

Artificial Intelligence for Learning English as a Foreign Language: The Case of Third Year Students at the University of Ghardaia

L'intelligence artificielle pour apprendre l'anglais comme langue étrangère : le cas des étudiants de troisième année à l'Université de Ghardaïa

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Abstract:

This paper highlights the importance of Artificial Intelligence (AI) in improving EFL Students' learning abilities. The study aims to explore the primary technology advancements associated with AI. It is focused on acquainting students with various AI applications and platforms used for conversation facilitation, as well as pronunciation, vocabulary, and grammar assistance. The experimental type of research was adopted via teaching speaking module, using AI tools, to third year students at the University of Ghardaia. The research involved a quantitative analysis, which included distributing a questionnaire to 150 students at the same academic level. The findings highlighted the effectiveness of AI technology in enhancing students' communication abilities. The study emphasized the importance for EFL learners to be versatile and mindful of essential factors when using AI tools to prevent passivity and inertia in the learning process. It also underscored the continued significance of instructors in the traditional classroom setting.

Keywords: Artificial intelligence (AI) - learning English- English- AI applications- AI platforms

Résumé:

Cet article souligne l'importance de l'intelligence artificielle (IA) dans l'amélioration des capacités d'apprentissage de l'anglais des étudiants ALE. L'étude vise à explorer les principales avancées technologiques associées à l'IA. Elle vise à familiariser les étudiants avec diverses applications et plates-formes d'IA utilisées pour faciliter la conversation, ainsi que pour l'aide à la prononciation, au vocabulaire et à la grammaire. Un type de recherche expérimental a été adopté via un module d'enseignement oral, utilisant des outils d'IA, aux étudiants de troisième année de l'Université de Ghardaïa. La recherche impliquait une analyse quantitative, qui comprenait la distribution d'un questionnaire à 150 étudiants du même niveau académique. Les résultats ont mis en évidence l'efficacité de la technologie de l'IA pour améliorer les capacités de communication des étudiants. L'étude a souligné l'importance pour les apprenants d'ALE d'être polyvalents et attentifs aux facteurs essentiels lorsqu'ils utilisent des outils d'IA afin d'éviter la passivité et l'inertie dans le processus d'apprentissage. Cela a également souligné l'importance continue des instructeurs dans le cadre d'une salle de classe traditionnelle.

Mots- clés: Intelligence artificielle (IA)- apprentissage de l'anglais- anglais- applications IA- plateformes IA

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Introduction

The impact of Artificial Intelligence (AI) on language learning is undeniable, as it has revolutionized educational practices by providing personalized and interactive experiences. From ChatGPT to language translation apps, AI-powered tools offer learners the opportunity to enhance their language skills effectively through access to valuable information and real-time feedback. By analyzing complex patterns and delivering personalized insights, AI has the potential to improve student outcomes and educational practices significantly (Wei, 2: 2023).

Moreover, AI has created immersive environments that enable learners to easily undertake language tasks and enhance their overall proficiency. With features like alternative sentence suggestions and writing ideas, AI tools support continuous improvement in learners' language abilities while boosting their confidence. The integration of AI in language education not only enhances learning experiences but also opens up new avenues for research and development in pedagogy (Nykon, 1: 2023).

Platforms like TalkPal AI Chat provide personalized lessons with interactive features that cater to individual needs for improving speaking, listening, and writing skills. By offering opportunities for practice anytime and anywhere, these platforms empower learners to take control of their learning process while providing valuable insights for teachers to tailor instruction effectively (Jiang, 2022). Therefore, the utilization of AI in education is essential for accelerating language learning processes through personalized content delivery, instant feedback mechanisms, and adaptation to individual needs. As organizations collaborate with experts to develop tailored educational solutions, AI continues to advance in education, promising innovative practices that benefit both learners and educators alike (Cano & Huertas-Abril, 4: 2023).

The rationale behind selecting this topic is to test the effectiveness of AI technology for enhancing English learning skills. The students' perception of these new tools are also highlighted in this study. The purpose is to investigate the status of instructors in the traditional classroom in the light of AI integrations. Therefore, the present study raises the following main questions:

1. To what extent could AI tools enhance EFL learning skills?
2. How could AI apps and platforms affect EFL learners' speaking competence?
3. What are the key considerations that should be emphasized by the learners/teachers when utilizing AI tools?

English is a widely spoken language with 1.5 billion speakers globally, essential for business, education, and travel. AI tools like TalkPal AI Chat help individuals improve their English skills effectively. Learning English opens doors to better job opportunities, education, and global connections (Dekanozishvili, 2: 2024). AI in language learning offers personalized experiences with resources like translation apps and real-time feedback for progress monitoring. The future of AI in education includes predictive analytics for tailored learning paths. Ethical considerations like data privacy and biases in machine learning algorithms must be addressed when using AI in language education. Mastering English with advanced AI tools is now more efficient than ever (Li, 86: 2020).

Therefore, the present research seeks to investigate the key progress in technology related to AI. It also aims to introduce students to different AI applications and systems utilized for tasks, such as language conversational support, pronunciation enhancement, vocabulary expansion, and grammar help. In addition, the present investigation provides a practical example about integrating AI tools in teaching speaking, for developing learners' communicative abilities, in the EFL classroom. Furthermore, ethical implications and upcoming trends in the use of AI for learning the

English language are also deliberated in this document. More importantly, the study raises learners' awareness about some considerations when utilizing AI tools.

1. Review of Literature

AI tools and platforms are valuable resources for improving English speaking abilities by providing a variety of functions that enrich the educational process. These AI-driven tools for listening and speaking enable students to enhance and perfect their language proficiency through engaging experiences. Through immediate feedback, specific practice tasks, and real-world situations for practice, AI technology aids students in honing their verbal communication skills. Therefore, the following sections offer in-depth details regarding the emergence and development of AI tools, along with its significance and advantages in improving students' English communication skills.

