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Ministry of Higher Education and Scientific Research
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**The Role of Artificial Intelligence in Promoting EFL Learners's
Writing Skills : Case of 2nd Year EFL Learners at Tlemcen
University**

Dissertation submitted to the department of English as a partial fulfilment of the requirements for master's degree in English (DIDACTICS)

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2023 – 2024

DEDICATION

To

Ourselves

Our lovely family

And our best friends

ACKNOWLEDGEMENTS

First and foremost, we would like to praise ALLAH the Almighty, for his blessings given to us to finish this dissertation.

We would like to thank prof. BERRABAH for his considerable support and insights that helped us accomplish this work .

Our sincere gratitude goes out to the board of examiners for accepting to read and evaluate this research paper.

At last, our deepest gratitude and heartfelt appreciation goes to our lovely family and dearest friends. We would also like to appreciate and thank ourselves for all the hard work we did .

ABSTRACT

With the emergence of new advanced technologies, especially in the educational field, innovative teaching and learning methods are needed. Thus, Artificial Intelligence is establishing its relevance as a helping hand for learners writing to develop their skills. In keeping with this idea, the purpose of this inquiry is to investigate the function of Artificial Intelligence in improving 2nd year EFL learners' writing abilities, and to comprehend the potential of Artificial Intelligence writing tools in enhancing their grammar, vocabulary, and sentence structure. Therefore, focusing on 50 second year EFL learners and five teachers from the department of English, University of Tlemcen was performed. Two research instruments were applied in this research study in order to reinforce the reliability and authenticity of the research. Precisely, students questionnaire, and teachers interview. The findings from these tools revealed that the majority of students expressed a positive attitude towards the use of AI writing powered tools, and use them as a secondary assistance. Other notable findings showed that these tools had a great impact on students' writing abilities in developing their grammar, and style adjustment. The students indicate their overall satisfaction with these features of AI writing tools in correcting their grammar, and enhancing their vocabulary and word choice. These AI features permit the learner to have a better style. Overall, this study offers fresh insight into the effect of AI in improving EFL learners' writing capabilities and the capacity of these tools in boosting learners' style.

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KEY TO ACRONYMES

AI: Artificial Intelligence

AGI: Artificial General Intelligence

AIED: Artificial Intelligence in Education

ANI: Artificial Narrow Intelligence

ASI: Artificial Super Intelligence

EFL: English as a Foreign Language

ML: Machine Learning

NLP: Natural Language Processing

GENERAL INTRODUCTION

General Introduction

The incorporation of Artificial Intelligence (hence forth ,AI) technologies into the educational system holds a significant potential to transform both the students' learning experience and the approaches used by educators. AI-based tools are becoming more prevalent in the educational sector, enabling the provision of personalized learning opportunities, and enhancing students' performance, particularly writing performance. Writing is considered as a significant tool to express ideas and thoughts clearly and concisely. Therefore , effective writing is a critical skill for success in both academic and professional settings. So, having strong writing abilities can promote an effective communication, and provide a clear, compelling, and precise idea. Thus, the integration of AI technologies in language education has opened up great opportunities for enhancing EFL learner's writing proficiency. The AI-powered writing assistants and tools can provide valuable support throughout the writing process, by providing feedback, suggestions, and correcting errors. These AI writing tools can help EFL learners develop their thinking, brainstorm ideas, and expand their writing capabilities. As AI technologies continue to advance, the integration of these tools into EFL writing instruction is likely to become increasingly impactful.

This research aims to explore the role of AI in promoting 2nd year EFL learners' writing skills. Accordingly, the study seeks to investigate the impact of AI writing tools on EFL learners' writing proficiency, gain an understanding of the learners' experiences with AI writing tools, and investigate the potential of these tools in refining EFL learners' grammar, and style adjustment.

This study has been designed to examine the following research questions

Question 01: Do AI writing tools improve EFL learners' writing skills?

Question 02: To what extent do AI writing applications help EFL learners' in grammar correctness and style adjustment in writing?

In response to the research questions presented above , the following hypotheses are formulated

01: AI writing tools improve EFL learners' effectively in their writing skills.

02: AI writing applications do help EFL learners' by providing: grammar checker, vocabulary generator and enhancer, and sentence rewriter.

In order to answer the research questions and meet the study objectives, a mixed method research design was conducted in this research. Additionally, a case study was employed that aims to have a detailed analysis of 2nd year EFL learners on the use of AI in enhancing their writing skills. The data collection process leveraged a pair of research tools namely students' questionnaire and teacher's interview. Furthermore, the sample of the study was composed of 50 second-year EFL learners with 05 English language teachers , precisely, teaching comprehension and written production at the University of Tlemcen . Finally, after gathering the data, analysis and interpretation were made to reach final conclusions.

The present investigation is divided into two chapters. The first chapter is devoted to the literature review of the research study, and the second one is dedicated to the research methodology and the investigation's results. In the first chapter, foundational concepts were provided of the two concepts "AI" and "writing skills ". Then in the following chapter, included a description of the research design, type of research, sampling method, data collection and analysis methods. Finally , a discussion of the results was presented providing some solutions to ailments witnessed through the case study .

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CHAPTER ONE

CHAPTER ONE: LITERATURE REVIEW

Overview of AI and Writing Skills.

1.1 Introduction

The contemporary use of technological inventions has served to facilitate and refine individuals. One such predominant and widely recognized invention is AI, which has been implemented across numerous fields, education being among them. Lately, a high interest appeared in using AI to enhance the learner's language and skills, mostly writing skill, writing is considered as an essential skill in learning language. The role of AI in helping learners to develop their writing, is seen through providing specific tools to automate certain tasks, improve their thinking and creativity. In this chapter, a background knowledge and overview on two main topics: AI and writing skills, will be provided. How can we use AI to improve writing in an effective way, and the impact that will result in using it. The previous studies have investigated about the main points of AI and writing, explore on the impact of AI writing powered tools in enhancing EFL learner's writing skills, and see if it will affect them to develop their thinking skills.

1.2 Definition of AI in EFL Teaching and Learning:

The widespread adoption of AI tools in everyday life has transformed the way we interact with technology. AI tools refer to software applications or platforms that employ artificial intelligence and machine learning methods to accomplish specific tasks or address particular issues. These tools make use of AI algorithms and data to automate, optimize, or improve various processes in diverse fields. The scope of AI tools can vary, ranging from simple applications designed for specific tasks to more intricate platforms that facilitate advanced machine learning and data analysis capabilities (Shersiya , 2023).

In order to define Artificial Intellegence (AI), first, we should define artificial, according to Oxford languages dictionary: "*Artificial is made or produced*

by human beings rather than occurring naturally, especially as a copy of something natural “. In other words, the defining characteristic of artificial things is that they have been engineered or fabricated rather than arising spontaneously through natural means. (Oxford languages dictionary). Second, intelligence is the mental capacity or ability to solve problems and accomplish tasks effectively. It involves using information and reasoning to make decisions and take actions that help us achieve our goals in the world. The computational aspect of goal achievement is called intelligence, a system that is more effectively comprehended in terms of results than in terms of mechanics is said to be goal achieving. (S.Sutton , 2019). These two concepts combined together give us what we call artificial intelligence (AI): It is the theory and development of computer systems that can carry out activities that have traditionally needed human intelligence, like speech recognition, decision making, and pattern recognition. Machine learning, deep learning, and natural language processing (NLP) are just a few of the many technologies that fall under the broad category of artificial intelligence (AI). To put it simply, AI encompasses a wide range of technologies and approaches that aim to create computer systems capable of performing tasks that usually require human intelligence, making them more efficient, accurate and adaptable in various domains (Coursera , 2023).

The utilization of AI- powered applications within EFL in classroom settings has been steadily rising in recent times, as advancements in technology have become further integrated into language learning environments. There is accumulating empirical evidence suggesting that AI- based applications can offer valuable assistance to EFL learners , thereby facilitating the enhancement of their language proficiency , fostering greater students engagement , and furnishing personalized feedback . Over the past several years, the integration of technological resources, particularly AI- based applications, has become increasingly prevalent within EFL classroom settings. This Integration aims to cultivate a more engaging, effective, and productive learning experience for students. AI tools, like, language learning software, chatbots, and speech recognition systems, possess the potential to enhance and refine the teaching and learning process in EFL domain. (Hazaymeh , et al. 2024). A study conducted by Sumakul, et al. investigated the perspectives of teachers regarding the utilization of AI within EFL classroom environments. According to the findings, all participating

teachers expressed positive opinions towards the integration of AI -based technologies, as they recognized the capacity of such tools to enhance students' learning and teaching practices. Additionally, the study suggests that when incorporating AI into EFL classrooms, there are some points that should be considered including the technological and pedagogical expertise of teachers, as well as the motivational levels of the students. In other words, the study highlights that AI can be leveraged to improve the overall teaching and learning experience in EFL environments, as perceived by the teachers involved in the research (Hazaymeh , et al . 2024).

1.3 Subfields of AI:

Artificial intelligence is branched off into three main subfields: machine learning, deep learning, and natural language processing.

1.3.1 Machine learning: (ML)

Machine learning, or ML for short is the scientific study of statistical models and techniques used by computer systems to carry out specified tasks without explicit programming is known as machine learning. Machine learning (ML) is used to train machines to manage data more effectively (Mahesh , 2019). That is to say, the idea is that we might not be able to fully comprehend or extract the important information from the data, even after looking at it. In some situations, machine learning can be an effective tool for going deeper, finding connections that weren't previously apparent, and extracting important data. It enables us to use the data in more complex ways.

1.3.2 Deep learning:

It is a subset of AI and specifically is a subset of machine learning. Deep learning networks are made out of multiple layers each of which analyzes the data. These networks are called deep because the depth of layers and networks is important to allows networks to learn complex patterns, the more information that is utilized , The better network will be at performing the task that is trained to do such as computer vision, speech recognition , and self-driving cars. One of the benefits of deep learning models is that they can be prepared to recognize patterns in data that are excessively complicated for people to distinguish (keserer , 2023). That is to say, the depth of layers and networks in deep learning is important because it allows the networks to learn and extract increasingly complex patterns from the input data. Each layer in the network

performs computations on the data and passes the results to the next layer. Deep learning has been successfully applied to various domains. Thus, one of the major advantages of deep learning models is their ability to learn and recognize complex patterns that may be difficult for humans to identify. These models can process vast amounts of data and extract meaningful features automatically, without relying on explicit programming.

1.3.3 Natural Language Processing: (NLP)

Natural language processing, or NLP for short is subfield of AI that focuses especially on the interaction between computers and human language, aiming to enable machines to perform tasks such as learning and understanding, language generation and machine translation, all of which contribute to enhancing the language learning experience. In the context of teaching and learning, NLP has dedicated attention to developing methods that can aid in learning processes and provide valuable feedback to learners. The field has focused on creating techniques and tools that can enhance the learning experience by leveraging natural language processing capabilities. These methods can include intelligent tutoring systems, language learning tools, automated feedback systems, and personalized learning platforms. By utilizing NLP techniques, AI-powered systems can provide learners with tailored suggestions, constructive feedback, and interactive learning experiences, ultimately supporting the learning process and facilitating better educational outcomes (Bae Son , et al . , 2023). To put it in other way, in teaching and learning, NLP focuses on developing methods that can assist in the learning process and provide valuable feedback to learners. The field aims to create techniques and tools that leverage natural language processing capabilities to improve the overall learning experience. By incorporating NLP techniques into AI-powered systems, learners can receive tailored suggestions, constructive feedback, and interactive learning experiences. This integration ultimately supports the learning process and facilitates improved educational outcomes.

1.4 Types of AI:

Artificial intelligence is divided into three main subsets:

1.4.1 – Artificial Narrow Intelligence (ANI):

Also called weak AI systems designed to perform narrowly defined tasks. Such technologies focus on potential capabilities on single domains and lack the ability to

independently expand knowledge beyond initial parameters. They are often built utilizing machine learning algorithms and neural networks to carry out specialized functions. ANI tools excel at regulated activities but cannot generalize skills or self-direct to new undertakings outside of programmed objectives. While proficient in constrained domains, ANI demonstrates limited fluid intelligence compared to human-level cognition (Betz , 2024). Overall, narrow AI establishes a foundation for additional AI progress by demonstrating real-world solutions even with a narrowed focus.

1.4.2– Artificial General Intelligence (AGI) :

General artificial intelligence refers to an advanced system that has the ability to understand and learn new information and skills. From a philosophical standpoint, it is described as an intelligence that possesses cognitive capabilities similar to those found in humans, including the ability to think, have a mind, and be conscious (keresZtesi , and Res , 2022) In simple terms, general artificial intelligence (AGI) refers to a highly advanced computer system that can understand and learn new information and skills, just like humans can . General AI is described as an intelligence that has cognitive abilities similar to those found in humans, including the capacity to think, have a mind, and be self-aware.

