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**Investigating the Effects of Using Artificial Intelligence in
Teaching and Learning Speaking and Listening Skills: Case
of L1 Students at Tlemcen University**

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Declaration

I hereby declare that this submission is my own work and that, it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution. I also certify that the present work contains no plagiarism and is the result of my own investigation, except where otherwise stated.

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Dedication

To my parents, who always encouraged me to step out and meet life, and who always wanted what is best for me.

To my brother, my companion in this life.

To my best friends, Achwak and Chaimaa who made the last five years full of fun.

To my dear friends who stood by me in the last couple of years, and to whom I am very grateful.

And most importantly, to me. To that little girl who dreamt, and to the grown one who achieved.

May Allah bless you all.

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Abstract

The realm of language teaching and learning has always been a welcoming environment for those seeking to enlighten and those who pursue the enlightenment. This environment not only encourages personal growth but also emphasizes the importance of developing essential skills, such as speaking and listening, which play an essential role in equipping learners with the necessary competencies to navigate the future career sphere. In the last couple of years, a new addition to the education field has emerged: Artificial Intelligence. Thus, this study aims to explore the impact of using Artificial Intelligence in teaching and learning oral skills, and this investigation facilitated a comparison of the outcomes of teaching and learning with and without AI. Indeed, reaching this end necessitated an exploratory comparative case study research in the Department of English, Faculty of Letters and Languages, at Abu Bekr Belkaid University of Tlemcen, relying on an accumulation of resources and data gathering instruments. A student's test for first-year English students, a classroom observation, a student's questionnaire for the first-year Formation À Distance students, and a teacher's interview were used; the results were analysed both qualitatively and quantitatively. The findings displayed that using Artificial Intelligence in teaching speaking and listening skills enhanced students' engagement and improved their learning outcomes. It also showed that most teachers and learners have a hopeful and positive outlook for the future of education if AI is a part of it. The advantages and disadvantages of Artificial Intelligence were both emphasised by teachers and learners during the interview and questionnaire, listing multiple examples of both, such as the lack of human touch and the learners depending on themselves more when learning. This investigation has generated evidence that the use of Artificial Intelligence technologies can enhance oral skills; however, evaluating the benefits and drawbacks is necessary.

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List of Acronyms

AI	Artificial Intelligence
COE	Comprehension and Oral Expression
EFL	English as a Foreign Language
FAD	Formation À Distance

General Introduction

The world of teaching and learning is a journey of discovery for both teachers and learners. It is full of structured lessons, complex questions, diverse insights, and creative techniques resembling a rich tapestry. Teaching and learning are foundational processes that allow learners to develop new skills and gain knowledge. It enables learners to acquire the ability to think critically, solve problems, and communicate effectively, among many other skills. As for teachers, it offers many opportunities for continuous learning, various experiences, and professional growth. The active interaction between learners and teachers is the backbone of the teaching and learning process, building an atmosphere where different standpoints are discussed. These two processes are interconnected; neither functions without the other. Employing the appropriate teaching practices may motivate students and enable them to be an active part of their learning journey. This dynamic is particularly apparent when traditional teaching and learning are compared with Artificial Intelligence assisted teaching and learning, especially in the context of teaching and learning speaking and listening skills.

On the one hand, traditional teaching methods and learning strategies for oral skills often include direct instruction, frequently emphasising rote memorisation and performing in the presence of classmates through structured discussions, presentations, and standardised assessments. This way can be efficient in some situations; however, it may restrict learners' engagement and fail to cater to different learning styles. On the other hand, AI tools support learners and offer personalised learning opportunities tailored to each learner's needs, interests, and level. It can assess learners' performance and provide immediate feedback on their pronunciation, tone, grammar, and even sentence structure, allowing students to learn at their own pace. Moreover, AI has impacted teachers as well by altering their roles and techniques, streamlining many tasks such as grading and lesson planning, which enables educators to focus on personalised instruction and student interaction.

During the COVID-19 pandemic, Algeria, like many other countries, was compelled to rethink and innovate its teaching methods and approaches, shifting from traditional education to remote education using various platforms and technologies.

This transition underscored the pivotal role of technology, particularly in the higher education sector. By the end of 2022, AI gained fame, and one area where it had the potential to flourish was the teaching and learning of oral language skills. AI tools can adjust educational content according to the needs and interests of learners and improve their learning outcomes. It provides learners with the opportunity to interact with digital partners and experience scenarios influenced by real-world situations. Moreover, integrating AI to teach speaking and listening skills will significantly decrease planning time for teachers by proposing multiple activities and various resources. However, the outcomes of the AI-tailored oral skills teaching and learning remain uncertain.

Thus, this study aims to explore the effects of using Artificial Intelligence in teaching and learning speaking and listening skills. This examination will help compare the results of teaching and learning with and without AI. Indeed, this study has three objectives: firstly, to evaluate the level of engagement of English as Foreign Language (EFL) learners in speaking and listening skills activities in AI-driven classrooms versus traditional classrooms. Secondly, to compare students' oral skills learning outcomes between learners who use AI technologies and those who use traditional methods. Lastly, to explore teachers' and learners' perceptions of AI's impact on their learning and teaching experiences of speaking and listening skills.

Accordingly, this investigation attempts to find answers to the following questions:

1. How does the integration of AI-powered technologies in the classroom affect EFL learners' engagement in oral skills compared to traditional approaches?
2. How do oral skills' learning outcomes compare between learners who use AI tools and those who do not?
3. How do students and teachers perceive the role of AI in improving the learning and teaching experiences of speaking and listening skills?

The following Hypotheses were suggested for the previously mentioned questions:

1. Learners with AI-integrated oral skills may exhibit enhanced levels of engagement in speaking and listening activities compared to those in traditional classrooms.
2. Learners who use AI tools to learn speaking and listening skills will probably show substantially better learning outcomes compared to students who do not use Artificial Intelligence.
3. Most learners and teachers may have a positive attitude towards the use of Artificial Intelligence, and may perceive AI-powered tools as effective in improving students' speaking and listening skills.

To reach the above-mentioned objectives, an exploratory comparative study investigating first-year EFL students in the Department of English, Faculty of Letters and Languages, at Abu Bekr Belkaid University of Tlemcen. This case study will employ a mixed-methods approach, gathering both qualitative and quantitative data. To ensure the accuracy of the collected data, it will be gathered through the triangulation method using the following research instruments: Students' test, classroom observation, students' questionnaires, and teachers' interviews. These research instruments will be used to test the research hypotheses and answer the research questions.

This study will be divided into two chapters. The first one is assigned to the theoretical framework, which will explore various aspects of teaching and learning, and the four skills, with a particular focus on speaking and listening, as well as the intervention of Artificial Intelligence and its impact on the educational field. Furthermore, the second chapter will revolve around the methodology, analysis, a discussion of the results, and a set of recommendations. Sealing this chapter closed will be a general conclusion that highlights the main findings and either confirms or disconfirms the proclaimed hypotheses

**CHAPTER ONE:
LITERATURE
REVIEW**

1.1 Introduction

Artificial Intelligence is continually introducing new tools that impact various facets of teaching and learning. Particularly for oral skills, AI technologies promise many novel engagement strategies and assessment mechanisms. These developments hint at a potential shift in how learners and teachers approach the challenges of language learning. Many studies have been conducted to investigate the effects of using Artificial Intelligence on teaching and learning, aiming to determine whether they can benefit from employing AI tools. Several teachers have already begun to incorporate AI into their teaching, and sooner or later, the rest will have no choice but to follow, as it is becoming increasingly inevitable.

This chapter, which falls within the theoretical part of the research, will first address various concepts related to learning and teaching English as a foreign language, with a particular focus on speaking and listening. It will cover their definitions, types, processes, and teaching and learning approaches. Secondly, this literature review will highlight Artificial Intelligence, including its definition, history, types, advantages, and drawbacks. Ultimately, it will examine the impact of Artificial Intelligence on teaching and learning, comparing Education before and after the advent of AI.

1.2 Learning English as a Foreign Language

Learning English as a foreign language can be both a beneficial and challenging journey that takes time and dedication. The advantages of learning English are vast and numerous, as it is the official or co-official language in many countries and is widely spoken in others due to its widespread use in various domains. Learning English widens the understanding and appreciation of its culture. As a result, one can avoid misunderstandings in many situations. It offers the opportunity to step outside the boundaries of one's country and lifestyle into a completely new world. (Mahu, 2012).

Being aware of diverse cultures and standpoints is naturally associated with the process of language learning. According to Fries (1945), when people think of learning a language, it is always about learning the vocabulary of that language,

which stems from the experience of learning the mother tongue. As children start by acquiring sounds and then producing them, this process is also reflected in their learning of a new language. "The muscles of our speech organs have, early in life, become exclusively accustomed to the particular adjustments and systems of adjustment that are required to produce the traditional sounds of the language." (Sapir, 1921, p. 46 as cited in Fries, 1945, p.2). These physical adjustments highlight the difficulties encountered when learners learn a new language.

Furthermore, Liando (2009) believes that there are several major factors that affect the effectiveness of learning English as a foreign language. To begin with, family support plays a crucial role, as parental encouragement can significantly impact a student's motivation. Then comes the Impact of teachers, their methods, techniques, preparation, and knowledge of the module, which influence students' interest in learning English. Moreover, the personal motivation, positive attitudes of the students, and their willingness to learn, have a significant impact on the learning experience. Last but not least, institutional support comes into play; school resources, such as libraries and language laboratories, provide students with crucial resources for improving their learning outcomes. Libraries offer a plethora of materials, published and unpublished, enabling learners to expand their knowledge. While language labs offer a specialized atmosphere to practice speaking and listening skills through engaging activities and technology-mediated learning.

1.3 Teaching English as a Foreign Language

Teaching a foreign language has undergone many changes over the years. At the beginning, the focus was on the teacher who had the central and most important role in the classroom, he was the only source of knowledge. Then, there was a shift in focus from the teacher to the learner, which became the core of the teaching experience. (Al-Oglah, 2018).

According to Howatt and Smith (2014), the teaching of English as a foreign language has undergone two stages over the last 250 years, each characterized by a distinct set of methods. Starting with the first stage, which extended from 1750 to 1920. This stage witnessed a shift in Europe concerning Education, marked by the

inception of teaching modern foreign languages alongside classical languages, such as Greek and Latin. It is divided into two periods: The Classical Period (1750–1880) and the Reform Period (1880–1920). Starting with the Classical Period, in the 1800s, the decline of the Latin language's reign led to a rise in interest in modern languages, such as English. The classical languages served as models for teaching, and as a result of the cultural shift, teachers replicated the same teaching methods for instructing the new foreign language. This led to the adoption of the Grammar-Translation method, focusing on grammar rules, vocabulary lists, and translation activities. However, this method was criticized for its lack of emphasis on the oral part of language. Then came the Reform Period, emerging as a reaction against the failures of the former one. This period emphasized the spoken language and methods that imitate the natural acquisition of language, such as the Direct Method, promoting oral and communication skills. The achievements of this period paved the way for many more in the coming decades.

The second stage, spanning from 1920 to 2000+, focused on teaching English in Europe and beyond. It also included two periods: the Scientific Period (1920–1970) and the Communicative Period (1970–2000+). In the Scientific Period, scholars combined insights from both Linguistics and Psychology to develop teaching methods. Consequently, methods such as the Oral Method and Audiolingual Method emerged to focus on repetition and drill activities for teaching oral skills. The last period, known as the Communicative Period, emphasized real-life communication, highlighting the need for practical language skills. The emergence of the Communicative Language Teaching Approach encouraged the development of meaningful communication to enhance learners' communicative.

The goal of these methods and approaches was to provide learners with critical linguistic abilities. For example: in Algeria, middle school pupils are supposed to have learnt the grammar and vocabulary needed to convey the four functions of the language, which consist of narration, instruction, description, and socializing in the four linguistic skills: listening, speaking, reading, and writing. (Slimani, 2016).

1.4 The Four English Skills

Teaching the four English skills —speaking, listening, reading, and writing — is crucial for promoting mastery of language among learners. To teach each of these skills effectively, it is vital to create an encouraging atmosphere where learners feel confident enough to practice their skills. This is due to the fact that each skill plays a role in developing effective communication skills.

Starting with reading, which is quite important since it can enhance learners' general language skills in English, expand their English vocabulary, and improve their writing (Mickulecky & Jeffries, 2004 as cited in Ismail et al., 2017). Then comes writing, which, according to Hamer (2004), holds great importance as it develops the critical thinking required to create an interesting piece of writing. Moreover, listening provides the necessary information for learners to construct the required knowledge to use the language (Newton, 2009). And last but not least, speaking, which is irreplaceable for thinking and achieving academic growth, helps learners explore, progress, examine thoughts, and evaluate (Goh & Burns, 2012).

In the field of language teaching, the idea that listening and reading are collectively described as receptive skills; skills in which learners receive and process knowledge without producing any language, while speaking and writing are known as productive skills, skills that require the production of language, is quite widespread. As well as the idea that these four skills should be taught integratively (Burns & Siegel, 2017). Integration of the four skills has a number of advantages. It enables the collaboration of multiple skills in order to improve language learning while also meeting specific learning needs and styles of different learners . Another benefit is that it offers variation and reduces the attention necessary to focus on a single skill (Rost & Wilson, 2013).

1.5 The Oral Skills

Effective communication skills, particularly oral skills, play an important role in the effectiveness of language learning. It fosters the confidence of learners, enabling them to express their opinions and ideas more freely and achieve both social

and academic success. Nunan (1990) believes that Oral skills include producing and comprehending spoken discourse, which is essential for real-life communication.

Oral skills comprise two components: listening and speaking. Listening is a complex process, as it is considered both a psychological phenomenon, occurring on a cognitive level in the mind, and a social phenomenon, taking place interactively among individuals and their environment. (Zulfugarova, 2018). The second part is speaking, and as the world grows more connected, the ability to share thoughts and ideas clearly and convincingly has become an invaluable skill. In Education, the importance of developing speaking skills in the classroom cannot be stressed enough. (Tiu et al., 2023).

1.5.1 Listening skills

To know how to teach the listening skill, one must understand ‘how listening happens. Listening is present in the majority of the actions that we perform every day. It involves accurately hearing and understanding a message. It is defined as a multidimensional, active process of forming meaning (Newton, 2009). Vandergrift (2007) explains that learning to listen in another language includes ‘the skilful orchestration of metacognitive and cognitive strategies.

1.5.1.1 The Processes of Listening

Zulfugarova (2018) believes that listening is a process that consists of six steps: hearing, attention, understanding, remembering, evaluating and responding. These phases usually happen in sequence and rapid succession. First, hearing is the passive perception of sound that occurs without an explicit concentration. It enables the detection of surrounding noises without necessarily analyzing them. It is a spontaneous action that happens when sound reaches the ears and is interpreted by the brain. Thus, one must hear to listen.

The second stage is attention, a cognitive process that enables the brain to deliberately focus on a limited number of inputs while rejecting others. It assists in prioritizing what is relevant and worthy of further consideration. It also facilitates successful information processing

The third step is understanding: it refers to analyzing the meaning of the information that was heard and comprehending previously encountered signals. Symbolic stimuli must be examined, it can be words as well as noises such as clapping, the sender's intended meaning and context must be understood by the listener.

Moreover, there is remembering: after receiving and analyzing the meaning, the listener has to add it to the repertoire in the brain to be remembered. However, not only is attention selective, but this step is too, as what the brain chooses to remember sometimes can be distinct from what was initially heard.

