Investigating Algerian EFL Teachers' Attitudes Towards AI Utilization in Language Education

Bochra BENAICHA[1], Abdellatif SEMMOUD[2]

[1] ESP T Laboratory, Department of English, Faculty of Foreign Languages, University of Tlemcen, Algeria

[2] ESP T Laboratory, Department of English, Faculty of Foreign Languages, University of Tlemcen, Algeria

Abstract

Artificial Intelligence is changing the landscape of education significantly, and therefore, language teaching and learning. Its incorporation in the latter is manifested through the use of various artificial intelligence-based platforms, applications, and chatbots such as Chatgpt. These tools and artificial intelligence-based platforms are not used solely for teaching and learning but for teachers' training and enhancing professional development, including Edthena, Cogni, TeachMate AI, Teach Boost, and Classcraft. Relatively, the use of these AI tools offers multiple features such as speech recognition, image, media, and content production, creating personalised learning opportunities, facilitating communication, and saving time and energy. Accordingly, teachers' attitudes toward the use of artificial intelligence tools in language teaching and learning vary due to various reasons. Therefore, this paper seeks to explore teachers' attitudes towards the use of artificial intelligence tools in language teaching and learning. Furthermore, it aims to highlight the impact of using artificial intelligence on language teaching and learning. The research follows a quantitative methodology through the use of an online semi-structured questionnaire for data collection, consisting of open-ended and close-ended questions. The latter was distributed to 200 Algerian EFL teachers. The results reveal that teachers have a positive attitude toward the use of artificial intelligence. However, teachers point out the possible issues that may arise from the use of AI in education, such as the change in teachers' roles.

Keywords: Algerian EFL teachers, Artificial intelligence, attitudes, education, English language learning

ملخص

لقد أحدث الذكاء الاصطناعي تغييرا كبيرا في مجال التعليم، وخاصة تعليم وتعلم اللغة هذا من خلال استخدام مختلف المنصات القائمة على الذكاء الاصطناعي، والتطبيقات، وروبوتات الدردشة مثلChatgptو غيرها من الأدوات القائمة على الذكاء الاصطناعي التي تستخدم أيضًا لتكوين الأساتذة وتعزيز التطوير المهني مثل منصاتEdthena، وCogni، وTeachMate AI، وTeach Boost، وClasscraft نظرا لميزاتها المتعددة مثل إنتاج الصور ووسائل الإعلام والمحتوى، وخلق فرص التعلم الشخصي، وتسهيل الاتصال، وتوفير الوقت والجهد. وبناءً على ذلك، فإن مواقف الأساتذة اتجاه استخدام أدوات الذكاء الاصطناعي في تعليم وتعلم اللغة تختلف لعدة أسباب. لذلك، يسعى هذا البحث إلى استكشاف ميول الأساتذة لاستخدام أدوات الذكاء الاصطناعي في تعليم وتعلم اللغة. وبالإضافة إلى ذلك، يهدف هذا البحث إلى تسليط الضوء على تأثير استخدام الذكاء الاصطناعي على تعليم وتعلم اللغة. يتبع البحث منهجية كمية من خلال توزيع الاستبيان على 200 أستاذ جامعي تخصص لغة إنجليزية. تكشف النتائج أن الأساتذة لديهم موقف إيجابي اتجاه استخدام الذكاء الاصطناعي. ومع ذلك، يشير الأساتذة إلى المشاكل المحتملة التي قد تنشأ من استخدام الذكاء الاصطناعي و المتمثلة في تغير دور الأستاذ.

الكلمات المفتاحية :أساتذة اللغة الإنجليزية كلغة أجنبية ,الذكاء الاصطناعي, الميول ,التعليم, تعلم اللغة الانجليزية.

Introduction

The integration of Artificial Intelligence (AI) tools into language teaching and learning has been increasing at unprecedented rates in recent years. In the field of EFL instruction, the use of AI tools offers several advantages and opportunities that can revolutionise EFL instruction. Yet, it may present complexities and challenges for teachers willing to enhance their teaching practices and boost students' learning outcomes. Relatively, the integration of AI in language education can reshape traditional pedagogical approaches and instructional strategies. It can assist teachers leverage personalised learning experiences, maximise teaching efficiency, and foster learners' autonomy, engagement, and motivation.