1.4.3 Artificial Super Intelligence (ASI):

Artificial super intelligence, is an advanced form of artificial intelligence that goes beyond human intelligence and outperforms humans in various tasks. ASI systems possess the remarkable ability to not only understand human emotions and experiences but also exhibit their own emotions, beliefs, and desires, similar to humans. Although the existence of ASI is still hypothetical, it is expected that these systems would possess far superior decision-making and problem-solving capabilities compared to humans. Typically, an ASI system can engage in independent thinking, solve complex puzzles, make informed judgments, and autonomously make decisions (Kanade , 2022) .

1.5 .Challenges of AI Language Learning Tools:

The field of artificial intelligence (AI) studies the development of computer systems that can do tasks that are typically performed by humans. Playing chess, driving a car through traffic, and identifying faces or voices are a few instances of these abilities. The phrase Artificial Intelligence in Education (AIED) refers to the use of AI in educational

environments with the aim of improving teaching, learning, or the educational process as a whole. The integration of AI in education field is leading to a potential transformation In the teaching methods and educational practices, where the utilization of such technology is expected to become increasingly prevalent (Salido ,2023) . AI language learning tools have a lot of benefits, such as the capacity to save time and speed up learning, analyse learning gaps, adapting student's needs providing immediate feedback, and redefined the role for teachers. In other hand, using AI learning platforms can lead to serious drawbacks including technical, financial, and moral issues.

- Some of challenges of using AI in education are :
 - Inability of students to explore and attain their full potential. That is to say, Students' critical thinking and cognitive ability would be limited if they became overly dependent on artificial intelligence. Students' reliance on computers will grow. This will hinder students from pushing themselves to be creative or learning what it is to multitask. Because work will now be made easier by the use of artificial intelligence, this limits their ability to reach their full potential and develop their talents.
 - Facilitate technology addiction. In other terms, Once more, the integration of artificial intelligence into the classroom would encourage kids' and even teachers' addiction to technology. Instead of using pen and paper or books for teaching and learning process, teachers and students must now use laptops, iPads, or cellphones. This will result in more time spent in front of a screen and perhaps possibly a technology addiction (Awofiranye, 2024) .
 - In the light of these changes many schools , investigate on the ethical considerations of incorporating AI within teaching, learning processes, and assessment methodologies, it aims to offer guidance to educators to implement practices appropriately ,and accessible so as adequately support students acquisition of knowledge and skills (Beatriz, et al.,2023) .

1 .5.1 Benefits of Artificial Intelligence in EFL Teaching and Learning:

- Benefits of AI in English foreign language teaching and learning are :
 - Analyse learning gaps: AI platforms have the capability to assess previous academic achievements and identify learning gaps that might otherwise go unnoticed (Hooper , 2023)
 - Adapting to students' needs: one of its primary benefits of utilizing AI in learning is its capacity to appreciate to the specific requirements of every student. AI – driven language learning tools Have the capability to evaluate student's proficiency level, learning style, and can modify lessons suitably. This personalization ensures that students accept proper materials that meet their individual needs, as a result, learning process will be more organized and entertaining. (District , 2023)
 - Providing immediate feedback: Instant feedback is usually lacking in conventional language learning technique, which is essential for advancement. To this purpose, AI gives current data on the use of words, grammar, and pronunciation. Learners will comfortably practise speaking and writing with based on AI language tools, as they can get immediate time feedback and ideas for improvement(District , 2023) .
 - A redefined role for teachers: AI in language learning changes the role of teachers rather than replacing them. Teachers can now concentrate more on facilitating meaningful conversations, explaining difficult language concepts, and providing students emotional assistance.AI manages regular tasks such as evaluations and monitoring improvement, enabling teachers to focus on fostering a more profound comprehension of the language. The use of AI in language education is not temporary trend, it signifies a substantial change in the future of learning AI can examine large quantities of data to modify efficient teaching approaches and improve content as needed (District ,2023)

1.5.2 Drawbacks of AI in Education:

While AI has the potential to revolutionize and enhance the learning experience, it is essential to consider the drawbacks associated with its implementation in educational settings, it consists of several drawbacks, some of them are:

- Expensive, AI in education costs a lot.
- AI demands deep technical proficiency.
- At a large scale, AI is influenced by the biases present in its training data.
- Increase of unemployment.
- Inability to generalize between different tasks. (Laskowsk, & Tucci , n.d).

1.5.3 Limitations of AI Language Learning Tools:

AI language learning tools have limitations Some of the main ones are:

- Lack of human interaction is considered as the main limitation of AI language learning tools, since it provides an online distance interaction with native speakers and neglects direct human interaction. This issue might cause some problems and inconvenience for learners who prefer more personalized, face to face interaction learning experience.
- AI learning tools face difficulties in duplicating the cultural and contextual nuances of language, this might cause a misunderstandings or errors in communication.
- The inability to acknowledge errors in AI language learning tools. It can not correct errors as precisely as a human educators. (Rebolledo ,and Gonzalez, 2023).

AI is a general word that covers a range of systems such as natural language processing, machine learning and deep learning . In addition, AI is divided into three main subsets including artificial narrow intelligence, artificial general intelligence, and artificial super intelligence. Thus, AI is becoming a widely used in different domains especially in education. AI learning tools have a lot of benefits as well as it has some challenges. In using AI learning platforms can lead to serious drawbacks.

Writing is considered as an essential skill for an effective communication. It encompasses a combination of diverse components, types, and processes in order to have a coherent and impactful style of writing.

1.6 Definition of Writing Skills:

Writing is considered as an important skill to have, it requires a sufficient understanding of language, including grammar, punctuation, and spelling, as well as the ability to effectively convey thoughts and ideas through written words. It involves having the knowledge and competence to express oneself clearly and accurately in writing. In other words, a good writing skill provide a detailed understanding of sentence structure, grammar, vocabulary and so on. Individuals who possess advanced writing skills have the ability to adjust their tone, writing style, and word selection based on different situations and specific audience they are addressing. This ensures that they can effectively maintain the interest and engagement of their readers. (Arshad, 2023).

Writing in English is essential skill for learners, it must be learnt, in order to obtain better writing skills, students must practice a lot to develop their skills, the intention behind these practices is to enhance the student's writing abilities and promote effective expression of thoughts through well-crafted passages. According to Raimes (1983 : 4) , *“There are some functions of writing to communicate with a reader , to express ideas without pressure a face to face communication , to explore a subject , to record experience and to become familiar with the conventions of written English discourse “* . Simply put, writing fulfills multiple important functions, beginning with communicating with a reader, it allows the author to convey information, and messages to an audience. This communication can happen across time and space, to self-expression. Writing provides a medium for individuals to organize and express their thoughts , opinions , and ideas in a more deliberate and less immediate manner compared to spoken discourse , the ability to revise and refine written content gives the writer more control over their self-expression , to explore a subject , means that writing can be a tool for learning and discovery , writers can explore and develop their understanding of a topic , uncovering new perspectives and insights through the writing process , to record experience , that is to say , writing enables the documentation and preservation of personal experiences , observations , and events , creating a record that

can be revisited and reflected upon , and lastly to become familiar with the conventions of written English discourse , as authors engage in writing , they have the opportunity to learn and internalize the typical styles , structures , vocabulary , and other conventions associated with formal written communication in the English language. In addition , Byrne (1984:1)states that” *writing involves the encoding of message of some kind , that is , we translate our thoughts into language* “ which means that writing is a cognitive process where writers must actively translate their internal representation of written language , this translation of thoughts into written language is a core part of the writing process . (Ade Dwi Jayanti , 2019) .

Writing can be difficult, whether it for school or work. It’s a complex process that can be challenging to navigate. The difficulty lies in the fact that writers often struggle to make progress. That is why teaching writing is important, and teachers need to use effective techniques to motivate students and help them improve their writing skills. *“Writing is not an accessible form of expression, especially for EFL students who find it very difficult to enhance their underdeveloped writing processes* “(Ben Eidir , 2015). In simple terms, writing can be a challenging form of expression, especially for EFL learners. They find it difficult to improve their writing processes. As they have to overcome the additional challenge of working in a non-native language. Grabowski (1996) defines writing as: *“writing can be seen as a more standardized system which must be an acquired through special instruction mastery of this standard system is an important prerequisite of cultural and educational participation and maintenance of one’s right and duties* “ . That is to say, writing can be considered as a special set of rules and patterns that people need to learn, it does not come naturally to most people, mastering this special way of writing is important to participate in cultural and educational activities, writing is not just a skill, but a kind of standardized system that people need to actively learn, and mastering that system is crucial for being able to function and thrive in society. (Ben Eidir , 2015)

1.7 Definition of Writing Skills Components:

One of the fundamental English language skills that requires a lot of practice is writing. It’s a complicated skill since the student must express his thoughts and feelings in writing in order to be understood (Ade Dwi Jayanti, 2019). Proficiency in writing

can be a crucial factor in achieving higher academic standing and greater success in school. Nevertheless, if students do not see the value of writing abilities in assisting them in gaining academic proficiency. The current study findings can convince and help people in figuring out how to get better at writing. Some students may have a high level of knowledge and be able to answer an essay test question, but they may receive a low score because of their inability to effectively communicate their Information due to writing weaknesses (Abedin et al ,2013) . Students can improve their critical thinking skills as well as their understanding of English grammar and vocabulary through writing assignments (Ade Dwi Jayanti,2019).

1.7.1 Grammar:

Grammar is a specific set of guidelines that assist individual in structuring sentences so they make sense (chakradhar, 2021). In simple terms, grammar is like a guidebook that show learner how to put words together correctly to form meaningful sentences.

1.7.2 Vocabulary:

Vocabulary is “ *an integral part of the process of language learning be it native or foreign. Therefore, the use of a language is partly related to the amount of words that a person knows which refer to vocabulary*” (BERRABAH, 2006). In other words, Vocabulary is an essential part of the process of learning a language, the more vocabulary words persons know, the better he can use and understand that language.

According to Gunaprova gogoi (2015) “*vocabulary is the set of lexical items in a language, it is also called the lexicon* “. In other words, gogoi refer to vocabulary as lexicon of a language which is a set of lexical words that are part of a given language.

gogoi (2015) “*A good vocabulary is that which fills our needs, gives us confidence, helps us to understand, is varied and is exact* “. Which he means that effective vocabulary makes one express oneself in various contexts and situations, in addition that vocabulary boost sense of confidence and learner can find the right words to convey his thoughts and ideas clearly, as well developed vocabulary enhances comprehension

as the learner can understand the meaning of words . Also gogoi highlights that vocabulary is varied, which means a good vocabulary is diverse, encompassing a range of words beyond just basic or common terms. In addition he says vocabulary is exact, lexical should contain words that are specific, accurate to deliver the intended meaning without ambiguity.

1.7.3 Sentence Structure:

As it has been stated by the linguists the sentence is essentially a grammatical unit; Noam Chomsky (1957)” *I will consider a language to be a set finite or infinite of sentence* “as cited in (Yule, 2006) .Chomsky is a renowned linguist and a key figure in the field of generative grammar. In his work, he focuses on understanding the underlying structure and rules of language. First, Chomsky mentions that he will “consider” a language. This implies that he is presenting his own viewpoint for understanding languages. Next, he defines a language as “a set.” In linguistics, a set refers to a collection of distinct elements. In this case, Chomsky is referring to a collection of sentences. He further describes this set of sentences as being either “finite or infinite.” This means that a language could have a limited number of sentences or an unlimited number of sentences, depending on its nature and complexity. Overall, Chomsky’s quote suggests that he views a language as a collection of sentences, which can vary in terms of quantity, ranging from a finite number to an infinite number (Yule,2006).

Liz .R (2023) explains in his article that ,” *sentence structure refers to the way words and phrases are arranged in a sentence, it is the foundation upon Which all our written and spoken communication is built* “ .In this quote, Liz R. Is discussing the concept of sentence structure and its significance in communication. They begin by defining sentence structure as(the way words and phrases are arranged in a sentence) . This refers to the organization and order of words and phrases within a sentence to convey meaning. Liz R. Further emphasizes the importance of sentence structure by stating that it is (the foundation upon which all our written and spoken communication is built). This means that sentence structure plays an important role in our ability to effectively communicate through both written and spoken language. It provides organization that allows for

coherent and meaningful expression. Liz R highlighted the essential role of sentence structure by using proper sentence structure is necessary for effective communication on different contexts.

Liz R (2023) stated that, “sentence *allows us to convey our thoughts and ideas in a way that easily understood by others* “.According to Liz R. Sentence plays a vital role in English language, he highlighted that sentences serve as a means for expressing our thoughts and ideas. Liz R. Further stated that sentences enable us to convey our thoughts and ideas in a way that is (easily understood by others). This suggests that sentences play a crucial role in facilitating effective communication by providing a clear and organized structure that helps others comprehend our intended message. By asserting that sentences allow for easy understanding by others, Liz R. Underscored the importance of build well-formed and coherent sentences to ensure effective communication.