The stage before the last is evaluation, where listeners evaluate evidence, distinguish between reality and beliefs, and determine whether an exchange is biased or objective. To become a good listener, one should avoid initiating this action prematurely, as doing so before a message has been delivered leads to no longer listening to the coming message, and so the listening process ends.

Finally, responding is the last stage. Due to the fact that the speaker has no other way of determining if a message has been received, the receiver must complete the process with a verbal or nonverbal reply. This response acts both as an acknowledgement of the message and as a way of offering feedback to the speaker.

These stages demonstrate that listening is an active and dynamic process that requires participation and effort. Mastering these phases can improve the communication skills of learners, resulting in effective interactions and strong connections

1.5.1.2 The Bottom-up and Top-down Processes of Listening

According to Richards (2008), the listening skill involves two processes for understanding an oral speech: bottom-up and top-down. These two processes work together in order to facilitate understanding and lead to better communication.

Firstly, there is bottom-up processing, which is the process that learners employ to piece together the message from the speech stream, progressing from the components to the whole. i.e it goes from language to meaning. Understanding, thus,

is considered the process of decoding sounds, words, sentences, and texts until the learner comprehends the meaning (Newton & Nation, 2009).

Then , when processing spoken words top-down, learners move from the whole, which is their prior knowledge, to the parts in order to understand the meaning of spoken discourse; that is, it proceeds from meaning to language. The background knowledge may be related to the topic of conversation, the context, or the situation. These two types of processes complete each other; they make listening a combination of multiple sub-skills (Newton & Nation, 2009).

1.5.1.3 Teaching and Learning Listening Skills

Many teachers believe that by having learners listen to a text and answer a number of questions, they are teaching listening skills; however, what they are actually performing is testing the listening skill (Fields,2003). That is due to the fact that these activities focus on the outcome of listening rather than the process of reaching this outcome. To address this, a shift in focus from teaching to learning is required. This shift necessitates a number of learning opportunities to develop the skill of listening (Crabbe, 2003). Newton (2009, p.54) explained these learning opportunities as:

Learning opportunities can be described as a set of statements which identify the standards that a programme should meet in relation to specific curriculum outcomes. So in relation to listening we can ask what opportunity standards for listening are available to our learners. Identifying these opportunity standards are a starting point for curriculum development and lesson planning, and provide a set of criteria against the adequacy of the programme is judged.... I propose the following five kinds of opportunities that represent a minimum set of standards for listening: 1. Extensive meaning-focused listening 2. Guided diagnosis of miscomprehension problems 3. _ Listening skills training and practice 4. Listening strategy training 5. Links to listening beyond the classroom.

Newton recommended a standards-based approach to teach listening. By focusing on these opportunity standards, instructors can enhance the quality of their teaching practices, leading to improved outcomes for learners. This approach, in addition to helping students enhance their listening abilities, also enables them to apply these skills in a variety of real-life situations.

1.5.2 Speaking Skills

The speaking skill represents the other part of oral skills. It is a key element of effective communication. Speaking is "the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts" (Chaney, 1998 as cited in Bahadorfar & Omidvar, 2014). Speaking skill proficiency is a priority for many English as a Foreign Language (EFL) students. It refers to having the ability to verbalize opinions and express ideas and emotions clearly and coherently.

Speaking is widely acknowledged as a fundamental language-communication skill, and its significance to language learners extends beyond everyday interactions. Speaking can help many EFL learners in their academic growth. Many instructors believe that language input is essential in learning a new language. Nevertheless, learning a language requires more than simply reading and listening. Research has revealed that output is also vital for ensuring learners and become more fluent in the language (Goh & Burns, 2012).

1.5.2.1 Types of Speaking

Brown (2019) identified five types of speaking that learners can perform inside the classroom, including imitative, intensive, responsive, interactive, and extensive (monologue). To begin with, imitative speaking, as the name implies, refers to simply repeating or imitating words, phrases, and sentences. It emphasizes drills and repetitions to allow learners to focus on phonology and phonetics, and help them remember certain words.

Intensive speaking is similar to the imitative one in the use of drilling and repeating to concentrate on a phonological or grammatical feature. In such situation, the learner needs to be able to comprehend semantic aspects and respond quickly.

Thus, the primary purpose of intensive speaking is to practice the target language's phonological and grammatical features.

Brown (2019) proposed responsive speaking, which requires participation and testing of understanding in the communication process to preserve authenticity. This type of speaking is typically limited only to brief dialogues, simple greetings and short conversations, and similar activities.

The next type is interactive speaking, as noted by Brown (2019); the duration and intricacy of the interaction set it apart from responsive speaking. This type can be classified into: transactional language, which is utilized to exchange information, and interpersonal language, which utilized to maintain social connections. This kind of speaking gets grammatically complex as it requires speakers to converse in a casual way using slang, humour and dialects.

Last but not least, there is extensive (monologue) speaking, which includes, according to Brown (2019, p.158), “speeches, oral presentations, and storytelling”. As for lengthy tasks, language style tends to be more thoughtful and formal. However, certain informal monologues, such as casually delivered speech, cannot be excluded.

1.5.2.2 Difficulties of Speaking

The factor of fluency is quite challenging for EFL learners, who often encounter numerous difficulties when learning to speak English, which can significantly impact their ability to communicate effectively. Ur (1996) addressed the most common factors that make speaking difficult: inhibition, a lack of topical knowledge, limited involvement, as well as the constant use of the mother tongue.

Starting with inhibition, which refers to the psychological obstacles that prevent learners from communicating in the classroom, this includes the fear of making mistakes, concerns about being judged by the teacher and classmates, and feeling shy about speaking in front of others.

Sometimes learners are not inhibited, but they have nothing to say, and this leads to the second factor: a lack of topical knowledge. According to Ur, this challenge

occurs when they cannot think of anything to share because they may be uninterested in the topic.

Some other times, the participation of some students is extremely limited, while some others dominate the classroom. This is due to the fact that only one learner speaks at a time, and in crowded classrooms, many learners struggle to make their voices heard by the teacher.

Last but not least comes the continuous use of the mother tongue, particularly by learners when they interact with each other, as it is more natural and comfortable. These difficulties can considerably affect the ability of EFL learners to engage in their learning journey confidently.

1.5.2.3 Teaching Speaking

Although there is a lot of speaking in language classrooms, the tasks primarily offer possibilities for talking, with little teaching of speaking truly taking place. In some classrooms, the growth of speaking is completely overlooked since examinations focus on the written language (Goh & Burns, 2012). There are several approaches to improve speaking skills in the classroom. The most common types of speaking exercises are group work and role-playing.

Using group work improves student engagement and reduces shyness in front of the entire class. It allows for more time for positive oral practice than full-class settings, despite the teacher's inability to monitor every utterance and the possibility of native language use (Goh & Burns, 2012).

Another important speaking activity is role play, which is especially useful for practicing socio-cultural variations such as praising and criticizing. Depending on the students' skill level, role plays can be performed from pre-set scenarios, generated from a set of expressions, or composed employing knowledge learned from past discussions of the speech act (Ur, 1996).

1.6 The Role of Technology in Enhancing Oral Skills

In today's world, technology has become a crucial part of everyday life since it highlights an acute awareness of the way the world functions in order to deal with the new society that currently exists. As a result, technology also has an essential role in the process of teaching. Teaching learners using technology early in their journey will better prepare them for their careers. In addition, by learning to use technology at a young age, children develop the skills and knowledge that are crucial. Moreover, the effect of technology-based materials is proven to be more effective than textbook-based materials. The impact of technology-based materials promotes motivation and interest among students (Maulina et al, 2022).

Regarding speaking, technology has become vital in teaching English as a foreign language (Hong, 2006, as cited in Sosas, 2021). It can encourage learners by making learning more playful and enjoyable by involving them in a range of situations. According to Bahadorfar & Omidvar (2014, p. 11) “ Technology gives learners a chance to engage in self-directed actions, opportunities for self-paced interactions, privacy, and a safe environment in which errors get corrected and specific feedback is given.”

One of effective technological tool that can help in both teaching and learning speaking skills is digital storytelling. According to Lambert (2013, p. 5), digital storytelling is “the practice of using computer-based tools to tell stories.” It combines computer technology and the art of storytelling, using visual elements such as words, pictures, and sounds to create a creative narrative medium. (Sosas, 2021).

As for listening, there are several ways to employ technology-mediated teaching and learning since it simplifies both processes and enables learners to participate in activities that are more engaging. Maulina et al. (2022, p.88) state, " Various technological tools... prioritize improving learners' ability to comprehend and interpret what they hear deeply.”

Regarding teaching and learning listening skills, instructors ought to be precise about their targets and concentrate on their goals. Furthermore, since it is the digital

age, it is not difficult for learners to adapt to using technology, which has become an integral part of our daily lives. One technology-based tool that may be utilised for teaching listening skills is podcasts. This latter has grown in popularity as a means for obtaining information, and since teachers should find new teaching strategies to help their students become more engaged and master the skills, using podcasts to improve students' listening skills can be an effective method (Maulina et al.,2022).

1.7 Artificial Intelligence

As English language proficiency has become a crucial skill for people in this connected world, it is essential to progress at both the personal and academic levels. As the demand for English skills continues to increase, teachers are constantly seeking approaches that are new and innovative enough to the learners and keep them motivated and engaged. One of these approaches that has gained ground is the integration of Artificial Intelligence systems in education, particularly into teaching English as a foreign language.

Over the last 70 years, the world has witnessed many new technological advancements that have aided in the teaching and learning process. AI has emerged as one of the most revolutionary innovations of the twenty-first century. The rapid growth that AI has witnessed in recent years has led to a remarkable progression in education. It represents an important source of knowledge for improving English language learning and teaching, as it offers an educational atmosphere that is personalised, flexible, and engaging, satisfying every learner's needs (Rusmiyanto et al., 2023).

Throughout the years, AI has had many definitions. Nilsson (2010) defined it as: "Artificial Intelligence is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment." In other words, artificial intelligence refers to the quest to build intelligent devices that can operate correctly and with foresight in their settings. Nilsson also highlights the multidimensional nature of intelligence and the challenges that come with creating powerful AI systems.

Boden (2016) believes that AI aims to enable machines to perform a wide range of tasks that human minds can. Some of these (e.g., reasoning) are typically referred to as 'intelligent', while others (e.g., vision) are not. However, all include psychological abilities, for instance: perception, association, prediction, planning, and motor control, that allow individuals to achieve their objectives.

1.8 The History of Artificial Intelligence

According to Russell and Norvig (2021), the concept of Artificial Intelligence dates back to ancient mythology, but its formal basis as an academic study was established in the mid-twentieth century. Many studies preceded the official emergence of AI were later acknowledged as AI.

1.8.1 The Pre-historic Landmarks

"A Logical Calculus of the Ideas Immanent in Nervous Activity" wrote by Warren McCulloch and Walter Pitts in 1943, is considered the first model of an artificial neural network. This model was influenced by the physiological foundations and operation of the brain's neurons. (Toosi et al., 2021)

In 1949, Donald Hebb wrote his famous book *The Organisation of Behaviour*, where he introduced the concept of "Hebbian Learning," which is now regarded as a model in the field of neural networks. This learning rule was proposed to tune the strength of the neuron connections. (Toosi et al., 2021)

In 1950, Alan Turing, one of the fathers of Artificial Intelligence, wrote "Computing Machinery and Intelligence". In this paper, he raised an important question: "Can a machine think?". To answer this question, he proposed what is now known as the Turing test, where an individual would have to differentiate between the answers written by a machine and those written by a human being. If the individual could not distinguish between the answers, then the machine is considered intelligent.

1.8.2 The Birth of Artificial Intelligence

The term "Artificial Intelligence" was officially coined by John McCarthy in 1956, during an approximately eight-week-long Dartmouth Summer Research Project on Artificial Intelligence (DSRPAI) at Dartmouth College in New Hampshire. This workshop, which marks the start of the spring of AI, gathered those who would later be considered as the founding fathers of AI, Marvin Minsky, John McCarthy, Nathaniel Rochester and Claude Shannon (Haenlein & Kaplan, 2019).

The work of Allen Newell and Herbert A. Simon was one of the outcomes of the Dartmouth Conference. They introduced the Logic Theorist (LT), a mathematics-based system for establishing logical theories, as well as IPL (Information Processing Language). Newell and Simon eventually created the General Problem Solver (GPS), which was designed to emulate the human brain's problem-solving methods. GPS is considered the first effort in the concept of "reasoning humanly" in artificial intelligence. (Toosi et al., 2021)

1.8.3 The Golden Years of Artificial Intelligence

The golden years of artificial intelligence extended from 1956 to 1974. The beginning of AI was highlighted by an air of optimism and a belief that machines were capable of being programmed to think (Minsky, 1986). It illustrated the innovative mindset of the period, when researchers strove to expand the frontiers of technology, imagining a future in which intelligent devices might resolve complicated issues and improve human skills.

Following the Dartmouth Conference, there was a period of approximately two decades marked by significant development in Artificial Intelligence. In 1963, Marvin Minsky suggested a simplified approach to AI application cases. Marvin Minsky and Seymour Papert advised that AI research focus on building systems that are able to perform intelligent behaviour in smaller simulated settings. Many studies have been conducted on the "blocks universe," which is made up of colored blocks of various forms and dimensions organized on a flat surface. The Microworld architecture served as the foundation for future projects. (Toosi et al., 2021) .

1.8.4 The Winter of Artificial Intelligence

Multiple events delayed the growth of AI, marking the first AI winter, which lasted until the early 1980s. The media and the general public created optimism and great expectations for AI, along with incorrect projections and exaggerations about the results by specialists. However, the results were unsatisfactory and fell below the expected standards. This resulted in a significant decrease in funding for AI research in the late 1960s. (Toosi et al., 2021)

Several causes were identified that led to a remarkable slowdown during this time. To begin with, several initial AI systems used the approach of "thinking humanely" to address issues. That is, the researcher did not use a strategy that begins with a detailed analysis of the issue, provides a viable solution, and converts it into a feasible algorithm; they went the opposite route, depending only on imitating how humans work. Moreover, many of the challenges were underestimated in terms of their complexity. Several of the actual-life problems that AI sought to answer were unsolvable. Many believed that solving complex issues required only powerful technology and increased memory capacity. However, it was proved wrong by advances in computer sciences. (Toosi et al., 2021)

Last but not least, there was the negative conceptions concerning the effectiveness and capabilities of neural networks, which are designed to mimic how the brain functions, just like the brain has neurons that connect and communicate. While the criticism of Minsky centred only on one single form of neural networks, perceptrons, it led to a general negativity about the domain. This mistrust led financiers and academics to lose faith in its promise, resulting in decreased financing of neural networks studies. (Toosi et al., 2021)

1.8.5 The Revival of Artificial Intelligence: The Boom of AI

The winter of AI resulted in a complete halt in advancing new technology. However, on the bright end, researchers learnt a valuable lesson and shifted their emphasis toward more useful and restricted use cases for AI. This ultimately contributed to the rebirth of artificial intelligence in the early 1980s.

The early to mid-1980s witnessed a major increase in curiosity and funding. It featured significant advances in machine learning, according to Haque. E (2023, p.143) "Machine learning is a subfield of artificial intelligence that focuses on the design and development of algorithms that enable computers to learn from and make predictions based on data."