1.1 Evolution of AI In Language Learning: Historical Background and Advancements In Technology

The integration of artificial intelligence (AI) in language education has evolved significantly over time, starting with basic translation services and now offering personalized learning experiences through advanced algorithms. AI tools like translation apps and conversation simulators have enhanced the language learning journey by providing interactive and stimulating experiences. Case studies have demonstrated the effectiveness of AI in improving language acquisition and proficiency (Dong *et al.*, 10928: 2022). Future trends in AI for learning English involve deeper integration with virtual reality technology and predictive analytics to personalize learning paths. Ethical considerations, such as data privacy and biases in machine learning algorithms must be addressed when implementing AI in educational settings (Debailly, 3: 2023). The historical progression of AI in language education sets the stage for ongoing innovation and transformation in how individuals achieve proficiency in a foreign language, emphasizing responsible deployment of AI technologies to empower learners on their linguistic journeys.

Technological progress has had a profound impact on language learning, particularly with the emergence of AI applications. Through platforms like LinguaBuddy, which harness AI algorithms for language acquisition, the process has become markedly more streamlined and impactful. The introduction of AI tools like speech-to-text software, pronunciation assistance, and dialogue simulators has completely reshaped the landscape of English as a second language instruction (Dekanozishvili, 4: 2024).

The integration of AI into language learning offers a bespoke learning experience tailored to individual needs and preferences. This degree of personalization ensures that learners receive targeted guidance to enhance their English proficiency. Additionally, AI resources grant access to a diverse array of materials, enabling learners to practice and refine their language skills at their own pace. Instant feedback from AI systems empowers learners to rectify errors swiftly and make consistent strides in their language learning journey (Wei, 4: 2023).

Moreover, technological advancements have paved the way for inventive methodologies in language education. Merge with augmented reality technology provides immersive learning environments that boost engagement and retention. Predictive analytics aid in crafting customized learning paths based on individual strengths and weaknesses, optimizing the educational journey for each learner (Portakal, 5: 2023). Despite these strides, ethical considerations should be at the forefront when implementing AI in language instruction. Addressing concerns related to data

privacy and biases in machine learning algorithms is imperative to ensure an equitable and secure educational setting (Diaz, 3: 2024). Thus, the evolution of AI in language learning has transformed the approach to acquiring English as a second language. With ongoing technological progress, the future holds immense promise for further enhancing the efficacy and efficiency of language education.

1.2 Benefits of Using AI For Learning English

AI has transformed the English learning landscape, providing valuable advantages like improved feedback systems, customized learning journeys, instant error corrections, comprehensive progress monitoring, and unparalleled ease of access. These advancements are enhancing the efficiency, effectiveness, and pleasure of learning languages. As AI progresses, its impact on language education is set to develop, opening doors to increasingly sophisticated learning encounters.

1.2.1 Personalized Learning Experience

The incorporation of Artificial Intelligence (AI) in language education has completely transformed the methodology of teaching English to non-native speakers. AI-driven resources provide a tailored learning experience that caters to individual preferences and requirements, thereby boosting motivation and autonomous learning. Studies have indicated that instruction facilitated by AI leads to improved English proficiency across various areas, encompassing grammar, vocabulary, reading comprehension, and writing abilities. The flexibility of AI platforms allows learners to interact with English on their own terms, encouraging a genuine curiosity for continual exploration and enhancement. Participants involved in research utilizing AI for language learning expressed heightened intrinsic motivation and active involvement with the language. The adaptability and convenience afforded by AI tools empower learners to practice English whenever and wherever they desire, seamlessly incorporating language acquisition into their daily routines. This accessibility outside of traditional classroom boundaries not only encourages regular practice but also enables learners to take charge of their educational journey. Students conveyed a sense of independence and eagerness in their pursuit of language proficiency, underscoring how the AI technology sparked a drive for advancement.

Furthermore, the integration of AI in collaborative exercises enhances learners' language progress by delivering personalized feedback tailored to their specific needs. The timely and precise feedback provided by AI resources significantly contributes to enhancing language skills, motivating learners to actively engage in interactive learning activities at their own pace. The user-friendly atmosphere created by AI platforms reduces anxiety levels and elevates L2 motivation, fostering a supportive environment conducive to language practice. Ultimately, the assimilation of AI into language education presents distinctive benefits, such as customized learning experiences, intrinsic motivation, and self-regulated learning strategies. By harnessing the potential of AI-driven tools, educators can establish dynamic and stimulating environments that elevate students' English proficiency while fostering autonomy and enthusiasm for continuous development (Wei, 8: 2023).

1.2.2 Accessibility to Resources

Having access to resources is a vital component of language acquisition, particularly for individuals learning English as a second language (ESL). The evolution of artificial intelligence (AI) has opened up a plethora of resources tailored to meet the unique needs and preferences of learners. AI-driven tools for language learning offer flexibility and convenience, enabling learners to engage in language practice at their own pace and convenience. These resources are available

around the clock from any location globally, making them ideal for busy individuals seeking to enhance their English proficiency. One of the primary advantages of utilizing AI in ESL education is the availability of personalized learning experiences. AI algorithms can assess learners' strengths and weaknesses, creating customized learning paths that target areas requiring improvement. This tailored approach helps keep learners motivated and engaged, resulting in more efficient language skill development (Van, 2: 2020).

Furthermore, AI tools provide learners with immediate feedback on their performance, enabling them to monitor their progress over time. This instant feedback is crucial for identifying and promptly addressing areas of difficulty. By offering ongoing support and guidance, AI tools assist learners in building confidence in their language abilities and enhancing their overall English proficiency. In addition, the accessibility of AI-powered language translation apps, pronunciation guides, and conversation simulators enriches the ESL learning experience further. These tools enable learners to practice reading, writing, speaking, and listening skills across various contexts, thereby enhancing their language proficiency holistically (Wei, 8: 2023). Therefore, the accessibility of resources facilitated by AI technology significantly enhances the effectiveness of ESL education. By providing personalized experiences, real-time feedback, and a diverse range of practice tools for improvement, AI empowers ESL learners to achieve greater success in mastering the English language.