Sentence represents a series of connected words that form a sentence a meaningful unit. Linguistically speaking, a correct sentence has a subject, a verb, and like the rest (predicates), it must start with an capital letter and end with one of the following: (full stop, question mark, or exclamation mark) (Bouaicha, 2015) . In any building blocks, Sentence plays an important role to convey thoughts ,ideas and to be understood in correct and coherent sentence word choice, and style (formal and informal).

- **Word Choice:**

Choosing the right words is more than just “picking the correct words.” To pick the best word you need to think about lots of things. Finding the word that gets the point across the best needs a big vocabulary and understanding how English works. In order to choose right word, students have to take into consideration meaning, audience, and style (Glatch ,2022) . Using appropriate terms is crucial because it helps to avoid ambiguity, confusion, and misinterpretation.

- **Style of Writing :**

“Proper words in proper places, make the true definition of style” (glatch ,2024) . Glatch emphasized the significance of placing these words in the right context or order. The arrangement and organization of words within a sentence or a piece of writing significantly impact how the message is conveyed. . It involves structuring sentences, paragraphs, and overall composition to enhance readability, and comprehension. When glatch spoke of the (true definition of style), he refers to the particular manner in which a writer or speaker expresses themselves. Style encompasses the individual’s unique voice, tone, and word choices. It is not only about what is said but also how it is said. By using proper words in proper places, one can develop an effective style, characterized by coherence, and clarity. In summary, glatch’s quote encourages writers and speakers to focus on using the right words in the right context.

1.8 Types of Writing:

Writing is a diverse and well-rounded art that consist of various forms and styles. Each type of writing deliver a specific purpose and requires distinct skills and approaches. Here we have 04 main ones:

1.8.1 Descriptive:

Annisa (2020) defined “*descriptive text is a kind of text that described detailed information, characteristics, such as sizes, colors, smells, tastes, and so on that related to the object. This text makes the reader imagine the object that is described as real in their mind* “. In other words, it is a form of written expression that aims to provide a thorough portrayal of an object by incorporating specific details such as its dimensions, hues, aromas, flavors, and other relevant attributes. The purpose of descriptive text is to create a vivid and realistic image of the object in the reader’s mind (Raudatus Sa’ Adah , 2020) .

Descriptive paragraph is a type of writing that high school learners can write, it provides the writers to express their ideas and thoughts clearly according to the objects they see, and communicate to the reader the appearance of something. They use specific techniques to describe things, initially, writers must incorporate precise details and

information by describing specific actions, behavior, character names setting identification, and listing characteristics. Next, they should generate vivid sensory descriptions. Additionally, they should employ imaginative comparisons that surpass ordinary word usage. Lastly, instead of summarizing character conversations, writers should include dialogue in their writing. Which means that these techniques can help the readers to understand and enhance the comprehension and perception of the subject matter (Srikandi , 2019)

1.8.2 Narrative :

Narration is a form of writing commonly seen in novels, short stories, and biographies. It serves to recount events and tell a story in a sequential manner. Narratives often follow a chronological order, presenting a series of problems that build up to a climax and eventually find resolution. The main aim of this type of writing is to both educate and captivate readers. Each narrative within the text holds intrinsic meaning and significance, enriching the overall reading experience (Raudatus sa'adah , 2020).

Writing essays or stories from a personal or creative perspective is known as narrative or expressive writing. It may contain imaginative conjectures and interpretations and is frequently predicated on observations of people, things, and locations. A more comprehensive general framework for a narrative text has been suggested by Anderson and Anderson (2003:8 , as cited in Srikandi, 2019). They contend that a narrative text consist of four parts , first , orientation, which establishes the scene (when and where) and introduces the participants (who) , second , complication , which occurs when a crisis arises and something unexpected happens , third , resolution, which occurs when crisis is resolved and the characters finally figure out the complication , and lastly, a coda , which is the narrative's ending (optional) . In conclusion , this narrative writing is a form of personal or imaginative expression, where in the writer creates stories or essay , the narrative writing emphasizes that such writing is often based on the writer's observations of people , objects , and places , and may incorporate creative speculations and interpretations , highlighting a structured framework that consists of four main

components of narrative text , including orientation , complication , resolution , and optionally, a coda .(Srikandi , 2019) .

1.8.3 Recount:

Recount is a genre of text that recounts or narrates past events, experiences, and occurrences. This can include a diverse range of text types, such as accounts personal experiences, diary entries, historical narratives, personal letters, biographies, and autobiographies, the primary communicative purposes of a recount text are to inform or entertain the reader (peperonity . Com , as cited in Srikandi, 2019) . According to Anderson and Anderson. A recount is a form of written discourse that retells past events, typically presented in the order in which they originally unfolded. The central objective of a recount is to provide the audience with a detailed description of what occurred and when it took place. Similarly, English online (1998, as cited in Srikandi , 2019) , states that the fundamental purpose of a recount text is to list and describe past experiences by recounting the events in chronological order that is , the sequence in which the events actually happened. To sum up, the recount type is characterized by its focus on retelling and narrating past occurrences, its tendency to present events in the order they happened, and its aim of informing and entertaining the reader, it serves to document and relay accounts of previous experiences and happenings.

(Srikandi , 2019).

1.8.4 Report :

According to Anderson and Anderson, a report is a type of text that presents information about a particular subject. An informational report typically contains factual details about the subject, including a description and information on its parts, behavior, and qualities. Anderson and Anderson (2003:87) .Further explain that there are several key steps in constructing a report. First, there is a general opening statement that introduces the subject of the report. This followed by a Series of paragraphs that provide details and information about the subject. Finally, the report concludes with a summary of the information presented, signaling the end of the text. In simple terms, a report is a genre focused on objectively conveying details and facts about a specific topic or subject

matter, it follows a structured format beginning with an introductory statement, elaborating on the subject in the body, and concluding with a summary (Srikandi, 2019).

1.9 Writing Process:

The term “writing process” describes a set of procedures ,writers go through to finish a piece of writing. Although different writers may use various techniques, the general stages of the writing process are usually the same. These phases divide the writing task into distinct steps, such as rewriting, drafting, revising, and editing (Arioua,2023).

1.9.1 Prewriting:

The initial stage in the writing process is known as pre-writing. During this preliminary step, writers engage in various preparatory activities before beginning the actual drafting. These preparatory tasks include brainstorming ideas, creating outlines, taking notes, conducting research, and organizing the gathered information. All of these pre-writing techniques help writers lay the foundation for a successful and structured writing draft(Arioua ,2023) . To put it in other way , prewriting step is brainstorming of ideas , creating outlines , taking notes and conducting research, and gathering information than students pass to another stage to Continue the writing process appropriately.

1.9.2 Drafting:

The drafting phase involves ideas generated during prewriting into cohesive sentences and paragraphs. This stage involves expanding on the ideas, providing adequate explanations and supporting evidence, and maintaining a logical and coherent progression of thoughts. (Arioua , 2023).That is , drafting step is to generate ideas that was gathered in prewriting stage into coherent sentence to form paragraph.

1.9.3 Revising:

Revision is a repetitive process, where people may need to return to previous steps like rewriting and drafting as they work on improving their document. It’s important to remember that revision is not only about fixing errors, but also about refining the ideas and communicating them clearly to readers. During this writing

process, Students may also need to add or remove content to make their argument stronger or their writing more interesting to read(Arioua , 2023). That is to say, revision is third process that students need to return to previous steps. This stage is not only for checking errors, but also change some words and ideas to convey them clearly to readers.

1.9.4 Editing:

During the editing phase, the focus should be on checking for grammar, mechanics, and spelling errors. It is recommended to utilize a spell-check tool before printing the document.

Editing involves a comprehensive review of the document to ensure that it matches your original intent and is free of any errors that you may later wish to correct. When editing, the focus should be on identifying and correcting any grammar, punctuation, and spelling mistakes. It is advisable to use a spell-checking tool before giving the final document (Arioua , 2023). In other terms, in editing stage students need to checks grammar, spelling , punctuation and capitalisation. And it is the final stage before printing the document. Students have to follow this stages, in order to writing a good academic writing paragraph .

Following this certain steps can be helpful for a writer to develop his capabilities, obtaining a full grasp on these components and processes can advance the writers' critical thinking and abilities.

in the age of AI , students shift into the use of AI writing applications to make their learning process much easier , learners become using AI -based writing technologies as support besides teachers to provides them with grammar checkers , sentence rephrase , and vocabulary enhancer . However, these tools have also an impact on the Improvement of EFL learners' writing skills. Besides that, teacher also have a potential role of this new technology. Today, teachers stands on the crossroads between using the traditional methods or keep up with the AI technology and become a guidance to learners.

1.10 AI Applications That Improve Writing Skills:

Writing has long been an essential way for people to share ideas. From ancient times until now, writing lets everyone communicate with each other clearly. By using simple words and short sentences. (Aladini, 2023). That is to say, writing is considered as means of communication, and plays important role through the history of mankind. Academic writing focuses on grammar, spelling, cohesion, organizing ideas and Punctuation (Aladini ,2023) . That is to say , he highlight that academic writing places significant emphasis on various aspects such as grammar, spelling, cohesion, organizing ideas, and punctuation is crucial for producing effective academic writing. By focusing on these elements, writers can enhance the clarity, coherence, and professionalism of their work, thereby facilitating effective communication with their readers. Thus, Many Arabs students face difficulties writing clearly and correctly due to the influence of their native language and other factors. Experts agree that using technology, particularly AI tools, can help students enhance their writing abilities. (Aladini , 2023). In other words , English foreign language (EFL) learners find difficulties in writing in English language because of the mother tongue interference therefore, scholars support the use of technology especially AI programs that enhance FL student's writing skills .

- Artificial intelligence (AI) systems can manage and improve the education process by transforming traditional management systems into electronic systems that use AI technology (Aladini ,2023).
- AI-powered writing tools offer various functions, including providing word choice suggestions, translating texts, enhancing vocabulary, and suggesting topics for students, by simply type in keywords related to their interest (Aladini ,2023) .
- AI-powered systems designed for English language learners aim to provide explanations, define word meanings, and analyze the structure of sentences and texts for students (Aladini ,2023).
- These systems can also translate texts into different languages, similar to human translation (Aladini ,2023).

- The algorithms in AI-based writing programs use cohesive and appropriate connectors to link sentences together (Aladini ,2023).
- AI writing tools provide correctness of grammar, punctuation, and spelling .(Alaa Aladini, 2023) .

1.10.1 Grammarly: (AI Grammar Checker Tool)

Grammarly is known for catching for errors of grammar and spelling. This makes it a great tool for checking writing in all situations. It is made to help writing be better. Grammarly advanced AI algorithms offer real-time suggestions and corrections, catering to a wide range of writing styles and preferences. In other words, grammarly is advanced AI that gives real time grammar, spelling checks. AI algorithms that use in Grammarly have different function such as style detection, and language improvement with various suggestions. (Wong, 2024)

1.10.2 Vocabulary Builder: (AI vocabulary Builder Tool)

Is a free AI application, available in android, Students of all levels can use this app. Beginners will gain the most from the vocabulary words given. The vocabulary builder sorts words into groups. It lets students test how well they know words in those groups. Its aims at teaches important things about words, It shows the kind of word, what it means, and an example sentence using the word. That is to say, vocabulary builder application is a learning tool designed to improve and test students vocabulary. (MITTRA , 2024)

1.10.3 Quillbot (AI Paraphrasing Tool) :

Is a writing assistant that use artificial intelligence to improve writing. It can be used to paraphrase and summerize texts. In other terms , Paraphraser is one of QuillBot's most popular products because it is good at rephrasing sentences or paragraphs while still maintaining the original text's meaning, identify and suggest replacement of key phases , and it have other functions such as plagiarism checker , citation generator, translator . (Rouse , 2023)

1.11 The Impact of AI Tools in Improving EFL Learners' Writing Skills:

AI can help learners with different parts of writing. This technology allows users to make their writing better, improve their writing skills, and save time when writing. AI powered tools can support writers throughout the entire writing process, from coming up with ideas to editing and revising. The use of AI enables writers to work more efficiently and produce higher quality written content. (Shaun, 2023) . In this aspect, Fahd and Haef (2024) conducted a research to investigate on the impact of AI, particularly ChatGpT , on EFL writing skills within high school learners. They used a pre post test design. , with average level EFL students (age 14/16) engaging with ChatGpt over an eight week intervention, the results , including paired sample t -tests , displayed progress in most writing , specifically task achievement , scores increased from 3.0 to 5.2 , coherence and cohesion score rose from 3.2 to 5.0 , and lexical resource score improved from 3.0 to 4.4 , surprisingly, grammatical range and accuracy showed a decreased score from 3.0 to 2.9 , indicating the need for further examination . Nonetheless, the overall writing skills significantly demonstrated enhancement , as evidence by the increased score from 12.3 to 17.4 , validating ChatGPT's evaluative function , over 90% agreement was found when compared to assessments by expert English teachers , these findings endorse the incorporation of AI in EFL curricula , highlighting both the potential and the necessity for comprehensive pedagogical approach .(Kamis Alzahrani , & Alotaibi , 2024) . On the other hand , Cuiping and Yanping(2023) undertook comprehensive analysis to evaluate the impact of AI assisted language learning on Chinese EFL students writing skills and writing motivation , using a comprehensive approach, combining quantitative and qualitative methods , the quantitative phase utilizes a pre test and post test design to assess writing skills , the results , revealed a significant improvements in both writing skills and motivation among students who received AI assisted instruction compared to the control group , the experimental group demonstrates enhanced proficiency in various aspects of writing

including organization , coherence , grammar and vocabulary. While , semi structured interviews are conducted with a subset of participants to explore writing motivation and experiences with AI assisted learning , the findings showed different perspectives , ranging from recognition of AI innovative instructional role and its positive influence on writing skills and motivation to concerns about contextual accuracy and over reliance, participants also reflect on the long term impact and sustainability of AI assisted instruction, emphasizing the need for ongoing development and adaptation of AI tools. The nuanced results suggests a comprehensive understanding of AI's transformative potential in education. These insights have practical implications for practitioners and researchers emphasizing the benefits, challenges, and the evolving nature of AI's role in language instruction (Cuiping , & Yanping , 2023).