The development of expert systems had its impact, as businesses sought to use AI to tackle particular issues and improve decision-making processes. According to Giarratano, J. C., and Riley, G. (2005), an expert system is a computer program that uses artificial intelligence to address issues by replicating the problem-solving abilities of a human expert. This revived anticipation resulted in greater financing from the government as well as private industries. It promoted advancements and research that established the framework for future AI developments.

1.8.6 The Second Winter of Artificial Intelligence

The late 1980s to mid-1990s witnessed the second winter of Artificial Intelligence. Despite the attempts and investments initiated during the early 1980s, numerous businesses could not meet their high expectations. This second winter in the journey of AI was quite severe that AI researchers chose to refrain from using the term "AI" in favour of alternative titles such as "informatics".

Furthermore, throughout the boom of AI, there were huge hopes for quick advancement. Yet, the industry struggled to meet these expectations, resulting in dissatisfaction, which led the government and investors to cease supporting AI businesses due to concerns regarding low returns.

1.8.7 The Current Spring of Artificial Intelligence

From the late 1990s to today, the public interest in AI has increased gradually. New hopes were again shaped for AI, and in 1997, AI-equipped machines showed off their power against humans, such as the chess-playing program known as 'Deep Blue', which won against Garry Kasparov, the greatest chess player. (Toosi et al., 2021)

The journey of Artificial Intelligence has been full of ups and downs over the years. AI has faced two winters and three summers. However, since 2000, it has been witnessing continuous improvement. Significantly better algorithms have been created, computers are getting smarter, and computing power has doubled every two years. AI is becoming an appealing target for investors worldwide, generating billions of dollars in revenue. (Toosi et al., 2021)

To conclude, AI will eventually become as widespread as the Internet and social media have been. As a result, AI will have a significant influence not just on personal lives, but also on the way businesses make choices and engage with their employees, customers, and investors. Many concerns have been raised; what function will AI serve and, more crucially, how can AI programs and human beings peacefully cooperate alongside one another. Which decisions ought to be made by AI and which by humans? These and many more questions have been asked; however, only the future holds the answers. (Haenlein & Kaplan, 2019)

1.9 Types of Artificial Intelligence

According to Arend Hintze (2016), Assistant Professor of Integrative Biology & Computer Science and Engineering, at Michigan State University: « We need to overcome the boundaries that define the four different types of artificial intelligence, the barriers that separate machines from us – and us from them. ». Thus, he divided AI into task-specific software and sentient machines that can understand verbal commands, distinguish pictures, and even drive cars. (Hintze,2016)

1.9.1 Reactive Machines

This type of AI is the simplest form and is purely reactive. They cannot form memories or use past experiences to guide present actions. This intelligence relies on the machine's directly viewing the world around it and reacting based on what it perceives. It does not depend on an internal understanding of the world (Hintze,2016). They respond quickly to requests and obligations, but cannot retain memories, learn from mistakes, or improve their performance as time passes (Chaudhari, 2024).

Deep Blue, the chess-playing computer, is the perfect example of this type, which won against international grandmaster Garry Kasparov. Deep Blue can detect chess pieces, understand how they move, forecast its and its opponent's future movements, and select the most ideal movements. Nevertheless, it has no sense of the past or recall of previous events. Deep Blue disregards anything preceding the present. It simply looks at every piece on the chessboard as they are currently positioned and selects the upcoming moves (Hintze,2016).

1.9.2 Limited Memory

This type of Artificial Intelligence actively creates a small, transient database of information and uses it to execute tasks. This allows a machine to "learn" from experiences and absorb data, improving the accuracy of its operations (Chaudhari, 2024). However, while Limited Memory AI may use prior data for a restricted period of time, it cannot store that information in a library of historical data for future use.

Self-driving cars, for instance, already perform part of this by observing the speed and direction of other vehicles, lane markers, traffic signals, and other critical variables such as road curves. These insights are included in self-driving automobiles' pre-programmed representations of the surroundings. Nevertheless, these basic facts are temporary. They are not kept as part of the car's library of experience to learn from, as human drivers do over time behind the wheel (Hintze,2016).

More examples are generative AI, such as ChatGPT, virtual assistants, and chatbots, such as Apple's Siri or Amazon's Alexa. All of these rely on limited memory AI to understand questions and requests, provide the required answers, and perform the relevant tasks.

1.9.3 Theory of Mind

The next big leap in AI is the theory of mind, which has yet to realise its full potential. The term "theory of mind" refers to the concept that people can perceive and comprehend other people's emotions. In psychology, the theory of mind is the notion that people can have thoughts and emotions that influence their own behaviour, as well as how individuals are able to comprehend the emotions of

others and use that knowledge to predict their own future actions (Chaudhari, 2024). Machines in the upcoming class would have a social intelligence that would allow them to create representations not only of the world, but also of other agents or things in the world. If AI machines successfully navigate the world among humans, they must be able to recognize that each individual has opinions, emotions, and expectations about how they will be treated. Furthermore, they must adapt their conduct accordingly (Hintze,2016).

1.9.4 Self-aware Artificial Intelligence

Conscious individuals are aware of themselves, understand their emotions, and can foresee the emotions of others. Conclusions cannot be drawn without a theory of mind. Eventually, AI researchers will be required to study consciousness and create machines that possess it. The last phase in the growth of artificial intelligence is to create systems that can make representations of themselves, in other words, that are self-aware (Hintze,2016). Self-aware AI will be capable of perceiving other people's emotions as well as possessing a sense of self; when this technology is fully developed, artificially intelligent will be impossible to control (Chaudhari, 2024).

1.10 Advantages and Drawbacks of Artificial Intelligence

The recent development of Artificial Intelligence has been quite rapid, it is becoming a vital part of many industries. It is hard to think of an industry that AI is not influencing somehow. It is employed in healthcare, transportation, finance, education, and many other fields. Artificial intelligence has been embedded in every aspect of life, from how people consume information and entertainment to how they spend money and even work. Its charm lies in the fact that it is smooth (Fitzpatrick et al., 2023).

1.10.1 The Daily Uses of Artificial Intelligence

People are using AI in their everyday life in several ways. To begin with, social media applications have been using Artificial Intelligence to provide a personalized experience for their users. For example: Facebook uses artificial intelligence to assess the users' activities, allowing the application to provide tailored content. This

adaptation takes numerous shapes, including personalized advertisements, friend recommendations, and customized news items. Similarly, Twitter uses AI algorithms to evaluate and classify tweets, therefore increasing the relevance and value of the content shown to users (Fitzpatrick et al., 2023).

Moreover, online shopping is another sector where AI is employed to offer a better experience. This sector has become extremely widespread in the last few years. Artificial intelligence is now used by online businesses to provide tailored product suggestions based on customer purchasing habits. This technique increases the convenience of the shopping experience while allowing vendors to generate more income. Retailers may use AI to adapt ideas to meet consumer preferences efficiently, enhancing marketing efforts and increasing customer engagement (Fitzpatrick et al., 2023).

Furthermore, the progress of Artificial Intelligence in fraud detection demonstrates an important change away from traditional approaches and toward improved automated solutions. As fraud is becoming more sophisticated, needing immediate actions and adaptability, the incorporation of machine learning (AI) has emerged as a critical advancement. Machine learning algorithms, capable of learning from data and identifying patterns without programming, provide a dynamic and flexible solution. AI, in particular, plays a critical role in automating transactional data analysis, allowing financial institutions to discover abnormalities and trends that indicate fraud with remarkable precision

1.10.2 The Advantages of Using Artificial Intelligence

While many people may see the prevalence of artificial intelligence in our lives with fear and negativity, it is unquestionable that it has many benefits.

AI has already significantly improved humans' ability to work more effectively. For instance, it can automate routine operations, allowing people to concentrate on more complicated and creative work. This not only makes work more enjoyable and rewarding, but it may also help minimize mistakes and boost productivity.

In addition, Artificial Intelligence may also assist learners to learn more effectively and efficiently. It can assess their learning styles and interests and make personalized suggestions for courses and study materials. This can assist in decreasing the time and expense of learning, making it more available to a broader range of people. Learners who attend EFL lessons using AI gain access to a vast amount of linguistic resources. AI-enabled systems offer digital resources, including engaging exercises, authentic texts, multimedia content, and language learning tools. These materials may be accessed anytime and anywhere, allowing learners to learn independently away from the classroom. (Voskoglou & Salem 2020, as cited in Elliott, 2023)

Furthermore, Artificial intelligence can be utilized in the field of healthcare. For example: chatbots enabled by artificial intelligence may offer patients guidance and assistance. AI may also examine medical data like X-rays and CT scans, allowing doctors to make precise diagnoses (Fitzpatrick et al., 2023).

1.10.3 The Drawbacks of Using Artificial Intelligence

As Artificial Intelligence continues to develop and reach numerous domains, concerns regarding its possible threats and effects become increasingly prominent.

For starters, many people, particularly learners, may face the problem of overreliance when they use AI for every task they are supposed to solve. Even though AI tools provide automated assistance and convenience while offering pre-generated knowledge and immediate feedback, depending excessively on them when learning can result in passive learning experiences (De la Vall & Araya, 2023, as cited in Elliott, 2023).

Moreover, there are a number of ethical considerations to take into account when using Artificial Intelligence. These principles and values that direct the development, deployment, and use of AI. They are made to ensure that this technology is used in a fair, responsible and beneficial way for everyone involved, by assessing the possible effects it has on people and the environment.

AI is growing primarily by relying on immense quantities of data, which are usually private and sensitive. This has sparked arguments around data privacy, permission, and ownership. The ethical issues of collecting, preserving, and using personal data have generated discussions about developing strong data protection systems. Researchers are investigating the issue of using data for AI developments and protecting people's privacy rights (Hastuti & Syafruddin, 2023).

Furthermore, many human activities will likely be automated as AI technologies progress. The incorporation of Artificial Intelligence into numerous businesses has grown fast in recent years, raising worries about job displacement and the possible impact on employment possibilities (Tiwari, 2023). The rising use of AI in various industries such as transportation, retail, finance, and manufacturing has prompted issues about the future of employment and how it will affect the job market. (Frey and Osborne, 2017 as cited in Tiwari, 2023)

In summary, Artificial Intelligence has just as many benefits as drawbacks. It is crucial to handle it with caution and strike a balance between the advantages and disadvantages to ensure a bright future.

1.11 The Impact of Artificial Intelligence on Teaching and Learning

The field of education is currently facing a revolution because of Artificial Intelligence. However, many teachers and learners are unprepared and unqualified to face this change.

1.11.1 The Impact on Teaching

One of the abilities necessary for a teacher in the twenty-first century is mastering the use of Artificial Intelligence technologies, such as big language models (Terletska & Kovalenko, 2024). Using AI, educators can transform the classroom into an engaging, customised learning environment suited to each learner's specific needs (Fitzpatrick et al., 2023).

1.11.1.1 The Three-Box Solution

Nowadays, instructors ought to adopt creative ways to improve teaching, such as Vijay Govindarajan's revolutionary framework referred to as 'The Three-Box Solution'

Vijay Govindarajan believes that organizations should imagine three boxes. In education, box one reflects the present techniques, procedures, and curricula utilized to instruct learners. It covers the current structures, procedures, and materials that educational institutions and teachers use to educate, such as traditional techniques of teaching, standardised assessments, and curricular guidelines. Teachers seek to maximise their efforts in order to promote success in the existing system. However, what if the present system is not equipping learners to thrive in the future? Then, the teachers will be bound to box one. Although the first box is crucial to present success, it may also be a trap. It may hinder instructors from adopting change and technology, limiting their development (Fitzpatrick et al., 2023).

Box two of “The Three-Box Solution” focuses on leaving the past in the past, mainly for teachers who are facing the complications of modern teaching. In this box, teachers are encouraged to critically evaluate and ignore traditional techniques and outdated methods that can no longer meet learners' needs. This approach entails questioning traditional beliefs about teaching techniques, curriculum design, and assessment methodologies, helping teachers establish a more flexible and adaptable learning environment. Educators could promote innovation in their classrooms by adopting a flexible and change-oriented mentality, thereby improving learners' motivation while equipping them for an ever-changing future.

Box three delves into the future of learning, how it may be obstructed, and how these obstacles will be addressed. This is where teachers search for 'weak signals' of upcoming changes. These weak signals are subtle clues of change that may not appear significant initially. Educators must be open to trying new things, taking chances, trying new ideas, and discovering the results. They should support innovation by fostering a trial-and-error culture, allowing them to test new ideas and ways of teaching, for instance, urging learners to face real-world challenges and

projects. Instructors ought to promote innovative technologies like virtual reality and artificial intelligence to provide new learning experiences and foster creativity (Fitzpatrick et al., 2023).

1.11.1.2 The Reduction of the Workload

According to information gathered by the UK Department for Education, teachers' overall self-reported hours at work in 2019 averaged 49.5 hours. Typically, 21.3 of those hours were devoted to teaching. This indicates that 28.2 hours are dedicated to other responsibilities like grading, searching resources, and preparation. This means that 26% of instructors' work is completed in their free time (Fitzpatrick et al., 2023).

AI technologies have developed to assist teachers in managing their workloads more efficiently. Natural language processing technologies provide crucial assistance with a variety of activities. From practical ideas to concrete initiatives, the advantages of incorporating AI tools into teaching are numerous (Fitzpatrick et al., 2023).

1.11.1.3 Adaptive Testing

AI-powered customised assessment provides considerable advantages since it can design tests for learners. These approaches ensure that the evaluation accurately represents the students' skill levels by constantly modifying the difficulty and content of the exam questions based on their responses.

Teachers can utilise a tailored strategy to ensure learners are appropriately challenged, preventing them from being discouraged by difficult content or uninterested in easy tasks. The flexible nature of AI-fuelled testing enhances assessment reliability and enables teachers to give more effective and personalised instruction to encourage learning in the classroom (Elliott, 2023).

1.11.2 The Impact on Learning

Artificial Intelligence has altered the way learners learn in the last few years by making the learning journey personalized. It allows learners to adjust the content and pace of teaching and learning to each student's needs, interests and abilities. There are many ways that AI can make learning personalized, including:

1.11.2.1 Adaptive Learning

Traditional classroom learning is usually one-size-fits-all, requiring learners to progress at a similar rate regardless of their needs or capacities. AI technologies provide learners with tailored guidance that matches their specific requirements, interests, and proficiency level, resulting in a better learning environment for students who have trouble with standard instructional methods (Fitzpatrick et al., 2023).

AI tools can assess data from learners, including their performance, interests, and learning styles and assist in tailoring instructional materials and assignments for each learner (Vera, 2023, as mentioned in Elliott, 2023). This tailored approach allows learners to connect with appropriate materials for their needs, interests, and learning styles. Learners are more inclined to stay motivated and progress in their learning experience if they get materials and exercises suited to their abilities (Elliott, 2023).

1.11.2.2 Practice and Immediate Feedback

Many AI tools allow learners to practice their skills, particularly for language learners. These algorithms enable learners to engage in authentic discussions that allow them to improve their speaking and listening skills in a motivating and supportive environment. AI-driven tool to simulate real-life interactive situations, offering students authentic language use experiences and improving their understanding and communication skills in different contexts (Kim et al., 2021 as cited in Elliott, 2023).

Moreover, Several AI technologies offer learners immediate feedback. This is can benefit learners who face difficulty with a specific subject or topic. They assist learners in identifying areas that need development and provide the materials and assistance they require to master them. By offering real-time feedback, these AI tools assist learners in improving and achieving their goals (Fitzpatrick et al., 2023).