Figure 1. Language Bots (Nykon, 6: 2023)

The figure above highlights AI bots that can be utilized by EFL learners in order to help them communicate in English effectively. Reinforcement learning stands out as an essential advancement in AI for chatbots used in English learning. This method can empower AI to offer immediate support to learners, thereby, solidifying their grasp of language basics and improving their ability to engage in conversations progressively.

1.2.3 Real-time Feedback

Timely feedback is a key element in improving students' language skills and overall learning journey. The use of AI-driven tools has transformed the feedback process, giving learners immediate and helpful insights into their language abilities. These tools offer customized feedback that pinpoints areas needing improvement and provides guidance on how to correct mistakes. The real-time feedback mechanisms utilized by AI platforms not only highlight errors but also steer

learners in the right direction, turning missteps into valuable learning experiences. Studies have shown the importance of receiving non-judgmental feedback from AI platforms, creating a supportive and motivating atmosphere for language practice. The quick feedback loop allows learners to learn from their errors in real-time, fostering resilience and ongoing growth in their language learning adventure. By offering explanations and suggestions for enhancement, AI tools empower learners to take control of their learning journey and boost their confidence in using the language (Nykon, 5: 2023).

Moreover, the incorporation of AI-guided instruction has been proven to enhance self-directed learning among English as a Foreign Language (EFL) students. The personalized approach of AI platforms delivers tailored content, instant feedback, and opportunities for self-evaluation. This interactive guidance helps learners set goals, plan study sessions, and reflect on their progress autonomously. By encouraging learners to be active participants in their learning process, AI tools significantly contribute to the development of metacognitive skills and self-regulation abilities (Wei, 9: 2023). Hence, real-time feedback provided by AI tools offers a revolutionary learning experience for language learners, fostering independence, motivation, and skill enhancement. These cutting-edge technologies have reshaped traditional language instruction by providing personalized assistance that aligns with individual learning preferences and needs.

1.3 AI Tools for Learning English

AI is becoming increasingly recognized as a valuable tool that can enhance different areas of EFL learning. Certain tools and platforms powered by AI have the capability to generate virtual instructors. These virtual tutors are designed to engage in dialogues with learners, assisting them in honing their language abilities within a conversational environment.

1.3.1 Language Translation Apps

AI-driven language translation tools have become an essential aspect of learning English as a second language. These tools serve as a vital link in bridging language barriers by providing instant translations of text, phrases, and even conversations. Google Translate is a prime example of this, using machine learning to ensure accurate translations across various languages. By utilizing AI translation apps, language learners can easily grasp the meaning of unfamiliar words and expressions, thus enhancing their vocabulary and comprehension skills. In addition to translation services, AI apps also offer features like audio pronunciations and contextual examples to help learners understand how words are used in different contexts. This immersive approach can greatly assist in improving pronunciation and capturing the nuances of the English language. With the continuous advancements in AI technology, these apps now offer real-time translations that enable seamless interaction with English content (Dodds, 2: 2023). For example, Duolingo, one of the most popular AI language learning application globally, offers an enjoyable way to acquire new languages (see figure 2). Through short and engaging lessons, learners can accumulate points; progress through different stages; and develop practical communication abilities.



Figure 2. Duolingo Platform for Language Learning with AI (Portakal, 7: 2023)

Furthermore, these tools contribute to making the process of learning English more interactive and engaging. By allowing users to translate text instantly, AI translation apps facilitate smoother communication between individuals who speak different languages. This not only enhances language proficiency but also encourages cultural exchange and mutual understanding. AI-powered language translation apps have transformed the landscape of learning English as a second language. They provide a convenient and efficient way to overcome linguistic barriers and enhance one's language skills. As technology continues to progress, these tools are poised to play an even greater role in facilitating language learning experiences for users worldwide (Diaz, 6: 2024).



Figure 3. Mondly App for Language Learning with AI (Portakal, 9: 2023)

Mondly is a language-learning platform that offers both a website and various apps. It uses a unique and fun method to assist individuals in mastering foreign languages. The primary goal of Mondly is to boost learners' ability to communicate in a new language with assurance.

1.3.2 Pronunciation Guides

Improving pronunciation in language learning is crucial, especially when tackling English as a second language. With the evolution of AI technology, pronunciation guides have become more

advanced and efficient in aiding learners with their pronunciation and intonation. These AI tools make use of speech recognition technology to analyze learners' speech and provide immediate feedback on their pronunciation. By pinpointing areas for improvement and suggesting ways to rectify pronunciation mistakes, these tools help learners refine their speaking skills gradually (Wei, 17: 2023). A major advantage of using AI-driven pronunciation guides is the tailored learning experience they offer. Learners can practice pronouncing words and phrases at their own speed, depending on their proficiency level and goals. These tools can also create customized lessons to address specific pronunciation difficulties that individual learners may encounter. Furthermore, AI pronunciation guides grant access to resources that explain the correct placement of lips and tongue when articulating certain sounds in English. This visual guidance can be invaluable in enhancing overall pronunciation accuracy (Dodds, 6: 2023).

Moreover, AI pronunciation guides enable learners to receive instant feedback on their pronunciation, allowing them to make prompt corrections and adjustments as necessary. This real-time feedback mechanism boosts the effectiveness of language practice sessions and speeds up the learning process. By providing audio pronunciations at varying speeds, these tools assist learners in developing a more natural and fluent speaking style in English (Rabadi and Rabadi, 884: 2020). Therefore, AI-driven pronunciation guides play a crucial role in helping learners enhance their English pronunciation skills effectively. Through personalized learning experiences, real-time feedback mechanisms, and access to valuable resources, these tools provide essential support in mastering the subtleties of English pronunciation. As technology progresses, the integration of AI in language learning will further elevate the quality of education for English language learners.