Similarly, Fawaz (2023) conducted a research by investigating to what extent wordtune facilitates saudi's EFL learners writing , by using the mixed methods , two male and two female groups were divided . For both male and female samples, one group was identified as the experimental group whereas the other one was identified as the control group. Quantitative data were collected using pre tests and post tests and analyzed using SPSS. Qualitative data were drives from student's writing samples and assessed by two human rates. The findings showcased that using wordtune , students in the experimental group surpassed those in the control group. Whereas, qualitative findings demonstrated that using wordtune, the experimental group upgraded their writing and outperformed the control group in the final writing exam . Qualitative data indicate that using wordtune, the experimental group made modest writing gains at the lexical and syntactic levels, while lexical gains included more concrete nouns, vivid adjectives, and precise verbs, sentence structure gains included the increasing presence of complex phrases and complex and compound sentences . Finally, the impact of wordtune on writing quality was the same for both male and female participants (Fawaz , 2023) .

1.12 Traditional Teaching VS AI -based Teaching and Learning:

AI tools are crucial for understanding and forecasting learner's capabilities, enabling the adaptation of applications accordingly. If implemented in education, AI holds the potential to fundamentally transform teaching and learning practices. It can generate educational resources like interactive simulations and pre designed lesson modules. It can analyze educational data, including students' performance, attendance records, and demographic information, to uncover valuable insights and trends. This capability can assist educators in identifying at risks students, predicting dropout rates, and developing more effective curricula. Additionally, AI is employed to develop adaptive learning systems that monitor students' progress over time and dynamically adjust the learning platform as needed. However, for the proper integration of AI in classrooms, teachers require adequate training and support, as well as considerations around ethical concerns like algorithmic bias and data privacy protection. (D . Joel Jebadurai , et al . , 2023).

A comparison was made of traditional teaching and AI based learning, it is as follows:

1.12.1 Traditional Teaching:

The first comparison identified in personalized teaching, educators use a one size fits all approach most of the time, when teaching in a traditional classroom, providing for learners the same material despite their special learning needs and liking. Then in accessibility, traditional educational methods may have difficulty fully addressing the needs of children with disabilities or other diverse learning requirements. The next point, goes for feedback and assessment, teachers in regular classrooms often have to delay providing feedback until students have finished their assessments. After, there is flexibility, conventional educational models often adhere to fixed schedules and locations, making them less adaptable for students who have other commitments.

And the last point is engagement, students with different learning preferences or who find the subject matter uninteresting may struggle to engage with traditional teaching methods. (D. Joel Jebadurai, et al. 2023) .

1.12.2 AI- Based Teaching and Learning:

Educational institutions need to incorporate AI technologies if they want to stay current with advancements in technology. Implementing AI in education has become a necessary step for these institutions. AI tools are important for understanding and forecasting what students are capable of, so that the AI applications can be adjusted to suit their needs. These AI tools have been used in many different parts of education. Teachers have to either use AI technologies (personalized learning, automated assessment, gamification, accessibility, and continuous learning) (Dr. Jebadurai et al , 2023) to facilitate his teaching process and save some time , or use the traditional methods. Learners and teachers had a different experience in AI based compared to traditional teaching starting by, personalization AI is able to provide customized learning experiences by assessing each student's abilities, constraints, and learning preferences. The speed its material are suitably modified to let students learn at their own speed and in the way that suits them best (Dr. Jebadurai et al ,2023) . In simple terms, AI can create personalized learning experiences for students by understanding their individual abilities, limitations, and how they prefer to learn. So, students can learn at their own speed and in a way that works best for them. Second accessibility, artificial intelligence (AI) technology can provide accessibility features including text-to-speech, closed captioning, and captioning, as well as adaptable user interfaces (Dr. Jebadurai et al ,2023) .in other words, In simple words, Artificial Intelligence (AI) technology can offer helpful features to make things more accessible for people. For example, it can read text out loud for those who have difficulty reading, show captions on videos for those who are hard of hearing, and adjust the way things look on a screen to make them easier to use. These features are designed to make technology more inclusive and usable for everyone. Third feedback and assessment, Students can use AI to quickly recognize their areas of weakness in assignments and tests and make the necessary corrections immediately. It can additionally automate grading processes, which will free up teachers' time (Dr. Jebadurai et al ,2023).In simple words, students can use AI to easily spot where they're not doing well in their assignments and tests and fix their mistakes right away. AI can also automatically grade their work, which saves teachers a lot of time. Next flexibility, Students can choose when and where to access course materials in AI-powered online learning environments. This is particularly beneficial for distance learning and lifetime learning (Dr. Jebadurai et al ,2023).that is to say, students can

decide when and where they want to study using online learning platforms powered by AI. This is especially helpful for those who are learning from a distance or want to continue learning throughout their lives. They have the flexibility to access course materials whenever and wherever it's convenient for them. Furthermore engagement, AI may be used to gamify learning, create interactive simulations, and provide students with relevant and engaging content to boost engagement and study motivation (Dr. Jebadurai et al ,2023).In simple terms, AI can make learning more fun and exciting by turning it into a game, creating interactive simulations, and giving students interesting and useful information. This helps to keep students engaged and motivated to study.

The role of teachers and learners in AI- based teaching and learning:

1.12.3 Teachers' Role:

-The importance of teachers guiding students on the proper and effective use of AI tools is growing. Teachers can help students understand what AI can and cannot do, so they can use these technologies responsibly (Soficreo, 2023). That is to say , in the integration of AI- based tools ,teachers plays important role in guiding students how effectively use the tools .

-Teachers today act more like helpers, sparking students' interest and encouraging them to look into topics they find interesting in depth. The new abilities that AI brings to the classroom have made the teacher's job of getting students excited and passionate about learning even more important (Soficreo, 2023) . That is to say, AI tools have made motivation environment in classrooms.

- Using AI in teaching can help teachers find their love for the job again. AI doesn't just make teachers happier at work – it also helps their students. When teachers see their students get excited and engaged while learning with AI, it can make the teachers excited about education again. This can remind teachers how important they are in sparking curiosity and passion in their students (Soficreo, 2023) . That is, AI helps teachers find their Passion again instead of using traditional methods.

1.12.4 Students' Role:

-Students often have to work on many assignments at the same time. This can cause them to feel overwhelmed and stressed, which can negatively impact their mental and physical health. AI technology can help improve students' productivity by automating repetitive parts of academic essay writing, such as research, data analysis, and formatting. This allows students to focus more on the important aspects of writing, like developing their creativity, critical thinking skills, arguments, and writing style. Ultimately, AI can be used as a tool to help students create better essays (textero AI, 2024). That is to say, AI help students create coherent essays and boost their creativity, critical thinking skills, and writing style.

-Artificial intelligence-based writing programs have the potential to help students strengthen their academic composition abilities. There are various AI-assisted tools available that offer users real-time feedback on aspects like word selection, sentence formation, and overall cohesion. By using such a tool, a learner can effectively identify any discrepancies with regards to their customary scholarly writing pattern. Consequently, AI writing assistants are likely to ultimately move forward students' composition skills through highlighting room for improvement in clarity, conciseness, and consistency during the writing process (textero AI, 2024). In other words, AI- based programs enhance clarity and conciseness.

-Grammar is one of the most difficult aspects for many learners, particularly those with non-native backgrounds. Academic writing demands creating error-free content, however, this is nearly impossible even for experienced human writers. In contrast, artificial intelligence can help address this challenge as people frequently use grammar checking tools to verify their writing is mistake free. Similarly, AI-assisted composition programs are capable of performing this task, providing users with instant feedback on grammar and punctuation. This functionality enables students to identify grammatical errors during the writing process, correct them, and strengthen their skills simultaneously (textero AI, 2024). In order terms, AI- based writing systems refine student's grammar and mechanics.

AI is widely used in educational institutions around the world. Teachers are required to keep up with these technologies because this integration have become a wide spread among learners and it is too late to stop it. Therefore, teachers should become a

guidance for learners in teaching them how to use AI technologies in ethical way. AI-based writing systems have crucial role in English language teaching and learning.

1.13 Conclusion:

In conclusion, in this chapter we focus attention on the significant role of AI in promoting EFL learner's writing skills. AI can simulate authentic writing tasks and guide learners through the writing process. Furthermore, AI technologies have emerged as powerful tools that can enhance the writing abilities of EFL learners by offer immediate and accurate feedback on grammar, vocabulary, and sentence structure. This real-time feedback allows learners to identify and correct errors in their writing, leading to improved accuracy and language proficiency. Thus, AI-powered writing tools offer several advantages over traditional methods of instruction and assessment.

CHAPTER TWO

CHAPTER TWO: RESERCH METHEDODOLOGY AND RESULTS

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CHAPTER TWO : RESEARCH METHEDODOLOGY AND RESULTS

2.1 INTRODUCTION:

The emergence of AI into education, made it easier for EFL learners, as they always strive to improve their writing capacities. This study aims to explore the influence and significance of AI in enhancing EFL learner's writing skills, and the potential applications that can help them with their grammar, vocabulary, and sentence structure. Accordingly, the present chapter, provides a detailed description of the research methodology, with describing the study setting, and sample population. Mentioning the research design, and type of research. Next, a more detailed procedures are described including the sampling method used, and the research instruments that were being selected. Then, analysing and interpreting the gathered results by using learner's questionnaire and teacher's interview, both quantitatively and qualitatively by depending on a mixed method approach. In order to reach the main objectives of this research.

2.2 Description of The Study Settings:

The study was performed in an academic setting, the University of Tlemcen, faculty of Letters and Languages, Department of English, section of English, during the year of 2023 _2024.

2.3 Description of The Sample Population:

The population was selected from the second year EFL learners that particularly consists of 50 students. The selected students fall into 15 males and 35 females, most of them have an intermediate level of English language. On the other hand, teachers of English were also selected to be part of this investigation. They take the role of teaching comprehension and written production.

2.4 Research design:

To seek answers to the proposed questions identified at the beginning of this dissertation, this study adopts the mixed method research design. A single research method insufficient to completely answered research questions (Kuhn, 2023). One of the advantages of using mixed method research design that is allows researchers to measure statistical data and the same time analyze qualitative data to understand the context and the complexity of human attitudes (Kuhn, 2023). Creswell, (2009) identify mixed method as an approach of Inquiry known as research associates both quantitative and qualitative elements. It includes philosophical assumptions, mixing the two methodologies in one study. Therefore, it is more analyzing both types, but also when using quantitative and qualitative approaches simultaneously, the general value of the research is greater than using just one methodology.

Researchers decided to use mixed method research design with sequential mixed methods strategy. “Sequential mixed methods procedures are those in which the researcher seeks to elaborate or expend on the findings of one method with another method “(cresswall, 2009). The Type of design includes two phases, (quantitative, qualitative). In the first stage, questionnaire is conducted to be exploratively analysed and interpreted, to collect quantifiable data. After analysing the questionnaire, the researchers moves to the second stage to collect quantitative data through interviewing teachers, finally researchers combines the results of the two phases to arrive at the final results . As for the research method, the two investigators used a case 2nd year license English.