1.11.2.3 Self-paced Learning

Many AI technologies allow learners to study at their own personal pace. This can be done by giving them the materials and help required to study. Learners can

choose when to study and how much time they want to dedicate to their studies, without disrupting their schedules and commitments. It also allows students to avoid falling behind or moving too rapidly through the subject, leading to a more efficient and pleasant learning experience (Fitzpatrick et al., 2023).

1.12 Education: with AI vs without AI

Artificial intelligence has been revolutionizing every industry for the last few years. It has altered many people's lives by solving problems that usually require human intelligence. One of the many domains that AI has influenced is education. Many scholars have been investigating the effects of AI on teaching and learning by comparing their outcomes when teachers and learners use AI to teach and learn, and when they do not, which is traditional instruction.

On one hand, using Artificial Intelligence, teaching and learning offers a personalised and customised experience that would meet many learners' needs, levels, interests and learning styles. AI provides an opportunity for learners to practice their four skills, particularly speaking and listening. EFL learners can have conversations when they learn to listen and speak English. AI tools can also give immediate feedback to learners on their mistakes and identify the areas that need to be improved. Teachers who use AI to teach have a vast choice of activities to choose from to make learning more enjoyable and make learners more engaged and motivated. Moreover, many Artificial Intelligence algorithms are able to analyse the data collected from learners so EFL teachers can improve their teaching practices and eventually the outcome.

On the other hand, teaching and learning without using Artificial Intelligence, or traditional teaching and learning, is usually one-size-fits-all, with limited personalisation. It usually involves a face-to-face interaction between the teacher and the learners and happens at a predetermined pace and schedule, unlike teaching and learning using AI. Educators are often restricted to following a textbook in which all the lessons and activities that will take place in the classroom are organised. While a traditional classroom setting provides space for some practice, the emphasis is mainly

on the theoretical side of lessons. The restricted schedule does not allow much time for learners to practice what they learn (Sinha, 2025).

1.13 Conclusion

To summarise everything tackled in this theoretical framework, the literature review shows that artificial intelligence has emerged as a force that has been reshaping the landscape of education, particularly in terms of speaking and listening skills. This fusion of Education and Technology promotes an atmosphere in which learners are given the opportunity to participate, practice, and enhance their speaking and listening skills in innovative ways. At last, these AI technologies present learners with interesting possibilities for advancement, which leads them to improve their academic performance beyond the constraints of the traditional classroom.

The following chapter includes the practical part of this investigation. It includes an in depth explanation of the research design that was used to conduct this study, the sample population, the data collection procedure and research instruments. It also analyzes and discusses the collected data, and ends with some suggestions and a conclusion to close the chapter. This process was executed to test the hypotheses and provide answers to the research questions.

**CHAPTER TWO : RESEARCH
METHODOLOGY and DATA
ANALYSIS**

2.1 Introduction

This chapter is dedicated to the practical part of the study, which aims to answer the research questions stated at the outset of this research and test the hypotheses already established. Initially, this chapter outlines the research design and sample population, and describes the data collection procedure and research instruments. Then, it offers an analysis of the data obtained, along with a discussion of the procedures used for the main findings. At last, this chapter ends with some recommendations for further research and a conclusion.

2.2 Research Design

A research design, according to Kothary (2004, p.31): « is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. ». it answers questions concerning what, where, when, how much, by what means about a research.

At the beginning of this study, an attempt was made to follow an experimental research design, a scientific approach that examines cause-and-effect correlations between variables. it is a design that involves manipulating one or more independent factors to investigate their effect on a dependent variable, while controlling for external factors that may impact the findings (Cohen et al., 2017; Mattila et al., 2021 as cited in Em, 2024). In this case, the independent variable (using AI) was manipulated to identify cause-and-effect relationships, and its effect on the dependent variable (oral skills) was measured. The pre-test-post-test control and experimental group design was selected for this research study. This design entails having two groups: a control group and an experimental group. Both groups are tested via a pre-test and post-test in order to assess the effect of using Artificial Intelligence in teaching and learning oral skills.

However, due to some issues that were raised during the conduct of this study, which will be explained in the limitations section, this research had to take an alternative route and change lanes to become an Exploratory research. The latter is designed to respond to an inquiry or solve a problem. This form of study, additionally referred to as the inductive method, aims to uncover general principles that explain

data and findings. It attempts to understand as many things as possible about two variables: the dependent and independent variables (Singh, 2021). The reason behind the change from Experimental research to Exploratory research was to explore this topic more broadly, and gain insight instead of only identifying the causality, as Exploratory research allows for more flexibility to study various facets of the influence of Artificial Intelligence on speaking and listening skills without the restriction of an inflexible experimental context.

Regardless of this transition, comparing the two groups remains an essential part of this study, as it offers valuable insights into AI-driven education and traditional approaches. Comparative research is a process that studies phenomena before analysing them to determine areas of distinction and similarity (Mokhtarian-Pour, 2016, as cited in Dehdashti Shahrokh & Miri, 2019).

To efficiently compare the two groups, it was essential to specify the participants; as a result, Case Study research was selected to narrow down the focus. In the case study, the researcher delves deeply into a program, event, activity, process, or a group of people. Both duration and activity define the case; the researcher gathers extensive data over an extended period, making use of a range of data collection methodologies (Stake, 1995, as cited in Creswell, 2003). For this research, the case of first-year English students at the University of Abu Bekr Belkaid was selected.

2.2.1 Limitations

One significant limitation of this study was the inability to execute a pre-test with the experimental group, because the teacher of oral skills who uses AI in her teaching stopped responding, which prevented the experiment from being conducted. Without having a baseline of the oral skills proficiency level of the participants to set out from, it was quite impossible to witness, as well as determine the extent of growth that the learners who used AI to learn reached. As a result, any progress would have inaccurately represented the actual effects of using AI.

2.3 Sample Population

In any research study, sampling represents a crucial step that facilitates the collection of data, enabling researchers to draw valid conclusions about the entire target population. This latter refers to a group of individuals that have some characteristics in common that the researcher can recognise and study (Creswell, 2012). In this research, the target population consists of first-year EFL students at the University of Tlemcen. Within the target population, researchers often choose a subgroup of individuals to represent the entire population, also known as the sample (Creswell, 2012).

Furthermore, a Purposive Sampling process was adopted, which implies that the sample was selected according to the purpose of the study. The reason behind choosing a purposive sampling technique was to make sure that one group of students that would be part the sample, was selected based on the condition that their Comprehension and Oral Expression (COE) teacher did not used Artificial Intelligence in any aspect of her lectures, and the second group was chosen based on the condition that their COE teacher uses AI to teach them. Moreover, since collecting data from the whole population would have been difficult, this sampling paradigm contributed to rendering the data gathering procedure more manageable and cost-effective. Thus, this approach ensures that the sample is highly relevant to the study, thereby enhancing the accuracy of the findings.

In this study, data were collected from first-year students and teachers in the Department of English, Faculty of Letters and Languages, at Abubekr Belkaid University in Tlemcen. To be exact, fifty-four students alongside four teachers were part of this study.

2.3.1 Students' Profile

As mentioned before, fifty-four first-year EFL students were selected to be part of this research. To ensure that the sample was chosen correctly, group two the department of English was chosen purposefully. This group does not use Artificial Intelligence to learn, and their teacher does not use it in any way, consists of forty

students. The rest of the students, fourteen to be exact, were part of the FAD (Formation À Distance), who were learning English oral skills online using Artificial Intelligence.

2.3.2 Teacher's Profile

Initially, six teachers were selected from the Department of English at Tlemcen University. However, one teacher was unable to sit for an interview due to personal matters. Therefore, only five teachers were relied upon, including the one who utilises AI. The teachers preferred to opt for online interviews due to their full schedules. As a result, five online structured interviews were taken into consideration in the course of this study.

2.4 Data Collection Procedure

A mixed-methods approach was chosen to collect data for this inquiry. It enriches data collection and analysis by combining qualitative and quantitative viewpoints, providing a better understanding of the research problem. The idea of mixing the two methods emerged in 1959, when Campbell and Fiske chose multiple methods to study the validity of psychological traits. They encouraged others to use their "multimethod matrix" to collect data in a study. This urged many researchers to mix methods, and soon instruments such as observations and interviews (qualitative approach) were combined with questionnaires (quantitative approach) (S. D. Sieber, 1973, as cited in Creswell, 2003). The mixed methods approach is beneficial in gathering the best of both quantitative and qualitative approaches

For this reason, this study draws upon a mixed-methods approach to investigate the effects of Artificial Intelligence on teaching and learning speaking and listening. Consequently, instruments from both qualitative and quantitative approaches were selected to gather data from the sample. A pre-test and post-test were executed with forty students who learn English oral skills the traditional way. However, only a post-test was possible with the fourteen students who learn using AI. Moreover, a questionnaire was distributed to these fourteen students to uncover their perspectives. Furthermore, four interviews were conducted with English teachers of oral skills in

the Department of English, four interviews with teachers who do not use AI in their instruction, and one interview with a teacher who utilises AI in their instruction. Last but not least, two observations of the Forty students and their oral skills teachers were conducted to collect real-time data.

By using multiple instruments for this investigation, the triangulation method was achieved. This method is widely used in research to compensate for the limitations of one instrument with the strengths of the other. Combining the results of all these research tools enables a comprehensive understanding of the topic, which cannot be achieved with a single data collection tool.

2.5 Research Instruments

Research instruments are a set of measurement devices that researchers utilise to gather data. There are different types of instruments based on the structure, purpose, nature, and availability (Sathiyaseelan, 2015). The research instruments used to investigate the impact of Artificial Intelligence on teaching and learning English oral skills included questionnaires, interviews, observations, and tests.

2.5.1 Students' Pre-test and Post-test

One efficient instrument that can be used to collect data before and after an intervention is a test. According to Cohen et al., tests represent a very prominent instrument that provides educators with quick and pertinent feedback on their students' development (Cohen et al., 2007, as cited in Messaoudi, 2018). For this investigation, a pre-test and post-test were planned to take place with students who use AI to learn and those who do not in order to evaluate their oral skills. However, as mentioned before, conducting the pre-test with students using AI was impossible.

The test was administered to forty students who were taught in the traditional way, and it was a proficiency test. The pre-test was used to establish a benchmark for learners' speaking and listening skills prior to their classroom instruction, which enables comparison of their improvement after they learn using the usual teaching approaches. For the post-tests, the evaluation was conducted to assess the

effectiveness of traditional instruction and AI-assisted instruction, and to compare them.

For the pre-test, (see Appendix A) it was divided into two parts, the listening part and the speaking part. For the listening part, learners listened to an audio dialogue between two friends discussing their hobbies. The learners listened to the audio three times and completed four exercises throughout approximately 30 to 40 minutes. The exercises included:

- A. Direct Questions: Five questions were asked about different aspects of the dialogue to gauge the test takers' understanding of the audio. Students need to pay attention to the dialogue to answer the questions correctly.
- B. Matching exercise: Learners were provided with five words on one side, along with their definitions on the other side, and asked to link them appropriately to assess their vocabulary acquisition. To identify the proper matches, learners have to think critically, analysing the content of the dialogue and connecting ideas and their meanings.
- C. Fill in the Blank: For this exercise, learners were given five incomplete sentences to complete after listening to the conversation in the audio. This activity motivates students to focus on the audio content and comprehend its context in order to fill the gaps appropriately.
- D. Idioms: The last exercise provided learners with three idioms included in the audio; therefore, they had to listen carefully to the dialogue and guess the meaning of the idioms. This activity requires test-takers to pay high attention to the audio to spot the idiom, and then be able to explain it based on the context in which it is used in the dialogue.

The second part of this test assesses the learners' speaking skills. The group of forty students was divided in half to fit into two language laboratories. First, the topic was provided, asking them to talk about their hobbies. Then, the learners had to record themselves using software on the computers, where each of them had 90 seconds to speak about their hobbies.

For the post-test of both groups, the semester examination was taken into consideration. The grades of the oral exam were provided by their COE teachers to analyse them and compare the results, to determine whether using Artificial Intelligence to teach and learn oral skills can be beneficial.

2.5.2 Classroom Observation

Classroom observation is one of the most helpful research tools for researchers. It offers first-hand data about teachers' practices and students' reactions. Classroom observation is the process of sitting in the classroom observing the teacher's teaching techniques and students' learning strategies. Classroom observation is further described as a technique for analysing and capturing accurate data about what takes place inside a classroom (Halim et al., 2018).

Classroom observations can be considered from different angles. First, it can be either structured, when the researcher uses a checklist to observe specific items, or unstructured, when the researcher does not use a predetermined observation plan. Second, there are two types of participants, which imply that the researcher takes part in the group being observed, and non-participant, in which the observer observes everything from a corner with the least amount of disturbance. Moreover, there is overt observation, in which the people being observed are aware of the observation, unlike covert observation, where the subjects are not aware that they are being observed, which is often considered unethical (Cooper & Schindler, 2001, as cited in Kumar, 2023).

In this investigation, the classroom observation was structured using a predefined checklist designed specifically to guide the researcher in focusing on specific criteria. It is also an overt observation to maintain transparency and build ethical research. Moreover, the researcher was a non-participant in this observation to minimise bias. (see Appendix B)

2.5.3 Questionnaire

A questionnaire is composed of a series of questions used to collect qualitative and/or quantitative data from different informants (Bhandari, 2023).

A questionnaire was distributed to fourteen FAD first-year students at the University of Tlemcen. It was designed to explore the impact of using Artificial Intelligence to learn English oral skills. It aimed to collect information from students regarding their opinions and experiences with using AI to improve their speaking and listening skills.

This questionnaire (see Appendix C) consists of 10 questions, ranging from closed-ended questions, including both yes/no and multiple-choice options, to gather precise and accurate information, as well as Likert scale questions to gain insight into how strongly participants agree or disagree with certain statements. Finally, open-ended questions are used to gather qualitative data that provides depth about the informants' perspectives. In other words, the questionnaire investigates if learners use AI technologies in their learn and how frequently. It also assesses the benefits and tackles the disadvantages that learners may encounter when utilising AI for language learning. Moreover, it attempts to gauge their degree of agreement with certain statements about the usefulness of AI technologies in providing instant feedback and enhancing the learning experience. At last, it asks participants to disclose which tools they use, share their perspectives and any other ideas about the use of Artificial Intelligence in learning speaking and listening skills.

2.5.4 Interview

Interviews are one of the most used data collection methods. It is more than a discussion, instead a purposeful and focused meeting in which one person seeks knowledge from another, verbally. The most important distinction between an interview and a discussion is that the interview encounter is intended to accomplish a specific aim. Hence, interviews are a form of obtaining information in which two or more people exchange thoughts and ideas via a sequence of questions and replies. The interview approach exclusively uses open-ended questions, and the questions can be pre-determined (Sahoo, 2022).

There are three types of interviews: the structured interview, the unstructured interview, and the semi-structured interview. To begin with, in a structured interview, the interviewer asks a predefined series of questions, using the exact words and order

specified in the interview plan (Sahoo, 2022). Then, there is the unstructured interview, which is best suited for circumstances where very little is known. Here, the interviewer is allowed to lead the conversation in the direction that appears the most appropriate to them. They are free to select questions based on the situation at hand and the topic of the research. There are no predetermined written questions, as one question follows the other and so on (Sahoo, 2022). At last, there is the semi-structured interview, often referring to a circumstance where the interviewer has a series of questions in the form of an interview schedule but is free to rearrange and adjust their sequence. Thus, a semi-structured interview is an interview that includes both structured and unstructured sections (Sahoo, 2022).