1.3.3 Conversation Simulators

Interactive conversation platforms are an essential element of AI tools designed for learning English as a second language. These platforms give learners the chance to participate in lifelike conversations within a virtual setting, allowing them to hone their language abilities in a secure and controlled environment. Through engagement with AI-driven conversation platforms, learners can enhance their speaking and listening skills, expand their vocabulary, and build confidence in using English in practical contexts (Wei, 18: 2023). One illustration of an AI tool that offers interactive conversations is Andy, which delivers daily grammar lessons, vocabulary exercises, and error corrections during dialogues. This user-friendly platform enables learners to partake in discussions covering various subjects, aiding in the development of fluency and proficiency in English. Moreover, Andy's capability to replicate real-world dialogues facilitates natural and authentic speaking practice (Smith, 3: 2023). Memrise, for example, is particularly beneficial due to its casual method of teaching languages (see figure 4), in addition to its capacity to customize lessons for individuals who speak different native languages. Memrise progresses from fundamental everyday exchanges, such as self-introductions to advanced conversational techniques.

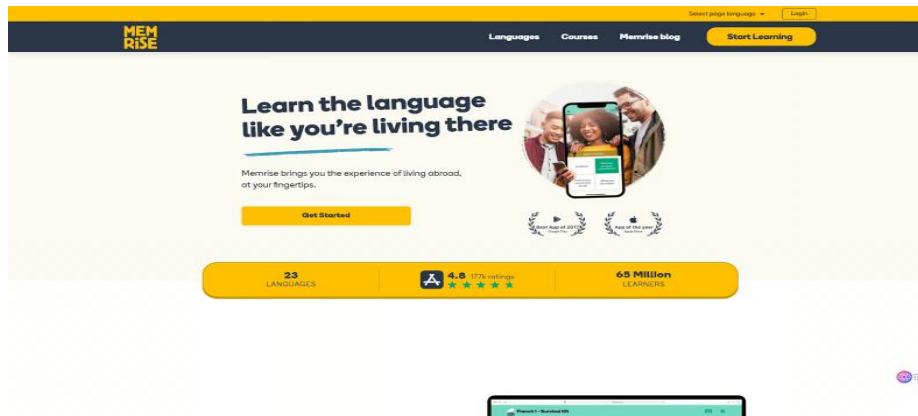


Figure 4. Memrise Platform for Language Learning with AI (Portakal, 10: 2023)

Furthermore, the incorporation of interactive conversation platforms into language learning applications such as Duolingo and Memrise enriches the overall learning experience by providing personalized feedback and assistance. These AI-driven platforms establish a dynamic space where learners can engage with virtual tutors or chatbots to enhance their conversational abilities effectively. The immediate feedback offered by these platforms assists in pinpointing areas for improvement and promotes continuous learning (Nykon, 10: 2023). Figure 5 below indicates the role of Andy application in enabling learners to engage in conversational English practice to enhance their speaking and listening skills. This application replicates authentic dialogues with native speakers, supporting students in refining their pronunciation, language structure, and vocabulary.

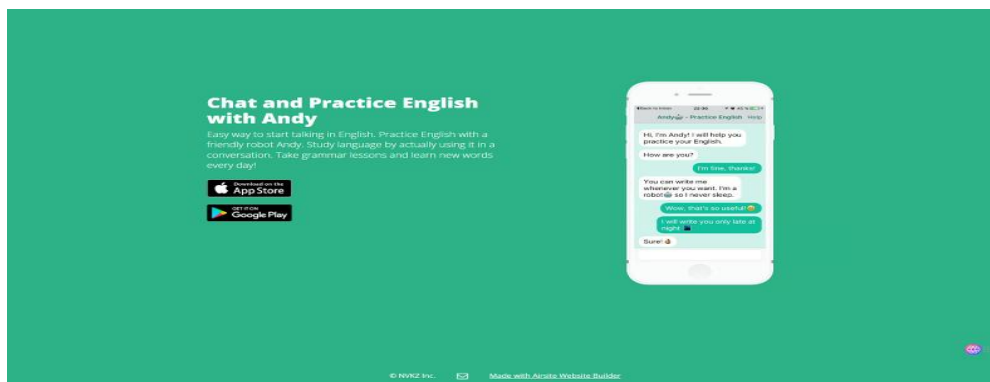


Figure 5. Andy AI Chatbot for Learning English (Portakal, 11: 2023)

In other words, interactive conversation platforms are instrumental in advancing English language fluency for individuals learning it as a FL. By offering realistic conversational practice opportunities, these AI tools contribute significantly to the cultivation of communication skills and fluency. As technology progresses further, the integration of more advanced interactive conversation platforms into language learning applications will continue to transform how individuals acquire proficiency in the English language.

1.4 Studies on The Effectiveness of AI in Language Learning

Various studies have demonstrated the significance of AI-driven tools in providing functions that help students enhance their English vocabulary, grammar, and communication abilities. AI is

becoming more common in EFL settings to enhance language learning by making it more interesting, effective, and available.

1.4.1 Success Stories, Challenges Faced, and Solutions Implemented

Numerous research studies have highlighted the revolutionary impact of AI-supported language learning tools on the proficiency and involvement of English language learners. For example, El Shazly's (2021) study participants experienced substantial enhancements in their speaking abilities when using AI-driven language learning applications. The interactive feature of the AI platform not only improved their speaking skills but also increased their confidence in participating in speaking tasks. Similarly, Junaidi (2020) discovered that learners who utilized AI-supported tools surpassed their peers in speaking proficiency, indicating the effectiveness of such technologies in enhancing language skills (Portakal, 10: 2023).

Besides, participants in Schmidt-Fajlik's (2023) research emphasized the efficacy of ChatGPT in enhancing English grammar skills compared to other AI tools like Grammarly and ProWritingAid. The personalized feedback and guidance from ChatGPT resulted in significant improvements in learners' grammar proficiency, demonstrating the potential of AI for customized language learning experiences. Moreover, qualitative insights from participants indicated that AI-mediated instruction promoted intrinsic motivation and active engagement with the English language. Students showed a genuine interest in expanding and refining their language skills beyond academic requirements, suggesting a shift towards independent and self-directed learning behaviors. The positive learning atmosphere established by AI platforms also played a vital role in reducing anxiety and fear of making mistakes, empowering students to take risks and learn effectively from feedback (Wei, 12: 2023).