2.5 Type of research:

This research opts for exploratory research that seeks to investigate potential impact of AI tools on enhancing the writing skills of second -year EFL students, the focus is to assess whether AI applications competitively influence the writing proficiency, and how AI tools such as grammar checkers, vocabulary generators, and sentence rewriters , can help EFL learners improve their accuracy, expend their vocabulary and refine their

writing skills ,and to collect data about teachers perspective towards using AI technologies in their classrooms.

2.6 Research approach:

The type of research approach used in this study, is a mixed method approach, it is an approach used to collect and analyse both quantitative and qualitative data by using various tools. This allows the researcher to be more valid and dynamic.

2.1 The Sampling Method :

There are two types of sampling methods: probability and non-probability sampling. The method used in this research is a probability sampling, it draws randomly from the wider population, and this method has four types of samples: Simple random, systematic, cluster, and stratified sampling. The one chosen here is , simple random sampling , which means that each member of the population under study has an equal chance of being selected and the probability of a member of the population being selected is unaffected by the selection of other members of the population . (Cohen, & Morrison, 2007).

2.8 Data collection methods and techniques:

In collecting the data, the researchers use two research instruments, students' questionnaire, and teachers' interview to gather data.

2.8.1 Students Questionnaire:

Questionnaire is “any written instruments that present respondents with a series of questions or statements to which they react either by writing out their answers or selecting from among existing answers “(brown cited in dronyei article, 2003).

The structured questionnaire was administered to 50 second -year EFL students, divided between 39 in paper and pen formats, and 11 students via Google form. It covers different types of questions: multiple choice, likert scale, Open ended questions and close ended questions. This questionnaire is composed of six sections, each section is

aimed at answer a specific research question. The first section is intended to gather demographic information about students and assess their self – perceived writing proficiency, such as gender, writing level. The second section is designed to collect data about students’ experience, usage patterns, and dependence on AI -based writing tools. The third section is planned to evaluate the respondents trust, confidence and reliance on the information and output provided by AI writing tools. The forth section aimed to assess the perceived impact of AI writing tools on the respondents’ overall Writing skills, specific writing aspects, and writing confidence. The fifth section meant to evaluate the respondents’ perception of the accuracy relevance, usefulness, and availability of features, (grammar explanations, and vocabulary suggestions) in the AI writing tools they have used. And the sixth section focused on the limitations, challenges, and Additional feedback the respondents have regarding, their experience with AI -based writing tools.

2.8.2 Teachers Interview:

The interview is a flexible and versatile method for collecting data, allowing the use of multiple sensory channels to be used: verbal, non-verbal, spoken, and heard. The interview is a conversation between the interviewer and the interviewee , it has a defined objective, and is often question based. (Cohen, & Morrison, 2007).

There are three kinds of interview: The structured interview, semi-structured interview, and unstructured interview. The one used in this research is a semi-structured interview, it has a mix of close ended and open ended questions.

Dichotomous item is used here in the beginning of questions, which offers two alternatives only: “Yes-no” or “Agree-disagree”, the one used here is “Yes-no” alternative.

The second one used is “open ended items”. (Cohen & Morrison, 2007).

The interview was performed with 05 EFL teachers , three teachers was interviewed in person , another one was interviewed via e-mail , and the last one was interviewed by an audio call by teams . The aim behind using the interview is to gather information on the teacher’s perspective on the effectiveness of AI tools in promoting EFL learner’s

writing skills, as well as their experiences with implementing AI tools in classroom settings.

2.9 Data analysis and interpretation:

To measure quantitative data, the researchers used tabular and graphical data methods. For qualitative data, a descriptive approach was used, providing a detailed description of data.

2.9.1 Questionnaire Analysis and Interpretation:

Section One: Students' Personal Information

❖ GENDER

Table 2.1 Students' Gender

Options	Object	Parentage%
Males	15	30%
Females	35	70%
Total	50	100%

The aim of this question is to understand the demographic profile of the respondents. The table above represents the gender distribution of the sample which falls into 15 males (30%), and 35 females (70%). That is, the sample population consists of more females than males.

❖ LEVEL

Table 2.2 Students' Level

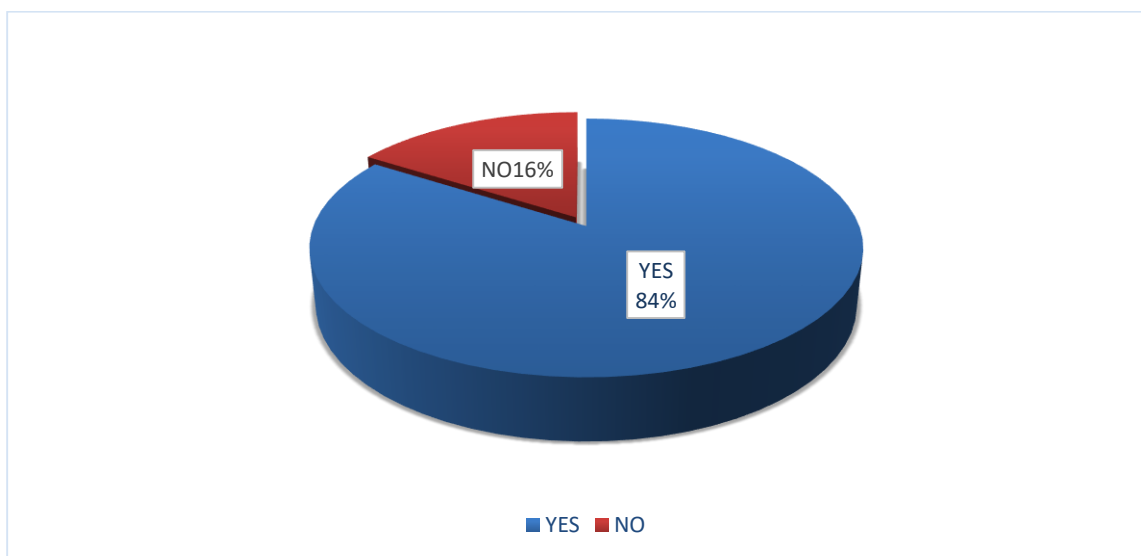
OPTIONS	OBJECTS	PERCENTAGE
Beginner	6	12%
Intermediate	37	74%
Advanced	7	14%
Total	50	100%

The question was used to assess the self-perceived writing proficiency of the informants. The results show that the majority of students (74%) have an intermediate level of English language, followed by a plurality of advanced level of students with (14%), and a significant minority of beginner level of students represent (12%) (appendix A).

Section two: AI Writing Tools Usage:

Q 1: Have you ever used the AI- based writing tools?

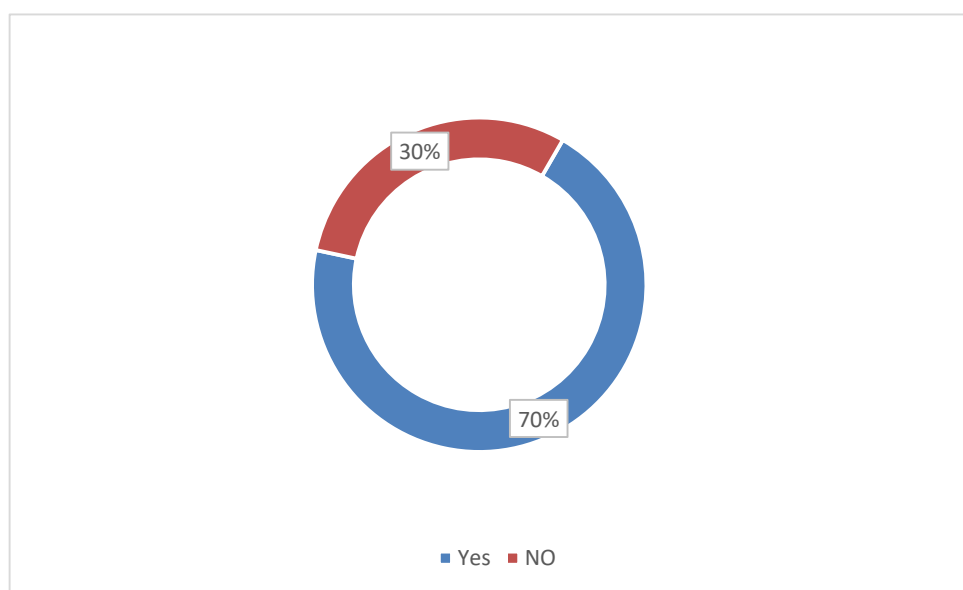
Figure 2.1 Students' Experience With AI Writing Tools.



The reason for asking this question is to determine the respondents' experience with AI writing tools. The results indicate that (84%) of students used the AI applications. while (16%) they do not prefer to use it. Hence this results show that the majority of students are using AI – based writing tools which means that these technologies have become quite prevalent and widely adopted by learners. This could indicate that a major part of students use AI tools to assist with their writing and assignments some of these students suggested AI tools for instance: Chatgpt, Quilbot, Google bard, perplexity, and Grammarly, and minority of learners still do not use AI and they prefer to use other sources to do their researches.

Q 02: Do you like using AI writing tools?

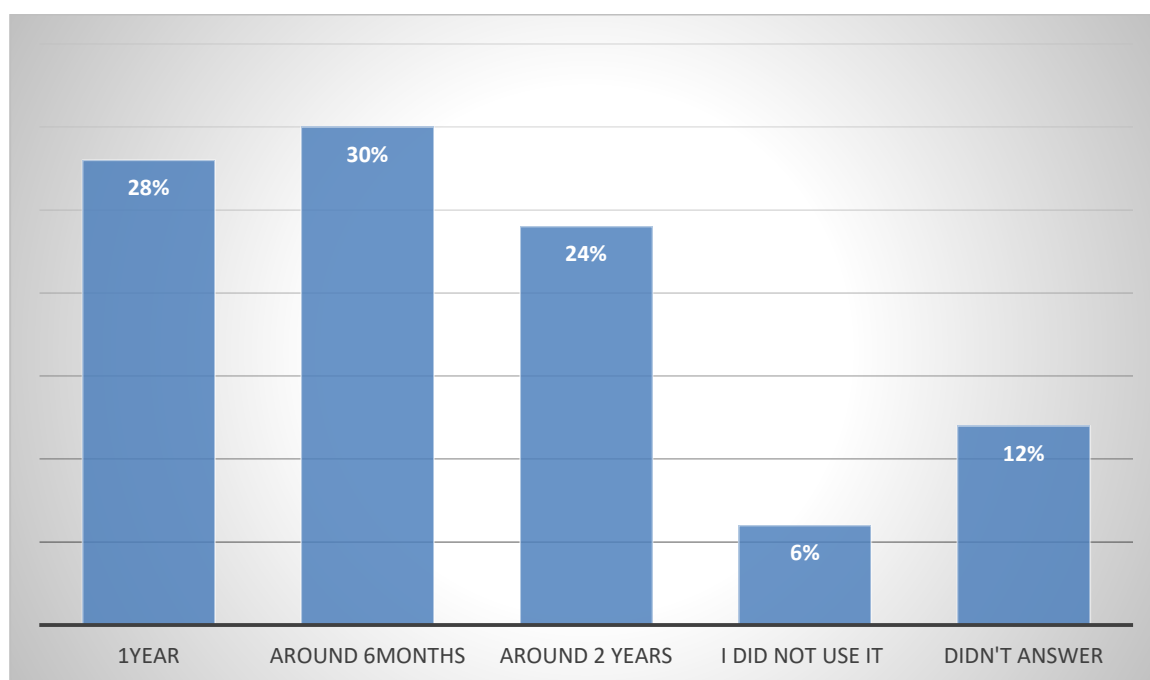
Figure 2.2: Students' Attitudes towards AI Writing Tools.



The aim of asking this question is to understand the students' attitudes towards AI writing tools. The research findings show that (70%) of students like using AI writing applications, whereas (30%) of students do not like using AI writing tools. Thus, this results shows that most of students have positive attitude towards the use of AI in writing. Whilst, few of students do not like utilizing AI in their works.

Q 03: How long have you been using the AI –based writing tools?