This investigation employs a structured interview to gather consistent and clear data on teachers' thoughts on teaching speaking and listening using Artificial Intelligence. Two interviews were conducted in this study, one with teachers who do not use AI and another with teachers who use AI (see Appendix D). The interview with teachers who do not use AI consisted of seven questions regarding their experience and perception. It also explores whether teachers see themselves using AI in the future, identifies the areas of oral skills that may benefit from AI and the challenges it may face if it were to be integrated. The interview that was done with the teacher of AI has eight questions to investigate the way the teacher integrates AI into teaching speaking and listening, and the development that might be witnessed. (see Appendix E)

2.6 Data Analysis

Data analysis is the process of converting the data collected to meaningful information, both qualitatively and quantitatively.

2.6.1 Analysis of Students' Tests

The pre-test and post-tests both focused on the listening and speaking skills. The pre-test was divided into two parts: the listening part, conducted on November 4, 2024, and the speaking part, conducted on November 6, 2024. For the post-tests, the grades of the first-semester examinations were taken into consideration for both

classrooms, which use Artificial Intelligence and those that use traditional learning and teaching.

2.6.1.1 Pre-test

The first part of the pre-test was dedicated to the listening skill. The grade range for listening marks shows that learners achieved well on average. The marks varied from 5.5 out of 10 to 10 out of 10, resulting in a range of 4.5, which indicates a variation in the level and performance of learners. 42% of the learners scored in the excellent category (9.0 - 10.0), showing strong listening abilities. Furthermore, 53% scored in the average range (7.0-8.5), indicating a strong understanding of the listening content. However, roughly 5% scored below 7.0, indicating growth opportunities. The following table demonstrates the distribution of the grades.

Table 2.1 Distribution of Listening Scores in the Pre-test

Score Categories	grade Range	Relative Frequency (RF)
Excellent	9.0 - 10.0	42%
Good	7.0 - 8.5	53%
Needs Improvement	Below 7.0	5%

The grades for listening skills were strong overall, with a mean of 8.44 and a median of 8.5, indicating that most learners achieved a high score. The standard deviation was 1.04, denoting that most learners achieved a grade close to the average, with some exceptions. All in all, the calculations of the data from the listening part of the pre-test indicated that a significant proportion of students were able to obtain good marks, suggesting that they have good proficiency in the listening skill, as demonstrated in Table 2.2.

Table 2.2 The Measurements of the Listening Part of the Pre-test

Statistics	Listening skill
Mean	8.44
Median	8.5
Standard Deviation	1.04

The second part of the pre-test was allocated for speaking skills. The range of the marks demonstrates a significant need for improvement in the speaking skills. The grades varied from 0 out of 10 to 5.5 out of 10, with a range of 5.5, indicating a significant need to improve the students' speaking skills. Only 15% of the students were placed in the average category (5-5.5), indicating a mediocre performance in the speaking skill. Around 57% of learners had grades in the below average range (0 - 4.5), suggesting that their speaking skills require urgent improvement, as shown in Table 2.3.

Table 2.3 Distribution of Speaking Scores in the Pre-test

Score Categories	Grade Range	RF
Average	5 - 5.5	15%
Below Average	0 - 4.5	57%

The following table presents the calculations of various statistics for the speaking skills scores in the pre-test. The measurements indicate a mean of 2.78 and a median of 3, suggesting that the students' performance is very low. The standard deviation was 1.64, indicating a relatively high level of variation in the performance.

Table 2.4 The Measurements of the Speaking Part of the Pre-test.

Statistics	Speaking skill
Mean	2.78
Median	3
Standard Deviation	1.64

The final grade of the oral pre-test consisted of the sum of both parts, the listening part and the speaking part. The grades varied from a minimum of 8 to a maximum of 15.5, resulting in a range of 7.5 that highlights the differences in proficiency levels among the learners. In the Excellent range (14.0–15.5), around 15% exhibited a generally good grasp of both skills. About 57.5% were in the Good range (10–13.5), demonstrating an overall decent proficiency level. Finally, roughly 27.5% got a grade lower than 10, indicating a strong need for further assistance and practice to improve their speaking and listening skills, as it is all present in Table 2.5.

Table 2.5 Distribution of Final Scores of the Pre-test

Score Categories	Grade Range	RF
Excellent	14.0 - 15.5	15%
Good	10.0 - 13.5	57.5%
Needs Improvement	Below 10.0	27.5%

As demonstrated in the following table, the mean of the final grade for the pre-test was 11.2, and the median was 11, indicating that the students' level of proficiency is below the satisfactory level. The standard deviation of the post-test is 2.01, indicating that the students' performance lacks consistency.

Table 2.6 The Measurements of the Final Grade in the Pre-test

Statistics	Oral test
Mean	11.2
Median	11
Standard Deviation	2.01

2.6.1.2 Post-tests

As mentioned earlier, the post-test grades were obtained from the first-semester examinations administered by the teachers for both students who used AI and those

who did not. Starting with the classrooms that do not use AI in the teaching and learning of oral skills, the grades varied from 8 to 14.5, resulting in a range of 6.5. This range shows variations in the competency levels of the learners, with some scoring significantly higher than others.

The excellent group (14.0 - 15.5) included roughly 10% who exhibited an overall satisfactory performance, demonstrating good listening and speaking skills. The majority scored in the good category (10.0 - 13.5), suggesting an average proficiency of the skills. However, around 17.5% obtained less than 10, indicating that they need further guidance and practice to improve their two skills, as shown in the following table.

Table 2.7 Distribution of Scores of the Post-test of the Traditional Classroom

Grade Categories	Grade Range	RF
Excellent	14.0 - 15.5	10%
Good	10.0 - 13.5	72.5%
Needs Improvement	Below 10.0	17.5%

The following table shows the different measurements of the post-test in the traditional classroom. A mean of 11.61 indicates that students have a level which is below satisfactory, which shows that the overall performance does not meet the standards. A median of 11.5 indicates that half of the learners scored below this level, suggesting that achieving proficiency in these skills may be challenging. The standard deviation of this test, equal to 1.69, denotes that most learners scored close to the average, which suggests a lack of high achievers, meaning that only a few learners are excelling. In general, these results provide a comprehensive picture of students performance, indicating that there are substantial areas in need of urgent attention to improve student outcomes.

Table 2.8 The Measurements of the Post-test of the Traditional Classroom

Statistics	Value
Mean	11.61
Median	11.5
Standard Deviation	1.69

As for the fourteen students of FAD, their teacher uses AI to teach them speaking and listening skills. The scores distributions demonstrated diverse levels of mastery of oral skills, ranging from 10 to 17.5, resulting in a range of 7.5. Around 43% were placed in the Excellent category (15.5 - 17), showing a splendid proficiency in speaking and listening skills. The good category (12.5 - 15) included approximately 21%, which represents the majority of learners, indicating a satisfactory grasp of oral skills. Approximately 36% fell within the average category (10-12.5), which suggests that they may require further assistance to enhance their speaking and listening skills, as shown in the following table.

Table 2.9 Distribution of Scores of the Post-test of the FAD Classroom

Grade Categories	Grade Range	RF
Excellent	15.5 – 17.0	43%
Good	12.5 - 15.0	21%
Average	10.0 - 12 .0	36%

The following table demonstrates the different measurements of the post-test in the FAD classroom. With a mean of 13.92 and a median of 14, indicating that the performance of learners is satisfactory and that half of them scored above the benchmark. Moreover, the standard deviation of 2.51 indicates that the scores vary, with the majority meeting or exceeding the average. This suggests a consistent proficiency in both speaking and listening skills.

Table 2.10 The Measurements of the Post-test of the FAD Classroom

Statistics	Value
Mean	13.92
Median	14
Standard Deviation	2.51

2.6.2 Analysis of Classroom Observation

Two classroom observations were conducted to gather qualitative data. A checklist was designed to guide the collection of information, including 17 questions, 10 of which were yes/no questions that described the classroom settings, the teacher's methods, and students' engagement and interaction. The rest of the questions were W/H questions allocated to extracting details from the teacher's practices and students' reactions, as well as the layout of the lectures, and how the activities are organised. (see Appendix B)

First session: 27/11/2024

In this session, out of the forty students who attended the tests, only twenty-two were present. The lecture included listening activities and was taught in a regular classroom, rather than a language laboratory; therefore, it was not equipped with the necessary technological tools. To remedy that, the teacher used her own computer and a portable speaker, allowing students to listen. The instructor seemed to have a clear and structured lesson plan. She asked one of the learners to write some words on the board related to the topic of the audio they were about to listen to, and then asked the students to guess the topic. When the students were having some trouble guessing, the teacher let them know that it was Behaviourism.

The teacher informed the students that they would listen and take notes to answer three activities that were written on the board. The audio explained habit formation and Behaviourism, then depicted Pavlov's experiment with dogs, and lastly recounted the experiment of Little Albert. During the first listen, the teacher attempted to simplify the details of the audio for the students to understand, then

asked them to summarise the experiment. Furthermore, the first activity involved placing different words related to Albert, Behaviourism, Pavlov, and rats in a table. The second activity included seven direct questions that learners had to answer, which would help them later in the next task. Here, the teacher asked students if they needed to listen to the audio one more time, and they said yes. Lastly, after correcting the second activity, the teacher asked the learners to summarise the content of the audio, either alone or in pairs. At the same time, she moved around them, helping them when they needed it. After finishing, the students shared their summaries, and the teacher provided feedback.

Overall, half of the students were actively participating during the correction of the activities, and most of them faced some difficulties, such as a loss for words, difficulty in explaining things correctly. Some students also made grammatical mistakes, used wordiness, had unfinished sentences, and wrote incorrect sentences, among other issues. To correct their mistakes, the teacher often used positive language and avoided criticism, highlighting both their strengths and weaknesses. She provided clear feedback tailored to each student while also asking them to clarify their points. The learners' reactions were always positive, as they seemed to have a good rapport with the teacher; therefore, the feedback was always welcomed and accepted.

Second session: 11/12/2024

During this session, twenty-four out of forty students were present. It took place in the language laboratory. However, only the projector was used later during the session. This session consisted only of presentations. Each group consisted of four students, and each presentation included a scenario, such as meeting in a restaurant or catching a taxi.

While performing the presentation, many students seemed to face some obstacles when delivering their work, such as Grammar mistakes, repetitions, full memorisation, pronunciation issues, lack of practice, and sentence organisation. Nevertheless, most importantly, some learners were off topic; they did not understand the instructions, and this is where the teacher interrupted to explain everything. They

were supposed to create situations similar to those in the audio they studied in the last session. Thus, the teacher had them listen to audio to determine how their presentations should have been structured, including the appropriate vocabulary and expressions. This was the only time technological devices were used: one computer, a projector, and speakers. The teacher offered clear and encouraging feedback. She used positive language and avoided criticism, pointing out both strengths and weaknesses, and even managed to turn a challenging situation into a fun moment by cracking jokes to lighten the atmosphere. As a result, the students' reaction to her feedback was consistently positive and always welcomed.

To summarise everything observed in these two classroom observations, several problems were noted, including issues with grammar, pronunciation, lack of practice, insufficient ideas, word loss, and wordiness. It was also noticed that most of the issues are related to speaking and not listening, as the listening activities session went smoothly compared to this one.

2.6.3 Analysis of Students' Questionnaire:

Question 1 aimed to determine whether participants used AI tools to enhance their speaking and listening skills. Out of 14 students, only one student did not utilise these technologies in their studies, as shown in Figure 2.1.

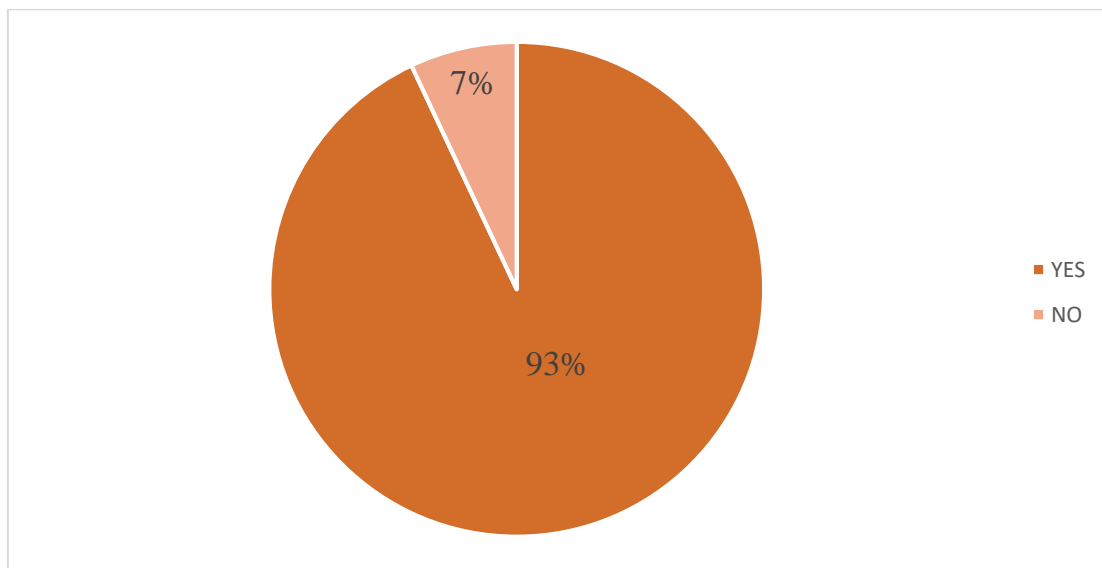


Figure 2.1 Students' Use of Artificial Intelligence

Question 2 aimed to find out the frequency of using AI tools to practice oral skills for the participants:

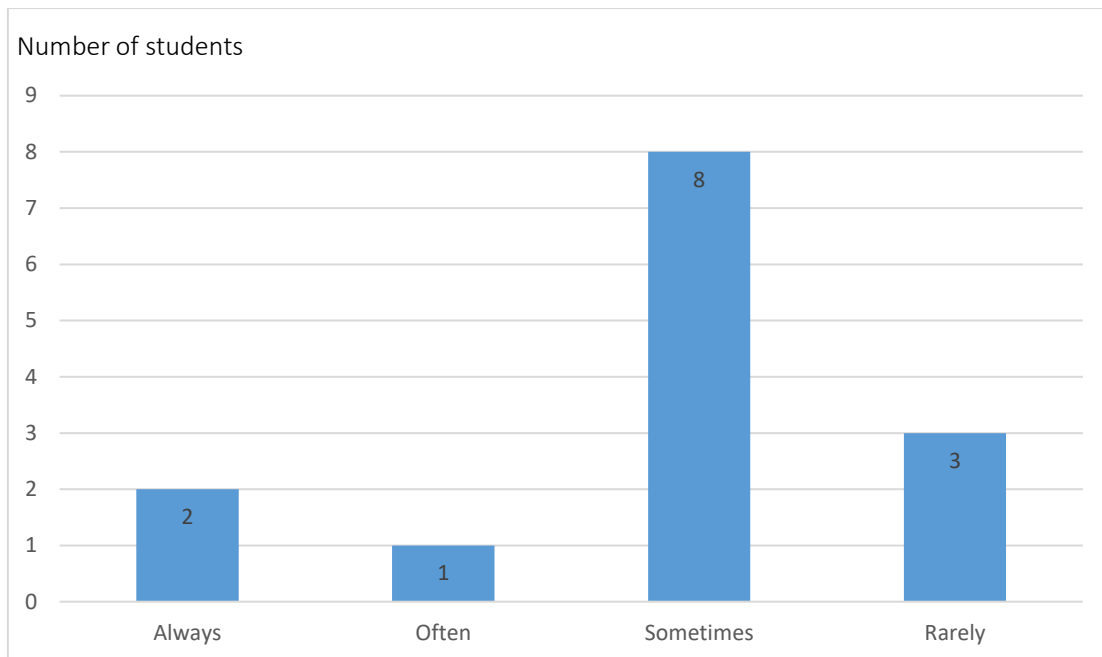


Figure 2.2 Frequency of using Artificial Intelligence

The majority of respondents claimed that they "sometimes" use AI-powered tools, indicating an average level of dependency on these applications. On the other hand, three participants stated that they "rarely" use AI tools, indicating that some students may not utilise Artificial Intelligence to practice their oral skills. Moreover, two learners stated that they "always" employ AI tools, implying that they consistently use AI to practice their speaking and listening skills. At last, only one student claimed to use AI "often", which suggests that only one uses these resources regularly.

