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### Faculty of Letters and Languages Department of English

The Role of Artificial Intelligence in Enhancing EFL Students Speaking Skill

# Case of Fourth-Year Middle School Students at Ahmed Herouini Ghardaia

Dissertation submitted to University of Ghardaia for obtaining the Master's

degree in Didactics

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# DEDICATION

#### THANK GOD.

With deep love, I dedicate this work to: The soul of my mother who dreamed of this moment, may SHE rest in peace My father who has always been by my side

and supported me

throughout my academic journey my son Anes and My husband, who encouraged me to complete this work. My brothers and their families MY FAMILLY AND MY FRIENDS

For their steadfast love.

THANK YOU ALL

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#### Abstract

This study aims at investigate the development of the speaking skill through the function of AI in English language learners. To reach the aim of this study, a mixed method (qualitative and quantitative approaches) were employed by using a printed questionnaire for students, aimed for a sample of forty 4th grade pupils and an interview with teachers at Ahmed Herouini middle school Ghardaia .The findings of this study suggested that AI has the potential to significantly enhance English language learners' communication skills by providing personalized and interactive learning experiences, even teachers have a positive attitude about it because it is an appropriate and good technique that helps learners communicates better.. However, further research is needed to explore the long-term effects and optimal integration of AI in language learning environments. For these results, we suggest that educators and policymakers can make informed decisions to harness the benefits of AI technology and maximize its impact on developing effective communication skills among English language learners.

*The Keywords:* Technology-based teaching, Artificial intelligence, Globalized education, Speaking skills, Young EFL learners.

## List of Abbreviation

AI: Artificial intelligence
AR: Augmented reality.
EFL: English as a Foreign Language
ELT: English Language Teaching
MALL: Mobile Applications for Language Learning.
NEP: National Education Policy
NLP: Natural language processing.
SPSS: Statistical Package for the Social Sciences.
VR: Virtual reality.

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# **General Introduction**

#### **GENERAL INTRODUCTION**

#### **Background of the Study**

With the growing need for English language competency in the world today, teachers and researchers are looking for new ways to improve language learning results. One approach that has gained a significant attention is the integration of artificial intelligence (AI) technologies into English language instruction. AI, perceived for its ability to mimic human intelligence, has made a significant progress in recent years, transcending many societal areas. In the field of education, AI is gradually being discovered as an effective tool to support and enhance language learning, particularly in improving learners' speaking performance, where AI offers the potential for personalized, collaborative, and adaptive learning that addresses learners' needs and preferences. Integrating AI into language learning environments also holds great promise for enhancing the four core language skills: speaking, listening, reading, and writing because AI-powered technologies, such as cake application, chatbots, google assistant, virtual tutors, and language learning apps, have emerged as innovative tools that provide learners with interactive and immersive language learning experiences. Where These technologies offer features, such as real-time feedback, adaptive assessments, speaking practice, voice note and personalized content enable learners to enhance their communication skills and accelerate their language acquisition. Also, the use of AI in language education is likely to enhance learner autonomy, as learners can access resources and receive feedback independently, anytime, anywhere. Additionally, by integrating AI into language learning environments, it accelerates personalized learning paths that adapt to each student's learning styles, preferences, and development by addressing the many needs and challenges faced by English language learners.

#### **Statement of purpose**

The purpose of this mixed methods case study aims to investigate how artificial intelligence (AI) can enhance speaking skills, With an emphasis on speaking components like: accuracy, fluency and pronunciation, ...etc., among middle school students in English as a foreign language EFL classrooms .by focusing on strategies that can help students know how to use AI-based tools in developing their communicative purposes. Also, for teachers on how to use

## **General Introduction**

such tool such as speech application recognition and Google assistants in overcoming speaking challenges that face students while speaking. By examining AI-based interventions, and gain in --depth into students and teachers experiences and perceptions regarding the use AI in the language learning process, this study seeks to determine the effectiveness of AI in improving spoken communication.

#### **Statement of the Problem**

Current teaching methods may hinder students from practicing speaking in realistic contexts, such as engaging in conversations with peers, giving class presentations, or participating in group role-playing games. Therefore, students may struggle to apply their speaking skills and may not feel adequately prepared to communicate effectively with their classmates. Thus, Artificial intelligence (AI)-based tools have the potential to bridge these gaps in speaking skills teaching methods by providing students with immediate personalized feedback to improve their skills and open up new learning opportunities.

#### **Research Questions**

The current study aims at addressing the following questions:

RQ 1: How effective are AI tools in enhancing middle school students' speaking skills?

**RQ 2:** What specific AI technologies are most impactful in developing students speaking skills?

**RQ 3:** What are the perceptions of students and teachers regarding using AI tools for speaking practice?

RQ 4: Are there any advantages of integrating AI in English language teaching and learning?

#### **Research Hypotheses**

The research questions lead to raising the following hypotheses:

**RH1:** The integration of artificial intelligence (AI)-based tools significantly improves the speaking skills of middle school students compared to traditional teaching methods.

**RH2:** AI-based speaking practice tools increase students' speaking fluency.

**RH3:** AI-supported feedback leads to greater improvement in students' pronunciation and accuracy.

# **General Introduction**

**RH4:** There is a significant difference in speaking skill development between students using AI tools and those who do not.

#### **Research Aims (Rational):**

#### The present study aims at:

**1**) Showing the benefits of using Artificial intelligence in developing speaking skills 7because traditional classroom settings often do not provide enough time for each student to practice speaking regularly.

2) Exploring the challenges that might be as an obstacle for students while speaking.

3) Investigating teachers' perceptions towards the use of "AI" in education.

#### Significance of the study

This study is important because it investigates the use of AI to help middle school learners cultivate speaking skills fluency, pronunciation and confidence. It adds to language learning theory in that by also linking the use of generative AI with established approaches such as communicative teaching and personalized approaches to learning. in practice, it provides guidance to educators and developers best harnessing AI tools to make speaking practice more engaging, supportive and personalized. The results will help to improve teaching methods and facilitate the emergence of more confident and able language learners.

#### **Research Methodology**

In order to answer the research questions, mixed methods were used by the researcher in this study (the qualitative and quantitative approach) to provide a clear data analysis and meet the research aims. First a questionnaire is delivered to a sample of middle school students English Language about how can artificial intelligence tools enhance their communication skills for learning English. Second, interviews were devoted to EFL teachers. Data obtained will be analyzed quantitatively and qualitatively in order to find answers for the search questions and shed lights on the importance of using Al in language teaching field and educational field as a whole.

#### Structure of the study

Adhering to organizational guidelines, this thesis is structured as follows:

#### Part One: Theoretical Part

This part consists of two sections. The first section establishes the initial framework for this study. It commences with an in-depth review of the Importance of speaking skills for middle school student, challenges that face them while speaking. The second section focuses on the role of artificial intelligence in enhancing speaking skills for middle school students.

#### > Part two: practical part

This section encompasses the final chapter of the thesis. It explains the research; methodology and tools to be implemented, provides the analysis and discussion on the findings.

# **Chapter One: Theoretical part**

#### **Section One**

### **INTRODUCTION**

The present chapter offers an overview about artificial intelligence (AI), hence "AI" aims at discussing a verity of frame work. It is divided into two parts.

The first part, presents the Importance of speaking skills for middle school students and the challenges that may stand as a barrier in the way of integrating "AI" in education. The second part introduces "AI" definition, Types of "AI" application to enhance students speaking skills and the significant of implementing "AI" in English Language field.

# 1. The Importance of speaking skill in developing communicative purposes

Speaking is basic skill that EFL learners should master with the other language skills. It is a skill which has been regarded as the primary form of language, because it plays an important role in speech community. Also, if the learner master the speaking skill this means mastering others skills as Ur (2000,p.12) says that of all the four skills, speaking seems institutively the most important people who know a language are referred to as speaker of the language, as if speaking included all other kind of knowing. Although the importance of speaking skill, but it is the more neglected one because learners do not have chance either in the classroom or outside to speak English because it demands a lot of practice and attention to develop it. So, teachers want students to be able to use language fluently and correctly as much as possible, because with speaking, students can improve their writing skill and develop their vocabulary and grammar. In addition, they can express themselves, give opinions, ask, request, tell stories, inform or explain, convince and discuss. Also, speaking can assist student in job interviews and it widens their options in job choices and helps them communicate well in business at work or school. Baker and Wertrup (2003,p.05) says that a student who can speak English well may have great chance for future education, finding employment and going

promotion, that means people who speak English very well have more chance to get job in companies and organization.

#### **1.1. Definition of speaking skill**

Speaking is the process of building and sharing meaning through the use of verbal and nonverbal symbols in a variety of contexts Chaney,(1998, p.13) Bialy and Nunan (2005,p.02)say that: speaking is an interact process of constricting meaning that implicate producing and receiving and processing information. Speaking is essential skill that language learners should master with other language skills. It defined as a difficult process of sending and receiving information around the use of verbal expressions, but it also in verbal symbols according to Chastain and Yassi (2004,p.06), speaking is a productive skill since it produces ideas, messages and we need to practice it to increase our skill in communicating in English, it is not enough in the classroom but practice outside of the classroom it will be influenced our speaking skill. In addition to this speaking is considered to be the most important active skill. And it is a spoken discourse that is primarily social engaged in for social purposes and in social contexts.

#### **1.2. Elements of Speaking**

Speaking is not an easy task, but every learner studies the foreign language wishing to be fluent and accurate, with the good use of vocabulary, grammar as pronunciation which are the characteristics that define the proficiency in speaking skills. According to Harris (1974) there are five components of speaking skill which are as follows.

#### 1.2.1. Accuracy

Nowadays, most foreign language teachers emphasized the term of accuracy in their teaching, because learners try more to be fluent and they forget about being accurate, without structuring accurate speech, speakers will not be understood, and they will lose interest when they make incorrect revelation each time. Therefore, learners should put into consideration number of things in their spoken language mainly the grammatical structure, vocabulary and

pronunciation, in this sense it is important to know about the language rules and know to use them in the sentence according to Yuan and Ellis (2003,p.02) "accuracy in speaking is the extent to which the language produced conforms to target language norms. So, it means know to use grammar, vocabulary and pronunciation in the right way".