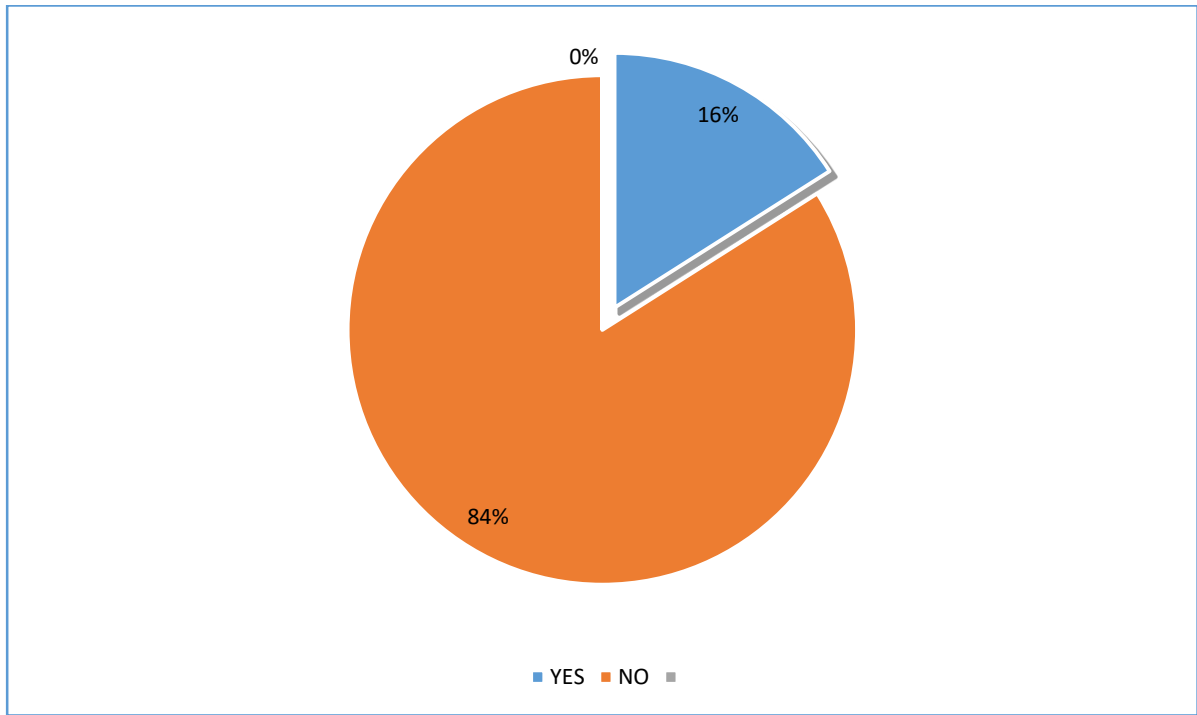
Figure 2.3: The Duration of the Respondents ‘Experience with AI Writing Tools.



The purpose of this question is to assess the duration of the informants ‘experience with AI writing applications. The data shows that (28%) of students have used the AI -based writing tools in 1 year .In addition , (30%) of students reported that they use AI tools around 6 months . Also, (24%) of informants indicate that they use AI writing tools around 2 years. While, (6%) did not use AI technologies at all .In addition 12% did not provide an answer. As a consequence , the results suggest that (82%) of respondents use AI writing tools around 6 months to 2 years , with majority of students using these AI tools as a support in their writing homeworks. However , the outnumbered of students do not prefer to use it .

Q04: Do you depend on AI writing applications completely?

Figure 2.4: The Extent of the Respondents' Reliance on AI Writing Tools.

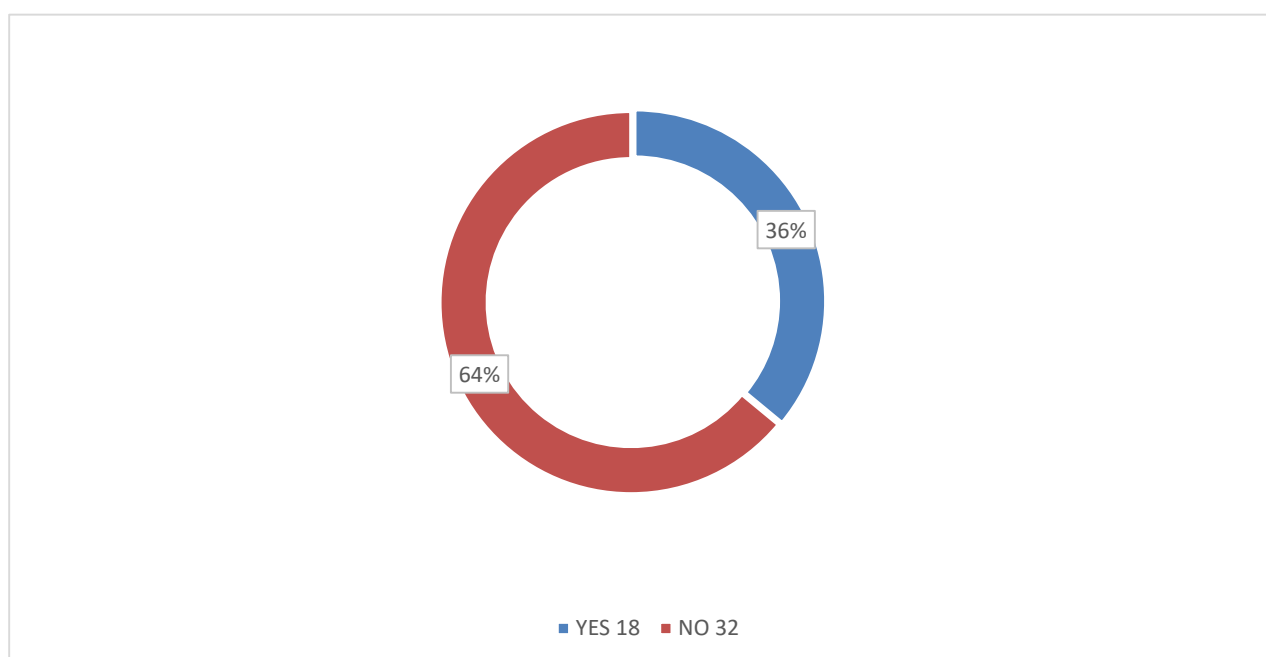


The aim of this question is to understand the extent of the respondents' reliance on AI writing tools. The data indicate that 16% of students say they depend on AI writing applications completely. In contrast, (84%) say they do not depend on AI writing applications. Hence, only (16%) of students depend completely on AI -based writing tools, whereas, the majority of students do not rely on these AI technologies for their writing tasks. This could indicate that most students are using these tools as a supplementary support rather than as a complete replacement for their own writing abilities.

Section Three: Perception and Evaluation of AI Writing Tools.

Q05: Do you take AI writing powered tools answers as a valid source of information?

Figure 2.5: Respondent's Trust in The Information Provided by AI writing tools.



The reason for asking this question is to assess the learners trust and confidence in the information provided by AI writing tools. The findings indicate that (36%), answered yes, they do depend on AI as a valid source of information. While, (64%) answered no, they do not take AI writing tools as a valid source of information. Great part of learners believe that these AI tools do not provide a reliable information, has a limited data, and it can lead to misinformation. It makes the learners lazy and dependent, and it does not provide references. Whereas the few learners who agree think that it helped them by providing direct answers and easy access to internet. This shows that most of EFL learners do not take AI writing tools feedback as a solid source of information, and rely on other sources as well in order to obtain a final valid information.

Q 06: Do you rephrase AI- based writing tools answers for your writing?

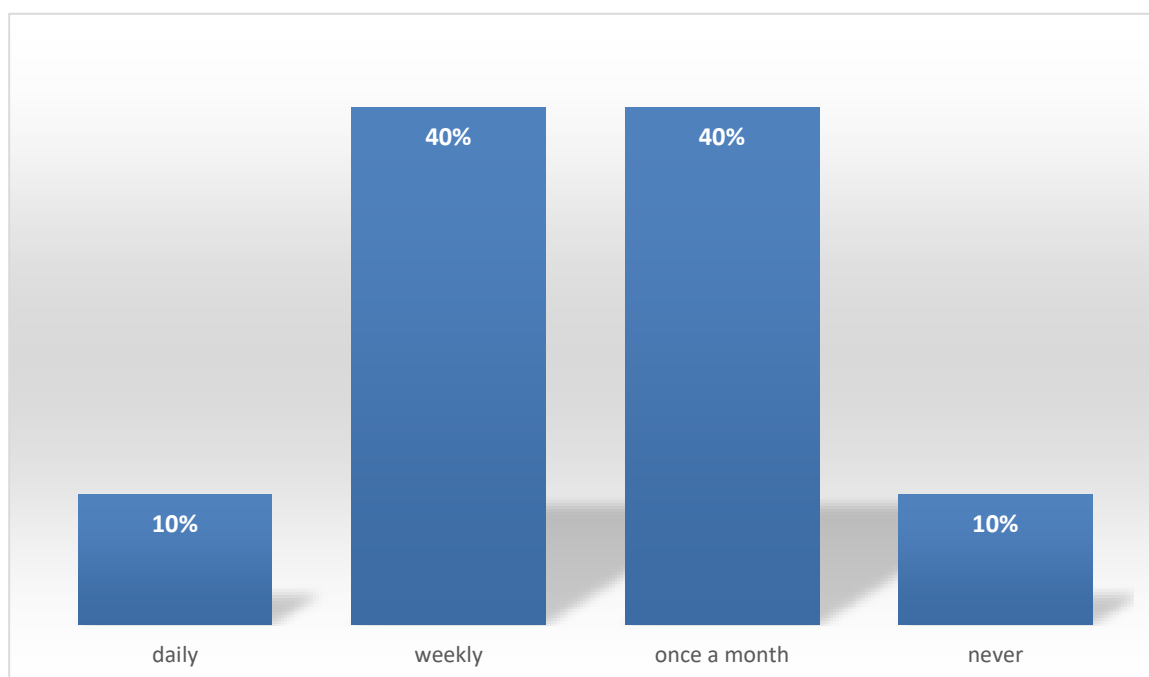
Table 2.3: The Results of Respondents in Rephrasing AI –based Writing tools.

Options	Objects	Percentage
YES	35	70%
NO	9	18%
Didn't answer	6	12%
Total	50	100%

The purpose of this question is to determine if the informants rely on or paraphrase the output from AI writing tools. The outcome was as follow: (70%) answered yes, they do rephrase the answers provided by AI before taking it into their work, while (18%) answered no, and they do not rephrase their answers and take it as it is. (12%) Did not answer this question. The fact that most respondents indicate that they rephrase AI answers means that they are not simply copying from these tools, rather they are taking an active role in rewriting the content to fit their own writing style and needs, while those few who depend on AI could be completely relying on AI- generated content without significant modifications. This indicates that the majority of learners do not trust the AI writing tools answers completely, and depend on their minds to have a final answer.

Q07: How often do you use AI writing systems?

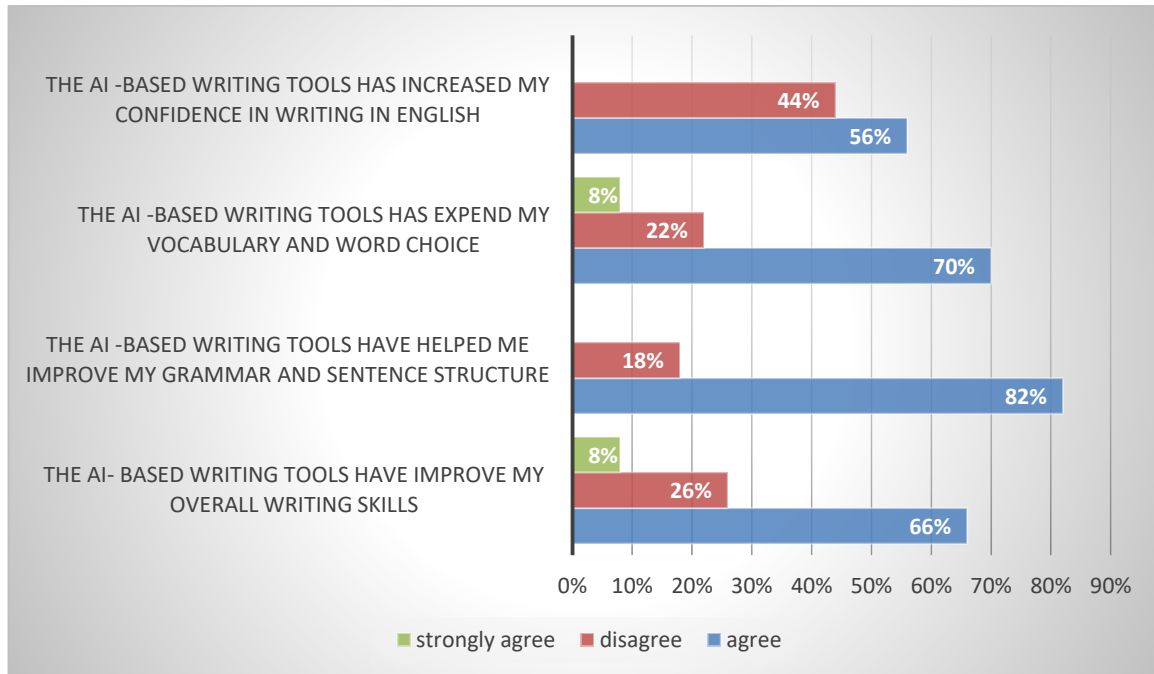
Figure2.6: The Regularity on the Use of AI Writing Tools.



