. (Gunasekare, 2016). According to Creswell and Plano Clark (2007, as cited in Gunasekare, 2016):

> Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems that either approach alone. (p.5)

That is to say, mixed-methods research uses both numbers and words to study a topic, giving a fuller understanding than using just one approach alone. This research takes an exploratory approach, as it scrutinizes a relatively new area and aims to better understand it. The focus is on how learners are using AI and whether they are utilizing it in an ethical way.

II.2. Context and Sample

This research is carried out in the Department of English at MMUTO during the 2024- 2025 academic year. The study includes thirty (30) participants from the second year (M2) of a Master's program in language studies, specializing in Didactics of Foreign Languages and in Literature and Civilization. These two specializations were included based on availability and accessibility of participants, without targeting a specific academic orientation. These students were selected for their advanced academic background and experience, which allow them to offer valuable insights. Their strong interest in research within their field further reinforces their relevance to this study.

II.3. Data Collection Tools

II.3.1 Definition of the Interviews Protocol

As claimed by Kvale (1996, as cited in Sheron, C., Salvagni, J., &Colomby, R.K, 2022) the interview "is a construction site for knowledge. An interview is literally an inter-view, an inter-change of views between two persons conversing about a theme of mutual interest" (p.3). That is to say, an interview is a process where knowledge is developed through dialogue. It is a mutual exchange of thoughts between two individuals who discuss a topic they are both interested in. Furthermore, Taherdoost (2022) defined the interview as, "the method of asking questions to gain both qualitative and quantitative data" (p.1). Therefore, it can be stated that interviews are nowadays one of the most commonly used ways to gather knowledge in human and social sciences.

II.3.2 Description of the Interviews Protocol

The interview is intended for Master 2 learners from the Department of English at Mouloud Mammeri University. It is made up of 18 questions segmented into three main sections, each holding a specific interest. The first section, named "Cognitive Engagement", includes 6 questions and aims to explore students' interaction with chatbots through the use of multiple cognitive levels, based on the revised Bloom's Taxonomy. It covers skills such as remembering, understanding, applying, analyzing, evaluating, and creating. The second section, based on the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), contains 5 items. This part investigates how students perceive and experience chatbot-based learning tasks, including their design, implementation, and effectiveness. The final section, "Moral Responsibility in Learning," focuses on the ethical considerations learners face while using chatbots. It includes 7 questions and encourages students to contemplate thoughtfully their behaviors and decisions in academic settings, drawing on principles from Kant's ethical theory.

The interview features a mix of question types. Few are closed-ended, and the others are open-ended. It allows students to elaborate on their personal experiences. Specifically, mixed format items appear in Part One (Questions 1, 2, 3, 4, and 6), Part Two (all items except question 2 and 5), and Part Three (Questions 1, 2, 3, 5, 6, and 7). Totally open-ended questions include Question 5 in Part One, Question 2 in Part Two and Question 4 in Part Three. These allow participants the freedom to express their thoughts in their own words, providing deeper insight into their engagement, experiences, and ethical reasoning regarding chatbot use in academic contexts. The interviews were conducted asynchronously through audio messages. This method allowed learners to respond at their own pace and in a comfortable environment, which encouraged more reflective and detailed answers. Although remote, this format maintained the essential

characteristics of qualitative interviewing. Data collection took place during a busy academic period, specifically during the end of semester examinations.

II.3.3 Piloting the Interview

Before conducting the interviews, a pilot study was done with four (04) Master 2 EFL students, two specializing in Didactics and two in Civilization & Literature who were not included in the final sample. It was carried out a few weeks prior to the main interviews; the purpose was to make sure the interview questions were clear, easy to follow, and relevant to their learning experiences with chatbots. Overall, the students felt that the interview was clear and well-organized. They liked how the questions were divided into three parts one about how they learn (Bloom's Taxonomy), the other one about how lessons are planned (the ADDIE model), the last one about what is right and wrong (Kant's Ethical Theory). This helped them think about their learning from different angles. Still, a few small concerns came up. One student said she would have liked to see the questions in advance because she needed more time to think before giving her answers. In response to this, we decided to write out the full interview and send it to all 30 students ahead of time, so they could read and reflect before. This was done to make everyone feel more at ease.

Another student claimed that the question seven (Q7) in part 3 was hard to answer. The earliest version was: "Do you think it is important to have guidelines or rules around ethical chatbot usage in your classes? And why?" She only responded "yes" and did not gave further explanation, it showed that the question might not have been accurate or easy to connect with. Thus, we rephrase it to: "Can you think of any situations where using a chatbot in class might raise concerns or problems? What kind of rules or guidelines do you think could help in those cases?" This made it more practical and easier to answer. In the end, this trial round was helpful. It showed us what small

changes were needed to make the interview clearer, more comfortable, and better suited to how students think and respond.

II.3.4 Definition of a Test

Testing is one of the most frequently implemented assessment instruments in the field of education. Tests can be viewed as standard procedures that are used to systematically measure a sample of behavior by posing a set of questions, in addition to being considered an instrument. Tests are intended to evaluate the quality, ability, skill, or knowledge of a sample in comparison to a predetermined standard, which is typically regarded as either acceptable or unacceptable. In the field of education, tests are employed as a means of evaluating students' abilities to complete specific tasks, demonstrate mastery of a skill, or demonstrate knowledge of content. Exams may be administered in the form of multiple-choice questions or weekly spelling tests. (Adom, Mensah, & Dake, 2020)

II.3.5 Description of the Test

The test includes four activities; each thoughtfully designed to follow a natural learning flow and explore how students think and act when using chatbots. The first activity uses multiple-choice questions to check how well students understand key ideas like responsible chatbot use and the importance of giving credit when needed. The second part presents True or False statements that get students to apply ethical thinking to real situations they might face in their studies. The third activity introduces everyday scenarios, asking students to reflect on how they would respond, which encourages critical thinking and honest self-assessment. The final task is about improving a short paragraph using a chatbot, then reflect on the changes they made. The purpose is to reveal how students think, act, and make choices when faced with ethical dilemmas involving AI. It also considers how values such as responsibility, honesty, and critical judgment shape their interaction with chatbot technologies.

II.4. Data Analysis Procedures

This study collected both quantitative and qualitative data. Each type of data was analyzed depended on its characteristics and features. Quantitative data were collected through test activities which included multiple-choice questions, true/false questions, and "Would you/Wouldn't you" items, and were analyzed using descriptive statistical analysis. Qualitative data, obtained from interviews and activity 4 from the test, were analyzed using thematic content analysis to explore meaningful themes.

II.4.1 Descriptive Statistical Analysis

According to Alabi and Bukola (2023), "Descriptive statistics are used to summarize and analyze data in a variety of academic areas, including psychology, sociology, economics, education, and epidemiology"(p.2). In other words, descriptive statistics are employed to summarize and analyze data in a variety of academic fields, such as sociology, economics, education, and epidemiology. To analyze the quantitative data collected from the test activities, percentages are calculated manually using the following formula: $X = Y \times 100 / Z$, where X is the percentage, Y is the number of responses, and Z is the total number of participants. The results are presented in paragraphs accompanied by pie charts and bar graphs, for clarity and comparison.

II.4.2 Thematic Content Analysis

According to Braun and Clarke (2006, as cited in Sovacool, B.K., Iskandarova, M., & Hall, J, 2023) "thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data" (p.8). Additionally ,it is especially beneficial when the objective of a research project is to identify themes and concepts that are interwoven with qualitative data. (Rubin &Rubin 1995, as cited in Sovacool, B.K., Iskandarova, M., & Hall, J, 2023). In this study, this method is adopted

to analyze the qualitative data obtained from the open-ended items of the interview as well as the answers in the last activity of the test.

The collected responses were analyzed and organized based on Bloom's Taxonomy, the ADDIE model, and Kantian ethics, allowing for the identification of key themes and patterns in students' use of chatbots for learning and ethical decision-making. The original interview questions, the main themes that emerged, the codes used to label similar ideas, and selected examples from participants' answers were presented in structured paragraphs. Responses were read carefully to identify common patterns, which were then coded and organized under broader themes. These results were later explained and interpreted in relation to the study's focus.

Conclusion

This chapter has presented the research design and methodology used in this study. It began by defining the mixed-methods approach that helped shaping the research process. Afterward, it detailed the data collection, including context and sample, and the tools used to collect data specifically an interview and a survey test. Additionally, it explained the data analysis procedures used for both quantitative and qualitative data. Descriptive statistics were used to analyse test results, and thematic content analysis was used to identify key patterns in students' responses. Both methods aim to give a deeper understanding of how students experience and reflect on chatbot use in their studies. The next chapter presents the main results of the study.

Chapter Three: Presentation of the Findings Introduction

Introduction

This chapter presents the findings of our investigation conducted at the Department of English at MMUTO. It is organized into two main sections. The first section outlines the results of the interviews conducted with thirty (30) students. The second section provides an overview of the survey test findings carried out with Master 2 students in Language Studies from the same department**.**

III.1 Results of the Interviews

The ADDIE Model, Kant's Ethical Theory, and Bloom's Taxonomy comprise the three main sections of the interview. Thematic content analysis, which entailed identifying key themes within each section, was used to examine the responses. These themes were further broken down into major codes, which were then followed by examples drawn from the students' answers.

III.1.1 Cognitive Levels in Chatbot Implementation

After carefully reading and re-reading the interview transcripts of thirty students from the Department of English at MMUTO, learners used chatbots in multiple ways to support their language learning. Their responses reflected a range of cognitive behaviours, from recalling basic knowledge to creating original content. The analysis was guided by Bloom's Taxonomy, which provided a structured framework to explore different levels of learning. Subsequent to coding, similar ideas were grouped into six broader themes, each aligned with a cognitive level of Bloom's Taxonomy.

Theme1 : **Recalling Grammar and Vocabulary (Remembrance)**

Students frequently used chatbots to refresh and consolidate their linguistic knowledge. The code "remembering knowledge" emerged from statements such as "I use chatbot to recall grammar rules and vocabulary" and "I use chatbots as a main learning aid to learn and clarify grammar rules and reinforce my vocabulary". These responses show that chatbots act as quick reference tools, supporting lower-order cognitive processes related to recall and memorisation.