Despite the existence of prior research highlighting teachers' attitudes towards AI tools in language teaching on a global scale, a remarkable gap can be noticed regarding the exploration of Algerian EFL teachers' experiences and attitudes toward AI use in language instruction; the existing research works and studies conducted by Algerian scholars focused either on EFL students' attitudes toward implementing AI in language learning (Guemide & Sahraoui, 2023) or on teachers' perceptions and perspectives rather than teachers' attitudes (Belferd, 2023; Djeghoubbi & Abidi Saad, 2024). It is worth noting the significant difference between "perspectives" and "attitudes". Perspectives usually reflect teachers' views and opinions toward AI and LTL while attitudes refer to teachers' beliefs, feelings, and predispositions toward the use of AI in LTL. Hence, this study provides valuable insights into the contribution of AI to LTL. Furthermore, this research seeks to explore Algerian EFL teachers' usage patterns and attitudes towards the utilisation of AI in LTL which can influence their willingness to integrate AI into their teaching practices. The study aims to provide a comprehensive understanding of the influence of AI on LTL and its role in reshaping EFL instruction within the Algerian context. To achieve these objectives, two research questions are put forward:

1. What are Algerian EFL teachers' attitudes towards using AI in language teaching and learning?
2. How can the use of AI influence language teaching and learning?

Based on the existing literature review and theoretical frameworks informing this study, the following research hypotheses are formulated:

1. Algerian EFL teachers may have positive attitudes towards the use of AI in LTL.
2. The use of AI can enhance language teaching and learning and boost pedagogical efficacy.

Literature Review

Artificial Intelligence Defined

Before diving into the intricacies of AI integration in education, it is crucial to establish a clear understanding of the concept of Artificial Intelligence (AI). Researchers and scholars have put forward various definitions of AI. AI can be defined as the ability of devices and systems to learn and think like human beings; the latter implies replication of human-like cognitive functions (Wang, 2019; Qoura & Elmansi, 2023). Moreover, AI can also be perceived as a set of technologies that allow machines and devices to act with human-like intelligence and make rational, flexible decisions (Tredinnick, 2017; Benhamou & Janin, 2018).

According to Quora and Elmansi (2023), AI definitions can be viewed from three different angles based on scholars' definitions. One group of researchers defines AI as machines computers and systems that imitate human cognitive functions, including learning

and problem-solving (Collins et al., 2021; Russell & Norvig, 2010; Xu et al., 2021). Another group perceives AI as a set of specific computer skills (Baker & Smith, 2019; Da Silveira & Lopes, 2023). The other group of researchers consider AI to be a broad term used to refer to a science and set of computational technologies with the ability to learn and solve problems (Stone et al., 2016). Though the definitions differ in terms of classifying AI as systems, computer skills, or science, the three conceptions emphasise that AI is an imitation of human intelligence and cognitive functions. In short, AI is a simulation of human intelligence in machines and computer systems to enable them to perform tasks that require human cognitive functions, including learning, perception, reasoning, problem-solving, and decision-making.

The Integration of AI in Education and Language Teaching

The integration and application of AI in education, particularly in the field of language teaching, has become imperative for higher education institutions due to the rapid advances in AI technology. The latter represents a transformative paradigm and shift that can revolutionise traditional teaching and learning approaches. Accordingly, Pikhart (2020) asserted that the integration of AI in language teaching turns out to be a necessity to ensure sustainability and foster competitiveness on a global scale. Furthermore, the use of AI in language education contributes significantly to personalised flexible learning experiences; it also fosters a learner-centred approach and autonomy (Pokrivcakova, 2019). To illustrate, AI tools and systems such as virtual tutors, chatbots, and Intelligent Computer-Assisted Language Learning (ICALL) can enhance language teaching and learning through tailoring instruction, offering real-time feedback, and interactive language practices (Chan & Tsi, 2023; Guemide & Sahraoui, 2023).