This question was asked with the aim of understanding the frequency of the respondent's usage of AI Writing tools. The results indicate that (10%) use AI daily, (40%) use it weekly, (40%) use it once a month. Whereas, (10%) never used AI writing powered tools. This shows that the use of AI is widely used and known, and that the majority of EFL learners do use AI writing applications, and most of them rely on it when needed.

Section four: Impact of AI Writing Tools.

Figure2.7: Scale of Students' Views on The Impact of AI Writing skills.



- **Q08:** The AI -based writing tools have improved my overall Writing skills?
- The investigators' concern from this question is to evaluate the perceived impact of AI writing applications on the informants 'writing skills. The results indicates that (66%) agree that AI -based writing tools have improved their overall Writing skills. Besides, (8%) of respondents strongly agree that AI -based writing applications enhance their writing. Whilst, (26%) of students disagree that the AI based writing tools do not improve their writing at all. Consequently, this indicate that the majority of the student's population believes that AI tools are providing a noticeable Benefits to their writing abilities. However, minority of respondents who disagree still do not do feel that AI -based writing applications have improved their writing in English. This could be due to factors such as the quality and effectiveness of these technologies.

Q09: The AI -based writing tools have helped me improve my grammar and sentence structure?

- This question is designed to assess the impact of AI writing applications on specific writing aspects (grammar and sentence structure) , the research findings indicates that(82%) of students agree that AI -based writing tools have helped them improve their grammar and sentence structure .while, (18%) of respondents disagree that AI based writing technologies do Not helped them. Hence, a large number of respondents are finding a significant value and benefits from utilizing the AI writing assistance tools. This indicates that these technologies are effective at helping learners enhance their writing skills (grammar and sentence structure).

Q10: The AI -based writing tools has expend my vocabulary and word choice?

- The reason for asking this question is to evaluate the impact of AI writing applications on vocabulary and word choice. The results shows that (70 %) agree that AI writing tools expend their vocabulary and improve their word choice. In addition, (8%) are strongly agree that AI writing tools expend their vocabulary and word choice. While, (22%) disagree about the idea of AI applications do not help them in vocabulary enhancement and word choice. According to the results reveal, a sizeable majority of respondents agree that AI writing tools helped them to expend their vocabulary and word choice. This means that AI -based writing technologies helped in writing. Whilst a notable minority prefer their innate vocabulary development rather than using AI writing assistance.

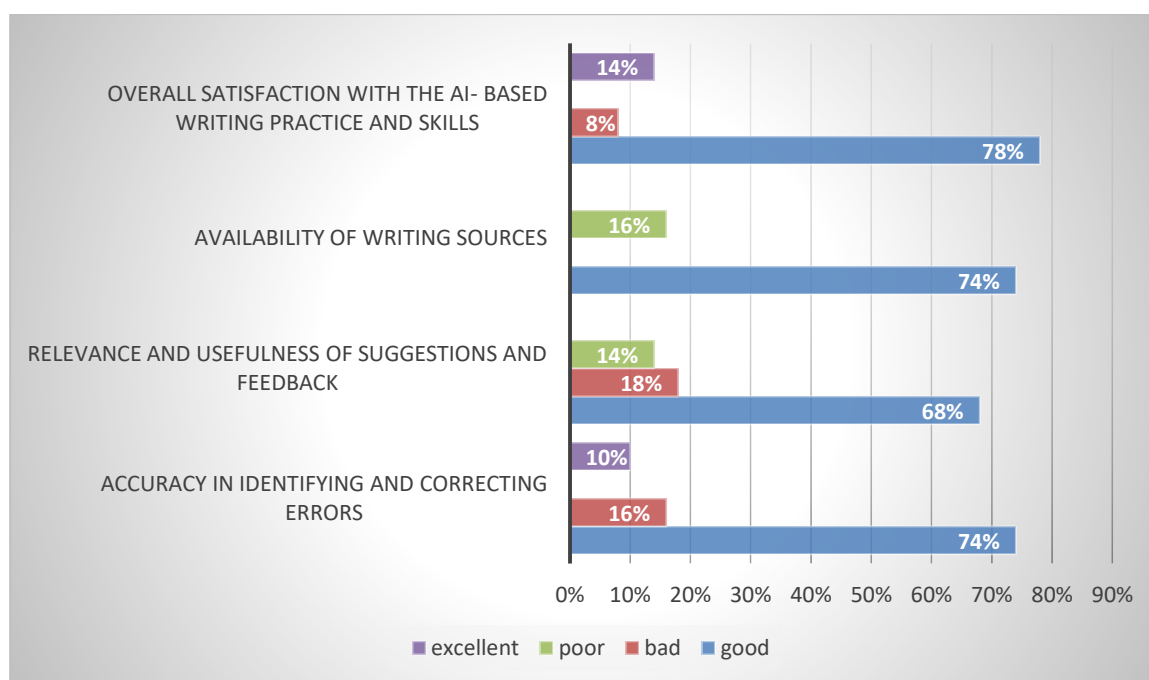
Q11: The AI based writing tools has increased my confidence in writing in English?

- The aim of asking this question is to understand the impact of AI writing tools on students' confidence. The results indicate that (56%) agree that AI-based writing tools have increased their confidence in writing.

Whereas, (44%) disagree that AI -based writing technologies do not boost their confidence. For this reason, over a half of the respondents are with AI writing tools do increase their confidence in writing in English , and few doubt of AI writing tools do not builds up confidence in writing in English.

Section Five: Evaluation of AI Writing Tool Features.

Figure 2.8: The Review of Students’ Opinions of AI Writing Feature.



Q 12: Accuracy in identifying and correcting errors?

The aim of this question is to assess the apprehended accuracy of the AI writing applications. The results show that (74%) of the students rated the accuracy of identifying and correcting errors as “good” , (16%) of the students evaluate it as “bad” , and finally (10%) rated it as “excellent” . Hence, the majority consider the accuracy of AI Writing tools to be satisfactory, with a minority reporting issues with accuracy. However, improvement is needed here in order to reach the learners needs.

Q 13: Relevance and usefulness of suggestions and feedback?

The intention behind asking this question is to evaluate the quality and usefulness of the AI writing tools outputs. The findings indicate that (68%) of informants evaluated

the relevance and usefulness of the AI writing applications suggestions and feedback as “good” , (18%) rated it as “bad” , and (14%) rated it as “poor” . The results show that most students find the suggestions and feedback from AI writing tools to be relevant and useful , but a few students were not satisfied with the quality of the outputs , this suggests that AI- generated feedback and suggestions can be developed in order to meet the student’s needs .

Q 14: Availability of writing resources (e.g., grammar explanations, vocabulary suggestions).

The reason for asking this question is to assess the comprehensiveness of the AI writing tools features. The results indicate that (74%) of respondents rated the availability of writing resources (e.g. , grammar explanations , vocabulary suggestions) as “ good” , while (16%) rated it as “poor” , and lastly (10%) evaluated it as “ excellent “ . This indicate that the majority of learners were content with the range of writing resources available through the AI writing tools , while a significant minority (16%) felt the resources were lacking . Therefore, providing an improvement for a comprehensiveness of the available writing resources can enhance the learner’s experience.

Q 15: Overall satisfaction with the AI-based writing practice and skills?

The purpose of asking this question is to understand the EFL learners overall satisfaction for their requirements and needs with the AI writing tools. The results revealed that (78%) of respondents rated their overall satisfaction with the AI writing tools as “good” , (8%) rated it as bad , and (14%) rated it as “excellent” . The high percentage of students who reported their positive attitude towards the overall satisfaction suggests that the AI writing tools are generally well received and helpful for students writing practice and skill development, however, the very low percentage who expressed their negative feedback indicate that there is still room for improvement that can lead to an effective and satisfying experience and needs for EFL learners.

Section six: Limitations and Feedback.

Q 16: Can you identify any limitations or challenges you have encountered while using the AI -based writing tools?

- The question aims to shed the light on the potential drawbacks or issues faced by the students while using AI writing applications. The results indicate that a number of respondents reported that AI writing tools is perfect, and some others students say that AI writing tools makes mistakes, give unrelated phrases, irrelevant answers, it uses complex words .While, (26%) Did not answer at all. This means the majority of students have faced challenges in using AI applications, and they reported that these tools do not understand the Instructions you provided, big part of respondents reported that AI writing tools does not provide a valid sources and gives robotic answers. In addition, a few students believe that become depending or in other words they became addicted to AI writing tools, and they do not use their brains to express their thoughts and incapable to form their own expressions.

Q 17: Is there any Additional feedback or comments you would like to provide regarding the AI -based writing systems?

The aim for asking this question is together any other feedback or comments from the respondents .The finding show that a large number did not answer this question ,and less than half of students Reported that AI writing tools do help students as source of knowledge, but they do not rely on it completely could use it as a guide . this indicates that nearly half of students did not respond to this question, and some students who did respond provide feedback that they see the AI tools as good information source but they do not fully rely on these tools, In addition they reported that it should use AI writing tools in measured way, treat it more as a guiding source rather than as primary source.

2.9.2 Teachers' Interview Analysis and Interpretation

Q01: Do you use AI writing powered tools in your teaching process?

This question was asked to determine whether teachers are using any AI powered writing tools in their EFL instruction. The answers were diverse, two of the teachers answered yes, they do use AI writing tools to prepare their teaching lessons. One answered, that he tries to use it from time to time when it is needed. And the other two teachers answered no, they do not use any AI tools in their teaching process. Overall, most teachers seem to have a positive attitude towards the use of AI, and they are incorporating new technologies into their teaching because it helps them (appendix B).

Q 02: What is your opinion of this AI tools?

This question highlights teachers' overall perspective on the use of AI writing tools ,all five teachers indicate that they agree that AI is helpful tools , one teacher think that AI save time , AI help teachers in their preparations of materials , another teacher see It is something good to help students accomplish their assignments. Yet, it needs to be used only when necessary, the one teacher advice students to use AI to solve difficult tasks and not to copy whole tasks. Hence, all teachers agree that it is useful tool to help them in their teaching process and to get inspired by AI ideas. However, they do not trust using it as a content.

Q03: Do you suggest using AI inside the classroom, or do you prefer using the traditional teaching methods?

This question aims to shed light on the teachers' preferences regarding integrating AI tools or traditional teaching methods in the classroom. On the one hand, three teachers said that they do suggest the use of AI inside the classroom, if it is used ethically. One of the teachers even insisted on it:” I do not only suggest using AI inside the classroom, but I suggest it becomes compulsory, most teachers prefer to update their teaching learning process. “He said. On the other hand, two of the teachers said that they prefer the traditional teaching methods. The first one justified by saying: “By

using traditional teaching methods, I can manage the content “. The other teacher reasoned by saying:” I do believe that such methods can never be replaced “. All in all, teachers are generally willing to change, and be innovative in their teaching process if it is needed.

Q04: Are you with or against the use of AI in classroom?

This question aims to find out whether teacher is generally supportive or opposed to the use of AI in EFL instructions. Three teachers were on the side of the use of AI in EFL teaching pedagogy, one teacher think it is good tool if it is well used, the other teacher think that we need to change the chalk and board and keep up with the globalization world and he prefer students use AI before coming to class to take a clear picture of the topic or lesson. Whereas, two teachers were in opposition to the use of AI because” it renders students’ passive “. And another teacher said “they will never learn when they use AI” hence Teacher’ perspective were different and the common point of all responses that they doubt in the AI tools’ answers since it is without sources.

Q05: In your opinion, do you think that these AI writing applications are helping the EFL learner’s writing skills? Or is It affection the in a negative way?

The purpose for asking this question is to understand teachers’ perspectives on how AI writing tools effect EFL learner’s writing skills. The teacher’s opinion were varied. The first teacher stated: ”AI writing tools will help learners not only in writing, but it will help them also in research, and seeking new rises in field”. The second teacher reported that it can be helpful in a way how students use it “ If students use it to ask AI to write full essay for them, it is plagiarism. But if students seek assistance of an AI to brainstorm ideas that might be a very helpful way to learn “she said. She added that in writing AI can be effective in many positive ways for helping students to detect their issues. The third teacher said that it depends on how learners are using these AI writing tools, if they use such application like Grammarly to correct their grammar, and compare it with his essay, the learner will learn new things and know how to use it. The fourth teacher claimed that these AI writing applications are affecting the learners in a negative way, because they are rendering them lazy, they do not try to make any personal efforts,

and they are becoming cheaters. Finally, the last teacher responded that these AI writing tools are affecting the learners in a negative way “Students need their teacher and need practice to improve their writing skills. If they rely on AI, they will never be able to become autonomous “she said. Overall, the use of AI can be helpful for students providing that they know how to use it in an ethical way, to improve their writing abilities. And without being completely dependent on It.