Theme2 :Clarifying Meaning and Concept (Understanding)

A large number of participants described using chatbots to better understand difficult terms, theories, or concepts. The code "clarifying meaning "was supported by quotes such as "I ask for clarification or examples" and "I use chatbot to understand literary theories." This indicates that students engage with chatbots to build comprehension and deepen conceptual understanding.

Theme3 :Using AI suggestions in academic tasks (Application)

Students also highlighted how they applied chatbot suggestions in practical academic contexts. Under the code "using knowledge in context", one student stated, "I apply chatbot suggestions in writing and speaking", while another shared, "I apply chatbot responses in commentaries and essays". These comments demonstrate that learners use AI output to transfer knowledge into real tasks, reflecting Bloom's" application" level.

Theme4 : Breaking Down and Reflecting on Content (Analysis)

At a higher cognitive level, students reported examining chatbot answers critically. The code "examining and comparing "emerged from quotes such as "I reflect on chatbot suggestions" and "I evaluate and adapt chatbot answers". This theme reflects analytical engagement, where learners interpret, compare, and adapt AI-generated content to suit their academic goals.

Theme5 :Judging Accuracy and Relevance (Evaluation)

Some students emphasized their critical thinking skills by assessing the reliability and usefulness of chatbot outputs. The code "judging validity and usefulness "is evident in remarks like "I critically evaluate chatbot responses." This shows students' awareness of AI limitations and their ability to discern credible information.

Theme6 :Rephrasing and Personalizing Information (Creation)

Students reached the creative stage of learning, where they transformed chatbot answers into personalized, original expressions. The code "producing original or adapted content" was reflected in the statement "I personalize and rephrase chatbot answers." This theme highlights how learners integrate AI assistance into their unique voice and style, show casing creativity and autonomy.

III.1.2 Addie Model-Based Analysis of Learning with Chatbots

The findings revealed that chatbots play multiple roles throughout the different phases of the ADDIE instructional design model, namely :Analysis, Design, Development, Implementation, and Evaluation (Although in this data set, the first four stages were the most emphasized). Students' answers revealed that they use chatbots to diagnose learning needs, plan goals, enhance writing and grammar, and apply learning strategies in real contexts. The codes were grouped into five main themes, each corresponding to a stage of the ADDIE Model.

Theme1: Identifying Learning Needs (Analysis)

In the analysis stage of the ADDIE framework, students described using chatbots as tools to clarify ideas and identify knowledge gaps. The code "identifying learning needs and gaps "emerged from statements such as "I use chatbots for clarifying ideas." This suggests that learners

employ AI tools to diagnose areas they find confusing, thereby enabling more focused and self-directed learning.

Theme2: Examining Students' Planning and Selecting Learning Goals (Design)

At the design stage, students reported that chatbots contribute to their learning planning by suggesting pathways or topics. The code "relying on chatbots' suggestions to help choose learning paths "was evident in responses like "I set my own goals but if the chatbots give helpful ideas, I sometimes include them." This demonstrates a semi-autonomous approach, where learners take initiative but remain open to chatbot-generated guidance in goal setting and lesson planning.

Theme3: Enhancing Writing and Grammar (Development)

During the development phase, students actively engaged with chatbots for practice and feedback. The code "selecting chatbot tasks, organizing study sessions, preparing learning plans" was supported by comments such as "Tasks and feedback help improve grammar and writing." These responses highlight that chatbots act as developmental tools that provide structure, corrective feedback, and opportunities for targeted skill improvement in writing and grammar.

Theme4: Using Chatbots in Real Learning Situations (Implementation)

In the implementation stage, students reported applying chatbot guidance both inside and outside the classroom. The code "modifying chatbot suggestions, and making personalized notes "was illustrated through statements like "I use them in and outside of class" and "It supports independent learning." This reflects an active phase where learners apply chatbot assistance in authentic learning contexts, adapting the information to their individual needs and preferences.

Theme 5: Judging the Tool's Usefulness (Evaluation)

In the Evaluation phase, The code for this theme was "Reviewing chatbot effectiveness." Participants reflected positively on the chatbot's contribution to their learning, particularly through

personalized feedback. As one response stated, "Chatbots support my learning through feedback." This indicates that students perceive chatbots as valuable evaluative tools that assist them in assessing progress and reinforcing knowledge.

III.1.3 Kantian Ethics and Students' Use of Chatbots

All responses were read carefully to understand how students reflect on their moral and ethical use of chatbots in academic contexts. The answers demonstrated clear moral awareness, a sense of responsibility, and concerns about academic honesty and overreliance on AI tools. The related codes were then grouped under larger thematic categories inspired by Kantian ethics.

Theme1: Misuse of AI in Academic Tasks

Students expressed that chatbots should be seen as supportive tools rather than complete substitutes, highlighting the code "use chatbots as help not full answers". For instance, one participant stated "I don't think it is ethical to rely completely on the chatbot. It is better to use it as a supporting tool, like a study partner." This shows that learners value academic integrity and view the chatbot as an aid rather than a shortcut.

Theme2: Moral Responsibility in Learning

Learners demonstrated awareness of their moral duties through the code "take responsibility" for their own learning. A student asserted, "Yes, I do feel responsibility "which reflects acting from duty rather than convenience, a central idea in Kant's moral philosophy.

Theme3: Academic Integrity and Plagiarism

Ethical reflection was also evident in discussions of plagiarism, represented by the code "move from copying to paraphrasing." As one student admitted, "I copied once but didn't feel proud," showing a rejection of dishonest practices. This aligns with Kant's Categorical Imperative: if everyone copied, the value of academic work would collapse.

Theme4: Improvement and Accountability

Some learners highlighted the need for better chatbot adaptability, which corresponds to the code "better chatbots adaptability needed". For example, one student said, "One thing that could be improved is personalization." This reflects autonomy and moral reasoning, showing that students think critically about technology and seek ways to use it more ethically.

Theme5: Academic Honesty with AI

Through the code "verifying AI content", students also discussed the importance of checking chatbot answers before trusting them. One explained, "Sometimes I'm not sure about the answers, so I verify the content" indicating reflective judgment and a commitment to duty rather than blind acceptance.

Theme6: Purpose of Using Chatbots

Many participants described using chatbots as learning aids rather than shortcuts, illustrating the code "seeing chatbots as learning aids". For example, "I try to see the chatbot as a learning aid to help me in my learning process "shows that learners respect themselves and their education, treating AI not as a mere means to an end but as a partner in learning.

Theme7: Need for Ethical Guidelines

The code "guidelines for using chatbots "appeared frequently as students emphasized the need for ethical rules for AI use. One response stated, "Using chatbots in class can raise concerns like overreliance, inaccurate information, or plagiarism. Teachers should set clear rules about how and when to use them". This reflects Kant's idea of universal moral laws, which emphasize acting out of moral duty and respecting principles that could be applied universally. In this context, both students and teachers have a moral responsibility to use chatbots in a way that promotes honesty, autonomy, and respect for intellectual work.

III.2 Results from the Survey Test

Part 1: Multiple Choice

Question (01): Which of the following is considered ethical use of a chatbot?

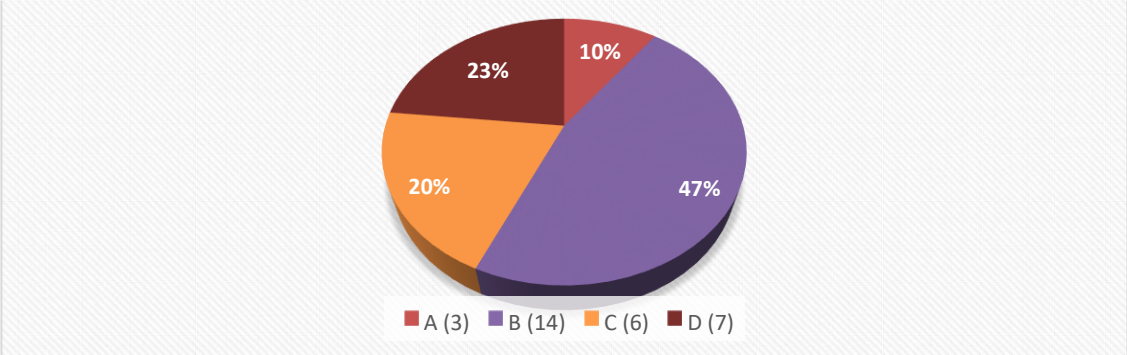

Diagram**1**. Students' Ethical Use of Chatbots

Diagram1 indicates that option B"using chatbots to check grammar and vocabulary"was the most selected answer (47%). A"asking it to write the full essay"was the less selected one (10%).

In the other hand, some of them selected C"copying its answers and submitting it as your own" (20%) and the others opted for option D"asking it to answer exam questions during the test" (23%).

Question (02): Why is it important to cite sources, even when using chatbot-generated content?

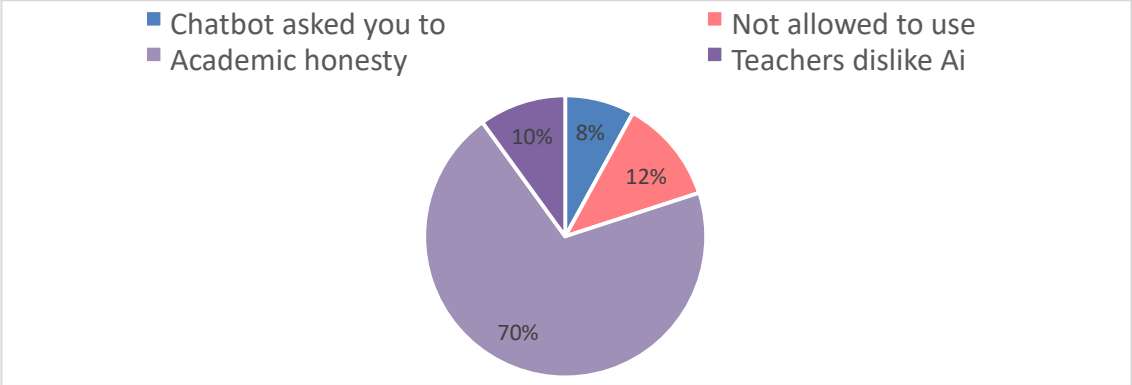

Diagram2. Students Views on Chatbot Citation

Diagram2 reveals that 70% of students cite chatbot-generated content for reasons of academic honesty, indicating a strong awareness of ethical practices and plagiarism avoidance. In contrast, 30% gave less critical reasons such as rules against using AI (12%), teacher disapproval (10%), or simply following Chabot prompts (8%) suggesting that some students lack a full understanding of citation ethics.