#### 1.2.2. Fluency

It is the main characteristic of the speaker performance; Hedge (2005, p.4) argued that: "fluency means speaking easily, smoothly naturally and reasonably quickly without lots of pauses and stops." The good speaker in English should be able to use English language without difficulties, so fluency is the ability to respond in coherent way by linking words and phrases effectively, pronounce the sound clearly, some speakers they speak rapidly without take pauses because they think that fluency is the ability to speak fast. Thombury (2, p.06)declared that speed is an important in fluency and pausing too even native speakers need to take breath from time to time in order to let the listener understand what he said, for this reason speakers should and need to take breath to be more fluent and clearer.

#### 1.2.3. Grammar

In the Longman dictionary competency English (2000,p.193) grammar is defined as the rules by which words change their forms and combine into sentences, speakers should know how to use a correct sentence, which needs at least subject, verb, object... and also they should differentiate between adjective, adverbs....., grammar help people to convey message and express emotions, feelings and ideas in effective and appropriate way. According to Little wood (1981, p. 19). Grammar is an essential resource in using language communicatively so grammar is very important in communication, grammar help learners to use language accurately, and facilitate the interaction between people and makes speakers meaning clear. Grammar is an important character which helps learners to perform their speaking skills, because when a message is drop with appropriate grammar, it is easy to recognize the ambition and meaning of that message, so the learning of English grammar is important before anything else.

#### 1.2.4. Vocabulary

Vocabulary is defined as a list of words with their meaning especially in a book for learning a foreign Language oxford learner" pocket dictionary (2008, p, 495). To achieve accuracy in terms of vocabulary means to choose appropriate words while they speakers, sometimes learners face difficulties to find the words when they express what they want to say and learn the appropriate vocabulary. According to Harmer (2001, p.35):

The knowledge of word classes also allows speakers to prefer well from utterances. So, vocabulary is very important so teachers should help learners to develop their knowledge, and give vocabulary much important in the class.

Vocabulary represents one of most important skills necessary for teaching and learning a foreign language, vocabulary help students understands and communicate with others because they need to use words in order to express themselves, sometimes Learners face problems when they want to speak due to the lack of vocabulary, for that reason it is very important to look at dictionary, Books to learn new words and to avoid the difficulties.

#### **1.2.5. Pronunciation**

Pronunciation is defined as the act or manner of speaking a word, or the way in which words are pronounced, Goh (2007,p.129) stated that pronunciation plays an important role in intelligibility; it means the good pronunciation of words help listener get the intended meaning. It is also improving learners speaking immeasurably. So, to speak the English language accurately, learners need to be knowledgeable about its phonological rules, they should know where the words should be stressed, when to use reusing intention and when to use the failing one. All these components help them to speak accuracy and effectively language, and help the others better understanding the meaning.

#### 1.3. Types of Speaking

According to Brown (2004), several types of speaking can be performed by students in the classroom; these categories are as follows:

#### **1.3.1. Intensive Speaking**

It is similar to imitative practice in that it emphasizes drills or repetitions and focuses on specific phonological or grammatical elements, such as minimum pairs or the repeating of a series of imperative phrases. In this case, the speaker must be capable of interpreting semantic qualities so that he or she can answer promptly. Thus, the primary goal of intensive speaking is to practice the phonological or grammatical elements of the target language. for example, reading aloud sentence and dialogue completion, and limited picture-wed tasks. Brown (2004, p.141).

#### 1.3.2. Responsive Speaking

In order to maintain authenticity where someone expresses their true feelings or beliefs in a way that is genuine and heartfelt by connecting with others on an emotional level, this sort of speaking skill includes engagement and testing understanding, but on a limited level of very brief dialogues, basic greetings and small chat, simple requests and comments, and the like. As an example:

- a. What is the most urgent environmental problem today?
- b. Would say massive deforestation (Brown ,2004, p.141)?

#### **1.3.3. Interactive Speaking (dialogues)**

The length and complexity of the interaction distinguishes responsive and interactive speech. Interaction, according to Brown (2004), may be divided into two types: transactional language, which is used to trade information, and interpersonal language, which is used to sustain social relationships. Oral production in this language interaction (interpersonal) becomes grammatically complicated due to the necessity to talk in informal way and employ colloquial language, ellipsis, slang, and humor.

#### **1.3.4.** Extensive speaking (monologue)

Brown (2004, p. 142) described the last form of speaking as comprehensive. For him, extensive speaking or monologue involves speeches, oral presentations, and storytelling, but the language style utilized in this sort of speaking is more deliberate - there is no external boundaries that effect my opinion-and formal for lengthy tasks, but certain informal monologues, such as a casually delivered speech, cannot be ruled out.

#### **1.4.** The relevance of speaking skill for middle school education

Speaking skill is a vital component of middle school education for many reasons:

- Positive Classroom Participation: Speaking confidently allows students to speak more in class discussions, ask questions and articulate their thoughts.
- Oral Presentations: A lot of middle school topics have students giving presentations or participating in debates, enhancing academic communication skills.
- Social Development Peer interaction: Good speaking skills lead to better friendships, as students are able to resolve conflicts more effectively, work together, and share thoughts.
- Self-Esteem: The ability to speak in a second foreign language increases confidence and makes students feel more capable in society.
- Future Readiness Communication Skills for Careers: Strong speaking skills are necessary for most.

#### 1.5. The challenges that face students while speaking

Since speaking skill is regarded as a very complex process, the majority of foreign language students encounter various problems with classroom speaking activities (1996, p. 121) and other researchers suggest fundamental problems that appear in the speaking class, as follows:

#### 1.5.1. Inhibition

According to Ur (1996) speaking is the most difficult skill. It is quite different from the other three skills, reading, listening and writing. Learners are often inhibited about trying to say things in a foreign language in the classroom. They are usually worried in making mistakes, fearful of criticism or losing face, or simply shy of the attention that their speech attracts. In addition to that speaking requires what is called' real time exposure. Foreign language learners are noticeably inhibited to talk or express their ideas in front of the others using the target language (Ur, 1996). That is, inhibition is closely related to students' shyness and fear of making mistakes as well as destructive criticism.

#### 1.5.2. Lack of Vocabulary

A good knowledge of vocabulary and a correct mastery of grammar rules are very important to speak a foreign language. In our context, many students show the desire to speak and to participate but unfortunately, they fail to present their messages verbally arguing that they are unable to find out suitable words to specific topics or have not enough vocabulary in their linguistic repertoire. Thornbury (2005, p.22) states «spoken language also has a relatively high proportion of words and expression». Thus, learning foreign languages requires a great knowledge of its vocabulary, the phenomenon in our EFL classes is that many students often find some difficulties when they try to express what they want to say because they find themselves struggling their limited words and expression

#### 1.5.3. Low or Uneven Participation

Participation is considered as one of the golden keys during oral sessions since it enhances speaking abilities of learners. According to Harmer (2001), putting learners in group increases their participation, that is, when we make the students work in pair or in group, this increases their talking time and gives them the opportunity to express themselves. Moreover, according to Ur (1996), this phenomenon generally occurs in large classes where the opportunities given to learners to speak are reduced. Many factors prevent students to participate during oral sessions, Thornbury (2005) provides some psychological barriers which make students prefer still silent rather than to speak.

#### **1.5.4.** Psychological Barriers

The psychological barriers of EFL students in oral English communication are the psychological negative emotions that prohibit their performance in English as a foreign language. Students may experience different psychological barriers including lack of self-confidence, anxiety, shyness and fear ... etc.

#### a. Lack of self –confidence

In many classes, some students prefer to keep their ideas and opinion to themselves because they are not sure about the strength of their abilities or hesitate to participate in the oral tasks. EFL students hardly believe in their skill to speak English or even facing their teachers and classmates or simply they have not the confidence in themselves. Thus, lacking selfconfidence leads them to say a few words to avoid making mistakes and embarrassment.

#### **b.** Shyness

Shyness is purely psychological problem that EFL student are suffering from. Shyness is the most obstacles that students of English as a foreign language face because they feel uncomfortable to speak in front of their classmates and their teachers. Students often do not participate in EFL classroom in natural manner because of shyness, so they are not able to perform in their tasks and achieve their goals. This will affect obviously their participation and lead them to a low participation or even to none.

#### c. Fear of making mistakes

In EFL classes, students cannot express themselves in foreign language and do not participate appropriately in the oral lessons for the reason that they are worried about making mistakes, fearful about public correction. As Ur (2000, p.111) states, "Learners are often inhibited about trying to say things in a foreign language in the classroom, worried about making mistakes, fearful of criticism or loosing face, or simply shy of the attention that their speech attracts.". Therefore, fear of making mistakes can be considered as another obstacle for students 'participations.

#### d. Anxiety

Anxiety is one of the main handles for many EFL learners. Anxiety is the negative emotion that created trouble in learning process for the students. Anxious student does not learn well as well as do no communicate effectively in classroom situation. Wrench et al (2009, p.55) support, Students don't communicate effectively with us [teachers] when they are fearful, anxious, apprehensive, or scared to communicate with us. Students don't complete tests well when they are fearful, anxious, apprehensive, or scared of testing situations. Simply put, students don't do well in the classroom environment when they are fearful, anxious, apprehensive, or scared .Anxiety reveals more than when students try to participate in the classroom, so they feel uncomfortable about speaking English in front of their classmates as Littlewood (1981,p.93) states, "it is too easy for a foreign language classroom to create inhibition and anxiety"

#### **1.5.5.** Mother Tongue Interference

Hardbord(1992, p.24) made a point about this problem: « Students use their L1when performing pedagogical tasks, especially when one student is explaining something to another. This is a habit that in most cases will occur without encouragement from the teacher ». That is to say Students choose to express themselves in Arabic rather than English since it is the simplest, more natural, more comfortable and most secure tool for them. According to Littlejohn and Hicks (1999), students may use their mother tongue if they are embarrassed to speak English in front of their classmates .Also, students prefer to speak in their native language. On the one hand, expressing their opinions is simple, natural, and more comfortable for them. On the other hand, when they are requested to participate, they are unable to speak in the target language participate.