Question 3 aimed to uncover the aspects of oral skills that the respondents use AI for practising speaking and listening skills:

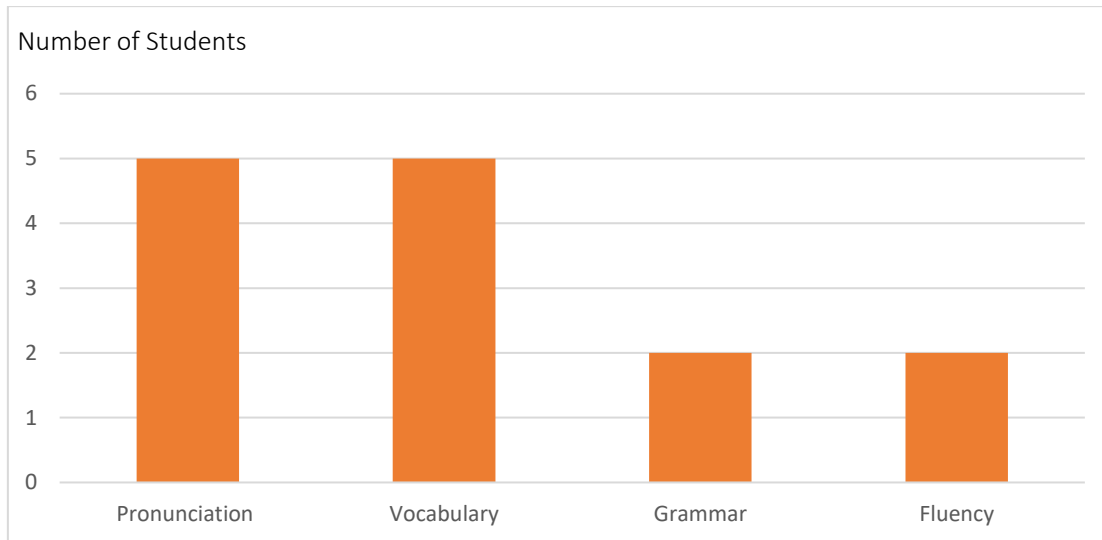


Figure 2.3 Aspects of Using Artificial Intelligence

The bar graph illustrates that 10 respondents, 5 of whom use AI tools for both pronunciation and vocabulary, are represented. This indicates that these learners find AI useful in improving these skills. However, only 4 participants, two each using AI applications for grammar and fluency, indicate that these two aspects are not as emphasised as the rest.

Question 4 aimed to find out the advantages of using AI tools in learning oral skills.

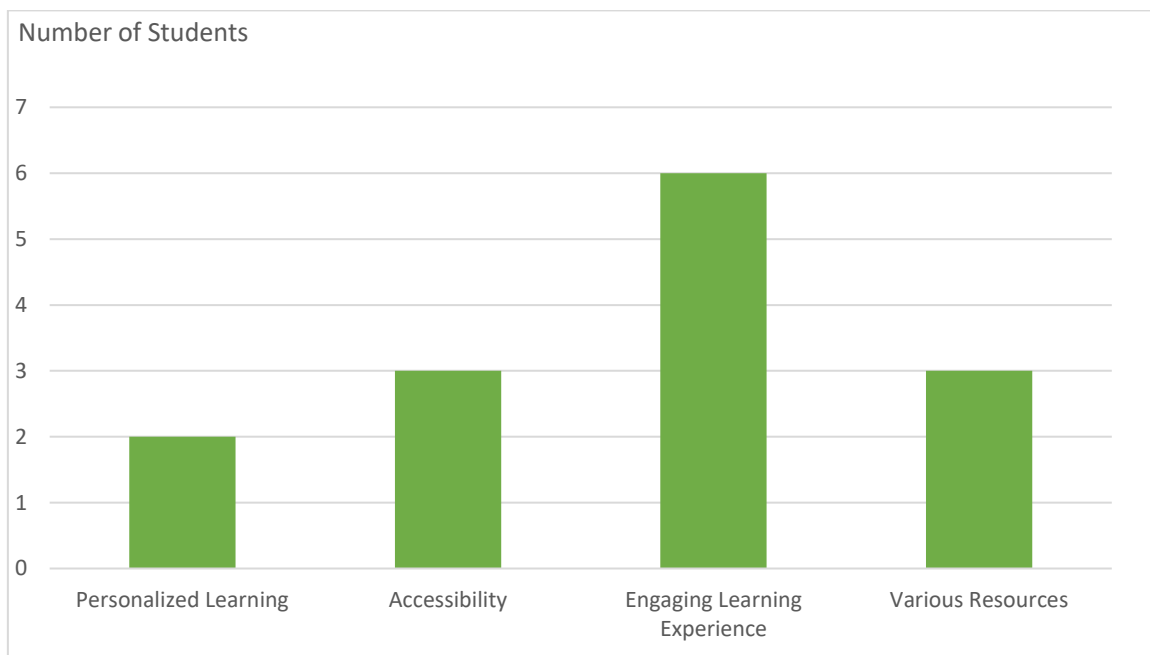


Figure 2.4 Advantages of Artificial Intelligence tools

The bar graph shows that 6 students believe AI creates an engaging learning experience, indicating that they prefer an interactive and motivating approach to learning. Six participants showed an equal interest in accessibility and various resources, with three each, indicating that they believe AI tools are always available and offer numerous sources to learn from. At last, two respondents chose personalized learning, signifying that it is beneficial, but it is not their primary focus.

Question 5 focused on the drawbacks of using AI in learning oral skills:

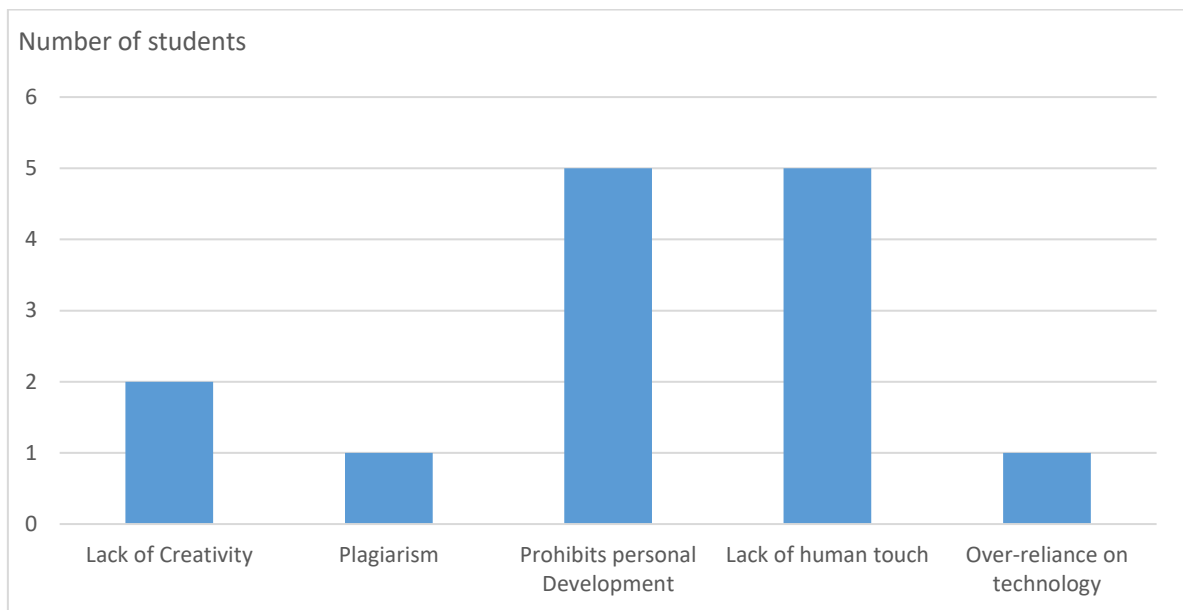


Figure 2.5 Drawbacks of Artificial Intelligence tools

The bar graph shows that prohibiting personal development and lack of human touch, reported by five respondents each, are two significant disadvantages of AI, saying that it may hinder their progress and fail to provide human interaction and emotion. 2 participants claimed that lack of creativity is a big drawback of AI tools, which indicates that they see that AI restricts people's creativity. Moreover, plagiarism and over-reliance on technology were chosen by only one student each, showing that although these disadvantages are present and recognised by the participants, they are not as prevalent as others.

Question 6 included several statements that the respondents had to choose to what extent they agreed with.

The first statement was about the effectiveness of AI tools in providing feedback on oral skills. Sixty-five per cent of the respondents agreed that AI tools are effective in providing feedback on their oral skills. Approximately 28% chose neutral, indicating that they neither agree nor disagree with the statement. Finally, about 7% disagreed, indicating that they do not trust AI tools to provide effective feedback on their oral skills. Overall, the results indicated a generally positive attitude, as shown in Figure 2.6.

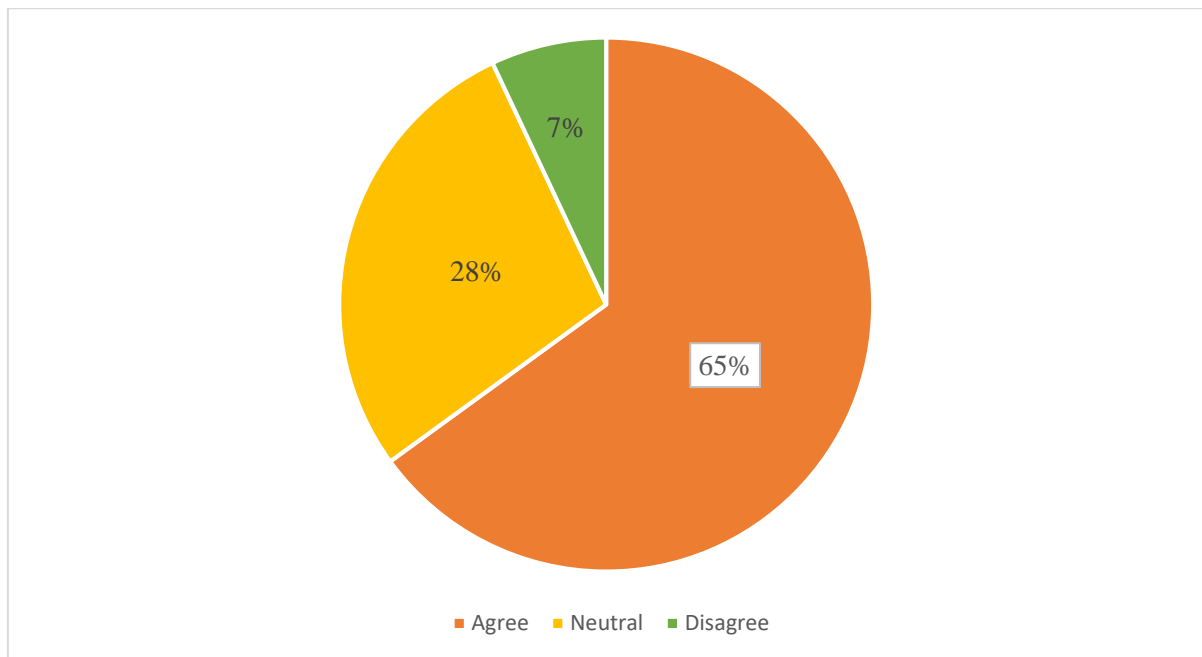


Figure 2.6 Student's Degree of Agreement with AI Tools Effectively Providing Feedback.

The second statement tested if using AI tools makes learning English more enjoyable". Approximately 79% of the respondents agreed with this statement, showing a positive attitude towards them. While 21% of them disagreed with the statements, finding that they might not enjoy using AI tools to learn speaking and listening skills. Evidently, no one chose to remain neutral regarding this statement, as demonstrated in the figure below.

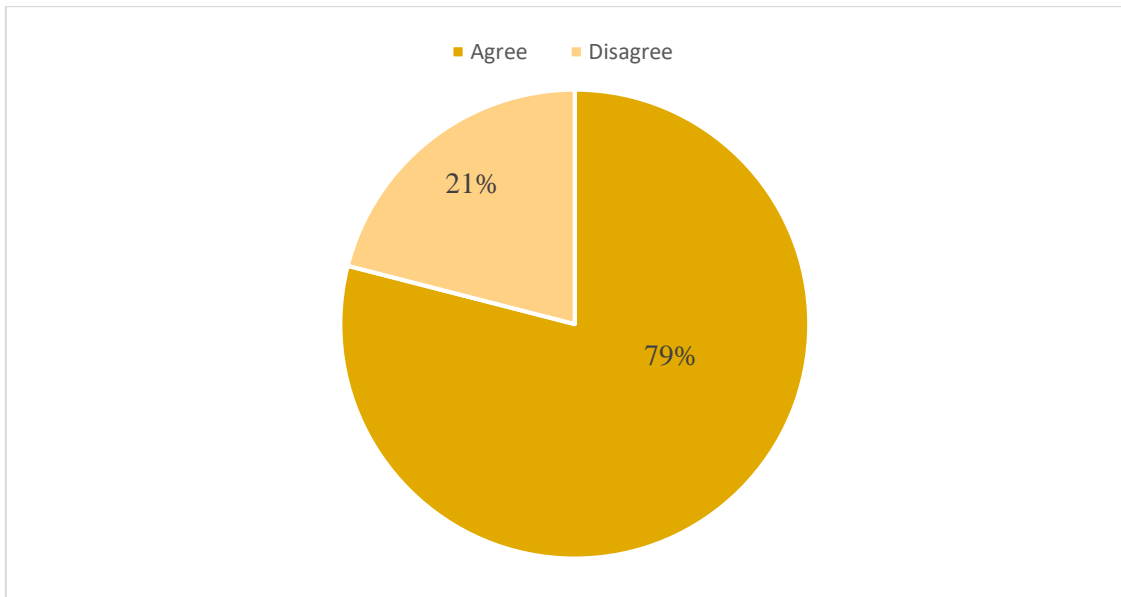


Figure 2.7 Student's Degree of Agreement with AI Tools Making Learning More Enjoyable.