Part 02 :True or False

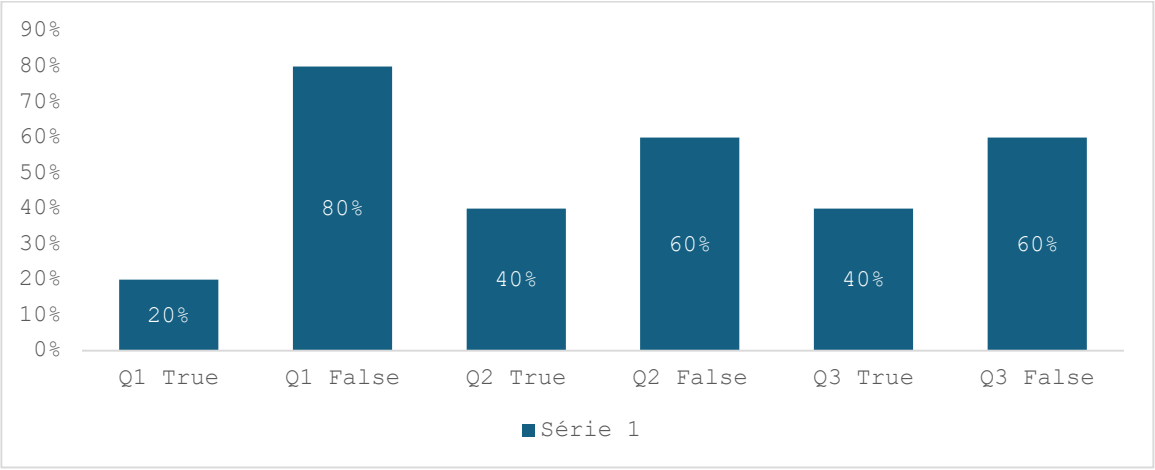

Diagram**3**. Student Use of AI Tools: Ethics, Understanding, and Critical Thinking

The results in diagram 3 illustrate that the majority of participants faced challenges in providing correct answers. Statement 1"Using a chatbot for translation is always considered plagiarism"

revealed that only 20% of the participants selected "True" as their response. 40% of participants in statement 2 "it is ethical to rely on chatbots when you understand the content and use it to support your ideas" answered "True". 40% in statement 3 "students do not need to think critically if they are using AI tools" identified "False" as their response, indicating mixed awareness among students regarding the ethical use of AI tools.

Part 03: Would You or Wouldn't You?

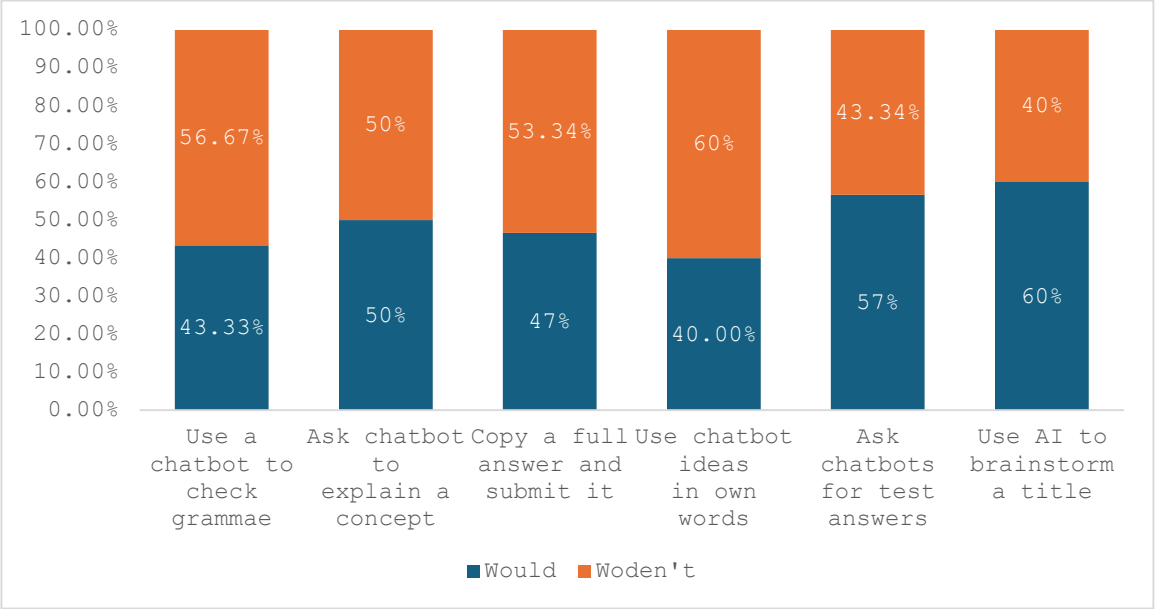

Diagram**4**. Students Interaction With AI: Ethical Boundaries and Good Practices

Diagram4 illustrates participants' responses across six AI related situations. 43.33% selected "I would" for using a chatbot to check grammar before handing in homework. 50% chose "I would" for asking a chatbot to explain a difficult concept from class. 46.66% responded "I would" for copying a full answer from a chatbot and submit it, while 40% highlighted "I would" for using chatbot ideas but write in their own words. Notably 56.66% indicated "I would" for asking a chatbot for test answers during the exam, whereas 60% reported "I would" for using AI to brainstorm a title for their project.

Part 04:Paragraph Improvement

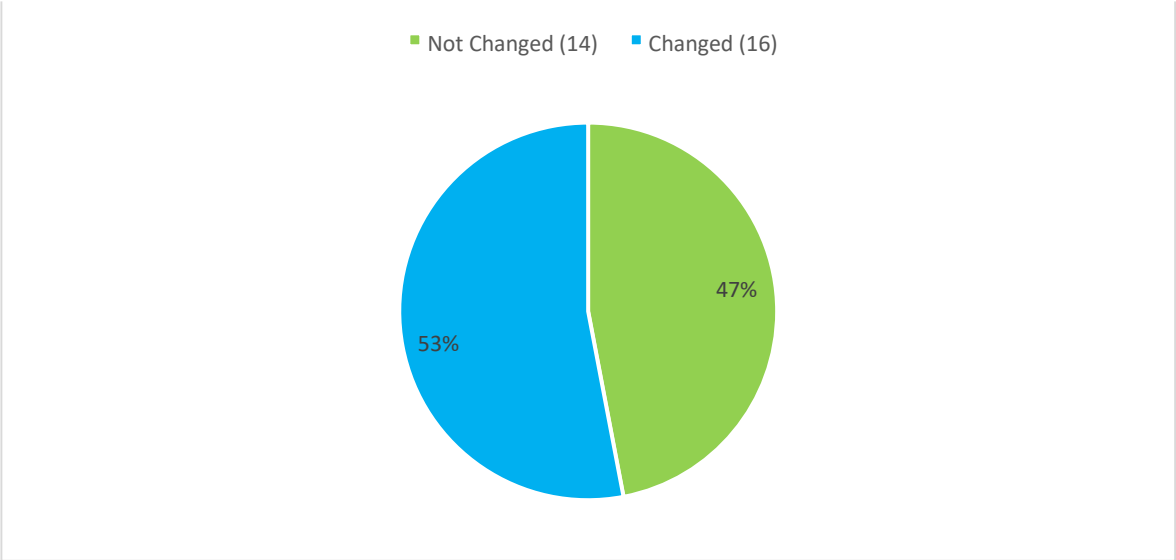

Diagram **5**. Human-AI Collaboration in Academic Writing Improvement

Diagram 5 reveals that more than half of the participants 53% modified the chatbot's suggestions because they wanted to add their own thoughts. This implies a thoughtful engagement with AI generated content, aiming to personalize or refine the output. While 47% of them did not modify its suggestions as they found the responses accurate.

The analysis of the responses provided by the 53% of students who reported modifying the chatbot's suggestions demonstrates an active and reflective engagement with the generated text. Several participants explained "I only changed a few words to better fit my writing style" and "Because I wanted to keep my own tone while making it more formal," indicating a desire to preserve personal voice while improving academic quality. Others noted "I found the chatbot's suggestion too complex," which led them to simplify certain expressions for clarity. One student stated, "I wanted to include a more specific example," highlighting an effort to enhance precision

and relevance. Additional responses included statements such as “I adjusted some vocabulary to make it clearer,” “I shortened some sentences,” and “I reorganized the ideas to make them more logical.” These justifications suggest that students did not passively accept the chatbot’s output; instead, they critically evaluated and refined it to ensure that the final version reflected their own understanding and writing preferences.

Conclusion

This chapter has presented the key findings of the investigation conducted with thirty (30) Master 2 students from the Department of English at Mouloud Mammeri University of TiziOuzou through interviews and a survey test. The results revealed how students engage cognitively and ethically with chatbots in their learning process. The interview analysis, based on Bloom’s Taxonomy, the ADDIE Model, and Kant’s Ethical Theory, showed that learners use chatbots to recall, apply, and evaluate knowledge while maintaining awareness of ethical use and responsibility. The survey results further confirmed students’ growing awareness of academic integrity and their need for clearer ethical guidelines when using AI tools in education.

Chapter Four: Discussion of the Findings

Introduction

This chapter is concerned with answering the research questions outlined in the general introduction. It gives account of the findings of this study, which are obtained through an interview and a survey test, discusses and interprets them in light of our literature review as well as the analytical framework on which this study is based. It also evaluates the validity of the initial hypotheses. The chapter is structured around the two main research questions. First, it explores the ethical challenges M2 students encounter when using Chatbots in their EFL learning.