# **1.6. Challenges of implementing Artificial intelligence in teaching and learning English**

It is unquestionable that "AI" technologies could be used to make changes in the near future. for instance developing a suitable and more enhanced algorithms in order to process natural language and creating an adaptive learning process that suits all learners. However, with the significant attention in which Artificial intelligence has gained in the last few years for its capacities. A cloud of challenges rise up as an obstacle in which it could have a negative impact on the integration of the latter in the field of education, not to mentioned its implementation in EFL classrooms, would be insufficient due to the following factors because it can impede pupils ability to develop their speaking abilities and increase educational inequalities.

#### 1.6.1. Insufficient Human Engagement

Speaking is a social and interactive skill that greatly depends on emotional intelligence, contextual awareness, and nonverbal clues. Despite AI increased capabilities, are unable to fully replicate real-world human interaction. The absence of genuine communicative interactions can lead to decontextualized learning experiences that fail to sufficiently prepare students for speaking situations in the actual world, as Godwin-Jones (2021) points out.

#### 1.6.2. Excessive Use of Technology

It's possible that students could grow unduly reliant on AI technologies for language practice, which could reduce their interaction with teachers and other students. Also, Critical thinking and impromptu speaking abilities may be hindered by this dependence because meaningful engagement is essential to language learning, as stressed by Krashen(1985), however this idea is challenging to maintain in completely AI-mediated settings.

#### 1.6.3. Barriers related to technology and Accessibility

Not every student has equal access to the technology infrastructure needed for learning using artificial intelligence. Internet connectivity, gadget availability, and calm learning conditions might be problems for students in disadvantaged or rural locations. The inclusivity of AI applications is restricted by this digital divide, which also makes educational disparities worse.

#### 1.6.4. Concerns about Ethics and Privacy

User data is frequently gathered and processed by AI systems for performance monitoring and personalization. Thus, Students privacy is seriously threatened by this, especially those who are minors. Strict compliance with data protection regulations and ethical standards is required when using biometric data, such as voice recordings, Informed consent and

## **CHAPTER ONE**

## **THEORETICAL PART**

transparency are crucial for protecting the rights of students. According to Tzimas AI stands as a significant challenge that setback the implementation of Artificial intelligence in language teaching and learning. In order to maximize the learning experience ,using "AI" in education demands collecting a vast amount of personal data, that must be optimized and utilized. Therefore, one of the most controversial challenge is about ethics and transparency in data collection. Artificial intelligence integration sheds lights on many ethical concerns in terms of accessing to educational system, personal data privacy, liability, impact on work and ownership of data. In this sense Artificial intelligence regulation will demands public discussion on ethics, transparency and security (Pedro et al, 2019). Being said, it is crucial to take into account the negative side of sharing privet data when using AI in education, especially that within the academic walls there are learner's, teachers and administrators who doesn't want their personal information to be taken, sold or being breached by cyber criminals and be shared worldwide for this reason it is important to be aware that with the implementation of AI a responsibility of protecting personal data is being expected from AI system developers and public authorities.

#### 1.6.5. Integration of Pedagogy and Teacher Preparation

The ability of teachers to use digital pedagogy effectively is a major factor in how well AI works in speaking classes. Many teachers are not formally trained in the meaningful integration of AI into their teaching techniques. According to Zawacki-Richter et al. (2019), AI runs the risk of being applied in ways that are pedagogically shallow and out of step with learning goals .thus, The lack of capacities in terms of using Artificial intelligence in teaching appears in underdeveloped countries like Africa and south America, a study done by Manzo (2021) examined the implementation of Artificial intelligence tools into English et al language education in Colombia, to investigate the challenges, as well as the opportunities that has a direct connection with the use of "AI" in the field of language teaching hence English .The study found that there is a growing interest in using Artificial intelligence in language education in Colombia. However, there are also significant challenges that rise up at the horizon in which they are associated with the implementation of "AI" including the limited teacher training on the use of Artificial intelligence and also there were concerns in terms of privacy and data security, in this manner it is crucial not just for the teachers to learn some digital skills to use Artificial intelligence in pedagogical environment, but it is also

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significantly important for the artificial intelligence developers to learn and understand how teachers operate inside the classroom and create solutions that are sustainable in real\_ life situations (Pedro et al, 2019).

#### 1.7. Tips for developing speaking skill

#### 1.7.1. Creating a Safe and Supportive Speaking Environment

Middle school students often experience anxiety when speaking in a second language (Horwitz, 2001). AI tools can reduce this anxiety by providing private, judgment-free practice environments. Applications like Google's Read Along and ELSA Speak allow students to practice speaking without the fear of embarrassment, thereby increasing their willingness to speak (Satar&Akcan, 2018).

#### **1.7.2.** Gamification for Motivation

Middle school learners respond well to gamified learning environments. AI-powered platforms like Duolingo use levels, achievements, and progress bars to motivate students to practice speaking consistently .Gamification also fosters a positive emotional connection to language learning, reducing speaking-related anxiety.

#### 1.7.3. Combining Listening and Speaking

Speaking proficiency is strongly linked to listening comprehension. AI applications that combine listening tasks with speaking follow-up, such as FluentU or LingQ, reinforce vocabulary and pronunciation. Students might listen to a short AI-generated dialogue and then be prompted to summarize or answer questions orally, fostering both receptive and productive skills (Goh & Burns, 2012).

#### 1.7.4. Recording and Reflecting

Self-recording is a powerful tool for developing meta cognitive awareness. Platforms like Flipgrid or SpeakPipe allow students to record and review their speech. AI can assist by giving instant feedback on pronunciation, grammar, and fluency. This reflective practice enables learners to monitor their progress and self-correct (Schön, 1983; Boud et al., 1985)

#### **1.7.5. Utilizing AI-Powered Speaking Assistants**

Conversational AI tools, including chat bots and speech-based assistants, offer students opportunities to engage in meaningful dialogue. Tools like Replika, Cake, ChatGPT, and Duolingo's speaking modules simulate real conversations, providing contextualized practice and immediate corrective feedback (Yin et al., 2021). This aligns with Long's (1996) interaction hypothesis, emphasizing the importance of conversational practice in language development.

#### **Section Two**

#### 1.8. The role of Artificial intelligence in English Teaching

Artificial intelligence can be defined in many ways based on different points of views of scholars, researchers and AI developers themselves.

#### **1.8.1. Definition**

The term "Artificial intelligence "was brought up back in 1956by John McCarthy in which he states that computers will one day be able to simulate human's cognitive function. Furthermore, pokrivcakova (2019) defines AI as a technological tool in which they will have the capacity to operate and think like humans. Artificial intelligence is a system that is designed to mimic human intelligence and do various chores which humans can do. In other words, "the automation of activities that we associate with human thinking, activities such as decision making, problem solving and learning…". (Bellman,1978).

#### **1.9. Historical Evolution of AI**

Artificial intelligence (AI) has a long history dating back to 1943, which is even earlier than the Second World War's conclusion. a computer science specialist at the University of Baghdad, Dr. Maad M. Mijwel (2015, p.2,4) in his doctoral dissertation, "History of Artificial Intelligence", outlined the origins of AI and its stages of development.

- The Early Years (1943-1950): This period saw the development of Artificial Neurons (AN), which were the connection points in neural networks. In the 1950s, Donald Hebb introduced an updated rule called "Hebbian Learning" to modify this model. Alan Turing, the English mathematician and founder of computer science, suggested "The Turing Test" to review the ability of machines to perform intelligent tasks parallel to human intelligence.
- The Birth of AI and its Golden Years (1952/1974): which saw the production of the first AI reasoning program, «The Logic Theorist, » by Allen Newell and Herbert A. Simon? John McCarthy created the term "Artificial Intelligence" and held the first AI conference in 1956. Investors and researchers continued developing rules and algorithms to keep the systems updated. In 1966, the first chat bot "ELIZA" was

programmed by Joseph Weizenbaum, while Japanese scientists created the first intelligent robot, Wabot-1,in 1966.

- The First AI Winter (1974-1980): the AI winter represent a marked a period of no advances, lack of improvement, and no results in the field.
- The Back of AI 1980/1987): the First winter period was finished by the foundation of the "Expert System" which was established in 1980/1987, a knowledge-based program that uses artificial intelligence to imitate human expert behavior. This system was known for its high performance and simplicity.
- The Second AI Winter (1987/1993): once again, the winter period saw the government stop investments and companies reduce budgets due to high costs and low improvement, leading to no results.
- The Boom of AI (1993/present): this era witnessed the invention of the first personal computer in 1981, IBM's design of a supercomputer called "Deep Blue" in 1997, and the introduction of social media platforms like Facebook and Twitter. AI has since been integrated into all domains, including translation, with Google Translate being a famous notable example.
- In 2011, "Apple Siri" was released as a virtual assistant for IOS smart phones powered by AI and using voice recognition. Two years later, "Alexa" was developed by Amazon as a voice-controlled assistant that offers various services, including controlling smart phones or smart homes, answering questions, and playing music.
- In 2022, Chat GPT was the latest achievement of AI, allowing users to have humanlike conversations with robot assistants trained to answer questions and help individuals with various tasks. The success of AI can be seen in the examples mentioned above; illustrating how the world has changed and individuals' need for AI has increased.

#### **1.10.** Artificial Intelligence in Education

The landscape of education is continually changing, and new technologies are becoming more and more prevalent in the classroom. One of such technology is Artificial Intelligence (AI). The application of AI in education makes the entire educational system convenient and individualize because of the widespread use of technology in education is changing how we learn and teach. AI is such an innovative method for adapting the experiences of various learning groups, teachers, and instructors. According to National Education Policy 2020, AI

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should be introduced to and included in the regular education curriculum. Also, AI is being incorporated into the curriculum to improve efficiency, personalize learning, and streamline administrative processes so that teachers have more time and freedom to impart knowledge and flexibility. NEP 2020 asserts that technology, including AI, will fundamentally alter how children learn in schools. However, this requires a significant amount of technological and academic research. The Prime Minister of India has started several initiatives in honor of NEP 2020's first anniversary. 'AI for All' is one of the major initiatives that were started. AI for All is an online course designed to give every member of the nation a fundamental understanding of artificial intelligence (AI). It is obtainable in eleven different vernacular languages. A student, a parent who stays at home, a professional in any sector, or even an elderly citizen can benefit from this four-hour, self-paced, micro-learning programmer.