In their turn, Baker and Smith (2019) categorised AI tools used in education into three main categories:

➢ *Learner-Facing AI Tools:* These are the tools and software used by students for learning purposes.
➢ *Teacher-Facing AI Tools:* These are the tools used by teachers to reduce workload and improve their instruction and output through the automatization of certain tasks, including assessment, feedback, and plagiarism detection.
➢ *System-Facing AI Tools:* These are used to provide information for administrators and stakeholders in the institution.

However, the use of AI in language teaching raises concerns regarding the roles of teachers and professors. In this vein, Popenici and Kerr (2017) argued that the swift pace of technological innovation necessitates a reevaluation of the mission and roles of teachers in higher education as the increasing use of AI prompts a serious debate about the future of teaching and learning, particularly in higher education. Despite the fear that AI may replace teachers, Quora and Elmansi (2023) maintained that human teachers possess irreplaceable qualities, including critical thinking, creativity, and emotional intelligence. These qualities cannot be replicated by AI, at least currently. They also emphasised the uniqueness of human interactions as an essential component of education and the development of socio-emotional competencies. Therefore, AI should be viewed as a complement rather than a substitute for human teachers who can use AI tools to enhance their instructional and teaching methods (Ji et al., 2023; Devasena, 2024; Bouras, 2024). Yet, the incorporation of AI in education and language teaching and learning requires examining and addressing certain issues, such as data protection, privacy, and ethical considerations.

Types of AI Tools

The application of AI in language teaching and learning can be manifested in several ways. Accordingly, various types of AI tools can be recognized depending on their features. The following are some typical examples of AI tools:

Language Learning Apps

AI language learning apps can be effective tools in language teaching and learning due to their features. AI apps like Duolingo, Babel, Rosetta Stone, and Memrise provide personalised language lessons and feedback in addition to adapting to learners' progress. These apps offer courses in different languages using various interactive exercises to improve listening, speaking, reading, and writing skills. Furthermore, AI language learning apps can increase accessibility, engagement, efficiency, and the effectiveness of language learning.

Chatbots and Virtual Tutors

Chatbots and virtual tutors are innovative ways that can be useful for developing language skills. Chatbots can simulate real-world conversations, enabling learners to practise language skills. In this vein, Liu (2023) listed several advantages of using chatbots and virtual tutors. These tools can provide personalised learning experiences and instant feedback on language skills besides grammar, pronunciation, and vocabulary usage. For instance, Grammarly is an AI-powered tool that can be used to check, edit, and correct grammar, spelling, and style errors. Chatgpt is another example of an AI tool that can provide learners with various options, including translations, definitions, explanations, and exercises to develop different language skills and competencies, especially writing and grammar. Furthermore, chatbots and virtual tutors can reduce the burden of teachers' one-on-one instruction due to their ability to manage a large number of learners simultaneously. Thus, it allows teachers to focus on more complex aspects of language teaching, such as cultural aspects, while chatbots and virtual tutors can handle and guide teachers in grammar and vocabulary tasks.

Pros and Cons of AI Integration in Language Teaching

The use of AI tools in language teaching and learning has attracted significant scholarly attention due to the opportunities it offers for teachers to enhance their teaching methodologies. Researchers highlighted various advantages of the use of AI in ELT that can mainly be classified into three major aspects:

Personalised Learning Experiences

AI tools enable the personalization of learning experiences in several ways. They use algorithms to track users' progress and adapt the learning materials according to their needs and learning styles (De la Vall & Araya, 2023; Gazaille et al., 2022). AI tools can tailor teaching contents and methodologies depending on the learning situations and learners' needs, characteristics, and styles of learning. Therefore, it leads to personalised education; it improves learning efficiency by providing accurate language content, materials, and exercises that will foster language skills (Kessler, 2018; Liu, 2023).

Efficiency and Speed

The use of AI tools allows both students and teachers to save time through task automatization (De la Vall & Araya, 2023). It can facilitate language assessment in different ways, such as plagiarism detection, providing automated grading, and objective, efficient, and personalized feedback through the analysis of students' assignments and tasks (Chen et al., 2020; Celik et al., 2022; Chan & Tsi, 2023; Guemide & Sahraoui, 2023). The latter will reduce

teachers' administrative burden, allowing them to focus on higher-order teaching tasks and responsibilities, including curriculum development and student mentoring (Gazaille et al., 2022; Tiwari, 2024).