Hence, these success examples emphasize the substantial advantages of integrating AI into language learning practices, including enhanced proficiency and engagement, increased motivation, and the development of self-regulated learning strategies. By utilizing the capabilities of AI tools, educators can create dynamic and immersive learning experiences tailored to individual learner needs while fostering a supportive and inclusive learning environment.

Implementing AI for learning English as a FL comes with challenges such as the risk of students becoming too reliant on AI tools, hindering critical thinking skills. Continuous updates are needed to keep AI algorithms accurate and relevant as language evolves. Personalizing learning experiences with AI remains a challenge, along with ethical concerns about data privacy. Collaboration between educators and developers is key to designing AI tools that encourage active engagement and critical thinking. Ongoing research is crucial to enhance adaptive capabilities and create personalized learning paths tailored to individual needs. By promoting independence, addressing ethical concerns, and enhancing adaptive capabilities, educators can overcome obstacles and maximize the potential of AI tools in language learning (Ribeiro, 4: 2020).

1.5 Ethical Considerations in Using AI

In the field of AI technology, ethics concerns the utilization of technology by individuals to achieve objectives, as well as the functioning of technology systems concerning humanity. Ethics mainly focuses on interactions among humans and machines. It can also extend to interactions between machines that involve a human element, influence, or dimension.

1.5.1 Data Privacy Concerns

When it comes to utilizing AI for the purpose of learning English as a second language, a major issue that arises pertains to the safeguarding of data privacy. As AI tools gather and analyze extensive amounts of information to tailor the learning experience, there is a potential risk of compromising sensitive data. The utilization of machine learning algorithms to monitor and evaluate students' advancement may involve the storage of personal data like language proficiency levels, learning patterns, and even demographic details (Ro, 2: 2023). Moreover, the integration of AI in platforms for language learning raises concerns regarding the storage, sharing, and protection of this data. It is imperative to establish clear policies and guidelines to ensure that the privacy rights of learners are upheld. Without adequate safeguards in place, there is a possibility of unauthorized individuals accessing personal information or misusing gathered data (Wei, 13: 2023).

Furthermore, as AI technologies progress and become more sophisticated, there is apprehension regarding the ethical implications of employing these tools in educational environments. Matters such as bias in machine learning algorithms and the potential for discrimination based on language proficiency levels or cultural backgrounds must be addressed proactively (Huynh, 2: 2023). Therefore, while AI brings about numerous advantages for those learning English as a second language, including personalized learning experiences and immediate feedback, it is crucial to prioritize concerns related to data privacy. By implementing strong measures for data protection and ethical standards, educators can effectively leverage the capabilities of AI while safeguarding the privacy rights of learners.

1.5.2 Bias in Machine Learning Algorithm

AI tools have become increasingly prevalent in educational settings, particularly in the detection of cheating and plagiarism. However, concerns have been raised about the bias exhibited by machine learning algorithms, especially when it comes to non-native English writers. A recent study conducted by scholars from Stanford University revealed that these detectors often misclassify essays written by non-native students as AI-generated, highlighting a significant flaw in their reliability. While these detectors may perform well when assessing essays by native English speakers, such as U.S.-born eighth-graders, they struggle with essays from non-native speakers, particularly those taking standardized tests like TOEFL. This bias can have serious consequences for non-native English writers who may face unfair penalties or be misunderstood due to algorithmic limitations (Thompson, 4: 2023).

To address this issue, educators should be cautious about relying solely on these detectors in classrooms with a high proportion of non-native English speakers. Developers need to explore more advanced techniques beyond perplexity metrics and consider incorporating subtle hints into AI-generated content to prevent easy manipulation. Additionally, there is a pressing need for thorough evaluation and significant improvements to minimize biases and errors in these models. The ethical implications of using biased machine learning algorithms in language education cannot be ignored. It is essential to recognize the shortcomings of current technologies and strive towards creating more inclusive and accurate tools that cater to diverse linguistic backgrounds. By prioritizing transparency, fairness, and ongoing enhancements in AI-driven language learning systems, we can work towards fostering a more equitable educational environment for all learners (Myers, 6: 2023).

1.6 Future Trends in AI for Learning English

The integration of predictive analytics into AI technology for English language learning represents a significant breakthrough in personalized education. By analyzing data on learners'

skills, learning preferences, and progress, AI can anticipate future performance and customize educational experiences accordingly. This individualized approach enables students to learn at their own pace, receive tailored support, and engage in tasks that align with their strengths. Platforms like Duolingo, powered by AI, have transformed the student experience by offering adaptive exercises, quizzes, and realistic conversation simulations. These tools enable learners to practice dialogues, enhance their oral communication abilities, and effectively respond to real-world situations (Kreisa, 2: 2023).

The personalized learning paths generated by AI not only boost the effectiveness of language education but also empower students to take charge of their learning journey. By adapting to individual requirements and providing continuous feedback and assistance, AI fosters a more interactive and efficient learning environment. Students value the platform's acknowledgment of their unique strengths and weaknesses, which promotes independence and confidence in their language learning endeavors. The AI system guides learners through proficiency levels while accommodating their preferences and learning pace (Nykon, 7: 2023).

As technology advances further, the integration of predictive analytics into AI for English language learning holds great promise for enhancing educational outcomes. By utilizing data-driven insights to suggest relevant materials and modify learning paths in real-time, educators can establish more adaptable and personalized settings for students. This innovative approach not only improves the quality of language instruction but also boosts student engagement and motivation throughout the learning journey (Wei, 12: 2023).

By immersing learners in realistic scenarios, virtual reality (VR) enhances second-language pragmatics without fear of social repercussions. The integration of AI-driven tools like Andy English Bot or Mondly allows for personalized and adaptive learning experiences through lifelike conversation simulations and real-time feedback. As VR progresses, the potential for customized learning paths based on individual strengths and weaknesses grows, amplifying language instruction efficacy (Kreisa, 8: 2023). This combination of VR and AI has the power to transform traditional language learning techniques, empowering learners to achieve fluency and proficiency in English.