Then, it examines how chatbot use influences their ability to learn independently.

IV .1 Answer to Research Question 1: Ethical Challenges Faced by M2 EFL Students when Using Chatbots

This section addresses Research Question 1 by discussing findings from both the interviews and the survey test. It sheds light on the challenges students encounter when using chatbots, including concerns related to the lack of accuracy and reliability, plagiarism risks, invisible influence on argumentation and academic style, and AI's impact on student thinking.

IV.1.1Lack of Accuracy and Reliability

The findings obtained from question 4 (part one) and question 2 (part three) reveal that the majority of the participants admitted they often pause to reflect on how they use these tools, especially when it comes to the accuracy and originality of the content. Furthermore, when asked about how they handle chatbot suggestions (question 5, part one), many students said they do not just accept the answers blindly. Instead, they usually double check the information, compare it with what they have learned, or even ask teachers for confirmation.

These findings align with Bloom's revised taxonomy as articulated by Anderson and Krathwohl (2001, as cited in Rhul, C, 2025). The way in which students engage with chatbot input pausing to evaluate dependability, contrasting responses, and even modifying them show a level of involvement that goes beyond memorization or basic understanding. In fact, many students demonstrated signs of evaluating the chatbot's feedback and producing more personalized versions. These higher-order cognitive processes like analyzing, evaluating, and creating are important in modern education. They move learners beyond memorization, pushing them toward deeper thinking, problem solving, and autonomous learning, all of which are reflected in students' habits of reviewing, questioning, and reshaping chatbot outputs. Moreover, the replies to the paragraph-editing task reinforce this cognitive engagement. Question 4 asked learners whether they made changes to the AI-suggested paragraph. Out of all participants, 53.33% responded with "yes." Their explanations show that they did not simply accept the chatbot's version. Some found the feedback complex, whereas others said the tone did not correspond to their personal writing style. A few even mentioned that although the content was technically correct, it failed to express what they really intended to say. This attention to meaning, tone, and personal expression reflects deeper cognitive engagement, especially in the stages of analyzing and creating, two of the most cognitively demanding levels in Bloom's revised model.

In addition to cognitive engagement, these findings also align with the ADDIE instructional design model (Branch, 2009). Students' reflections reveal that they unconsciously pass through ADDIE's five phases. In the Analyze stage, they identify the limitations or uncertainties in AI responses. In the Design phase, they begin planning how to adapt the chatbot output to their own writing purpose. Then, during the Develop stage, they reformulate the material, changing structure or tone. The Implement stage occurs when students actually apply the revised content into their tasks. Finally, the Evaluate phase appears when learners review the final result and assess whether

it meets their academic and personal expectations. This process lines up with the ADDIE framework's emphasis on continuous learning adaptation, showing that learners are not just passive consumers of chatbot content but are actively engaged in reshaping their learning journey.

The results align with those of an empirical study conducted by Kovalyova (2024) entitled "Can AI Chatbots Respond Appropriately to EFL Learners?". In her study, Kovalyova (2024) explored how chatbots like Replika, hold conversations with Japanese university students learning English. Replika, which uses generative AI, achieved the highest contextual accuracy with 89% of its replies being aligned with the context and 91% error-free, the study also highlighted some issues. Students unfrequently encountered misunderstandings, especially when their messages contained mistakes that the chatbots could not clarify correctly. This sometimes led to confusing or off-topic responses. In other situations, the chatbots used hard vocabulary or grammar that did not fit with the learner's level, and left students troubled. While AI chatbots clearly demonstrate significant potential, especially the more advanced ones, the study makes it clear that they still have room to grow when it comes to being fully reliable language partners. It also shows that learners would benefit from chatbots that can better adjust to their level and offer clearer, more helpful feedback when difficulties arise. In light of these findings, we are led to the conclusion that AI chatbots can be helpful for EFL learners. Furthermore, it can be deduced that students learn better when chatbots use simple language and give accurate answers.

IV.1.2 Plagiarism Risks and Authorship

When it comes to using AI like chatbots, academic honesty is how students find a way to seek for help while remaining true to their own research. This issue is quite similar to Kantian ethics, which says that the moral value of an action depends on its aim, not its outcome. Kant said that an action is only morally right if it is done out of duty, with good intentions, and in line with a universal moral law. For example, questions 3of the interview asked students if they had ever

thought about copying information from a chatbot without fully understanding it and if they were worried that this would lead to unintentional plagiarism. This was a real fear for 19 out of 30 participants who answered, one student said, "I copied once, but I didn't feel proud." The line "Now I paraphrase and reflect" shows a moral progression from doing things for convenience to doing things for principle. This change shows Kant's theory of going from desire to duty. "Yes, but sometimes I'm not sure if paraphrasing is enough, so I try to mix chatbot input with my own thoughts," said another student. This shows that they were trying to maintain their own authorship even when they were not sure where the lines were drawn, which is a step toward moral responsibility and ethical autonomy.

Half of the participants stated they tried to make the material more personal instead of just rewriting AI responses. This effort shows a real commitment to doing the right thing, which is in keeping with Kant's belief that actions only have moral significance when they are done out of duty, not because they are easy or beneficial, but because they are right.

When students were asked to think about how AI could be used in ways that were not clear, like using it on tests or submitting complete essays that the system made, additional ethical questions came up. 23% of students who took part in Activity One, Part One chose choice D, "Asking it to answer exam questions during the test." This is against the moral code since it puts personal gain above fairness and justice. From a Kantian point of view, this is bad since such behavior cannot be recognized as a universal rule; if all students did this, exams would be entirely pointless. In the same way, 10% of those who answered said they had turned in essays that were completely authored by AI, and 20% said they had copied responses from chatbots and submitted them as their own. From a Kantian point of view, these actions are wrong because students see education and intelligence as tools to get what they want rather than valuing them as ends in themselves.

In the “Would You or Wouldn't You” part, 46.66% of students reported that they would copy a full AI-generated answer and submit it, a practice that directly undermines academic honesty. From a Kantian perspective, such behavior violates the duty-based principle that actions should be morally acceptable if universalized; plagiarism clearly cannot meet this standard. Meanwhile, 40% stated they would use chatbot ideas but rewrite them in their own words, indicating a partial awareness of authorship responsibility, though still ethically problematic if not properly cited. In contrast, more instructional uses such as 50% asking AI to explain a difficult concept and 43.33% using AI to check grammar pose fewer risks as long as transparency is maintained. More concerning is that 56.66% expressed willingness to ask a chatbot for test answers during an exam, which represents academic misconduct and directly contradicts Kant’s emphasis on honest duty. Finally, 60% using AI to brainstorm project titles reflects low plagiarism risk but reinforces how deeply AI is integrated into students’ work.

All things considered, Kantian ethics offers a useful foundation for comprehending how students engage with AI. Some students continue to act out of convenience without thinking about the moral consequences, even while many demonstrates positive indications of ethical awareness and personal responsibility. This emphasizes how education systems must actively foster ethical thinking and assist students in developing into logical, independent, and ethically responsible adults instead of focusing only on enforcing rules or punishing misconduct. As Kant reminds us, doing what is right out of obligation and with good intentions is the ultimate goal, not success or accomplishment.

These results line up with those presented by LaGioia in May 2024 in her work “Plagiarism and Original Authorship in the Age of AI.” The author emphasizes how the use of AI in academic settings has made it more difficult to distinguish between genuine student work and machine-generated content. The paper discusses that while AI can support learning, it also takes into

consideration concerns about academic honesty. She points that some students copy chatbot answers without changes, which blurs the lines of authorship and rises the risk of plagiarism. The author argues that as AI becomes overrated, universities must take clearer steps to teach students the difference between using AI responsibly and misusing it. This includes advocating ethical use, encouraging students to keep their own voice, and making sure that they are aware of what it means to be the true author of their work. Considering these results, we deduce that while many students use AI tools in their studies, there is a relevant need to help them better understand the risks of plagiarism and the value of authorship. Students would benefit from clearer guidance on how to use AI responsibly and fairly.

IV.1.3 Invisible Influence on Argumentation and Academic Style

Students' use of chatbots for academic writing shows that these tools affect more than just word choice; they also indirectly shape how students write and organize their ideas. This is evidenced by data drawn from both the interview and the survey test. In Question 3, Part One, most of students shared that they turn to AI in order to get help in structuring arguments or correcting writing tasks. One participant noted, "Sometimes I ask the chatbot to divide the question into essential parts that I need to develop in my writing," while another said, "I often rely on chatbots' help to structure my writing, especially in academic essays and even in my thesis." These remarks show that students use AI not merely to enhance language accuracy, but also to guide the flow and logical arrangement of their ideas.

This attitude has a deep reflection in Kantian ethics perception, which emphasizes that the moral value of an action lies not in its outcome but in the intention behind it. Kant believes that only a good will an action done out of duty rather than self-interest can be considered truly moral. Applying this to students' interaction with chatbots, the central ethical question becomes: are

students using these tools in a responsible academic way for instance, to better understand and improve their work, or are they using them as a shortcut to achieve results without personal effort?

The writing task in Part Four sheds more light on this dilemma. Students were required to reword a paragraph using a chatbot by giving them the freedom to accept or reject its suggestions. Results showed that 47% of participants followed the AI's structure and tone, while 53% made more noticeable changes. Despite this variation, the final findings from both groups demonstrated a similar logical organization and formal tone akin to AI generated responses. Despite the changes that were made, the underlying influence of the chatbot was still visible in how ideas were presented and developed. In this context, the ethical issue becomes too subtle. According to Kant, acting morally needs not only conforming to duty, but doing so for the right reasons. If students blindly adopt the structure proposed by AI, without internal reflection or critical thinking, they risk acting merely in accordance with academic duty, rather than out of genuine commitment to learning. On the other hand, using the chatbot's feedback to serve them as a guide and engage actively with its suggestions, questioning them, and shaping their responses with intellectual honesty, then their use aligns more closely with the idea of acting from duty. Kant gave huge importance as well to actions that were driven solely by outcomes, such as grades or ease, which would not fulfill the criteria of moral worth. In this sense, the increasing reliance on AI in academic writing needs a thoughtful balance where students must remain autonomous moral agents, using these tools not as replacements for effort but as instruments in the pursuit of responsible, individual learning.