Accessibility and Inclusivity

One of the advantages of AI tools, including platforms and apps, is their accessibility and 24/7 availability; such tools are available online and can be easily accessible using any device with an internet connection (De la Vall & Araya, 2023). Therefore, both learners and teachers can access these platforms at any time and any place. Furthermore, AI tools can ensure access to authentic materials such as real-life scenarios, videos, and podcasts that reflect real language usage in diverse contexts. Such exposure can introduce language learners to different cultural elements, which will develop their cultural awareness.

Despite the advantages and the opportunities that the use of AI tools offers, several challenges and drawbacks can be addressed. Some of these advantages can be categorised into three major categories:

Lack of Human Interaction and Emotional Intelligence

One of the major limitations of AI language teaching learning tools is the need for more human interaction and emotional intelligence (Khanzode & Sarode, 2020; De la Vall & Araya, 2023). In other words, most AI learning experiences are self-guided. They may hinder direct, human, real-life interaction, precisely teacher-learner interaction, as well as peer interactions, which are vital for the development of cultural insights and interpersonal communication skills (Chan & Tsi, 2023). Furthermore, the teaching-learning process involves empathy, emotional support, and motivation, which AI tools may not provide due to the lack of emotional intelligence, sensitivity, and self-awareness, resulting in mechanical emotionless responses (Gazaille et al., 2022; Felix, 2020; Pavlik, 2023; Chan & Tsi, 2023).

Technical Issues

Another challenge that teachers and learners may face is the technical issues or glitches that may hinder the teaching-learning process and, thus, learners' progress (Liu, 2023). Some AI tools may be incompatible with certain devices and operating systems besides poor connectivity. Such factors may limit access for both teachers and students, especially in rural areas.

Ethical Considerations

The use of AI tools in language teaching and learning may raise several ethical considerations. In this vein, De la Vall and Araya (2023) highlighted five major ethical considerations, including privacy, fairness and biases, accessibility, and transparency. First, it is crucial to ensure the privacy and the safety of both learners' and teachers' personal information. Second, it is important to ensure fairness and equity for all learners by considering and addressing bias issues that AI tools may amplify. Third, AI language teaching-learning tools cannot be accessible by all teachers and learners due to connectivity issues and net inaccessibility. Therefore, it is essential to consider all learners' needs and resources to ensure their accessibility to AI tools. Finally, both teachers and learners need to be informed about the functionality of AI tools and how they operate and use data that can achieve transparency (Zitouni, 2022).

Teachers' Attitudes and Beliefs of Artificial Intelligence as a Language Teaching Tool

An in-depth overview of the literature on university teachers' attitudes toward the use of AI tools in language education demonstrates a diversity of attitudes and perceptions governed

by teachers' beliefs, experiences, and exposure to AI technologies. Teachers' attitudes toward the use of AI tools in language teaching and learning can be classified into positive, negative, and neutral attitudes. Accordingly, several research works investigated university teachers' attitudes toward AI tools and their intentions to integrate them into their teaching practices (Wang et al., 2019; N. Kim & M. Kim, 2022; Kohnke et al., 2023; Ou et al., 2024). Thus, teachers can be set into categories and groups based on their beliefs and attitudes.

The first category is the enthusiastic adopters who are ready to incorporate AI technologies in their teaching practices; they perceive AI tools as transformative and valuable due to their advantages and merits. Pokrivcakova (2019) postulated that these teachers believe that AI-powered tools can improve language pedagogy by facilitating and speeding the process of lesson planning and preparation. Therefore, they actively embrace AI-based resources and platforms. Similarly, Wei (2023) advocated that some teachers demonstrate positive attitudes towards the use of AI tools in language teaching and learning due to their utility in empowering learners' autonomy and fostering their intrinsic motivation.

The second category encompasses curious and open-minded teachers. Despite their limited experience with AI tools, some teachers maintain an open, positive attitude toward integrating AI tools and technologies into their teaching practices (N. Kim & M. Kim, 2022). They are willing to explore AI technologies and attend workshops and training sessions to develop their AI literacy. Similarly, both teachers and learners should explore AI tools, encouraging critical thinking and ethical reflection about the use of AI tools in education.