The third statement inquired about the satisfaction of using AI for learning oral skills. Approximately 65% of the participants agreed with the statement, indicating that they are satisfied with using AI to learn oral skills. Approximately 28% chose to remain neutral, indicating that they either agree or disagree. At last, around 7% disagreed, which demonstrates their dissatisfaction with the use of AI tools in developing speaking and listening skills. Overall, the data shows that the majority of the students are satisfied with their experience of using AI to learn oral skills.

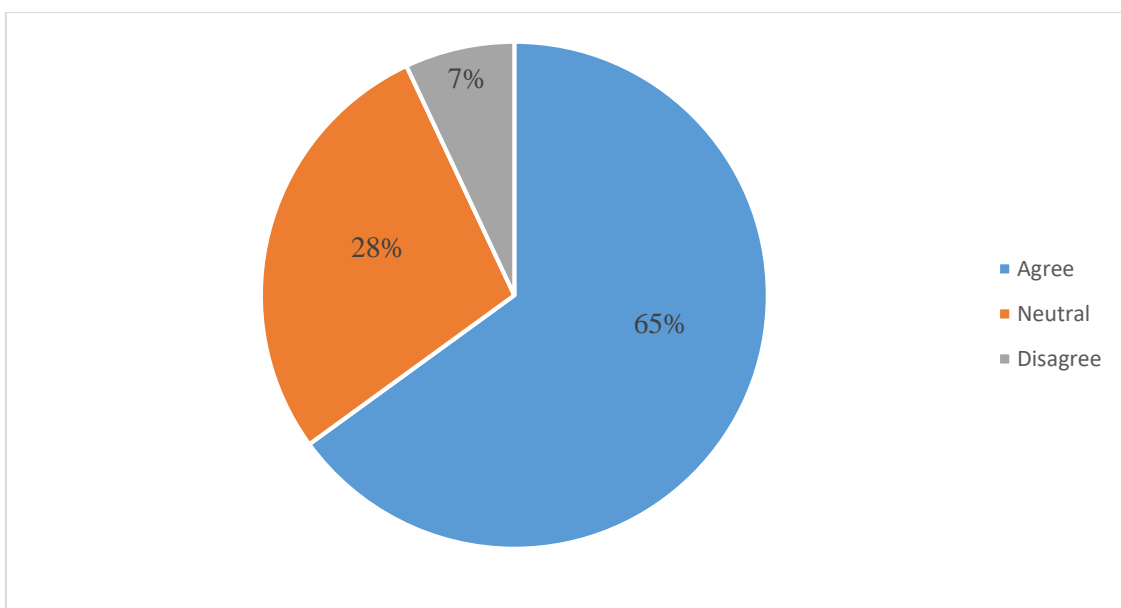


Figure 2.8 Student's Degree of Agreement with Using AI for Learning Oral is satisfying

The last statement was about feeling more confident in their skills after using AI tools. Around 57 % of the participants agreed with the statement, indicating that they feel more confident after using AI to learn oral skills. Approximately 36% remained neutral about their confidence in using AI to learn speaking and listening. Approximately 7% disagreed with the statement, indicating a minority that did not feel more confident after using AI tools. In general, the responses indicate that the majority of students felt more confident after using AI tools; however, a minority remain unsure about their influence, as shown in the following figure.

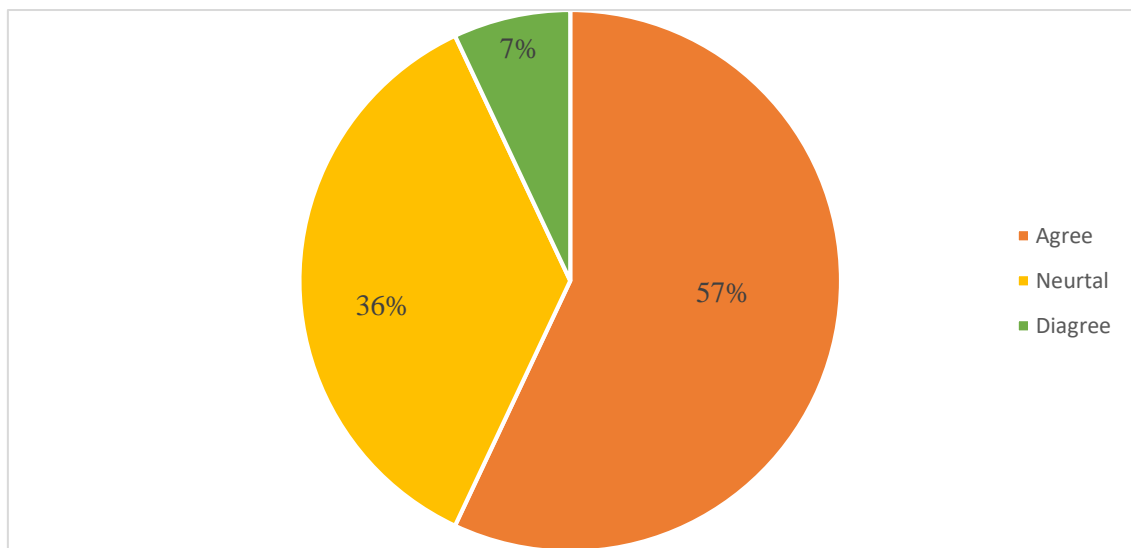


Figure 2.9 Students' Degree of Agreement on AI boosting confidence of the students.

Questions 6 and 7 aimed to discover which AI tools the participants use, and how they use them.

From the applications that the students mentioned using, there are: ChatGPT, Elsa Speak, Duolingo, Gemini, Google Translate, Copilot, and Siri.

When asked how they use such apps to learn speaking and listening, they answered with the following points:

- By chatting with the app, it corrects pronunciations and sentence structure.
- By doing the activities in the app step by step, and repeating them to learn how to pronounce words.
- By using it to learn new words and how to pronounce them.

- By using the speaker on the translation app, to know the pronunciation of words, and repeat after it.
- By asking the tool questions and practising saying the answer.

Question 9 aimed to determine whether participants believe that AI tools can replace traditional classroom instruction in oral skills, and the reasons behind this belief.

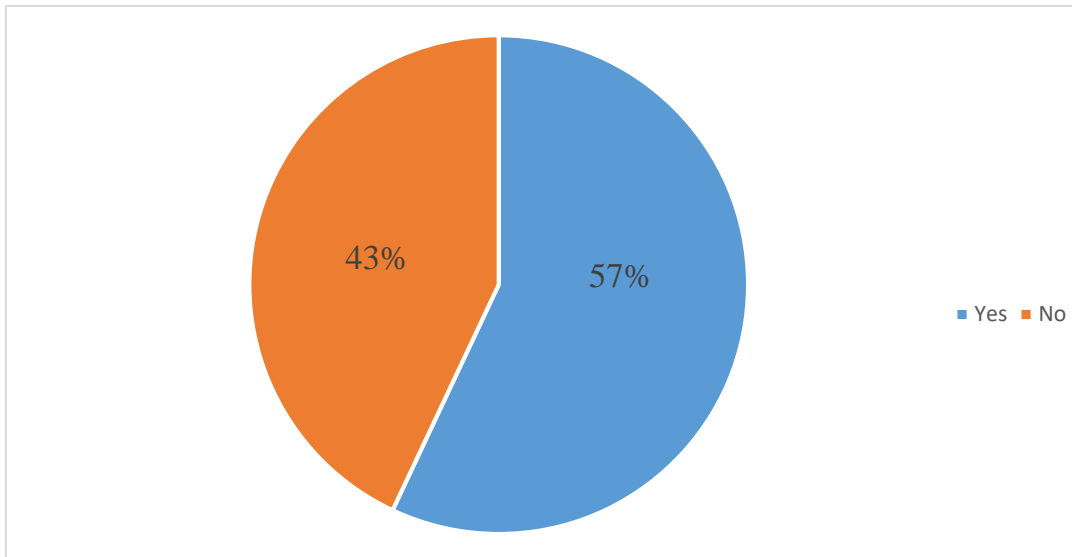


Figure 2.10 Students' Opinion on Artificial Intelligence Replacing Traditional Classroom

The majority of the participants believe that Artificial Intelligence cannot replace traditional classroom learning. Explaining that classroom learning is more reliable than AI, adding that AI tools are less aware than teachers and lack the human touch. They also stated that relying on them may reduce creativity.

Moreover, 43% of the participants believe that Artificial Intelligence can replace traditional classroom learning in the future, arguing that it offers many innovative ideas. They also noted that AI tools offer numerous resources and references to learn from.

Question 10 asked the participants for any additional comments. Some of them think that AI could be complementary to the traditional classroom, arguing that “ AI tools have many benefits, they should be linked with our classroom learning to make it more enjoyable ”.

2.6.4 Analysis of Teachers' Interviews

As mentioned earlier, two interviews were conducted, one for teachers who do not use Artificial Intelligence in their teaching, and one for a teacher who incorporates AI into her teaching.

2.6.4.1 Interview of Teachers of Traditional Classroom

Question 1 inquired about the years of experience of teachers in teaching English oral skills.

Table 2.11 Teachers' Experience in Teaching English Oral Skills

Teachers	Years of experience
2	10 years
1	9 years
1	17 years

Using multiple approaches and methods in teaching speaking and listening skills is very beneficial. A Viewpoint that all teachers agreed upon as an answer to **the second question**. They all said they use a variety of approaches, such as Competency-Based Approach and Content and Language Integrated Learning, adding that their objective is to make the students develop Communicative confidence; therefore, they use whatever could prove to be helpful for them to reach their objective. As a method, one teacher stated that when teaching oral skills, they make sure to start with listening skills so that the students can listen to native speakers and then do several activities, such as summarising, filling in the gaps, or even writing something similar to the content and presenting it to their classmates. This would enhance multiple skills simultaneously.

As an answer to **question three**, three out of four teachers had positive attitudes regarding the use of Artificial Intelligence in teaching. They find it very interesting, suggesting that it might be helpful for students to develop certain aspects of their oral skills. They added that it would probably be used as any tool that has been

implemented in teaching. They also admitted that there are many AI tools that can help teachers with various tasks, such as designing courses and activities, and structuring their approach to gain a deeper understanding of what AI is really about. However, one teacher was dubious about it, thinking that it may make learners lazy and less autonomous.

When asked whether they will incorporate AI tools into their teaching journeys, three out of four teachers said yes, they are considering including AI in their teaching. They added that they are figuring out the best way to effectively use it by experimenting with it. One teacher, however, does not think she will use AI in teaching oral skills, saying there is no need for it to improve oral performance. These were the different standpoints of teachers regarding the use of AI in teaching speaking and listening skills, which was the aim of **question four**.

Question number five revealed that teachers believe there are aspects of oral skills that could benefit from the use of Artificial Intelligence. Through speech recognition tools, learners can get their pronunciation corrected by having immediate and personalized feedback. They added that AI can also be used for dictation, creating oral conversations, generating ideas for activities that follow audio, even assessment and evaluation.

The sixth question unravelled the obstacles the AI can face if implemented. One teacher mentioned the lack of equipment, such as internet access and an updated setup, including computers. Another added challenge is overcrowded classrooms, which can hinder the use of AI, as teachers struggle to control the large number of students. Another teacher mentioned that for many, incorporating AI into their teaching or learning means simply copying and pasting information from it. Thus, there should be training for both learners and teachers to teach everyone how to use the AI tools properly and raise awareness about the ethical aspects of using AI.

The last question inquired if AI can replace traditional classroom instruction. All the teachers believe that AI cannot fully replace a teacher. They argued that AI, as a tool, cannot replace human communication and the importance of a teacher's presence. On the contrary, it may serve the traditional classroom instruction, making

the teacher's job easier. They concluded that AI will remain complementary and will not be a threat to the future of teaching.

2.6.4.1 Interview of the Teacher using Artificial Intelligence

Similar to the other interviews, **the first question** inquired about the teacher's years of experience. The teacher responded by saying that she has been teaching speaking and listening for five years now and has engaged in various teacher development activities to improve her teaching of communication skills. However, this teacher has only been using Artificial Intelligence for the last 2 years. This was the answer to **the second question**.

The **third question** inquired about AI tools and their implementation. The teacher disclosed that she uses Magic School and ASK.ai. She tried a variety of ways to integrate them into her lessons, such as transforming videos into audio and text, to engage learners with different AI-generated texts. This suggests a creative approach to utilising AI for various learning objectives.

As an answer to **question number four**, the teacher responded by saying that she believes 'oral' could mean many things, for instance, creativity, retention, and imagination, and that she does not always focus on proficiency, as her aim varies between vocabulary retention and performance. As for the development, she stated that students usually show a heightened engagement and proficiency when they use AI to create content, and share their design.

When asked about the advantages of using AI in teaching, the teacher highlighted that using AI helps learners become independent, allowing them to explore and discover other perspectives beyond those of their teacher, and even compare them. She also added that she promotes ethical use of AI by emphasizing the significance of developing critical thinking. These were the ideas provided for **question number 5**.

Question number six attempted to unravel the challenges and limitations of using AI in teaching oral skills. The teacher stated that she does not rely on generated AI tools, using her human eye to humanise AI content. She also checks the validity

of information, references, and makes activities meaningful to human experience. She added that she selects questions that relate to my chosen materials, but she never copies the material suggested for me. Thus, she categorises her use of AI as brainstorming. The teacher pointed out that challenges are only encountered when users abandon their human capacity and entirely rely on AI's potential.

When asked about the role of AI in language education in the future, the teacher asserted that it is not a choice, but a necessary move. She added that teachers must upgrade and learn, or they will be left behind. Moreover, she stated that no one should be astonished by technology and remain blind to it; therefore, she advises her students to test it and understand how it functions, without letting it control their minds. The teacher concluded that knowing about new technologies and being aware of their functions is a power, so as not to let it take over us. These were the insights that the teacher disclosed as an answer to **the seventh question**.

The last question attempted to elicit the teacher's insights about their experience with teaching and AI. She responded that AI helps a lot in saving time and effort; it also provides ideas for trying new classroom approaches, which motivates learners to engage in fun learning, and this is what is needed with a generation that is attracted to visuals.

2.7 Discussion of the Main Findings:

During this phase of research, the collected data is to be interpreted, discussed and summarised. At the beginning of this study, two research questions were raised, alongside two hypotheses that were suggested to be tested using the triangulation method, which consisted of students' tests, classroom observations, students' questionnaires, and teachers' interviews.

For the first assumption that students in AI-integrated oral skills classrooms may demonstrate higher levels of engagement in speaking and listening skills activities compared to those in traditional classrooms, the results have shown that learners in AI-assisted classrooms indeed exhibited an advanced level of engagement. According to their teacher, students did actually show a high engagement and

proficiency when they used AI to create content and share their designs. Compared to a traditional classroom, the classroom observation revealed that only half of the learners participated with their teacher during the listening activities.

Moreover, the majority of students had chosen “an engaging learning experience” when asked about the main advantage of using AI to learn speaking and listening skills (see Figure 2.4). Most learners also reported that AI tools make learning more enjoyable (see Figure 2.7), and they revealed that they feel more confident after using AI to learn oral skills (see Figure 2.9). All these results indicate that the use of Artificial Intelligence certainly enhances the engagement level of learners, which helps create a more relaxed and open atmosphere, allowing learners to improve their speaking and listening skills without the anxiety of making mistakes.