#### 1.11. The Role of Artificial Intelligence in Improving Speaking Skill

As a media for improving students' speaking ability, artificial intelligence has several roles to help students with different abilities in improving their speaking skills according to their respective levels. Here are some of the Roles of Artificial Intelligence:

- First of all, the most important role of AI is that can create a learning environment. So, Students practice speaking not with their friends anymore but with a computer system that acts as a native speaker and speaking partner. The existence of such an environment is also very helpful for students to be able to reduce shyness when speaking.
- Secondly, the nature of AI which is fast and effective in analyzing and responding to users can help students overcome learning difficulties that are found. Such as finding new vocabulary and how to pronounce it. Moreover, when students practice with AI they will accidentally discover new vocabulary that is very useful and will be used in speaking. Moreover, AI which has intelligence can also be used for assessment purposes and corrects users automatically. Teachers do not have to assess and input student grades manually; because AI can assess students' speaking results automatically and give grades to students. On the other hand, this can also use by students to try to improve their speaking by learning from mistakes. Because AI will correct the user automatically during speaking practice, when AI detects pronunciation

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error, students can correct it by finding the correct pronunciation regarding the detected error.

#### 1.12. Applications that use "AI" algorithms to enhance speaking

#### 1.12.1. Cake Application

The Cake application is an Android application-based learning platform or IOS user developed by South Korea since March 22, 2018. The cake application can be downloaded for free on Play Store for Android and App Store for iOS users. So all Android and iOS users can use the cake application to study .The purpose of producing the Cake Application itself is to make it easier for students to learn English for free.27 Even though it's free, there are many features that students can take advantage of to improve their English language skills, especially in learningEnglish.28 Therefore students should be able to utilize the cake application as a medium for improving speaking skills.

#### 1.12.1.1. Features in the Cake Application

#### a. Video Playback

The first feature of the Cake application when we have just opened the application "Playback Video" feature, this feature can be found in the Home section of the application and is available in various themes depending on what students want. The available videos are also different everyday so that when students open them, they will easily get daily expression material to help them when they want to communicate with other people .The function of this feature is that students can learn about the use of daily expressions that they have got and they can also listen to how the intonation and stress of each expression is mentioned.

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21:19 ż	46 11
	ALL
Drill	
Whoa. Elsa, yo	u look different.
	إلسا، تبدين مختلفة.
+	15/2
	هذا المكان مدهش.
	· 1,641
لمحادثة	تحدي مستوى <b>A</b> في ال
	e se all stand

Picture 01: video playback

#### b. Path

Path is the second feature found in the Cake application; this feature is found on the second menu to be precise next to Home. The uniqueness of this feature is the adventure-based learning system where students are directed to complete by going through various spots in each unit, where each unit contains several everyday expressions. In this feature there are 60 units where each unit has 9 spots that must be passed as each spot has a different character and type of challenge, but basically the goal of each spot is the students will remember the daily expressions presented. Not much different from the video playback feature, the Path feature also functions to add daily expressions to students, but in this feature student will get more daily expression additions.

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**Picture 02: path feature of cake application** 

#### c. Speaking Practice

The third feature in the Cake Application is Speaking Practice; this feature is found in the third menu after Home and Path. The advantage of this feature is that it aims to provide space for students to practice using daily expressions provided by the Application in the form of conversations. In this feature students can switch roles with AI, the expressions that will be spoken in the feature are still read from the application because the goal is to improve student
pronunciation. In this feature students will get grades from the application according to the accuracy of their pronunciation.



**Picture 03: speaking practice feature of cake application** 

#### d. Save and Review Words

To recall material that has been studied on the cake application, this application also provides features for saving and repeating lessons. This feature is on the fourth menu after the homepage, path and speaking practice. As the name implies, this feature aims to help students remember the lessons they have learned.

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Picture 04: save and review feature of cake application

## 1.12.1.2. Advantages and Disadvantages of Cake Application

Each application, whether AI-based or not, has its own advantages and disadvantages. the cake application as an AI-based application that aims to help students learn to improve their English skills has several advantages, including:

- Provide learning methods that are new, easy and fun.
- Android-based application so that it can be used anytime and anywhere.
- There are lots of interesting features and content and are updated every day.
- It Can help the learning process more interesting and not boring.

#### While, the cake application also has several disadvantages, including:

- To access all features in Cake, it is only limited during the Trial Periods, the rest of the time users must make payments every month to enjoy the features and content.
- Sometimes there are videos that cannot be opened because they are required to subscribe first.
- To open this application must use a stable network.

#### 1.12.2. Google Assistant

Google Assistant is an application developed by Google since May 18, 2016 using AI technology. Google Assistant is an application that can be set to speak in various languages, including English. Therefore, with using Google Assistant as apparent in practicing speaking, the researcher believes that Google Assistant can help students improve their speaking skills. The actual goal of developing Google Assistant is to provide many assistants to carry out various activities, including in the process of learning English. As proof, Google Assistant operates like a human who becomes a speaking partner, which means that students will be greatly helped to find a speaking partner. So, with Google Assistant, students don't need to bother looking for a native Speaker as a parent to learn to improve speaking skills. In improving speaking skills, Google Assistant acts as a practice partner for students without being limited to certain themes, so that Google Assistant is able to improve students' comprehension and fluency in speaking.

#### a. Google Assistant Feature

The only feature that can be used on Google Assistant is the «Speaking Partner" feature. Students can take advantage of this feature by starting to ask Google Assistant questions which will be answered spontaneously and continuously. This feature only provides space for students to practice and learn pronunciation from AI on Google Assistant, both in terms of intonation and emphasis of each word or sentence.

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Picture 05: speaking practice feature of google assistant

## b. Advantages and Disadvantages of Google Assistant

Google Assistant has several advantages and disadvantages in its use; the advantages are as follows:

- The Google Assistant Application is a free Application and can be used forever.
- Simple use.
- Students can practice on their own without any specified theme limitations

#### Meanwhile, the shortcomings of Google Assistant are:

- Google Assistant is only able to process words that have been specified on the server and does not process information that is not yet in the system
- Google Assistant sometimes directs students automatically to the item search menu on Google even though the conversation hasn't finished yet.

#### 1.12.3. Replika Application

Replika is one of the many AI-based applications being developed, this application was developed by Eugenia Kuyda in2017 because she felt lonely and sad because her best friend had died in an accident .For this reason, Replika can study about the user conversations by understanding the user's emotional side. So that it can adapt to the user's personality. Not a few replica users feel that Replica are not AI robots but Replika are real humans who have feelings.

#### 1.12.3.1. Features in the Replika Application

#### a. Chat Box

The first feature of the Replika application is the Chat box, which is a feature used by users to communicate like humans. This feature can be used by students to build communication via chat and will continue to be responded automatically by AI on Replika application. The purpose of this feature is to facilitate students in discovering new vocabulary in various conversations that are conducted with Replika. Therefore, when students use this feature every day, students will get additional vocabulary when trying to understand Replika's words.

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Picture 06: chat box feature of replika application

#### **b.** Voice Note

The second feature in the Replika Application is voice Note, where the system is the same as Chat Box but this feature uses voice for communication. So, students can really use this feature to practice their interactive speaking skills by making Conversations with the Cake Application. Unfortunately, the voice note feature can only be used when the user has made a payment which will be valid for one year. So, students who don't make payments can only use the Chat Box feature.

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Picture 07: voice note feature of replica application

#### c. Voice Call

The last feature and the most suitable for students to use speaking practice. By calling with AI, students will be trained to speak automatically without thinking twice and immediately respond to conversations with AI. It's no different from the Voice Note feature, when you want to activate this feature students have to pay and it's active for one year.

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Picture 08: voice call feature of replika application

## 1.12.3.2. Advantages and Disadvantages of Replika Application

- The advantages found by researchers in the Replica Application are as follows:
- Replika always provides a fast response, so users don't have to wait for long
- Replika has lots of questions and conversations materials that are asked of Users.
- The use of varied vocabulary.

#### The deficiencies found in this application are as follows:

- Users must pay dearly to activate all the features in Replicate.
- Can only use the chat box in applications that are free, so that only develops vocabulary mastery.
- Does not have a personality of its own, but imitates the personality and behavior of its user.

#### 1.13. Role of Artificial Intelligence in Improving Speaking Skill

As a media for improving students' speaking ability, artificial intelligence has several roles to help students with different abilities in improving their speaking skills according to their respective levels. here are some of the Roles of Artificial Intelligence:

- First of all, the most important role of AI is that can create a learning environment. Students practice speaking not with their friends anymore but with a computer system that acts as a native speaker and speaking partner. The existence of such an environment is also very helpful for students to be able to reduce shyness when speaking.
- Secondly, the nature of AI which is fast and effective in analyzing and responding to users can help students overcome learning difficulties that are found. Such as finding new vocabulary and how to pronounce it. Moreover, when students practice with AI, they will accidentally discover new vocabulary that is very useful and will be used in speaking. Moreover, AI which has intelligence can also be used for assessment purposes and corrects users automatically. Teachers do not have to assess and input student grades manually, because AI can assess students' speaking results automatically and give grades to students. on the other hand, this can also use by students to try to improve their speaking by learning from mistakes. Because AI will correct the user automatically during speaking practice, when AI detects a pronunciation error, students can correct it by finding the correct pronunciation regarding the detected error.

# **1.14.** The benefits and advantages of integrating "AI" technology in EFL teaching and learning

There are a several benefits for implementing "AI" based -tool for language learning:

#### 1.14.1 Efficiency and speed of learning

As the name reflect the meaning, integrating AI language learning tool in English learning can significantly assist learners automating specific tasks in order to save time. It also provides a personalized learning experience depending on their needs and progression pace. (Xie et al, 2019, as cited in Robelledo, 2023). Not to mentioned proposing immediate feedback in order to help students developing their skills fast. Above all, it provides the perk

of time saving which means that learners are able to grasp as much language as they can in short amount of time.