Another category is those teachers who are sceptical about AI but they are willing to learn. These teachers are concerned about the potential depersonalization; they also doubt AI's ability to understand complex cultural and linguistic parameters. Therefore, they often resist the use of AI technologies in language teaching since they perceive them "as a threat to their role as educators" (Chan & Tsi, 2023, p.14). They are not fully convinced about the pedagogical value of AI tools.

Furthermore, various research works prove that AI tools can be viewed as " cognitive prostheses" or "auxiliary tools" that can assist teachers and learners. However, these tools cannot replace teacher-learner interactions and collaboration as well as human thoughts and values (Felix, 2020; Gazaille et al., 2022; N. Kim & M. Kim, 2022; Chan & Tsi, 2023). In other words, the teacher-learner relationship is crucial and essential to ensure the quality of training and educational experience.

Various factors may influence teachers' perceptions and attitudes toward AI technologies as language teaching tools. Among these factors are AI literacy, training and professional development, perceived utility and effectiveness, ease of use, job security threats, and ethical and privacy concerns (Kohnke et al., 2023). Teachers' comfort and familiarity with AI tools and their uses can significantly influence their attitudes towards AI tools. Teachers who are trained and literate about these tools are more likely to integrate AI into their teaching practices. Accordingly, teachers' training and professional development opportunities can boost teachers' confidence in using AI tools effectively, leading to positive attitudes, especially when teachers are aware of the pedagogical utility of these tools (N. Kim & M. Kim, 2022). Teachers are more likely to embrace AI tools when they see evidence of their effectiveness and utility.

Additionally, ease of use can be one of the major factors that may influence teachers' attitudes and adoption of AI tools. Teachers tend to use intuitive AI tools that require minimal effort (Zhang et al., 2023). However, job security threats may hinder the implementation and

adoption of AI tools. Some teachers are often concerned with the potential that AI tools may replace them, which may result in resistance and negative attitudes towards AI tools. Moreover, teachers are often worried about data privacy and security while using these AI tools.

Training and Professional Development for AI Implementation in Language Teaching

One of the major factors influencing teachers' perceptions of AI as a language teaching tool is AI literacy. The latter is defined as a set of skills and competencies required to comprehend AI fundamental principles and use AI tools effectively and ethically. It encompasses the ability to navigate and use AI tools and interprets the outcomes generated by AI tools (Ng et al., 2023; Casal-Otero et al., 2023). Furthermore, it involves critical thinking and awareness of the strengths and the limitations of different AI tools. AI literate teachers demonstrate positive perceptions of AI as a language teaching tool, unlike teachers with low AI literacy who may be sceptical about its utility.

The development of AI literacy is crucial, especially for teachers who want to implement AI in their teaching practices. The rapidly evolving educational landscape in the EdTech era and the demand for innovative teaching methods and approaches urge teachers to develop their AI literacy and to develop their understanding of AIED and AI applications in language instruction (N. Kim & M. Kim, 2022). Therefore, tailored training programs should be provided to both teachers and students to ensure an effective integration of AI tools in language teaching. These training programs should address issues such as effective and ethical use, equity, privacy, prompt engineering, and critical evaluation of AI outputs (Chan & Tsi, 2023).

Accordingly, many researchers and scholars reject the notion of a dichotomy between teachers and AI, emphasising adopting a collaborative approach to ensure mutual reinforcement (Jarrahi, 2018; Chan & Tsi, 2023).   In other words, AI can be a valuable ally for teachers through task automatization and personalised feedback. Conversely, teachers can provide the irreplaceable human touch manifested in emotional support, social interaction and contextualisation of learning experiences (Bouras, 2024).

As AI tools continue to develop and evolve, ensuring continuing professional development is crucial for teachers and instructors to cope with the unprecedented changes and the transformative impact of AI on conventional teaching methods. In this vein, Chan and Tsi (2023) argued that CPD will enable teachers "to stay ahead of advancements in AI and integrate technology effectively in their classrooms". In short, thanks to CPD, teachers will remain indispensable contributors to the language teaching and learning process.