Q06: Is AI giving you help in your teaching?

The purpose of this question is to determine if the teacher has experienced any benefits or assistance from using AI tools in their teaching practice. This question to explore whether AI is giving the teachers any help in their teaching. Four teachers indicate that AI help them in their teaching preparation, and teacher see AI help in brainstorming and giving ideas for her lessons , another teacher use AI to prepare PowerPoint , to find some resources , another educator believe that AI can improve his knowledge, language and help to discover new scientific elements . And one teacher think it helps her to structure her lessons. Whilst, one teacher never use AI applications. Thus, the majority of teachers indicate that AI helps in the teaching process yet, some teachers still do not know how to apply this AI technologies inside classroom.

Q07: How do AI tools contribute in improving grammar, vocabulary, and style adjustment in EFL learners’ writing?

The underlying objective of this question is to understand the specific ways in which the teacher has observed AI tools enhancing grammar, vocabulary, and style in EFL writing. The first teacher expressed that the students will feel autonomous when using AI techniques for their writing, which means that the students will not only rely on using classical ways of learning. The second teacher reported that these AI writing tools do contribute in improving grammar, vocabulary, and how to use it in a context, she mentioned a grammar checker application which is Grammarly, and she said that this AI tool gives a linguistics suggestions to improve their writing skills. The third teacher claimed that if students do their own effort when writing, and then try to correct

their work later through AI applications, by checking their grammar and vocabulary. Their writing style is going to improve. The fourth teacher stated that the only useful thing that AI can provide is by detecting spelling, and grammatical mistakes, or vocabulary improvement. Lastly, the fifth teacher said that learners are using AI just to complete their tasks, and look for easy ways to do what they have to do, without trying to make an effort to learn. And that learners try to develop their vocabulary storage orally, but when writing, they still have difficulties. In general, the majority of teachers had observed positive results from these AI writing tools in helping EFL student's grammar, vocabulary, and style adjustment. Taking into mind the ethical considerations of using AI tools.

Q08: Could you share examples of AI tools that you have found helpful in generating and enhancing vocabulary for EFL learners?

The question was asked to gather information on the types of AI-powered vocabulary building tools the teacher has utilized and found beneficial. Four teachers provide example of AI tools that helped them in their teaching process such as: deeply write, Chatgpt, paper pal, consensus. While, one teacher didn't answer this question. Therefore, majority of teachers used AI- powered applications they found it beneficial and useful to search and generate ideas like for example paper pal for writing teacher give to students to correct essay mistakes before submitting them to her .

Q 09: Have you encountered any challenges or limitations while using AI tools to promote EFL learner's writing skills?

This underlying objectives of this question is to highlight the challenges that teachers faced while they use AI and also while their students use it to promote their writing skills. It aims to identify any issues or constraints the teacher has experienced in implementing AI writing tools in their instructions. Four teachers indicate that they faced problems while using AI writing tools such as robotics answers, unnatural language when generating texts, and one teacher did not answer because she didn't use

them. Thus , majority of teachers faced challenges when using AI writing tools, in addition that they feel it will hinder their learning process, and it should raise students awareness, with some guidance on how to write properly to take into consideration the ethical side .

Q10: What advice would you give to other EFL teachers who are considering incorporating AI tools into their writing instruction?

This question highlights the teachers' recommendations and guidance for other educators exploring the use of AI in EFL writing instruction. The responses were quite interesting and helpful for teachers in guiding them on how to use AI properly. First, they suggested, training on these new applications for teachers, and to have a good knowledge on them. Second, to teach properly students on how to use AI, to guide them, and raise their awareness on how to use it ethically. Last but not least, they mentioned that these AI tools should not be used constantly, instead a balance should be maintained between traditional teaching methods and modern AI -based methods.

Q11: In your experience, how do EFL learners respond to the integration of AI tools in their writing practice?

This question highlights the professional experience of teachers to assess their observations of EFL students' reactions and attitudes towards the use of AI writing tools. The answers were quite distinct. Four teachers believe that most of students use those tools better than them , students are really appreciate this AI integration to do their homework , another teacher observe students feel satisfy and confidence that they are writing in best way . However, one teacher said "I will never use AI inside the classroom, and I don't recommend learners to use it unless, for grammar correctness and checkers for their already written essays. " Hence, all teachers agree that students is the most beneficiary of this AI integration, because they like what is easy and ready to write their tasks.

2.10 Discussion:

The current examination is concerned with exploring the effect and influence of AI writing tools in improving EFL learners' writing skills. The investigation's findings, obtained through the use of two research tools namely students' questionnaire and teachers' interview, yielded satisfactory results in using AI to enhance students' writing abilities. The results show that most 2nd year EFL students are accepting and keeping up with technologies, and are willing to incorporate these advanced technologies into their learning process.

Concerning the first hypothesis, which highlights the role of AI writing tools in enhancing EFL learners' writing skills. Results from questionnaire show that AI does improve EFL learners' writing, by providing immediate suggestions and feedback, accurate answers, enhancing their vocabulary and word choice, and checking their grammar. The results indicate also that learners are depending on AI writing tools to help them develop their thinking and ideas. The supported responses from teachers' interview, admit that these AI-powered applications can improve EFL learners writing, provided the requisite ethical considerations are duly observed. Furthermore, the learner should know how to use these tools in order to develop his abilities that is by depending on his own thinking and correcting his mistakes later on using AI writing tools. Accordingly, the first hypothesis which posits that AI tools help EFL learners improve their writing skills effectively is supported by the results obtained of this current study. Therefore, these findings align with the conclusions reached in previous research on this topic, which include [Hazaymeh, et al., 2024, District, 2023, Aladini, 2023, Shaun, 2023].

Regarding the second hypothesis, which highlights the potential of AI writing tools in helping EFL learner's grammar, and style adjustment. The findings revealed that learners were generally satisfied with the AI-based writing tools for grammar identification, vocabulary generator and enhancer, and sentence rewriter. The informants suggested some applications that helped them correct their grammar and style, for instance: Grammarly, ChatGPT, and Quillbot. Likewise, university teachers' answers from the interview confirmed that these applications have positive potential in helping EFL learners with grammar and style adjustment, by learning new vocabulary,

and detecting their writing issues, grammar, vocabulary, and sentence structure. After all, the proposed hypothesis has been confirmed. Ergo, these results serve to corroborate the previous scholarly works undertaken by Wong, 2024, Mitra, 2024, Rouse, 2023, Kamis Alzahrani, & Alotaibi, 2024 , Cuiping, and Yanping, 2023 , Fawaz, 2023 .

2.11 Conclusion :

To conclude , in this chapter the investigators tried to give a global understanding of data collection procedures , used in the research to gather the findings reached from different research sources and methods which are primarily students' questionnaire administered to 50 second -year EFL students in the department of English, university of Tlemcen, teacher's interview conducted with five teachers . The key conclusion that can be obtain from the results presented earlier are second -year EFL students have positive attitude towards the use of AI writing tools , it improve effectively their skills writing , AI writing applications do help EFL learners by providing: grammar checker , vocabulary generator , and sentence rewriter .

GENERAL CONCLUSION

General conclusion:

The prevalence of AI technologies continues to develop rapidly. They are playing increasingly integral role in improving the writing skills of EFL learners around the world. From grammar checkers, vocabulary generators, to sentence rephrase that help learners to write essays easily without any complexity. In the future, these AI applications will empower EFL learners, and will be their support, to become confident. AI offer learners a range of opportunities to improve and enhance their writing abilities including grammar, vocabulary, and sentence structure. In this context, the researchers conducted a research into this topic and clear up many aspects of it. Therefore, the research was divided into two chapters, the first one dealt with theoretical framework of the inquiry. The importance of AI in enhancing EFL learners and the use of AI technologies in teaching and learning, in addition to the previous studies related to the present research.

As for second chapter, it was devoted to the practical side of the research methodology used and the findings that were reached through the use of different research instruments. Subsequently, it was found that EFL learners have a positive attitude towards the use of AI writing tools, second, most of learners use the AI applications in their writing. In light of these results, the entire hypothesis formulated by the researchers are confirmed. These findings provided increasing evidence showing that AI writing tools provide teachers with several thoughts, ideas and methods to be used. This research represented the role of AI in promoting EFL learner's writing skills. In point of fact, getting different insights from learners represented a quite challenge. The findings of this study present a basis of future research on the training of teachers and students on how to use AI technology in proper way, where further investigations in the future are important to explore the attitude of teachers and learners to gather deeper insights on how to use AI writing applications.

Each research may have its own limitations. In this research, the investigators faced some difficulties, which are as follows;

First, AI technologies still not widely used inside classroom. Second, there are lack of Algerian articles that speaks about AI in education in English, so the researchers find difficulties to search about AI in education articles. Third, it was difficult to interview teachers because they were so busy . However, despite of all these limitations, the researchers was able to reach their goal.

In conclusion, since learners are already using the AI applications, why not create a learning environment that suit their interests and teach them how to use them ethically.

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APPENDICES:

Appendix (A): Questionnaire:

Students' Questionnaire

Dear students,

This questionnaire is designed to gather information and investigate the potential impact of AI tools and applications on enhancing the writing skills of English as a foreign language (EFL) learners, the focus is to assess whether AI -tools can positively influence and enhance the overall Writing proficiency of EFL students, and evaluate how AI tools such as grammar checkers, vocabulary generators/enhancers, and sentence rewriters , can help EFL learner's improve their accuracy , enhance their vocabulary, and refine their writing style .

- What is your gender?
 - Male.
 - Female.
- How do you rate your writing level ?
 - Beginner
 - Intermediate
 - Advanced

2- Have you ever used the AI -based writing tools ?

- Yes
- No
- If yes , please Suggest AI applications that you use :

.....

4 – Do you like using AI writing tools?

-yes

-No

5 -How long have you been using the AI based writing tools ?

.....

6- Do you depend on AI writing applications completely?

- Yes . - No .

If yes , in what way? :

7- Do you take AI writing powered tools answers as a valid source of information?

- Yes.
- No.
- Justify :

8- Do you rephrase AI based writing tools answers for your writing?

-Yes

- No

9- how often do you use AI writing systems ?

- Daily
- Weakly
- Once a month
- Never
- Others

10-The AI based writing tools has improved my overall Writing skills.

- Agree.
- Disagree.
- Strongly agree.
- Strongly disagree.

11-The AI based writing tools has helped me improve my grammar and sentence structure.

- Agree.
- Disagree.
- Strongly agree.
- Strongly disagree.

12-The AI-based writing tool/system has expanded my vocabulary and word choice.

-Agree.

-Disagree.

-Strongly agree.

- Strongly disagree.

13- The AI-based writing tool/system has increased my confidence in writing in English.

-Agree.

-Disagree.

-Strongly agree.

-Strongly disagree .

14- Accuracy in identifying and correcting errors.

-Poor .

-Bad.

-Good .

-Excellent.

15- Relevance and usefulness of suggestions and feedback.

-Poor .

- Bad.

- Good .

- Excellent.

16- Availability of writing resources (e.g., grammar explanations, vocabulary suggestions)

-Poor.

- Bad.

- Good.

-Excellent .

17- Overall satisfaction with the AI-based of your writing practice and skills.

- Poor.
- Bad
- Good
- Excellent.

18- Can you identify any limitations or challenges you have encountered while using the AI-based writing tool/system?

.....

19- Is there any additional feedback or comments you would like to provide regarding the AI-based witing tool/system?

.....

Thank you for your participation!

Appendix (B): Interview:

The aim of this interview is to gather information on the teacher’s perspective on the effectiveness of AI tools in promoting EFL learners writing skills , as well as their experiences with implementing AI tools in classroom.

1. Do you use AI writing powered tools in your teaching process?

.....
.....

2. What is your opinion of these AI tools?

.....
.....

3. Do you suggest using AI inside the classroom, or do you prefer using the traditional teaching methods?

.....
.....

4. Are you with or against the use of AI in classroom?

.....
.....

5. In your opinion, do you think that these AI writing applications are helping the EFL learner’s writingskills? Or is effecting them in a negative way?

.....
.....

6. Is AI giving you any help in your teaching?

7. How do AI tools contribute in improving grammar correctness and style adjustment in EFL learners’ writing?

.....
.....

8. Could you share some examples of AI tools that you have found helpful in generating and enhancing vocabulary for EFL learners?

.....
.....

9. Have you encountered any challenges or limitations while using AI tools to promote EFL learners' writing skills?

- If yes , how have you addressed these challenges in your teaching?..... ..

.....

10. What advice would you give to other EFL teachers who are considering incorporating AI tools into their writing instruction?

.....

.....

11. In your experience, how do EFL learners respond to the integration of AI tools in their writing practice?

.....

.....

Thank you for your help and collaboration.