These outcomes are consistent with the empirical study "ChatGPT, Smart Writing Assistant Chatbot for Students: Analysis of Its Drawbacks" by Yazid and Dzulfikri (2024), which investigated how students experience ChatGPT as a writing tool. Based on interviews with 30 students, the study reveals that ChatGPT offers useful support for grammar and idea generation, however it also shapes the way students write and communicate their thoughts. Many participants

observed that their writing started to lack personality and became formulaic, deducing that their academic voice was being replaced by the tone and structure of the chatbot. As one student notes, “I noticed that my writing became more impersonal”. It reveals a quiet but significant influence of AI tools on students’ academic style and argumentation, where relying too heavily on chatbots may impact creativity, critical thinking, and authentic self-expression.

These findings point to the conclusion that the influence of the chatbot is deeper than generating grammar or vocabulary writing. It affects students’ thought processes, mainly in how they reason through their arguments and structure their ideas. As students increasingly rely on the AI’s way of organizing information, we see a subtle shift in how they approach writing itself. In this way, the chatbot goes beyond being just a tool for quick fixes it quietly acts as a writing guide, shaping how students organize their ideas and build their arguments. Over time, the chatbot becomes more than just a helpful assistant; it starts to serve as an example of what academic writing should look and sound like.

IV.1.4 Between Convenience and Cognition: AI’s Impact on Student Thinking

As mentioned before, the results of Activity 4 reveal that AI tools impact student thinking in varied and significant ways. The fact that nearly half of the students reproduced the chatbot’s paragraph without modification suggests that some learners may be engaging in surface-level processing. This shows that they do not use their critical thinking, and just accept the information as given without questioning or analyzing it. This behavior demonstrates lower-order cognitive engagement, where they only focus on reproducing ideas instead of actively using their cognitive skills. On the other hand, more than half of the participants made important adjustments to the chatbot's outcomes, showing that they were mentally involved. These students show evaluative thinking by taking in consideration what they have learned and making decisions based on what

they think is suitable. This change from just accepting things to actively thinking about them is a step toward deeper, more meaningful learning.

When examined through the lens of cognitive development, this divide becomes even more telling. The students who adjusted the AI-generated content were not simply editing language, they were engaging in a process that involved analysis, judgment, and reconstruction of ideas. These are all indicators of higher-order thinking. Their actions show that they are not using the chatbot as a final tool of authority, but as a source to be considered, questioned, and adapted. This reflects the development of autonomy and independent thought, both of which are key goals in academic learning. On the other hand, students who only take what the chatbot suggests are missing opportunities to develop these deeper skills. If used in an exaggerated way, learners may lose their critical thinking, thus relying too much on external input and stop trusting and using their own reasoning.

Part 2 of the test supports this analysis, with 40% of students rejecting the idea that they do not need to think critically when using AI tools. This suggests that many learners are aware of the need to maintain their own intellectual control when using such tools. Some students are not only thinking with the chatbot, but they also have thoughts about it, as seen by their resistance to the idea of "AI thinking for them. “In a digital learning environment, where we have plenty of information but not all of it is reliable, this kind of metacognitive awareness is very important. Students who reflect on the relevance and structure of chatbot responses demonstrate that AI can help them to use their mental skills rather than replacing their thoughts.

What emerges from these findings is a nuanced picture: AI does not inherently weaken or strengthen student thinking. Rather, it provides opportunities for students to use it passively or thoughtfully. Its effect is mostly determined by the learner's attitude, routines, and capacity for thought. Some participants view AI as a tool that lowers the mental work required to finish a task.

Others perceive it as a means of enhancing academic judgment, testing comprehension, and facilitating deeper thought. This range of applications highlights a crucial concern for educators such as teaching students to think critically and beyond AI is just as important as teaching them how to utilize it. If students want to use technology effectively without sacrificing their intellectual development, they must cultivate this critical eye.

Put all together, Master's students enrolled in EFL studies at the Department of English at Mouloud Mammeri University of Tizi-Ouzou experience several challenges when using chatbots, including concerns about accuracy and reliability, the risk of plagiarism, the subtle influence on their argumentation and academic style, and the broader impact of AI on their thinking. Alongside the convenience they provide, AI chatbots also present potential ethical challenges, such as issues of plagiarism and copyright, when users rely on the information they directly supply (Holmes et al. 2019; Kim & Byun, 2021, as cited in Williams, R.T, 2023). These challenges push students to think critically about how they use chatbot-generated content, encouraging them to stay aware of their choices and remain responsible for their academic work. Hence, this section answers the first research question raised in the general introduction: "What ethical challenges do M2 students face when using chatbots in their EFL studies?" consequently, the first hypothesis which indicates that M2 students encounter ethical challenges when using chatbots like lack of accuracy and reliability, plagiarism risks, invisible influence on argumentation and academic style, AI's impact on student thinking, is confirmed.

IV.2 Answers to Research Question 2: How does the use of chatbots affect students' ability to learn independently?

This section answers research question 2. It explores how chatbots support students' ability to learn autonomously. It shows that learners use chatbots for goal setting through understanding and clarifying concepts, self-observation and progress tracking, and moral responsibility in monitoring one's own progress.

IV.2.1Goal Setting through Chatbot Use

The analysis of participants' responses demonstrates that chatbots contribute remarkably to students' ability to plan and organize their learning. This behavior lines up closely with the ADDIE instructional design model (1975), especially in its key stages of analysis, design, development, implementation, and evaluation. For instance, during the analysis phase where learners identify their educational needs several participants indicated they turn to chatbots to clarify ideas and recognize areas of difficulty. In response to Question one, the total of the interviewees mention that they use chatbots to help and identify learning needs. One student stated, "I use chatbots for clarifying ideas," showing how learners can assess their own gaps before beginning a task. In the design phase, which involves selecting learning goals and paths, students expressed the fact that they take the lead in planning, while staying open to the feedback given by chatbots. In response to Question 2, one student shared, "I set my own goals but if the chatbot gives helpful ideas, I sometimes include them." This demonstrates that learners value their own planning, but they still make space for AI input when it adds value. In the development phase, which involves designing and planning instruction. Participants reported using chatbots to organize study sessions and prepare learning plans. This was echoed in Question 3, where the majority of students emphasized

"Tasks and feedback help improve grammar and writing," suggesting that the chatbot is more than a reactive tool; it is being used to build structured learning routines from the outset.

Moreover, the implementation stage is reflected in how students apply chatbot support in real academic situations, inside and outside of class. 43.33% of students in Part 3 confirmed this when they ticked "I would" for using a chatbot to check grammar before submitting homework and 60% to brainstorm a title for a project (see Diagram 4). These behaviors demonstrate how chatbots are actively used in context not as replacements for learning, but as ongoing aids throughout the learning process. In short, the participants' responses illustrate that chatbots are used for a purpose. Indeed, students are engaging with these tools in structured ways that mirror the ADDIE model (1975), using them to identify needs, plan strategies, apply learning in real contexts, and evaluate their progress. This structured engagement shows a growing shift toward more personal and planned learning practices. In short, the participants' responses illustrate that chatbots are used for a purpose like identifying needs, planning strategies, applying learning in real contexts, and evaluating their progress.

IV.2.2 Self-Observation and Progress Tracking

Question 5 of the interview (Part 1) uncovers students' reflection on their own academic progress and assessing their learning when using chatbots. The majority of participants shared that they tend to "reflect on chatbots suggestions" and "evaluate and adapt chatbot answers." This suggests that instead of relying on AI feedback, most of students take an active role in examining, comparing, and improving their work based on the feedback they have. Their behaviors are closely related to the higher-order thinking skills presented in Bloom's Taxonomy, which was revised by Anderson et al., (2001 as cited in Rhul, C, 2025), especially in question 4, 5, and 6 the stages of analyzing, evaluating, and even creating. When students analyze chatbot output, they're thinking about how useful or appropriate the information is. When they evaluate it, they judge its validity

and usefulness to their writing. These steps are part of a broader process of being able to control their own learning where they become reflective of how they learn, and take responsibility for improving it. Some students go beyond just checking or editing the chatbot's suggestions. They rephrase or personalize the input to fit their own goals. This kind of reflection is related to the "creating" level of the revised Bloom's Taxonomy, in which students are not only reacting to information, but using it to produce original or adapted content. For instance, one student said, "I personalize and rephrase chatbot responses," and another mentioned, "I wanted clear and specific answers." These replies show that students are thinking carefully about what they want to say and how best to say it. They are not simply polishing language, they are reflecting, choosing, and reshaping content in a way that supports their own voice and academic purpose.

The fourth part of the survey further confirms this pattern. Students were asked to improve a paragraph using chatbot assistance, and the task was meant not only to check whether they could rewrite content, but to see how thoughtfully they would approach the task. Many of them did not just copy or rephrase; they made choices based on clarity and tone which leads to a mature use of AI, where students are not letting the tool think for them, instead, they are using it to support their own decision-making. It demonstrates an increasing ability for self-monitoring and shows that AI is being used as a supportive tool within the learning process, rather than a shortcut.

This also connects with the evaluation phase of the ADDIE model. Even though ADDIE is often used in instructional design, the evaluation stage is relevant here, because it involves reviewing tools and methods to decide what works best. The students who took time to weigh the value of chatbot suggestions and made changes based on their own goals were clearly engaging in that kind of evaluation. Instead of trying to finish their work effortlessly, they were proactively reflecting on the usefulness of the chatbots insights and making mindful choices about when to change its outcomes. This demonstrates a crucial shift toward a responsible and accountable,

learner-centered use of AI. Taking Bloom's Taxonomy and the ADDIE model together, it becomes clear that students are developing important academic habits. According to the revised Bloom's framework, cognitive learning involves moving through the stages of Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. The student responses gathered here show evidence of all of these. They understand the chatbots responses by asking to clarify meaning and concept, apply them when appropriate and using knowledge in context, analyze their usefulness by breaking down and reflecting on content, evaluate their quality, judging accuracy and relevance, then create revised content that expresses their own thinking. In doing so, students are not simply improving their writing, they are learning how to learn, using digital tools in a way that builds independence and deepens their engagement.