#### 1.14.2. Personalized learning experience

Through using a sophisticated algorithm to track learner's progress, "AI" language learning tool could adapt learning materials to meet specific needs of students. This act made the learning experience more engaging and concrete, as learners are exposed to materials in which they suits their learning styles and pace of learning (Kesseler,2018). Personalizing learning experience is a significant addition to English learning, it allows students to go step by step in their learning process making sure that their learning needs and learning objectives are being fulfilled thought the entire process.

#### 1.14.3. Increase learner's engagement

One of the hardest processes a teacher does inside the classroom is making students engaged with the lessons. Using AI-based language learning tools in EFL classrooms can help keeping students engaged and motivated to continue learning (Johnsone, 2005). It was proved that the engagement and motivation of learners has increased in language learning gradually, through using AI language learning games and other interactive learning features. Furthermore, the use of language learning games that are directly linked and operated by AI-based adaptive feedback made students more involved and motivated with the game then with traditional language -learning materials(Iawsaki et AI, 2019), as cited in Fabricio (Alvardo, 2023). In this respect it is important to understand that one of the ways to make a learner engaged in the lessons is by providing a stimulation and reward, using Artificial intelligence system would provide an engagement experience in terms of learning, through26using a game of questions about the target language the more the learner answer questions the more points he has, the more stages he gets to unlock, in terms of motivation it keeps him motivated and alert to learn every day.

# **1.14.4.** Increasing the fluency and accuracy in pronunciation using AI chat bots

Fluency is often referred to the ability of talking in a smooth way using a consistent rhythm and correct articulation of sounds in a controlled pace of speech which enable the listener to

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adjust and comprehend more words and ideas easily (Derwing,2015). Using chatbot AI has proved to be effective in developing student's vocabulary and pronunciation. Hong (2023) stated that a new chatbot refer to as "Mission Fluent" is an AI-powered tool that focus on the idea of enhancing English pronunciation skills by providing exercises that are directed to enhance learner's pronunciation. through the use of «Mission Fluent tool" language learners can rehearse articulating sounds in more accurate way, allowing them to enhance their phonetics patterns as well as intonation in English language, this approach of using "Mission Fluent" is basically directed to develop learner's speaking skills along with putting an emphasize on developing pronunciation abilities.

#### 1.14.5. Accessibility and opportunities

AI-learning tools have the necessary capacity to provide a learning opportunity for learners with disabilities (Morris, 2020). The point behind this approach is to provide an equal learning environment for all learners with different circumstances and different situation, learners of all ages, cultural background and medical history can access to AI tools and have a fair share opportunity to engage with the learning process.

#### 1.14.6. Improved learning outcomes

Merging AI technology with the traditional teaching methods allow EFL teachers to create a suitable and efficient learning atmosphere for learners which eventually resolve in improving learning outcomes (Almurtadha,2019 as cited in Robelledo,2023). The basic idea of this collaboration is to facilitate learning for students and assuring that the outcomes would be positive in divers' aspects.

#### 1.14.7. Cultural exposure

Robelloedo( 2023) manifested that while interaction with lessons provided by **AI** language learning tools and real life scenarios proved tobe beneficial in manner of learning the target language, it is also be possible that through these lessons that learners can be introduce to a different cultural elements such as customs, traditions as well as social norms, this can assist students to gain a better understanding and appreciation of other cultures across different cultural elements, keeping in mind that there will be no language learning without cultural

understanding, the comprehension of culture is a crucial factor for the learner to master any language around the globe.

#### 1.15. Future enhancement In AI Language Learning Tools

There are various potential enhancements within AI language learning tools that are worth-taking into consideration.

#### **1.15.1.** Implementation with a virtual reality and augmented reality

The integration of virtual reality (VR) as well as augmented reality (AR) technologies in combination with AI-powered learning tools give EFL learners an exciting learning experience (blyth,2018, as cited in Robelledo, 2023). A famous example of that is the use of VR to simulate an actual-live scenarios. In this way, learners can practice and enhance their language skills in a realistic way (Al-Gindy et Al,2020) on the other hand AR could offer areal -time translation in the actual world (Robelledo, 2023). What this mean is that using a sophisticated AI technology to connect users to a virtual reality in order to help them learn, understand a different language and learning anew skill...ETC.A live example of this approach is "Apple virtual reality glasses" that enable its users to access to different assignment at the same time, the user can learn English and interact with AI system while doing his daily chores.

#### **1.15.2.** Enhancement in natural language processing capabilities

The development in the natural language processing (NLP) goes hand in hand with the development of more sophisticated AI language tool, this would lead to have the ability to comprehend and produce language, not to mentioned the ability to recognize errors and respond to them by correcting them more accurately (Araya, 2023). In this sense improving natural language processing is a crucial element in order for AI system to be developed more and generate more language of his own.

#### 1.15.3. Advancement in personalized learning experience

When the algorithms that support personalized learning experience are developed, it gives AI language learning tools a starting point to offer a more tailored and practical learning

experience for learners. This would resolve in adjusting to student's learning styles and needs(Ismail, 2016). Meaning of this is that the more algorithms are developed the more content will be tailored according to learner's needs, goals and objectives.

#### 1.15.4. Increased focus on language for specific purpose

Guo (2020) argue that in the near future, AI language learning tools would be more of specialize for a certain industry, such as language learning for business or medical professions. In this sense this would lead to an enhancement in targeted and more efficient language learning resources for these previous mentioned professions and enterprises, opening the door for a more tailored language for different fields and profession.

## Conclusion

On a broad scope, teaching and learning English is considered to be of a great significance matter in nowadays world, through using English language. Learners will be able to communicate their ideas and cultural views worldwide. The more they involve with learning the language the more they were able to communicate with their peers and people from a different cultural background who speaks English. However, when it comes to the teaching and learning this specific language, both teachers and learners face some difficulties, due to the fact that traditional teaching methods do not provide a personalized learning experience. Moreover, neglecting the fact of providing instant feedback for learners, which considered to be a necessary step to achieve the level of proficiency they are acquired to fulfill. As a result, when learners hit a Plato, they lose interest and motivation to continue learning the language. In order to overcome these difficulties, integrating artificial intelligence as a helping tool for learning and teaching English have been strongly suggested to enhance English teaching process in EFL classrooms as well as ameliorate the learning outcomes and improve learners proficiency by offering an immediate feedback, error's instant correction and providing a personalized learning environment that is tailored to all students from a different backgrounds.

## **CHAPTER TWO: Field work**

## **Chapter two:**

## **Field work**

## **Data Analysis and Interpretation**

## **INTRODUCTION**

This chapter explains the way in which the present study is designed. demonstrating the methodology used for data collection and analysis.

To start with it display a description of the population and the sample of the research, then it describes the means and the instruments used in this research. It also shed lights on the approach used to collect data, directly followed by a description of each questionnaire's section. Moreover, it represents the analysis of the gathered data and discussion of the findings. In addition, it highlighted the main results obtained, and find answers to research questions through the statistical analysis.

#### 2. Methodology

The aim of this research is to sheds more light on the role of artificial intelligence in increasing students' speaking skills in EFL lessons. The study is primarily qualitative in nature, including quantitative research relying on information obtained from questionnaire given to students and an interview with teachers at AHMED HEROUINI middle school. The purpose of this study is to obtain information from the learners and teachers as possible. Therefore, as means of data collection we selected a questionnaire that was distributed randomly to fourth grade students of middle school and an interview with EFL teachers. The reason beyond this method is the nature of the topic which requires a clarified description.

#### **2.1.Sample of the study (Participants)**

The population of the present study is a fourth-year middle school-Ghardaia in Algeria, during the academic year 2024/ 2025, because Students at the middle school are at critical

growth phase, where habits of the mind start being formed. The sample includes forty students. Twenty-eight of them are females and the rest are males. The majority of students their age range from 13 to 15 and others more than 15 years chosen randomly. The sample will be questioned to explore how far the importance of Artificial intelligence into English teaching and learning is significance in developing learner's speaking skills.

#### 2.2. Data collection

In order to gather the data needed to answer the research questions and to verify to hypotheses presented in the theoretical part of the research paper. We used a questionnaire translated to Arabic as a research instrument for learners due to the fact it does no longer take long time, and it was designed to be simple and easy to be understood by anyone. Also, an interview with EFL teachers.

#### 2.3. The questionnaire

Questionnaire is a technique for asking questions about someone's feeling, opinion and idea but in non-face-to-face interaction, it is given in the form of written question with available answers in ranged-degree. It is applied to gain participants' responses in certain issues. According to Wilson& MC Lean (1994, cited in Cohen et al., 2007. p.317),« The questionnaire is a widely used and useful instrument for collecting survey information, providing structured, often numerical data, being able to be administered without the presence of the researcher ».The questionnaire comprises two kinds of questions: closed and openended questions, in the former, the participants are asked to select the answer from the list that the researcher provides them; but latter, they are asked to answer in their own words (Cohen et al., 2007).For my research a questionnaire has been designed and handed to pupils in the middle school fourth year of Ahmed Herouini in Thenia.Ghardaia.

#### 2.3.1. The students' Questionnaire

The present questionnaire is made up of ten questions devoted to fourth-year middle school learners which consist of open and close, ended questions which attempts to find the pupils' perceptions about the use of artificial intelligence and to which extend the integration of AI into English teaching and learning field can help them to improve and overcome their

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difficulties in speaking skill. As well as, an interview that was conducted by the researcher and devoted for English teachers. In this manner the questionnaire was answered by the sample of forty (40) pupils, while the interview was conducted with five (5) of middle school teachers.

To begin with, Students' Questionnaire contains 3 sections:

Section One deals with personal learning experience it contains 3 questions  $(1_3)$  designed to collect some information about the participants personal experience.

Section Two is devoted for students' experience with AI-based learning, the latter also contains 3 questions (4\_6) it seeks to discover if learners ever used AI based applications in their daily lives to improve their speaking proficiency

Section Three, deals with students' opinions on AI-based learning, it contains four questions (7\_10) it aims to discover students' point of view and suggestions on AI-based tools.

#### 2.4.Data analysis

In order to answer the research questions, whether artificial intelligence can enhance students' speaking skill. An analysis is needed to be conducted. This procedure represents the statistical data used to analyze and interpret the data gathered from the student' questionnaire and the interview with teachers. Since we are using the mixed method approach, the research involves the combination of qualitative and quantitative means of analysis. To analyze the data collected from the questionnaire and teachers 'interview, we should analyze both open-ended and close-ended questions. Thanks to the development of the technological means, on the one hand, close-ended questions (numerical data). On the other hand, open-ended questions (qualitative data) are analyzed and interpreted through the software program designed for the management of the quantitative and qualitative data called SPSS.