1.7 Key Considerations when Utilizing AI

Machine translation technology in AI can act as a tool to support students in grasping and comprehending content in a different language. It offers precise translations, aiding students in understanding vocabulary and grammar effectively. While machine translation expedites communication across languages, there is a risk that students might excessively rely on it, hindering their authentic language usage. Some learners may opt for machine translation as a crutch for assignments or comprehension, neglecting the opportunity to develop language skills independently. This reliance could impede their language proficiency and limit their expression and creativity in using the language. While AI tools for grammar and spelling correction can be somewhat accurate, they are not a substitute for the invaluable input of educators. Relying solely on AI could distract students from acknowledging and addressing their own language errors. In essence, the use of AI technology may hinder students' language proficiency (Yang, 238: 2023). Despite its convenience, students must understand that AI is not a replacement for genuine language learning and hard work. It is essential for students to actively enhance their language abilities, nurture their capacity for independent learning and critical thinking, and avoid excessive dependence on AI tools.

AI technologies like virtual voice assistants and voice interaction systems offer valuable support for language practice but fall short in facilitating genuine interpersonal communication experiences. This limitation can result in students feeling less confident and adaptable in real-life communication scenarios. The growing presence of AI in education may cause some students to overly rely on automated interactions, reducing their willingness to engage with actual people. This preference for AI over human interaction could hinder their social development and ability to engage in meaningful conversations with peers and educators. Certain students may feel anxious about face-to-face communication, finding solace in conversing with non-judgmental machines instead. While AI technology offers a secure environment for academic and social growth, it might inadvertently lead students to shy away from genuine human interactions (Yang, 239: 2023). To address this challenge, educators should prioritize nurturing students' interpersonal communication skills and seamlessly blend them with AI tools. By striking this balance, teachers can create a learning atmosphere that optimally fosters the development of students' ability to communicate effectively both with technology and with their peers.

The implementation of AI technologies can pose potential privacy and security risks. For instance, utilizing AI may entail gathering and safeguarding students' personal information, such as educational histories, verbal assessments, exam results, and more. Inadequate protection of this data could result in breaches and the exposure of personal privacy. Unauthorized entities may access students' data, utilizing it for unauthorized purposes or commercial gains. For instance, educational data might be sold to marketing firms, potentially resulting in the inappropriate use of personal details.

Educators must strike a harmonious blend between traditional teaching methods and technological tools, engage students to foster their enthusiasm for learning, enhance their fundamental language skills, while harnessing the benefits of AI technology to offer customized and interactive learning opportunities. These effects and obstacles underscore the importance of judiciously incorporating AI technologies, with the essential support and oversight of teachers. The indispensable roles and expertise of teachers remain unparalleled, as they are tasked with imparting in-depth subject knowledge and guidance throughout the learning journey to promote the holistic advancement of students' English language proficiency. Presented below are some strategies for addressing these issues.

2. Methodology

In this study, the experimental type of research was adopted by the researcher to deliver oral lectures to third year students at Ghardaia University. The decision to target this specific group was deliberate, considering that these students already have extensive experience in traditional classrooms. This choice allowed the researcher to assess the effectiveness of AI tools in the EFL classroom, as well as the students' reactions to this new educational material. To gather data, a quantitative approach was employed. This involved administering a survey to 150 randomly selected students from the same academic level within the department. The survey aimed to investigate the students' levels of motivation in an AI-integrated classroom and identify any technical challenges they encounter when using these tools.

2.1 Research Design

For this investigation, the researcher took on the role of an instructor by randomly selecting a group of 36 students. The researcher conducted a speaking module using various free artificial intelligence (AI) applications and online resources as outlined in Table 1. The instructor introduced

specific discussion topics and utilized AI tools to help students acquire vocabulary related to these topics. Students were exposed to real-time conversations through AI applications. Furthermore, AI platforms for professional presentations were incorporated into the learning process. The students were required to mimic and engage in direct dialogues with virtual AI chatbots. Throughout each session, the researcher evaluated the students' progress in vocabulary acquisition, pronunciation, and communication skills. Additionally, the researcher observed the learners' psychological responses in the new AI oral environments, focusing on their perceptions and attitudes towards AI tools. The students' ability to handle technical challenges was also assessed by the researcher.

2.2 Participants and Research Instruments

A questionnaire was administered to 150 students enrolled in their third year at Ghardaia University. This survey aimed to assess the learners' perception of AI tools in the EFL classroom. The survey is divided into two parts: the initial segment collects demographic data, such as age and gender, while the second section consists of 20 questions assessing their familiarity with English AI tools and identifying their level of motivation towards different skills of English in the AI settings. In order to investigate the influence of AI tools on students' speaking abilities, the researcher conducted an experiment and analysis by observing the performance of students with AI materials during a semester. Data was collected through continuous observation during this period. The progress of the students' speaking level was evaluated in each session. The assessment specifically considered factors, such as anxiety levels, shyness, pronunciation errors, vocabulary development, and participation in group discussions related to the topics being raised.

2.3 Data Collection and Analysis

For teaching speaking, the instructor introduced various AI applications and platforms to the students in order to learn speaking. The table below summarizes them with brief explanations.