IV.2.3 Moral Responsibility in Monitoring One's Own Progress

In Question 2 of the interview, participants felt a huge responsibility while interacting with chatbot generated feedback. One of them stated, "Yes, I do feel responsible for understanding what the chatbot recommends," indicating that students are not using AI blindly. However, before they implement it, they give it a significant thought and processing time. This attitude implies that students understand that learning is about absorbing and digesting information thoughtfully, which represents Kant's view of obligation to do what is ethically decent rather than just what is convenient. AI is being employed by students to support their critical thinking instead of just to think for them. Students self-monitor their interaction with chatbot recommendations, demonstrating moral responsibility in action.

Further evidence appears in Question 5, where half of the students admitted they were not sure whether paraphrasing AI content was enough to maintain academic honesty. One respondent noted, "Sometimes I'm not sure if paraphrasing is enough, so I try to mix chatbot input with my own thoughts." This answer shows an ethical uncertainty, and a clear effort to protect personal

authorship. It goes with the Kantian principle of the categorical imperative, which asks whether one's actions could become a universal rule. The fact that students question whether simply rewording AI content is ethical reveals a level of self-reflection and internal ethical monitoring, which is central to moral development in academic contexts.

In Question 7, the idea of shared ethical responsibility emerges. Half of the students expressed the importance to build moral rules and instructions for using chatbots. One participant stated, "Yes, I think there should be rules for using chatbots ethically", revealing that students are extending their concern beyond individual use. This is aligns with Kant's view of universal moral law, which maintains the fact that everyone in a community should be subject to the same norms. This focus on group accountability shows an enhanced ability to think morally in ways that go beyond learners' self-interest.

These findings are indicated in the survey responses. 47% of students chose "Using it to check grammar and vocabulary" as the moral application of a chatbot. In Part One, Question One, the assumption that students feel comfortable using AI in order to refine its feedback than developing its content is reflected in this most given response. This is a crucial distinction. It implies that students see the chatbot as an aid rather than a replacement for their own reasoning. This supports Kant's ethical theory that technologies should be viewed as helps rather than as ways to escape responsibility. Students are demonstrating a will to increase academic integrity and intellectual ownership, stressing on their moral obligation to take their education in a reflective way. Further responses from Questions 4 and 6 show how students reflect on the way chatbots fit into their personal learning goals. In Question 4 of the interview (part 3), some students pointed out that chatbots should become more adaptable and personalized. One student remarked, "One thing that could be improved is personalization." This request reveals an active role in monitoring their progress, students want AI tools that support individualized learning, not one-size-fits-all

responses. Their responses demonstrate autonomy, as they are evaluating the chatbot's limitations and asking for improvements based on ethical learning needs not just taking its output as it is.

In Question 6, another student shared, "I try to see the chatbot as a learning aid," which reflects a conscious decision to use AI responsibly. This lines up with Kant's means-end principle, where the learner uses the chatbot as a support system rather than a shortcut. Implementing this tool in this way reveals ethical maturity; students are taking effective and important decisions that align with their academic goals and values. It also reflects a non instrumental view of education they do not see learning as something to bypass, but something to actively engage with. Overall, the students' responses reveal varied levels of moral responsibility in how they monitor and regulate their use of chatbots. While many demonstrate awareness of their own practices questioning the purpose behind their use, the boundaries of acceptable AI involvement, and what counts as ethical, others show a more limited or inconsistent application of these principles. These forms of reflection suggest that learners are developing a self-governing, ethical mindset, one that aligns well with Kant's theory of moral autonomy. Students do not let technology define their learning process, in contrary, they remain in control evaluating, questioning, and adapting their practices based on personal and academic values. This shows that moral responsibility is not just about knowing right from wrong, but about continuously engaging with one's own progress in a way that respects both learning and integrity.

Our findings line up with those of Williams (2023), who explored the ethical ramification of using generative chatbots in higher education. Their research broadly examined institutional and pedagogical concerns, while our study particularly focuses on Master 2 students enrolled in EFL studies at the Department of English at MMUTO. Applying Bloom's Taxonomy, we notice that students engage in higher-order thinking skills such as analysis, evaluation, and creation when critically assessing chatbot answers and including them into their learning processes. The ADDIE

model further explains how students navigate the instructional design phases, especially during development and evaluation, as they interact with chatbots to enhance their language proficiency. From the perspective of Kant's Ethical Theory, students highlight moral responsibility by reflecting on the ethical use of chatbots, ensuring the fact that their interactions maintain principles of honesty and respect for intellectual property. Therefore, the second research question, that is "How does the use of chatbots affect students' ability to learn independently?" is answered; thus, the second hypothesis, which states that "Chatbot interaction encourages students to take greater responsibility for their own learning", is partially confirmed.

Conclusion

This chapter has discussed and interpreted the findings relying on Bloom's Taxonomy, the ADDIE Model, Kant's Ethical Theory, and the literature review. It has answered the two research questions and tested hypotheses advanced in the general introduction based on the findings obtained through an interview and a survey test designed for Master's two students specializing in Didactics of Foreign Languages and Literature and Civilization at the Department of English at Mouloud Mammeri University of Tizi-Ouzou. The analysis of the findings has demonstrated that most of these students utilize chatbots to develop academic skills and manage learning tasks; however, they also encounter ethical challenges, showing different levels of responsibility, critical thinking, and awareness in their use of AI tools.

General Conclusion

The present dissertation explored the ethical challenges faced by EFL Master's students enrolled in Language Studies at the Department of English at MMUTO. The research aimed to achieve two main objectives. First, it aimed to identify the key ethical concerns students experience when interacting with chatbots. Second, it examined the extent to which students rely on these tools and what that means for their learning. In particular, the study investigated whether chatbots improve students' learning abilities or, conversely, reduce their engagement and independence.

To conduct the research, three main theoretical frameworks were used. Bloom's Taxonomy, with its six cognitive levels Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating was used to assess how students cognitively engage with chatbots. The ADDIE Model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation, was applied to understand how students experience chatbot learning tasks. Finally, Kant's Ethical Theory provided a perspective to explore the moral considerations students make while using artificial intelligence in their learning.

A mixed-methods approach was employed, combining both quantitative and qualitative data collection and analysis procedures. Two tools were used: an interview and a survey test completed by 30 participants. All participants were Master's students specializing in Didactics of Foreign Languages or Literature and Civilization. The data were analyzed using descriptive statistical analysis for the survey responses, and thematic content analysis for open-ended questions from the interviews.

The analysis of the data collected through the survey and interviews has demonstrated that EFL Master's students interact with chatbots both cognitively and ethically as they complete academic tasks. Learners are shown to experience several metacognitive and strategic processes when using AI tools: they assess tasks, set goals, plan their learning, and reflect on their own

performance. Chatbots are used for rapid replies and are integrated into the education process to help deeper interaction and independent thinking.

At the same time, the findings reveal several ethical concerns. These include doubts about how reliable and accurate chatbot responses are, worries about plagiarism, and the impact of AI on students' own academic voice and thinking. Many students seem aware of these issues and try to use AI in a responsible way, however others still need support and clear guidance to assert the maintenance of academic integrity when using these tools.

Chatbots sometimes encourage students to adopt a critical thinking view. Students report using AI not blindly, but with awareness, questioning the information it provides and adapting it to their specific academic purposes. This shows that, using AI wisely can support the development of cognitive behavior. Through the frameworks of Bloom's Taxonomy, the ADDIE model, and Kantian ethics, the study reveals that learners are engaged with the content provided by chatbots also with the ethical and strategic aspects of their learning. They reflect, adjust, and take responsibility for their choices, which supports a careful and responsible approach to education.

Ultimately, the findings confirm the first research hypothesis and partially support the second hypothesis. AI acts as a helpful tool to support independent learning, but it also brings new ethical challenges that need to be carefully managed with the right guidance. These findings matter not just for students, but also for teachers and curriculum designers. Students may benefit from AI's feedback and personalized support, helping them learn in ways that suit their needs. Teachers can use AI to make their teaching more creative and engaging. Meanwhile, decision-makers are encouraged to build clear frameworks that make space for AI in education while still protecting values like honesty, responsibility, and academic integrity.

Like every scientific work, this dissertation faced some limitations. The main challenge happened during data collection, which took place during a very busy academic period. This made

it a bit hard to schedule and carry out the interviews on time. Still, this did not affect the overall progress of the study or the quality of the results. From a methodological perspective, the research was based on a relatively small sample size, namely 30 M2 students, which limits the extent to which the results can be generalized. It is also important to mention that the research was done within a specific setting, the English department at MMUTO, which means the findings may not apply to all EFL learners in different contexts. In spite of these limitations, this study lays the groundwork for academic work. The use of artificial intelligence in education like chatbots is becoming a topic of global interest.

In the Algerian context, studies are essential to understand how AI affects students' academic contribution and ethical use. While this research offers initial insights, future investigations could adopt more specialized directions. For instance, researchers may compare how students from different academic disciplines experience ethical challenges when using AI tools, which would help identify whether these issues vary across fields. In addition, employing alternative theoretical frameworks could provide new perspectives on the ethical dimensions of human-AI interaction. Future studies might also explore how teachers and university administrators perceive and respond to the use of AI in students' work, as their attitudes play a key role in shaping responsible AI integration. Utilizing different research approaches, like long-term and detailed case studies, may provide a deeper look at how students use AI over time. These insights would be valuable for students, teachers, and curriculum designers. It would help them make useful decisions about using AI in ways that support learning while still respecting academic values and ethics.

Reference List

Adamopoulou, E., &Moussiades, L. (2020). Chatbots: History, technology, and applications.*Machine Learning with Applications*, 2, 1-21. https://doi.org/10.1016/j.mlwa.2020.100006 .

Adom, D., Mensah, G.A., & Dake, D.A. (2020).Test, measurement, and evaluation: Understanding and use of the conceptseducation. *International Journal of Evaluation and Research in Education(IJERE)*, *9*(1),1-3. https://files.eric.ed.gov/fulltext/EJ1246414.pdf.