#### 2.4.1. Statistical Package for the Social Sciences (SPSS)

**SPSS** is a package that is used in social sciences. It is concerned with statistical analysis and representation of the quantitative data, (Landau and Everitt, 2004). The results in this software program are presented in tables, pie charts and histograms.

## Section 1: Personal Learning Experience

	Frequency	Percent
Not confident at all	1	2.6
Not very confident	15	38.5
Somewhat confident	13	33.3
Very confident	10	25.6
Total	39	100.0

#### 1-How confident do you feel when speaking in English?

#### Prepared by the student based on SPSS 26 results

Based on Table 1 ,38.5% reported feeling "not very confident" while 33.3% described themselves as "somewhat confident." In contrast, only 25.6% stated they were "very confident" and a mere 2.6% indicated they were "not confident at all."



## 2-What aspects of speaking do you find most challenging? (Select all that apply)

	Frequency	Percent
Prononciation	12	30.8

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Grammar and sentence	8	20.5
structure		
Finding the right words	13	33.3
(vocabulary)		
Speaking fluently	22	56.4
without too many		
pausing		
Understanding what	14	35.9
others say		

Prepared by the student based on SPSS 26 results

Based on Table 2the most commonly reported challenge students face when speaking English is "speaking fluently without too many pauses," selected by 56.4% of respondents. The second most reported difficulty is "understanding what others say," chosen by 35.9% of students. Additionally, 33.3% found "finding the right words (vocabulary)" ."Pronunciation" was also a concern for 30.8% of respondents, while 20.5% pointed to difficulties with "grammar and sentence structure."



## **3-Which activities help you improve your speaking skills the most?**

	Frequency	Percent
Having conversations with classmates	14	35.9
Watching videos and	25	64.1

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repeating sentences		
Playing speaking games	21	53.8
Using AI-based speaking apps or chatbots	25	64.1
Practicing with my teacher	8	20.5
Recording and listening to my own voice	7	17.9

Prepared by the student based on SPSS 26 results

Based on Table 3 students identified "watching videos and repeating sentences" and "using AI-based speaking apps or chatbots" as the most effective activities for improving their speaking skillwith both options selected by 64.1% of respondents. Additionally, 53.8% of students indicated that "playing speaking games" helps them enhance their speaking abilities. having Conversations with classmates were selected by 35.9% of respondents and "practicing with my teacher" was (20.5%) and "recording and listening to my own voice" (17.9%) were less favored.



## Section 2: Experience with AI-Based Learning

## 1-Have you used AI-based tools (such as chatbots, speech recognition apps, or virtual tutors) to practice speaking?

	Frequency	Percent
No, and I'm not interested	2	5.1
No, but I would like to try	13	33.3
Yes, sometimes	15	38.5
Yes, often	9	23.1
Total	39	100.0

Prepared by the student based on SPSS 26 results

Based on Table 4 which explores students' experience with AI-based learning tools the majority of respondents reported at least some level of engagement with such technologies Specifically 38.5% stated that they "sometimes" use AI-based tools to practice speaking while 23.1% reported using them "often" This means that over 60% of students have had practical exposure to AI in their language learning journeyMeanwhile 33.3% indicated that they have not yet used AI tools but are interested in trying them .Only a small minority (5.1%) expressed disinterest in using these tools.

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2- If you have used AI tools, what did you like about them? (Select all that apply)

	Frequency	Percent
They provide instant	9	23.1
feedback on my		
pronunciation		
They help me learn new	18	46.2
words and phrases		
They make speaking	25	64.1
practice more fun		
They allow me to practice	15	38.5
anytime, anywhere		
I feel less shy when	4	10.3
practicing with AI		

Based on Table5: 64.1% of respondents were stating that AI makes speaking practice more enjoyable. Additionally 46.2% of students mentioned that AI tools help them learn new words and phrases. A significant number of students (38.5%) appreciated the flexibility of AI tools offer as they allow for practice "anytime anywhere" making it easier to incorporate speaking practice into their daily routines. Instant feedback on pronunciation was also valued by 23.1% of students, a smaller group (10.3%) reported that they feel "less shy" when practicing with AI.



## 3- What challenges have you faced when using AI for speaking practice?

	Frequency	Percent
I prefer speaking with	21	53.8
real people	21	55.0
The feedback is not	6	15.4
always clear	0	15.4
The AI not		
understanding my	4	10.3
pronunciation		
Understanding the AI's	8	20.5
voice	0	20.3
Total	39	100.0

#### Prepared by the student based on SPSS 26 results

Based on Table 6, 53.8% indicating that they prefer speaking with real people .Additionally, 20.5% of students reported difficulty understanding the AI's voice. Some students (15.4%) felt that the feedback provided by AI was not always clear. smaller percentage (10.3%) experienced challenges with the AI not recognizing their pronunciation.

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## Section 3: Your Opinion on AI-Based Learning

## 1- Do you think AI-based methods help improve your speaking skills?

	Frequency	Percent
Not much	5	12.8
Yes, a little	12	30.8
Yes, a lot	22	56.4
Total	39	100.0

#### Prepared by the student based on SPSS 26 results

Based on Table 7 a clear majority of students 56.4% responded with "Yes, a lot" while 30.8% said "Yes, a little". However. Only a small portion (12.8%) felt that AI methods do not help much.

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## 2- What improvements would you like to see in AI-based speaking practice? (Open-ended)

	Frequency	Percent
clear the feedback and the not understanding voice	1	2.6
for me I use the app "C.ai" it s very good. Do I dont have any	1	2.6
improvement		
I don tnow	2	5.1
I dont wont ans think	1	2.6
I F I use artifical intelligence. Iwould like to translate I	1	2.6
slamicreligious		
I want learn many langueges	1	2.6
I would like other activities such as incorparatins into	1	2.6
education		
Im the fact Italk with application . It doesn t need	1	2.6
improvepronunciation	1	2.6
Iwant to speak in the puiel	1	2.6
no . I dont have	2	5.1
perhaps talking about things we experience in daily life can	1	2.6
make it easier to speak English		
speaking lluenthyurthaeut too many pausing and	1	2.6
understandiny what thers say		
the trandation	1	2.6
watching uideas and repeatirrgsemtenas	1	2.6
أريد أن أتكلم مع مدربين باللغة الإنجليزية	1	2.6
أريد أن يكون الذكاء الاصطناعي دقيقا في الإجابة على الأسئلة	1	2.6
أريد التحدث مع مدربين في اللغة الإنجليزية من دول أخرى	1	2.6
أود أن أتكلم اللغة الإنجليزية وأفهمها	1	2.6
إضافة طابع شخصي، زيادة مستوى الابداع	1	2.6

التحدث القائم	1	2.6
تشمل جميع اللغات	1	2.6
زيادة المفردات	1	2.6
شرح دروس بطريقة أفضل، التحدث، النطق	1	2.6
لا يوجد	11	28.2
وضع خاصية لحسب عمر المتعلم	1	2.6
يتحدث بكامل اللغات الأجنبية	1	2.6
Total	39	100.0

Prepared by the student based on SPSS 26 results

## 3- Would you like more AI-based speaking activities in your learning?

	Frequency	Percent
No, I prefer traditional	4	10.3
methods		
Maybe	4	10.3
Yes, definitely	31	79.5
Total	39	100.0

Based on Table 8 the majority of students 79.5% of respondents answered "Yes, definitely" unlike a small portion (10.3%) were uncertain responding with "Maybe" while another 10.3% preferred traditional methods.



## 4- Do you have any suggestions for making speaking practice more enjoyable? (Open-ended)

	Frequency	Percent
I have no idea but re can do a gemes or like dolingo or make	1	2.6
a new app sor all age		
I much prefer doing activeties or gomer over practicing	1	2.6
speaking		
I think they should make more boots	1	2.6
I think they should the suggestion of that you can send a	1	2.6
voice to the boots		
Maybe	1	2.6
my hirtassestion is about sons. Because they	1	2.6
mahelecrninsmore fun and exited		
No	4	10.3
no . Because do fun	1	2.6
no . have	1	2.6
no . I dont have	1	2.6
no. I dont have	1	2.6
no. I dont have aniysuggesteans	1	2.6
no. Iprefertraditionalmethods	2	5.1
no. Tprelelseratihalmelhcea	1	2.6
Playgame	1	2.6
the musie making speaking practice more enayble	1	2.6
yes I have suggerkins like : play vidio games and speaking	1	2.6
wich player or frinos		
yes. Like hy pot hetically about ay academic or try	1	2.6
seakingwhte your friends life		
أنه يمكن التحدث من خارج الدول	1	2.6
التحدث بأسلوب شخصي، تمثيل حياة من مواقف واقعية	1	2.6
التحدث على مواضيع مشتركة بين الطرفين	1	2.6
تحميل تطبيقات انجليزية، تطبيقات وألعاب تزيد المتعة	1	2.6
۲	2	5.1
لا يوجد	9	23.1
لايوجد	1	2.6
نعم، يجب إضافة الصور ومقاطع الفيديو الى المحادثات لتصبح أكثر متعة	1	2.6
Total	39	100.0

#### 2.5. Discussion of Findings

#### 2.5.1. student's questionnaire

The present research aims to investigate the effectiveness and the significance of implementing Artificial intelligence in teaching English, through designing handmade questionnaire for third year EFL students. The results obtained from this questionnaire showed that integration of AI into English teaching and learning field has a tremendous significance on learning outcomes.

To start with, figure 01 shows that the majority of students feel not very confidents when speaking in English In class. Specifically, 38.5% reported feeling not very confident; while 33.3% described themselves as somewhat confident. This indicates that more than two-thirds of the respondents fall within the low to moderate confidence range. In contrast, only 25.6% stated they were very confident and 2.6% indicated they were not confident at all. These findings highlight a pedagogical challenge related to oral fluency and student engagement in speaking activities. They also suggest the importance of integrating AI-based learning tools, which can provide safe and interactive environments where learners can practice speaking without the fear of immediate judgment, by gradually enhancing their confidence and performance.