AI tools	Description
Rehearsal® Pro	A platform powered by artificial intelligence to practice and enhance presentation and public speaking abilities. Benefit from features, such as recording and evaluating practice sessions, receiving constructive feedback and guidance, monitoring advancements, and accessing an array of public speaking materials.
Ummo	A smart app using AI technology that enhances speaking skills by monitoring filler words and offering instant advice. Characteristics: identifying filler words, various practice options, recording conversations, and keeping track of improvement.
Lyrebird	This platform utilizes AI technology to transform written words into lifelike conversations. Characteristics: customizable options for voices, accents, and emotions in text-to-speech synthesis.
Prezi Video	This platform utilizes artificial intelligence to enable presenters to appear on the screen simultaneously during their presentations. Characteristics: incorporating video overlays, sharing

		screens, integrating content, capturing real-time reactions, and providing engagement analytics.
Cisco Meetings	Webex	This platform offers video meetings, sharing screens, and presenting content. Characteristics: premium video conferences, sharing your screen, using digital whiteboards, virtual backgrounds, recording sessions, managing participants.
Canva		A design platform offering an array of templates and resources for crafting diverse visual content, spanning from engaging LinkedIn posts to striking presentation slides. The no-cost edition of Canva features an extensive array of ready-to-use templates, graphics, fonts, and design components to assist in developing visually captivating and polished presentations. Moreover, their innovative introduction of "Magic" AI features results in swift outcomes across design, text creation, and image enhancement processes.
Mmhmm		Unlike simply sharing your entire screen, which disconnects you from your audience, Mmhmm transforms your setup into that of a charismatic host, placing your presentation above your shoulder for a dynamic effect. Mmhmm steals the spotlight every time you use it in a workshop; viewers are captivated by the unique features, and their curiosity about the app often outweighs questions about the content itself. Their no-cost version offers essential functionalities like virtual backgrounds and slide presentations, enabling users to elevate their video meetings and presentations with flair.
Ling		The application utilizes the spaced repetition technique to strengthen your understanding. It presents familiar vocabulary and grammar rules periodically to boost your memory retention over time. In essence, it functions effectively as a vocabulary coach. Engaging audio exercises voiced by native speakers and an advanced AI chatbot are compelling features that effectively maintain your interest and encourage further learning.

Table 1 AI Apps and Platforms Utilized in the EFL Speaking Classroom

The table demonstrates the different AI applications and platforms utilized by the researcher to teach speaking module.

Teacher's Role	Activities/ Students Performance	Results
Selecting appropriate AI	Following guidelines of using AI tools.	Absence of anxiety and shyness.

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apps/tools. • Introducing AI apps and platforms. • Training learners to utilize AI apps. • Suggesting topics. • Selecting appropriate AI PP presentations forms.	• Access to AI apps/platforms. • Listening and imitating Conversaions on AI tools. • Memorizing vocabulary related to the selectted topics. • Discussing the suggested topics in the light of training sessions via AI tools.	• More confidence. • Vocabulary enhancement. • Native-like pronunciation. • Increasing desire to communicate and perform. • Active class with AI tools integration.
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Table 2 Students Performance in AI Classroom

The table clarifies the activities done in the classroom with the integration of AI tools. The researcher selected topics of oral discussion and the appropriate AI apps and platforms useful for this case. The learners were also trained in utilizing AI technology. They depeneded on videos, recordings, and chatboots conversations to develop their vocabulary, pronunciation, and communication abilities.

Possibilities	N°	%
Yes	124	82.66%
No	26	17.33%
Total	150	100%

Table 3 Incorporating Artificial Intelligence Resources to Enhance English Language Proficiency

The table above demonstrates that the majority of the students (82.66%) used AI tools to learn English while only 17.33% of them depended on the traditional method.

Possibilities	N°	%
Highly useful	124	100%
Slightly useful	00	00%
unuseful	00	00%
Total	124	100%

Table 4 The Effectiveness of AI Tools in Advancing Learners' English Skills

All the learners believed that AI tools are highly effective for learning English.

Possibilities	N°	%
Speech capabilities	81	65.32%
Grammar explanations	21	16.93%

Vocabulary tasks	78	62.90%
Reading tasks	6	4.83%
Total	124	100%

Table 5 Features Prioritized when Selecting an AI Tool

When asked about the features prioritized when selecting AI tools, 65.32% and 62.90% of them used these tools for enhancing their speaking abilities and vocabulary building respectively. Only 16.93% of the informants focused on grammar while 4.83% of them use AI resources for reading comprehension.

Possibilities	N°	%
Yes	124	100%
No	00	00%
Total	124	100%

Table 6 Benefits of AI Tools in Enhancing Pronunciation Skills

All the learners strongly believed that AI tools help them enhance their pronunciation competence.

Possibilities	N°	%
Yes	124	100%
No	00	00%
Total	124	100%

Table 7 AI Tools for Broadening Learners' Vocabulary

All the students acknowledged that AI tools were useful for acquiring vocabulary.

Possibilities	N°	%
Technical difficulties	78	62.90%
Grammar explanations	00	00%
Limited human interaction	00	00%
Ineffectual content	00	00%
Restricted access to resources	63	50.80%
Total	124	100%

Table 8 Obstacles Faced while Using AI Tools to Study English

When using AI tools to study English, 62.90% and 50.80% of the learners faced technical difficulties and restricted access to resources respectively.

Possibilities	N°	%
Yes	87	58%
No	63	42%

Total	150	100%
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Table 9 AI Tools Substituting Traditional Language Instructors

58% of the informants believed that AI tools could substitute instructors in the traditional classroom.

2.4 Discussion

Prior to introducing topics for spoken discussions, the researcher prepared the students for utilizing various AI applications and platforms. Careful consideration was given to selecting suitable tools based on the students' level, age, and requirements. However, the time dedicated to training with AI tools required additional hours alongside the oral sessions. Consequently, at the initial sessions, students experienced apprehension due to technical challenges. Following the training on AI tool usage, students benefited from the apps and platforms chosen by the teacher to enhance vocabulary, pronunciation, and communication skills. Direct interaction with machines rather than the teacher as a human helped reduce students' shyness and anxiety. Although AI tools proved beneficial in improving EFL learners' speaking skills, educators must be mindful of learners being engrossed in AI interfaces instead of focusing solely on the English language. AI chatbots were also valuable as they provided a stimulus/response learning environment, fostering word retention and native accent acquisition through imitation. Results from student surveys indicated that the majority of students were familiar with AI tools, necessitating teachers to keep abreast of technological advancements to select appropriate teaching materials and online resources suitable for the current tech-savvy generation. Most students utilized AI tools to enhance speech recognition capabilities and expand vocabulary knowledge. However, they expressed challenges related to technical issues that hindered access to resources. Therefore, collaboration between Algerian universities, curriculum designers, and computer science departments is necessary in effectively training learners in proficient AI tool usage. However, emphasizing the primary concern, many students had come to think that artificial intelligence tools have the potential to substitute teachers in conventional classrooms. Therefore, the incorporation of AI tools must be carried out thoughtfully and methodically to ensure a seamless integration.