Alabi, O., & Bukola, T. (2023). Introduction to descriptive statistics. *In Recent Advances in Biostatistics.* IntechOpen, 1-12. https://www.scribd.com/document/688621463/Introduction-to-Descriptive-Statistics

AlTwijri, L., &Alghizzi, T.M. (2024). Investigating the integration of artificial intelligence in English as foreign language classes for enhancing learners' affective factors: A systematic review. *Heliyon, 10*(10), 2-12. https://doi.org/10.1016/j.heliyon.2024.e31053.

Ateeq, A. et al. (2024). Artificial intelligence in education: Implications for academic integrity and. the shifttoward holistic assessment. *Frontiers in Education*, 9, 1-11. https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2024.1470979/full

Bozkurt, A., & Sharma, C.R. (2024). Are We Facing an Algorithmic Renaissance or Apocalypse? Generative AI, ChatBots, and Emerging Human-Machine Interaction in the Educational Landscape. *Asian Journal of Distance Education, 19*(1), i-xii. https://files.eric.ed.gov/fulltext/EJ1424298.pdf .

Branch, R.M. (2009). *Instructional design: The ADDIE approach.* New York, NY: Springer. https://irpcdn.multiscreensite.com/d1d73361/files/uploaded/ADDIE_Branch_Textbook.pf

.

Bui, T., & Tong, T. (2025). The Impact of AI Writing Tools on Academic Integrity: Unveiling English-Majored Students' Perceptions and Practical Solutions. *AsiaCALL Online Journal, 16*(1), 83-110. https://doi.org/10.54855/acoj.251615 .

Butarbutar, R. (2024). Artificial intelligence for language learning and teaching: A narrative literature study. *Englisia : Journal of Language, Education, and Humanities, 12*(1), 147163. http://dx.doi.org/10.22373/ej.v12i1.23211 .

Caldarini, G., Jaf, S., &McG arry, K. (2022). A literature survey of recent advances in chatbots. *information, 13*(1), 2-22. https://doi.org/10.3390/info13010041.

Chen, X. et al. (2021). Twenty years of personalized language learning. *Educational Technology & Society*, 24(1),205-22https://www.jstor.org/stable/26977868?utm_source=chatgpt.com .

Coursera Staff. (2025). What is artificial intelligence? Definition, uses, and types. https://www.coursera.org/articles/what-is-artificial-intelligence.

Dai, K., & Liu, Q. (2024). Leveraging artificial intelligence (AI) in English as a foreign language (EFL) class: Challenges and opportunities in the spotlight. *Computers in Human Behavior*, 159. https://doi.org/10.1016/j.chb.2024.108354 .

Dai, L. et al. (2024). Text-to-speech and virtual reality agents in primary school classroom environments. *European Journal of Education, 40*(6), 2964 – 2984.http://dx.doi.org/10.1111/jcal.13046 .

Eliott, L. (2023). Advantages and disadvantages of AI in the EFL classroom. The Asian Conference on Education Official Conference Proceedings, 1-9. https://papers.iafor.org/wp-content/uploads/papers/ace2023/ACE2023_73896.pdf . Retrieved on June. 10, 2025.

Ezzaim, A. et al. (2022). Artificial intelligence in education - State of the art. International *Journal of Computer Engineering and Data Science, 2*(2), 2737 8543.

https://www.researchgate.net/publication/365591199_Artificial_intelligence_in_education_State_of_the_art

Fastiggi, W. (2024). 3 Reasons Why Bloom's Taxonomy Was Revised. Technology for Learners.https://technologyforlearners.com/3-reasons-why-blooms-taxonomy-was-revised/.

Feishherz, B., & Millar, G. (2024). *Digital ethics. A teaching handbook*. Geneva: Globethics Higher Education Series. https://repository.globethics.net/handle/20.500.12424/4306851 .

Floridi, L. et al. (2018). AI 4 People-An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. Springer Later Link, 28, 689– 707. https://link.springer.com/article/10.1007/s11023-018-9482-5 .

Frye, L., & Carpenter, R. (2006). Emerging Technologies Bots as Language Learning Tools. *Language Learning & Technology. 10*(3), 8-14 https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/5a011229-a52a-4909b487-1546df0bb1a2/content .

Gade, K. et al. (2020). Explainable AI in industry: Practical challenges and lessons learned. ResearchGate. https://www.researchgate.net/publication/341130264_Explainable_AI_in_Industry_Practical_Challenges_and_Lessons_Learned .

Gunasekare. (2016). Mixed research method as the third research paradigm: A literature review. *International Journal of Science and Research (IJSR)*, *4*(8), 361-367. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2735996# .

Hasan, M.L. (2022). Immanuel Kant: Ethics. *The review of contemporary scientific and academic studies,* *2*(9), 1-13. https://www.researchgate.net/publication/363868353_Immanuel_Kant_Ethics .

Huang,W., Hew, K.F, & Fryer, L.K. (2021). Chatbots for language learning- Are they useful? A systematic review of chatbot-supported language learning. *Journal of Computer Assisted Learning, 38*(1), 1-325. http://dx.doi.org/10.1111/jcal.12610 .

Hurst, A. (2023). Introduction to qualitative research methods: A helpful guide for undergraduates and graduate Students in the Social Sciences. Corvallis: Oregon State University. https://open.oregonstate.education/qualresearchmethods/chapter/chapter-11interviewing/ .

Iberdrola. (2025). Artificial intelligence: Birth, applications and future trends. https://www.iberdrola.com/innovation/history-artificial-intelligence .

Jeon, J. (2022). Exploring AI chatbot affordances in the EFL classroom: Young learners' experiences and perspectives. *Computer Assisted Language Learning, 37*(1-2), 1-26. https://doi.org/10.1080/09588221.2021.2021241 .

Kant, I. (2012). *Groundwork of the metaphysics of morals*. (M. Gregor & J. Timmerman. Ed & Trans.). New York, NY: Cambridge University Press. (originally published in 1998). https://yale.imodules.com/s/1667/images/gid6/editor_documents/life_worth_living/kantgroundwork.pdf.

Kim, H., Cha, Y., & Kim, N. (2021). Effects of AI chatbots on EFL students' communication skills. Korean Journal of English Language and Linguistics, 21, 712-734. http://journal.kasell.or.kr/xml/30253/30253.pdf .

Kovalyova, A. (2024). Can AI chatbots respond appropriately to EFL learners?.*Language Education& Technology*, 61, 155-178. https://www.jstage.jst.go.jp/article/let/61/0/61_155/_article/-char/ja .

LaGioia, S.D. (2024). Plagiarism and original authorship in the age of AI: Present complications and future. California State University. https://scholarworks.lib.csusb.edu/etd/1881/ .

Lewis, M. (2019). The basic principles of Kantian ethics. *Konsyse*, 1-3. https://www.konsyse.com/articles/the-basic-principles-of-kantian-ethics/ .

Maglagiannis, I., Illiadis, L., &Pimenidis, E. (Eds.). Artificial intelligence applications and innovations. 16th IFIP WG 12,5 International conference, AIAI 2020 proceeding, part II, 5-7 June, 2020, 373-383. https://doi.org/10.1007/978-3-030-49186-4_31 .

Mahmood, A. et al. (2025). Userinteraction patterns and breakdowns in conversing with LLMpowered voice assistants. *International Journal of Human-Computer Studies*, 195. https://doi.org/10.1016/j.ijhcs.2024.103406 .

Misselbrook, D. (2013). Duty, Kant, and deontology. *British journal of general practice,63*(619). https://pmc.ncbi.nlm.nih.gov/articles/PMC3609464/ .

Mohammadkarimi, E. (2023). Teachers' reflections on academic dishonesty in EFL students' writings in the era of artificial intelligence. *Journal of Applied Learning & Teaching, 6*(2), 105-113. https://doi.org/10.37074/JALT.2023.6.2.10 .

New Media Consortium. (2018). The NMC horizon report: Higher education edition. 1-60. https://er.educause.edu/~/media/files/library/2018/8/2018horizonreport.pdf?la=en .

Ortiz-Bonnin, S., Blahopoulou, J. (2025). Chat or cheat? Academic dishonesty, risk perceptions, and ChatGPT usage in higher education students. *Springer Nature Link, 28*(113) 2-21. https://link.springer.com/article/10.1007/s11218-025-10080-2?utm_source=chatgpt.com#citeas .

Peng, J. (2024). A comprehensive review of the application of NLP technology in language learning. *Ewa Publishing*, 92, 163-168. https://doi.org/10.54254/2755-2721/92/20241735

Prokhorova, P., Gujrati, R., Uygun, H. (2024). The use of AI chatbots in higher education: The problem of plagiarism. *Review of artificial intelligence in Education,* 5, 1-8. http://dx.doi.org/10.37497/rev.artif.intell.educ.v5i00.31 .

Rhul, C. (2025). Bloom's taxonomy of learning. *SimplyPsychology*, 1-17. https://www.simplypsychology.org/blooms-taxonomy.html .

Sain, S. et al. (2024). Harnessing ChatGPT for effective assessment and feedback in education. *Journal of Computer Science and Informatics Engineering*, 3(2), 74-82. http://dx.doi.org/10.55537/cosie.v3i2.856 . Retrieved on May. 26, 2025.

Sandle, G. (2024). What is Kantian ethics?.Perlego, 1-25. https://www.perlego.com/knowledge/study-guides/what-is-kantian-ethics/ .

Sheron, C., Salvagni, J., &Colomby, R.K. (2022). The qualitative approach interview in administration: A guide for researchers. *Journal of Contemporary Administration*, 26 (04), 1-15. https://doi.org/10.1590/1982-7849rac2022210011.en .

Sok, S., & Heng, K. (2023). ChatGPT for education and research: A review of benefits and risks. *Cambodian Journal of Educational Research, 3*(1), 110-121. https://www.researchgate.net/publication/373092953_ChatGPT_for_education_and_research_A_review_of_benefits_and_risks .

Sovacool, B.K., Iskandarova, M., & Hall, J. (2023). Industrializing theories: A thematic analysis of conceptual frameworks and typologies for industrial sociotechnical change in a low-carbon future. *Energy research & social science*, 97, 2-36. https://www.sciencedirect.com/topics/social-sciences/thematic-analysis .