Furthermore, in figure 2, it shows that the most commonly reported challenge students face when speaking English is "speaking fluently without too many pauses," selected by 56.4% of respondents. This indicates that fluency remains a major obstacle for learners, possibly due to anxiety, limited practice, or hesitation in retrieving vocabulary quickly. The second most reported difficulty is "understanding what others say," chosen by 35.9% of students, reflecting issues in listening comprehension that often hinder effective spoken interaction. Additionally, 33.3% found "finding the right words (vocabulary)" to be a significant barrier, highlighting the importance of lexical development in supporting spoken communication. "Pronunciation" was also a concern for 30.8% of respondents, while 20.5% pointed to difficulties with "grammar and sentence structure." These results suggest that students struggle with both receptive and productive aspects of speaking, and that comprehensive support—particularly through AI-powered tools—could target these areas by offering real-time feedback, personalized vocabulary practice, and fluency training in low-pressure environments.

Based on Table 3 students identified "watching videos and repeating sentences" and "using AI-based speaking apps or chatbots" as the most effective activities for improving their

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speaking skill with both options selected by 64.1% of respondents. This suggests a strong preference for interactive and technology-supported learning methods that allow for repetition and self-paced practice Additionally 53.8% of students indicated that "playing speaking games" helps them enhance their speaking abilities showing that engaging game-based activities can be powerful tools in language development Conversations with classmates were selected by 35.9% of respondents, reflecting the importance of peer interaction in building confidence and fluency Interestingly more traditional methods such as "practicing with my teacher" (20.5%) and "recording and listening to my own voice" (17.9%) were less favored, indicating a possible shift in learner preference toward more autonomous, tech-driven, and less judgmental learning environments. These results underscore the potential of AI-based tools.

Based on Table 4 which explores students' experience with AI-based learning tools the results were draw as follow, the majority of respondents reported at least some level of engagement with such technologies Specifically 38.5% stated that they "sometimes" use AI-based tools to practice speaking while 23.1% reported using them "often" This means that over 60% of students have had practical exposure to AI in their language learning journey. Meanwhile 33.3% indicated that they have not yet used AI tools but are interested in trying them suggesting a high potential for adoption if access and guidance are provided. Only a small minority (5.1%) expressed disinterest in using these tools These findings reflect a generally positive attitude toward AI-assisted speaking practice among learners and highlight an opportunity for educators to integrate such tools more systematically into language instruction. The data also suggest that increasing awareness and availability of AI-based applications could further enhance student motivation and participation in oral language development.

Based on Table 5 students highlighted several positive aspects of using AI tools for speaking practice The most common benefit selected by 64.1% of respondents, is that AI makes speaking practice more enjoyable. This suggests that the interactive and engaging nature of AI tools significantly enhances students motivation and willingness to practice Additionally 46.2% of students mentioned that AI tools help them learn new words and phrases indicating that these tools contribute to vocabulary expansion .A significant number of students (38.5%) appreciated the flexibility AI tools offer as they allow for practice "anytime anywhere" making it easier to incorporate speaking practice into their daily routines. Instant feedback on pronunciation was also valued by 23.1% of students, demonstrating the utility of AI for real-

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time correction. Lastly a smaller group (10.3%) reported that they feel "less shy" when practicing with AI which underscores the role of AI in reducing anxiety during speaking exercises These findings suggest that AI tools not only facilitate language learning but also create a more accessible enjoyable and personalized learning experience for students.

Based on Table 6 the main challenge students face when using AI for speaking practice is a preference for human interaction, with 53.8% indicating that they prefer speaking with real people. This highlights a key limitation of AI-based learning—its inability to fully replicate the dynamic and emotional engagement found in human conversations. Additionally 20.5% of students reported difficulty understanding the AI's voice which may reflect issues related to accent, speed or clarity of speech synthesis. Some students (15.4%) felt that the feedback provided by AI was not always clear pointing to a need for more transparent and pedagogically sound responses A smaller percentage (10.3%) experienced challenges with the AI not recognizing their pronunciation which can hinder motivation and effectiveness in learning. Overall, while AI tools offer convenience and engagement, these findings suggest that they should be used to complement rather than replace human interaction and that improvements in voice recognition and feedback quality are essential for maximizing their educational impact.

Based on Table 7 a clear majority of students believe that AI-based methods have a positive impact on improving their speaking skills Specifically 56.4% responded with "Yes, a lot" while 30.8% said "Yes, a little" meaning that over 87% of the participants recognize at least some benefit from using AI in their language learning Only a small portion (12.8%) felt that AI methods do not help much suggesting that negative perceptions are limited These results indicate a strong overall approval of AI-supported language learning among students especially in relation to speaking skill development The high percentage of favorable responses also reinforces previous findings from earlier tables where students appreciated the fun flexibility and vocabulary support offered by AI tools This general optimism toward AI implies that with further refinement and integration such tools could play an increasingly central role in enhancing speaking proficiency in language education.

Based on table 08, which was an open-ended question for the participants that explores student's suggestions about the Improvements they would like to see in AI-based speaking practice, the majority of respondents answered by saying nothing while others say I don't know or no, I don't have however ,the rest of students say ;multiple answers both in English

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and Arabic if I use artificial intelligence, I would like to translate Islamic religious, perhaps talking about things we experience in daily life can make it easier to speak English. These results might seem that students also have grammatical and linguistics errors due to the lack of vocabularies and practice of the English language.

Within table 09 the majority of students expressed a strong desire to include more AI-based speaking activities in their learning process Specifically 79.5% of respondents answered "Yes, definitely" reflecting a clear enthusiasm and openness toward integrating AI more deeply into language instruction A small portion (10.3%) were uncertain responding with "Maybe" while another 10.3% preferred traditional methods and were not in favor of expanding AI use These results confirm the growing interest and confidence students have in technology-enhanced language learning particularly when it comes to speaking skills. The high level of support for more AI-based activities suggests that students not only find these tools effective but also engaging and aligned with their learning preferences This insight supports the idea that educational institutions should consider incorporating AI systematically into their language programs to meet learner expectations and improve outcomes.

Table 10 was about the suggestions for making practice speaking more enjoyable which also was an open-ended question ,the majority of 23.1% of participants answered with no, whereas the other of 2.6 of pupils said different answers ,such as the music making speaking practice more enjoyable, I much prefer doing activities or gomer over practicing speaking and I think they should the suggestion of that you can send a voice to the boots...etc. These finding showed that the students prefer integrating games while practicing speaking to make the latter ;more enjoyable and the learning process easier for them.

#### 2.5.2. Teachers" interview

During conducting the interview on teacher's perceptions and practices toward implementing AI in English language teaching, it was notice that the majority of teachers were teaching English from two to fifteen years ( $2_15$ ) according to teacher's statements on the question " How many years have you been teaching English ?."Which indicates that all the teachers have the enough experience and the capacities to teach English language on a high academic level.

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In concerning the question that said "as a teacher have you received any training on implementing technology into your English teaching?." all the answers from all the teachers were actually negative stating that "no I have never received any training on using basic technological tools. The given answer indicates that the majority of teachers were curious to have such training and They have a good outlook on the subject.

Within question three the interviewees were asked to rate their familiarity with AI from scale 1 to 10, in this sense, most of the teachers argue that their familiarity is between two to six .some of them stating "I would say two maybe three maximum " while others stated " yes I would say that I am six on a scale one to ten" their answers on this question shows that their familiarity with the latter is very modest, going from being low to having an average knowledge on Artificial intelligence .

Question four was about what are the perceptions and practices of teachers towered using AI into English teaching? in this matter all the teachers responded positively by stating "my perception? I think it's very positive, AI is a great addition to teaching because it saves time and help with lessons planning." While others reflected by stating that "I think we should use it because it motivate students to study and teachers to teach." Furthermore some teachers argued about this point by saying "I consider using AI as a boosting tool to improve the way we teach."

While some reflected by saying "I cannot decide if I'm for or against, I think its useful but the same time, one should not rely on it completely ."

Based on question five, which was have you integrated AI based-tools into your English teaching ;methods? If yes which AI based tools have you integrated? The majority answered by no by saying I think its useful but in the same time, one should not rely on it completely ."while some said yes by stating that I use CHATGBT for summarizing, paraphrasing and transmitting some ideas, I also encourage my students to use it .another said yes, as an example they listen to videos then they try to answer or summarize, by doing this they can improve their speaking skill.

Next question was about what are the main benefits of using AI in teaching English ? the majority of teachers were having a positive reactions toward the latter, some of them stated that " it has a lot of benefits such as motivating students to learn, simplifying the teaching learning process and raising learner's self-esteem. While other interviewees argued that " it could save time and attract a large number of students because of its features, I think in some ways it can address learner's needs. "Moreover of this point, others reflected by

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stating that " I think AI is a great helping tool, it can help learners to acquire the language faster and help in developing learner's pronunciation."

About the question in which it suggests that AI can address learner's divers needs? The majority of teachers reflected on the question by stating "yes of course, it can adapt according to the levels and the needs of learners. In terms of AI tools being more motivating and engaging for students in comparison to the traditional methods. Teachers answered by saying, yes, definitely AI tools are interactive, motivating and autonomous. learners will speak better in comparison to traditional methods. However others reflected in negative way in terms of the question argues that the continues use of AI create a state of independency for students along with a lot of other problems stating that " using AI can make student dependable on it, in a way it steals their critical thinking abilities and their spirit of innovation.

Concerning the question how can artificial intelligence be used ethically in the field of teaching and learning? Most of the teachers stated that "by considering its advantages and disadvantages, students should use AI tools wisely according to their needs and the purposes behind using such tools.

The last question of the interview was how do you see the role of AI evolving in EFL teaching in the future? The answers by the interviewee were positive toward the latter, Where they said AI will revolutionize the field and add great developments by helping teachers in lesson planning and facilitate learning .Moreover, AI tools will become necessary elements in teaching English in the future therefore, we see many students at universities received training oh how implementing AI tools in teaching English.