The second hypothesis suggested that learners who use AI tools to learn speaking and listening skills would probably show substantially better learning outcomes compared to students who do not use Artificial Intelligence, the results obtained by analysing the post-tests of each classroom validated this assumption. Starting with the grade range of the oral skills post-test of the traditional classroom, the grades varied between 8 and 15.5. It also showed that 82% of the students scored above the benchmark (see Figure 2.7). On the other hand, the grade range of the oral skills post-test in the AI classroom indicated that all learners scored above the benchmark (see Figure 2.9).

When it comes to the measurements of the post-test, the measurements of the students learning without AI estimated a mean of 11.61, a median of 11.5 (see Table 2.8), while the measurements of students who use AI to learn measured a mean of 13.92 and a median of 14 (see Table 2.10) suggesting that, on average, students in using AI to learn performed better than those who do not. The standard deviation for the group of students who do not use AI is 1.69, suggesting slight variation in the performance, while for the group who used AI, it is 2.51, indicating a wider range of grades and possibly different levels of effectiveness (as shown in Table 2.8 and Table 2.10, respectively). The results imply that the FAD classroom outperformed the traditional classroom in terms of both the mean and median measures, in addition to achieving an advanced benchmark success rate.

The third and last hypothesis suggested that most learners and teachers would probably have a positive attitude towards the use of AI tools and may view them as effective in improving students' speaking and listening skills. Starting with learners, indeed, the results indicated that most learners who responded to the questionnaire had an optimistic outlook for the use of AI (see Figure 2.1). Most of them uncovered that they “sometimes” use AI tools, implying that they are willing to explore these tools, and recognise the advantages of using AI to learn. It also indicates that using AI has the potential to grow, if they learn how to use it correctly (see Figure 2.2).

The results also showed that the majority of the learners are satisfied with their experience of using AI to learn oral skills, which suggests that AI is effectively improving their speaking and listening skills (see Figure 2.8). Regarding teachers, the results have shown that most of them have a positive attitude towards the use of AI to teach oral skills.

The interview results showed that most traditional teachers had a hopeful view of the use of AI tools in teaching. When questioned about whether they think they will incorporate AI tools into their teaching in the coming years, most of them were eager to learn about the ways AI can lighten the load of teachers and make it a little more enjoyable. They even identified some ways that AI can help improve certain aspects of oral skills, such as speech recognition to develop pronunciation, generating ideas for new engaging activities, and the concept of immediate and personalised feedback.

They all agreed that AI would be an excellent complementary tool, helping teachers save time and effort. The teacher who already uses AI has also noticed that it helps learners become independent by allowing them to explore many perspectives beyond those of their teacher. Both the interviews and the questionnaire, however, shed light on some obstacles and disadvantages of AI, such as overcrowded classrooms, over-reliance on AI, a lack of human touch, and inadequate equipment.

Overall, the results indicate that utilising AI tools to enhance speaking and listening skills can improve students' oral proficiency, provided that this approach is implemented carefully and with consideration for both the advantages and disadvantages. In light of all the points discussed above, the results accorded evidence

that all three hypotheses can be validated to a significant degree. Further research will be significant in accentuating the positive impact of Artificial Intelligence on students' engagement and learning outcomes.

2.8 Suggestions and Recommendations

In view of the results obtained from this study, the following recommendations might come in handy:

1. Ethical considerations:

Teach learners how to use AI in an ethical manner. The use of AI is becoming increasingly inevitable nowadays; therefore, instead of ordering students not to use AI, which would be a failed attempt, teach them how to brainstorm using AI and draw inspiration from what it has to offer, and then encourage them to create their own work.

2. Teacher Training Programs :

Just as teaching learners how to use AI properly is essential, teaching teachers how to utilise AI is equally important. There will come a time when AI is everywhere, and that time is starting now; therefore, teachers must learn how to employ AI in their teaching to keep learners engaged and improve learning outcomes.

3. Staying updated :

AI is a technology that thrives in the age of speed; as a result, it will continue to evolve rapidly. Therefore, keeping up with the latest models and advancements is essential for both teachers and learners.

2.9 Conclusion

To conclude, the current chapter presents a detailed account of the practical side of this investigation, which aimed to explore the impact of using Artificial Intelligence in teaching and learning speaking and listening. The first part of this chapter included the research design, sample population, data collection procedures and data instruments. Finally, a detailed analysis of the qualitative and quantitative data acquired from students' tests, classroom observations, student questionnaires, and teachers' interviews was presented in the second part of this chapter, along with a discussion of the findings and an examination of the aforementioned hypotheses.

General Conclusion

In the last few years, Artificial Intelligence has been dominating many sectors of life, one of those sectors is Education. AI has revolutionised the way people teach and learn, offering several benefits that cannot be overlooked. Whether it is the personalization of learning or the simplification of teaching, AI has been steadily conquering the world of teaching and learning. Many AI tools have the ability to improve in learning and teaching the four English skills, particularly speaking and listening.

An exploratory case study was conducted to investigate the impact of Artificial Intelligence on teaching and learning oral skills, and to explore the different perspectives of learners and teachers regarding this integration. This brought forth the division of the study into two chapters. The first part included the theoretical framework of this research, covering definitions of various concepts, types, and processes in a detailed manner. The second and final chapter recorded the practical part of the investigation, which covered the methodology, analysis, and discussion of the data collected using multiple instruments to achieve the triangulation method: tests, questionnaires, interviews, and classroom observations, executed with first-year EFL learners and teachers at Abu Bakr Belkaid of Tlemcen.

At the outset of this journey, three research questions were raised alongside three hypotheses to be tested throughout this study. The confirmation of the three hypotheses was possible after a fun odyssey that included a number of research instruments: a student's test, classroom observation, a student's questionnaire, and teachers' interviews. The first hypothesis had suggested that AI-integrated oral instruction may increase students' engagement in speaking and listening activities compared to traditional classrooms. The second hypothesis posits that many learners and teachers hold a hopeful outlook for Artificial Intelligence, believing that AI-powered tools can enhance students' speaking and listening abilities. The third and last hypothesis stated that students who use AI tools to improve their listening and speaking skills would probably perform better than those who do not utilize AI. The main findings of this research supported all the hypotheses by showing that most

learners and teachers have a positive attitude towards Artificial Intelligence, and that AI technologies can enhance learners' engagement and learning outcomes.

The data acquired through the employed research instruments painted a picture of how AI can impact the teaching and learning of oral skills. The results have revealed that AI can increase engagement in the oral classroom, which fosters an interactive and immersive environment for a better learning and teaching experience. In addition to students' engagement, the integration of AI-powered tools has also proven to improve learning outcomes, allowing learners to learn speaking and listening skills more effectively. Moreover, the results have also indicated that many learners and teachers have a positive view of the future of AI and education by recognising its advantages and focusing on them, while also acknowledging its drawbacks. These findings provide evidence that integrating AI into the teaching and learning of speaking and listening skills will be a game-changing move.

Regarding the obstacles encountered during the conduction of this research study, the primary issue was the inability to conduct a pre-test with the FAD students, which in turn hindered the execution of the experimental research that had to be transformed into an exploratory case study. Thus, more work will need to be done to examine the impact of Artificial Intelligence on language learning in diverse learning settings, such as onsite and online classrooms. Moreover, it is essential to investigate the best way to integrate AI with traditional methods to create a learning experience that benefits from the strengths of the two sides. Finally, more studies are required to examine how AI can be tailored to meet learners' needs and interests, to create customised curricula for different academic fields and to assess the outcomes of these personalised approaches.

To conclude, the integration of Artificial Intelligence in learning and teaching listening and speaking skills offers a ground-breaking opportunity to revolutionize education. By leveraging technology, AI-powered tools can help teachers create an engaging and tailored learning experience that meets the learners' needs and interests in an enjoyable manner.

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Appendices

Appendix A: Students' pre-test

Full name :

Listening part

Exercise 1: Answer the following questions

1. What does Ella enjoy doing in her free time?

.....

2. Which types of food does Ella cook?

.....

3. What course is Jack currently taking at college?

.....

4. Which instruments did Jack play when he was younger?

.....

5. How many concerts did Jack attend last year?

.....

Exercise 2:

Match the words with their meanings:

- | | |
|------------------|--|
| 1. International | a. A musical tool |
| 2. Concert | b. Involving different countries |
| 3. Technology | c. Series of lessons and courses on a subject |
| 4. Instrument | d. A musical performance done in public |
| 5. course | e. The practical use of scientific discoveries |

Exercise 3:

Fill in the blanks with the correct words from the conversation:

- Ella loves _____.
- Jack is going to _____ concerts this month.
- Ella studies _____ technology at school.

4. Jack thinks violins are not common in _____ music.
5. Ella had a big _____ at the end of her cooking course.

Exercise 4:

Explain these idioms from the dialogue :

1. Hit the books :
2. A jack of all trades, master of none :.....
3. to brake the bank :

Speaking Part :

Now that you know about Ella and Jack’s hobbies and interests. Tell us about yours. Feel free to add what you like to do in your free time, any courses you have taken, and your favorite type of music and cuisine

Appendix B : Classroom Observation Checklist

- **Date:**
- **Time:**
- **Teacher Name:**
- **Course Title:**

	Yes	No
Is the classroom equipped with technology (e.g., computers, projectors)?		
Are the technological material being used ?		
Does the teacher have a clear and structured lesson plan?		
Are the instructions clear and easy to follow?		
Are students actively engaged?		
Are there opportunities for student-student interactions?		
Is the lesson paced appropriately for all students?		
Does the teacher employ AI tools to teach ?		
Do students use AI tools during the lesson?		
Are students motivated when using AI tools?		

How does the teacher introduce the topic?

.....

.....

How does the teacher provide feedback on students' oral performance?

.....

.....

How do students respond to the feedback provided by the teacher?

.....

.....

Are there observable challenges students face in oral communication? If yes, what are they?

.....

.....

How are listening activities organized in the lecture :

.....

.....

How are speaking activities organized ?

.....
.....

How is AI integrated into the lecture ?

.....
.....

Appendix C : Students' Questionnaire

Dear learner,

This questionnaire is designed to examine the effect of using Artificial Intelligence in learning oral skills (listening and speaking). Your answer will contribute to the deeper understanding of the role of AI in language learning. Thank you for taking the time to answer the following questions.

1- Do you use AI tools (such as language learning apps and chatbots) to learn oral skills?

Yes No

2- How often do you use AI tools for practicing listening and speaking ? Please choose one :

- Always
- Often
- Sometimes
- Rarely

3- What aspect of oral skills (listening and speaking) do you primarily use AI tools for? please choose one :

- Pronunciation
- Vocabulary
- Grammar
- Fluency

4-What do you think are the main advantages of using AI tools in learning oral skills?

- Personalized Learning
- Accessibility
- Engaging Learning Experience
- Various Resources

5- what do you think are the drawbacks of using AI in learning ? Please,choose one of these :

- Lack of creativit

- Plagiarism
- Prohibits personal development
- Over-reliance on technology
- Lack of human touch

6- To what extent do you agree with the following statements ?

AI tools are effective in providing feedback on oral skills

- Agree Neutral Disagree

Using AI tools makes learning English more enjoyable

- Agree Neutral Disagree

Your experience using AI for learning oral skills is satisfying

- Agree Neutral Disagree

You feel more confident in your oral English skills after using AI tools

- Agree Neutral Disagree

7- Which specific AI tools do you use for English oral skills?

.....

8- How do you use AI tools in your language learning journey ?

.....
.....
.....

9-Do you believe AI tools can successfully replace traditional classroom instruction in oral skills? Please justify your answer.

.....
.....
.....

10 – Do you have any additional comments or suggestions concerning the use of AI in learning oral skills ? please share it.

.....
.....
.....

Appendix D: Traditional Teachers' Interview

Interview questions

This interview is a part of study entitled **Examining the Effect of Using Artificial Intelligence in Teaching and Learning Oral Skills**. You are kindly invited to answer some questions as your responses would greatly contribute to the execution of this research.

- 1- Can you tell me about your background and experience in teaching English oral skills ?
- 2- What are the approaches and methods that you use to teach oral skills ?
- 3- What is your perception of using Artificial Intelligence in teaching ?
- 4- Do you think you will be able to incorporate AI tools into your teaching journey in the future ? If yes, how ? if no, why ?
- 5- According to you, what are the areas of oral skill teaching that can benefit from the integration of AI ?
- 6- What obstacles do you think AI will face if implemented in teaching speaking and listening ?
- 7 - Do you believe AI tools can fully replace traditional classroom instruction of oral skills or could be complementary for it ? Why ?

Appendix E: Artificial Intelligence Teachers' Interview

Interview questions

This interview is a part of study entitled **Examining the Effect of Using Artificial Intelligence in Teaching and Learning Oral Skills**. You are kindly invited to answer some questions as your responses would greatly contribute to the execution of this research

1-Can you tell me about your background and experience in teaching English oral skills?

2-How long have you been using AI tools in teaching speaking and listening skills?

3-What specific AI tools do you use and how do you integrate it to teach oral skills?

4-In your experience, what developments have you observed in students' oral skills proficiency since using AI tools in teaching and learning ?

5- According to you, what are the main advantages of using AI tools in teaching speaking and listening skills?

6- Have you faced any challenges when using AI in your teaching? If yes, how did you overcome them?

7- How do you see AI's role in language education becoming in the future?

8- Do you have anything else to share about your experiences with AI in teaching oral skills?

Summary

This study investigates the effects of integrating Artificial Intelligence (AI) in teaching and learning speaking and listening skills. It is divided into two parts: the theoretical part, which tackled concepts related to speaking and listening skills, and Artificial Intelligence, and a practical part, which tackled the methodology, data analysis and discussion of the main results. Findings reveal that AI tools enhance student engagement, improve learning outcomes, and foster a more interactive learning environment. The results also shown that most teachers and learners have a positive outlook for the use of AI in the ield of education, particularly in the teaching and learning of English oral skills. However, challenges such as over-reliance on technology and reduced human interaction were also noted. The study concludes that while AI cannot fully replace traditional teaching methods, it serves as a valuable complement to enhance educational outcomes.

Keywords: Artificial Intelligence, EFL, Speaking Skills, Listening Skills, Engagement and Learning Outcomes,

المخلص

تتناول هذه الدراسة آثار دمج الذكاء الاصطناعي في تدريس وتعلم مهارات التحدث والاستماع. وتنقسم إلى جزئين: الجزء النظري، الذي تناول المفاهيم المتعلقة بمهارتي التحدث والاستماع و الذكاء الاصطناعي، والجزء العملي، الذي تناول المنهجية وتحليل البيانات ومناقشة النتائج الرئيسية. تكشف النتائج أن أدوات الذكاء الاصطناعي تعزز انخراط الطلاب، وتحسن نتائج التعلم، وتوفر بيئة تعليمية أكثر تفاعلية. كما أظهرت النتائج أن معظم المعلمين والطلاب لديهم نظرة إيجابية تجاه استخدام الذكاء الاصطناعي في مجال التعليم، لا سيما في تدريس وتعلم المهارات الشفوية للغة الإنجليزية. ومع ذلك، تم الإشارة أيضًا إلى تحديات مثل الاعتماد المفرط على التكنولوجيا وتقليل التفاعل البشري. وتخلص الدراسة إلى أنه على الرغم من أن الذكاء الاصطناعي لا يمكن أن يحل محل طرق التعليم التقليدية بشكل كامل، إلا أنه يمثل تكاملًا قيمًا لتعزيز النتائج التعليمية.

الكلمات المفتاحية: الذكاء الاصطناعي، تعلم اللغة الإنجليزية، مهارات التحدث، مهارات الاستماع، المشاركة و نتائج التعلم.