Taherdoost, H. (2022). How to conduct an effective Interview; A guide to interview design in research study authors. *International Journal of Academic Research in Management (IJARM), 11* (1), 39-51. https://hal.science/hal-03741838/document .

Urbaite, G. (2025). Adaptive learning with AI: How bots personalize foreign language education. *Euro-Global Journal of Linguistics and Language Education, 2*(1), 13-18. https://doi.org/10.69760/lumin.20250001002 .

Wadley, G., Carter, M., & Gibbs, M. (2015). Voice in virtual worlds: The design, use, and influence of voice chat in online play. *Human-Computer Interaction, 30*(3-4), 336-365. https://doi.org/10.1080/07370024.2014.987346 .

Wei, L. (2023). Artificial intelligence in language instruction: Impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology,* 14, 1-14. https://doi.org/10.3389/fpsyg.2023.1261955 .

Williams, R.T. (2023). The ethical implications of using generative chatbots in higher education. *Frontiers in Education*, 8, 1-8. https://doi.org/10.3389/feduc.2023.1331607 .

Xiao, Y., & Zhi, Y. (2023). An Exploratory study of EFL learners' use of ChatGPT for language learning tasks: Experience and Perceptions. *Languages, 8*(3), 1-12https://doi.org/10.3390/languages8030212 .

Yazid, R.S., Dzulfikri, D. (2024). Chatgpt, smart writing assistant chatbot for students: An analysis of its drawbacks. *Abjadia: International journal of education, 9*(1), 41-56. http://dx.doi.org/10.18860/abj.v9i1.24459 .

Yuan, H. (2025). Artificial intelligence in language learning: Biometric feedback and adaptive reading for improved comprehension and reduced anxiety. *Humanities and social sciences communications,* 12, 1-16. https://www.nature.com/articles/s41599-025-04878-w .

Zhang, X., &Umeanowai, K.O. (2024). Exploring the transformative influence of artificial intelligence in EFL context: A comprehensive bibliometric analysis. *Education and Information Technologies*. https://link.springer.com/content/pdf/10.1007/s10639-02412937-z.pdf .

Appendices

Appendix A: Students' Interview

Part 1:Bloom's Taxonomy (Cognitive Engagement)

1. How do you use chatbots to help you recall English vocabulary or grammar rules? Do you feel it helps you remember information better? (Remembering).

2.When you ask the chatbot a question or request an explanation, how well do you understand the answer? Do you ever need to ask for clarification? (Understanding).

3. Have you used chatbots to help with tasks like writing or speaking practice? How do you apply the suggestions the chatbot gives you in your actual assignments? (Applying).

4. When the chatbot gives you feedback on your writing or grammar, do you analyze its suggestions? How do you decide if the feedback is useful or accurate? (Analyzing).

5. How do you evaluate the chatbot's responses? For example, if you disagree with something the chatbot says, how do you handle it? (Evaluating).

6. Have you ever used chatbots to help you generate ideas for an essay or a creative task? How do you incorporate your own thinking into what the chatbot provides? (Creating).

Part 2: ADDIE Model (Learning Design and Process)

In this section, the goal is to explore how the students experience the design and implementation of chatbot-based learning tasks, as well as how they evaluate their use of the chatbot.

1.What do you think is the main purpose of using chatbots in your English learning? Are there particular areas of learning where you think chatbots are most helpful? (Analyze).

2. How do you plan your learning goals when using chatbots? (Design)

3. How clear and helpful do you find the tasks or feedback the chatbot provides? Do you feel they are well-designed to support your learning goals? (Develop).

4.When you use chatbots during your classes or assignments, how does the tool fit into the learning process? Is it integrated in a way that helps you, or does it feel separate from your regular study? (Implement).

5.After using the chatbot for a while, do you feel like it has improved your English skills? (Evaluate).

Part 3: Kant's Ethical Theory (Moral Responsibility in Learning)

This part focuses on understanding the ethical decisions students make when using chatbots. Are they using the tool ethically, respecting the learning process, and thinking critically about their own actions?

1.Do you think it is ethical to rely entirely on the chatbot to complete assignments, or do you believe it is better to use it as a supporting tool rather than a shortcut?

2.Do you feel a responsibility to understand what the chatbot suggests, even if it is easier to just copy its answers? How do you approach using the chatbot when you do not fully understand a suggestion?

3.Have you ever felt tempted to just copy what the chatbot says without really understanding it? How did you handle that?

4.What do you think could be improved about using chatbots in your learning?

5.Do you think there should be rules for how students use chatbots in class? Why or why not?

6.Kant believes that we should treat others (and ourselves) with respect and not just use them as a means to an end. Do you think using the chatbot is a way to enhance your learning, or do you sometimes feel like you are just using it to finish tasks quickly?

7.Can you think of any situations where using a chatbot in class might rise concerns or problems? What kind of rules do you think could help in those cases?

Appendix B: The Survey Test

You are kindly requested to Answer the following questions:

Part 1: cross the right options

1. Which of the following is considered ethical use of a chatbot?

    A. Asking it to write your full essay

    B. Using it to check grammar and vocabulary

    C. Copying its answer and submitting it as your own

    D. Asking it to answer exam questions during the test

2. Why is it important to cite sources, even when using chatbot-generated content?

    A. Because the chatbot asked you to

    B. Because it is not allowed to use chatbots at all

    C. Because it shows academic honesty and avoids plagiarism

    D. Because teachers do not like Al

Part 2: True or False

1.Using a chatbot for translation is always considered plagiarism. True/False

2. It is ethical to rely on chatbots when you understand the content and use it to support your ideas.

True/ False

3.Students do not need to think critically if they are using Al tools. True /False

Part 03: Would You, or Wouldn't You?

For each situation, just tick✓ if you would do it, or✗if you would not.

Use a chatbot to check grammar before handing in homework

Ask a chatbot to explain a difficult concept from class

Copy a full answer from a chatbot and submit it

Use chatbot ideas but write in your own words

Ask a chatbot for test answers during the exam

Use AI to brainstorm a title for your project

Part 04: Paragraph Improvement

1. Read the short paragraph below

2. Use a chatbot (like ChatGPT or any Al assistant) to help you improve it

3. Your goal is to make the paragraph more formal and academic

Note: You are free to accept or reject the chatbot's suggestions. We are only studying how students interact with chatbots to improve their writing.

Original Paragraph:

Technology in education has revolutionized learning. While it provides many advantages, such as accessibility and engagement, it also introduces challenges like distractions and over-reliance on digital tools. It is essential to balance these benefits and drawbacks.

Improved Version (using chatbot):

……

……

……

Did you change anything from what the chatbot suggested? (Yes/No) lf

yes, why?

…….

Appendix C: Sample response to interview questions

Bloom's Taxonomy

1. I use chatbots mainly to recall vocabulary and grammar rules by asking them for examples or quick explanations. It helps me remember better because the interaction feels like a conversation, and I can ask follow-up questions until I understand.

2. Most of the time, I understand the chatbot's explanations well. But sometimes the answer is too technical or uses advanced words, so I ask it to simplify or give an example. That really helps.

3. Yes, I've used chatbots for writing and speaking practice. When I get suggestions, I try to apply them by rewriting my sentences or practicing aloud. It helps me improve my sentence structure and fluency.

4. When the chatbot gives feedback, I usually think about why it made that suggestion. If I agree with the logic, I use it. If not, I might double-check online or ask again in a different way.

5. I evaluate responses based on how clear and relevant they are. If I disagree, I ask for an explanation or another example to understand the chatbot's reasoning better.

6. Yes, I've used chatbots for brainstorming essays or stories. I try to take the ideas as inspiration, then develop them in my own way so that the work still reflects my thinking.

ADDIE Model

1. I think the main purpose of using chatbots in English learning is to get quick help and personalized support. They are especially helpful for vocabulary building, grammar correction, and writing improvement.

2. I stick to my own goals, but i sometimes add suggestions from the chatbots if I find something interesting.

3. I usually find the feedback clear and useful. It's often designed in a way that pushes me to think or correct my mistakes, which supports my learning goals.

4. When I use the chatbot during assignments, it fits well into the learning process. It's like having a tutor available at any time. But sometimes it feels a bit separate if my class doesn't involve much technology.

5. Yes, I feel like my English has improved, especially in writing and vocabulary. I've learned to use better words and avoid common grammar mistakes.

Kant's Ethical theory

1. I don't think it's ethical to rely completely on the chatbot. It's better to use it as a supporting tool, like a study partner. The learning should still come from my own thinking.

2. Yes, I feel responsible for understanding the chatbot's suggestions. If I don't understand something, I ask for clarification or try to research it myself instead of copying.

3. I've been tempted to copy answers, especially when I'm tired or in a hurry. But I remind myself that if I don't understand, I won't learn. So I usually go back and try to understand it first.

4. One thing that could be improved is the personalization. Sometimes the chatbot doesn't know my exact level, so it gives too advanced or too simple answers. More adaptive responses would help.

5. I do think there should be some rules in class. Students need to understand how to use chatbots ethically and not depend on them to do the work.

6. According to Kant's view, it's important to use tools like chatbots to support our growth, not just as shortcuts. I try to see the chatbot as a learning aid rather than just a quick solution.

7. Yes, I think having clear guidelines for ethical chatbot use is important. It helps students use the tool wisely and teachers understand its role in education.

Appendix D: Sample response to the test

Part 1: Multiple Choice

1. B

2. A

Part 2: True or False

1. False

2. True

3. False

Part 3: Would You✓ or Wouldn't You✗

Use a chatbot to check grammar before handing in homework: ✓

Ask a chatbot to explain a difficult concept from class: ✓

Copy a full answer from a chatbot and submit it: ✓

Use chatbot ideas but write in your own words: ✗

Ask a chatbot for test answers during the exam: ✓

Use AI to brainstorm a title for your project: ✓

Part 4: Paragraph Improvement

Did you change anything from what the chatbot suggested? Yes

If yes, why? I only changed a few words to better fit my writing style.