## Conclusion

The following study intended to investigate and explore the role of AI\_ language learning tools in English teaching. With the assistance of references and the obtained results from analysis of the Questionnaire and teachers' interview. the researcher found out that fourth year middle school students are eager and they prefer using and implementing AI tools and based applications than the traditional one in their daily English learning to improve their level of proficiency. Moreover, it was proven that learners learn better while using AI tools in order to develop their communication skills. Also, the finding from the interviews with

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teachers showed that EFL teachers have a positive and forward-looking outlook towards introducing and using AI tools in their career path.

## **General Conclusion**
### **GENERAL CONCLUSION**

Over all, the Artificial intelligence has a significant role in English language teaching and learning in improving students' speaking skills, because it opens a new perspectives and new horizons for the upcoming generations of language learners. When it comes to teaching, using revolutionary tool such AI by teachers, it offers a lot of benefits, it gives them the chance to evolve and have more development in their line of work, help them to create tasks, activities, planning lessons and generate a new teaching method. The study demonstrates the relevance of using AI in English language teaching and learning, as well as the challenges that come along with the latter. In order to answer the research questions of this study, the researcher adopted and used Qualitative and Quantitative approach, for the purpose of collecting data, student's questionnaire and teachers interview aims for inspecting students and teachers experience and opinions toward the use of AI tools to improve their level of proficiency in English. Based on the analysis of the questionnaire, it was settled that learners do use AIbased tools and applications in their daily lives and they are eager to know more about its use also, the teacher's perspective were positive toward such tools and application for their teaching process. Moreover, throughout the study there was an indication that using Artificial intelligence is highly effective in improving students' level of proficiency. Therefore, the result obtained from the practical part goes hand in hand with the literature review.

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### **General Conclusion**

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# Appendices

## **Appendix one**

# The student's Questionnaire

### **Questionnaire: The Role of AI in Developing Speaking Skills**

#### Dear Student,

This questionnaire aims to understand how you learn speaking skills and how AIbased methods influence your learning. Please answer honestly. Your responses will help improve teaching methods.

عزيزى الطالب

يهدف هذا الاستبيان إلى فهم كيفية تعلّمك لمهارات التحدث وكيف تؤثر الأساليب ا لقائمة على ا لذكاء الاصطناعي على تعلمك. يرجى الإجابة بصدق. ستساعد إجاباتك في تحسين طرق التدريس.

### **Section 1: Personal Learning Experience**

القسم 1: تجربة التعلم الشخصية

#### 1- How confident do you feel when speaking in English?

ما مدى ثقتك بنفسك عند التحدث باللغة الإنجليزية؟

a) Very confident	واثق جداً	
b) Somewhat confident	واثق إلى حد ما	
c) Not very confident	لست واثق جدا	
d) Not confident at all	غير واثق على الإطلاق	

# 2- What aspects of speaking do you find most challenging? (Select all that apply)

ما هي أكثر جوانب التحدث التي تجدها صعبة للغاية؟ (اختر كلما ينطبق)

a) Pronunciation	النطق	
b) Grammar and sentence structure	النحو وتركيب الجملة	
c) Finding the right words (vocabulary)	إيجاد الكلمات المناسبة ( المفردات)	
d) Speaking fluently without too many pausing	التحدث بطلاقة بدون التوقف كثيرا	

# Appendix

e) Understanding what others say	فهم ما يقوله الأخرين
<ul> <li>Which activities help you improve you up to 3)</li> <li>سهاراتك في التحدث أكثر من غيرها (اختر حتى 3)</li> </ul>	
a) Having conversations with classmates	إجراء محادثات مع زملاء الدراسة
b) Watching videos and repeating sentences	مشاهدة مقاطع الفيديو وتكرار الجمل
c) Playing speaking games	ممارسة ألعاب التحدث
d) Using AI-based speaking apps or chatbots	استخدام تطبيقات التحدث القائمة على الذكاء
e) Practicing with my teacher	التدرب مع أستاذي
f) Recording and listening to my own voice	تسجيل صوتي والاستماع إليه

### Section 2: Experience with AI-Based Learning

القسم 2: تجرية التعلم القائم على الذكاء الإصطناعي

1- Have you used AI-based tools (such as chatbots, speech recognition apps, or virtual tutors) to practice speaking?

هل استخدمت أدوات قائمة على الذكاء الاصطناعي (مثل روبوتات الدردشة أو تطبيقات التعرف على الكلام والمدرسين

a) Yes, often	نعم، في كثير من الأحيان	ол ан н ан с сойло 
b) Yes, sometimes	نعم ، في بعض الأحيان	
c) No, but I would like to try	لا، ولكني أود أن أجربها	
d) No, and I'm not interested	لا، ولست مهتماً بذلك	

# Appendix

#### 2- If you have used AI tools, what did you like about them? (Select all that apply) (إذا كنت قد استخدمت أدوات الذكاء الاصطناعي، فما الذي أعجبك فيها؟ (اختر كل ما ينطبق

	أنها توفر لي ملاحظات فورية حول نطقي
a) They provide instant feedback on my pronunci	n n
	تساعدني على تعلم كلمات و عبارات جديدة
b) They help me learn new words and phrases	تجعل ممارسة التحدث أكثر متعة
b) They make speaking practice more fun	
d) They allow me to practice anytime, anywhere	
	تتيح لي التدرب في أي وقت وفي أي مكان
e) I feel less shy when practicing with AI	أشعر بخجل أقل عند التدرب مع الذكاء الاصطناعي
3- What challenges have you faced when	using AI for speaking practice?
للتدرب على التحدث؟	ما هي التحديات التي واجهتك عند استخدام الذكاء الاصطناعي
a) Understanding the Al's voice	فهم صوت الذكاء الاصطناعي
b) The AI not understanding my pronunciation	عدم فهم الذكاء الاصطناعي لنطقي
c) The feedback is not always clear	التعليق ليس واضح دائمًا
d) I prefer speaking with real people	أفضل التحدث مع أشخاص حقيقيين

### Section 3: Your Opinion on AI-Based Learning

### 1- Do you think AI-based methods help improve your speaking skills?

a) Yes, a lot	ي التحدث؟	هل تعتقد أن الأساليب القائمة على الذكاء الاصطناعي تساعد في تحسين مهاراتك ف
a) 163, a lot	ىغم ، خىير ا	
b) Yes, a little	نعم ، قليلا	
c) Not much	ليس كثيرا	
d) Not at all	لا على الإطلاق	
2- What improvements would you like to see in AI-based speaking practice? (Open-ended)		

actice? (Open-en ما هي التحسينات التي تود أن تراها في ممارسة التحدث القائم على الذكاء الاصطناعي؟

Your answer: \_\_\_\_\_

### 3- Would you like more AI-based speaking activities in your learning?

	د من أنشطة التحدث القائمة على الذكاء الاصطناعي في تعلمك؟	هل ترغب في المزي
a) Yes, definitely	نعم، بالتأكيد	
b) Maybe	لا	
c) No, I prefer traditional meth	لا، أنا أفضل الطرق التقليدية	

4- Do you have any suggestions for making speaking practice more enjoyable? (Open-ended)
هل لديك أى اقتراحات لجعل ممارسة التحدث أكثر متعة؟

Your answer: \_\_\_\_\_

This questionnaire will help gather insights into students' learning preferences and the effectiveness of AI-based techniques.

سيساعد هذا الاستبيان في جمع رؤى حول تفضيلات الطلاب في التعلم و فعالية التقنيات القائمة على الذكاء الاصطناعي

## **Teacher's interview**

Q1: how many years have you been teaching English?

Q2:during your years of teaching, have you received any training on implementing technology into your teaching?

Q3: on scale of 1to10how would you rate your familiarity with AI-based tools for teaching English?

Q4: what is your perception towards using AI for EFL learners in English classes?

Q5: have you integrated AI-based tools in your English teaching methods? If yes; which tools have you integrated?

Q6: in your opinion; what are the main benefits of using AI in teaching English to enhance students speaking skills?

Q7: is it possible that AI tools can address the diverse learner's needs?

Q8: as a teacher do you find teaching English using AI tools are more motivating and engaging for students comparison to the traditional methods?

Q9: how can AI be used ethically in the field of teaching and learning?

Q10: how do you see the role of AI evolving in EFL teaching in the future?

### الملخص

تهدف هذه الدراسة إلى استقصاء تطور مهارة التحدث من خلال وظيفة الذكاء الاصطناعي لدى متعلمي اللغة الإنجليزية. ولتحقيق الهدف من هذه الدراسة، تم استخدام منهج مختلط (المنهج الكيفي والكمي) باستخدام استبيان مطبوع للتلاميذ، استهدف عينة من أربعين تلميذًا من تلاميذ الصف الرابع الابتدائي ومقابلة مع المعلمين في متوسطة أحمد هرويني بغرداية، وقد أشارت نتائج هذه الدراسة إلى أن الذكاء الاصطناعي لديه القدرة على تعزيز مهارات التواصل لدى متعلمي اللغة الإنجليزية بشكل كبير من خلال توفير تجارب تعليمية شخصية وتفاعلية، حتى أن المعلمين لديهم موقف إيجابي تجاهه لأنه أسلوب مناسب وجيد يساعد المتعلمين على التواصل بشكل أفضل. ومع ذلك، هناك حاجة إلى مزيد من البحث لاستكشاف الأثار طويلة المدى والتكامل الأمثل للذكاء الاصطناعي في بيئات تعلم اللغة. وبناءً على هذه من فوائد تقترح أن يتمكن المعلمون وصانعو السياسات من اتخاذ قرارات مستنيرة للاستفادة من فوائد تقنية الذكاء الاصطناعي في بيئات تعلم اللغة. وبناءً على هذه المتعلمين على المدى والتكامل الأمثل للذكاء الاصطناعي في بيئات تعلم اللغة. وبناءً على هذه من فوائد تقنية الذكاء الاصطناعي وتعظيم أثرها في تطوير مهارات التواصل الدى من فوائد تقنية الذكاء الاصطناعي وتعظيم أثرها في تطوير مهارات التواصل الفعال لدى

**الكلمات المفتاحية :** التدريس القائم على التكنولوجيا، والذكاء الاصطناعي، والتعليم المعولم، ومهارات التحدث، وصغار متعلمي اللغة الإنجليزية كلغة أجنبية.