Conclusion

The emergence of AI in language education has completely transformed the process of learning English as a second language. By tailoring content, offering immediate feedback, and adjusting to individual requirements, AI tools have enriched the educational journey for both students and teachers. From language translation applications to pronunciation aids and conversational simulators, AI provides a diverse array of resources catering to various aspects of language teaching/learning (Wei, 11: 2023). Success stories from case studies have demonstrated how AI has significantly boosted speaking abilities and overall language competency among learners. The multifaceted impact of AI-supported language learning tools on different language skills underscores their potential to enhance vocabulary retention, grammar mastery, writing proficiency, reading enjoyment, speaking fluency, as well as motivation and engagement.

AI not only serves as a tool for learning languages but also fosters intrinsic motivation, encourages self-regulated learning, and cultivates a positive learning atmosphere. The interactive and personalized learning space established by AI empowers learners, reduces stress, and encourages consistent language practice outside traditional classroom settings. Moving forward, the incorporation of virtual reality technology and predictive analytics has the potential to further

enrich customized learning paths. Nevertheless, ethical considerations like data privacy issues and bias in machine learning algorithms need to be carefully managed when utilizing AI for language education. Despite these challenges, the future prospects of AI in language education are quite promising. By leveraging advanced AI technologies such as GPT-4 from OpenAI or TalkPal AI Chat for more robust learning experiences, educators can provide highly personalized lessons that cater to the diverse needs of learners (Nykon, 9: 2023). Thus, the significance of AI in language education cannot be emphasized enough. As technology advances, it is imperative for educators to embrace AI tools that boost student engagement, enhance learning outcomes, and pave the way for a more efficient and effective approach to acquiring English as a second language.

The utilization of Artificial Intelligence (AI) in the realm of learning English as a second language presents a wealth of opportunities for the future of language education. Various research studies have highlighted how AI-driven instruction can elevate English language learning accomplishments, motivation for acquiring a second language, and self-regulated learning practices among EFL students. The customized learning encounters facilitated by AI tools have proven to be successful in captivating students and enhancing their language proficiencies in diverse areas like grammar, vocabulary, reading comprehension, and writing abilities (Wei, 12: 2023).

Looking ahead, the fusion of AI with virtual reality technology opens up an exciting pathway for enhancing language learning experiences even further. By immersing students in interactive environments, they are able to engage more deeply with the language and hone their skills in realistic settings. Furthermore, the integration of predictive analytics can assist in tailoring personalized learning journeys for individuals based on their unique strengths and weaknesses, thereby optimizing the learning process and maximizing outcomes (Viktorivna, 270: 2022).

Nevertheless, it is imperative to take into account ethical considerations when integrating AI into language education practices. Addressing data privacy issues is essential to safeguard students' personal information from potential misuse or unauthorized access. Additionally, measures should be implemented to mitigate bias in machine learning algorithms to ensure fair and equitable opportunities for all learners. Therefore, the future outlook for AI in English language learning is promising, with substantial potential for transforming traditional teaching methods and enhancing student achievements. By responsibly harnessing advancements in technology and upholding ethical standards, educators can leverage the capabilities of AI to create dynamic and immersive learning experiences that benefit students on a global scale.

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Appendix

Students' Questionnaire

This survey aims to investigate the effectiveness of Artificial Intelligence (AI) tools in enhancing EFL learning skills. Kindly review each question attentively and select the answer that best fits. Your sincere and considerate responses will greatly support our research efforts. We appreciate your cooperation.

Section 1

1. Gender: Male Female
2. Age: ...

Section 2

1. Do you incorporate Artificial Intelligence to enhance your English language proficiency?
 - Yes
 - No
2. How do you assess the efficiency of AI resources in advancing your English competence?
 - Highly useful
 - Slightly useful
 - unuseful
3. What AI resources do you utilize for studying English?
 - Online platforms
 - Applications for mobile devices
 - Language chatbots for learning
 - Games
4. What key elements do you prioritize when selecting an AI resources for English learning? (
 - Speech capabilities
 - Grammar explanations
 - Vocabulary building tasks
 - Reading tasks
5. How frequently do you engage with AI resources?
 - Daily
 - Weekly
 - Infrequently
6. Do you perceive AI and web tools as more captivating than conventional language learning approaches?
 - Yes
 - No

7. What obstacles do you face while using AI apps and platforms?
 - Technical difficulties
 - Limited human interaction
 - Ineffectual content
 - Restricted access to resources
8. Do you encourage the use of AI and online resources for English learning for others?
 - Yes
 - No
9. How do you typically consider spoken English? (Select all that apply)
 - Participating in conversational language exchanges
 - Engaging with native English speakers
 - Communicating with online language exchange partners
 - Utilizing language learning chatbots for practice
10. Do you think AI tools have the potential to substitute instructors in the traditional classroom?
 - Yes
 - No
11. Are you content with the development you have achieved in learning English through AI tools?
 - Yes
 - No
12. How do you primarily utilize AI resources?
 - Gaps in quizzes and tasks
 - Subtitled videos
 - Reading discourses samples
 - Chatbots conversations
13. Do you think that AI resources are in enhancing your pronunciation?
 - Yes
 - No
14. Do you thik that AI resources are useful for your vocabulary broadening?
 - Yes
 - No
15. Do you find AI and online tools valuable for improving your writing competences?
 - Yes
 - No
16. Do you find AI and online apps effective in enhancing your listening skills?
 - Yes
 - No
17. What is your preferred AI or online resources for acquiring English?
.....
18. To what extent do you feel satisfied of your English abilities?
satisfied
unsatisfied
19. What positive points do you perceive when integrating AI resources?
.....

20. What drawbacks do you identify when integrating AI resources?

.....