As highlighted in the introduction, despite the extensive global research on AI in education, the attitudes of Algerian EFL teachers toward the integration of AI remain understudied. Some previous research works explored EFL students' experiences and attitudes toward the use of AI in language teaching and learning (Aliouche & Mezghich, 2022; Guemide & Sahraoui, 2023) while others emphasised teachers' perceptions and practices rather than teachers' attitudes (Belferd, 2023; Bouarroudj & Belhedri, 2024; Djeghoubbi & Abidi Saad, 2024). Therefore, this study is conducted to address this gap by examining Algerian EFL teachers' attitudes toward AI and its influence on language teaching and learning.

Methods and Materials

The researchers opted for a quantitative approach seeking to explore Algerian EFL teachers' attitudes toward the incorporation of AI in LTL. Data were gathered through an online questionnaire consisting of both close-ended and open-ended questions.

Participants

The sample consists of 200 Algerian EFL teachers at different universities including Abu Bekr Belkaid, Belhadj Bouchaib, and Abd Elhamid Ben Badis universities. The study was conducted during the academic year 2023/2024. A non-probability convenience sampling method was suitable for this research as the questionnaire was distributed online to teachers who were available, accessible, and willing to participate. The researchers chose this method of sampling due to its practicality, efficiency, and exploratory nature of research.

This sampling approach facilitates the accessibility to the participants; it also allows the researchers to gather a diverse range of responses from different Algerian universities. Additionally, it is a cost-effective method of sampling considering certain constraints of time, budget, and geographic dispersion of the participants. Several variables and practical considerations guided the selection of the sample to ensure participants' diversity and relevance. These variables include teaching experience, institutional affiliation, frequency of AI tools usage, and types of AI tools used.

Research Instruments

This case study is based on a quantitative model manifested through a semi-structured online questionnaire containing both close-ended and open-ended questions. The latter was developed using Google Forms; the link to the questionnaire was emailed to teachers of different universities. The choice of this research design was motivated by the aim of this study and the type of data needed for study and analysis.

The questionnaire comprises three sections, encompassing close-ended and open-ended questions. The primary aim of the questionnaire is to elicit insights about teachers' perceptions and attitudes towards AI use in language teaching and learning. The first section of the questionnaire gathers demographic data about the participants, including their institutions and years of teaching experience. The second section seeks to identify the AI tools employed by the teachers and the frequency of their usage. The third section explores teachers' attitudes towards AI use in language teaching and learning. Accordingly, a five-point Likert scale was used (5= strongly agree, 4= agree, 3= neutral, 2 = disagree, 1= agree). Additionally, two open-ended questions were inserted to gather qualitative data regarding the influence of AI on language teaching and learning and teachers' recommendations and suggestions for the effective utilisation of AI tools.

Research Procedures

The current investigation is conducted to explore EFL teachers' attitudes towards the use of AI in LTL. The research procedures can be broken into four major steps. Firstly, the researchers developed the online questionnaire based on an extensive literature review using Google Forms. Secondly, a pilot study was undertaken to check the validity of the research instrument and the questions' clarity. A sample consisting of 20 participants was involved in the pilot study.

Furthermore, the researchers adjusted and finalized the online questionnaire, considering respondents' feedback. Thirdly, the questionnaire was distributed online and emailed to Algerian EFL teachers from different universities. Lastly, the researcher initiates the stage of data analysis and discussion.

Concerning data analysis, descriptive statistical analysis using Statistical Package for the Social Sciences (SPSS) software was employed to analyse close-ended questions. This

analysis facilitated the examination of teachers' responses. In contrast, thematic analysis was used to analyse the responses to the open-ended questions. This thematic analysis provides a deeper understanding of teachers' viewpoints regarding AI integration in language education.

Results

The quantitative data from the questionnaire are analysed descriptively using Statistical Package for the Social Sciences (SPSS) software. The responses to open-ended questions in the third section of the questionnaire will be analysed thematically.

Part 1: Demographics

The first section of the questionnaire contains two questions about demographics. The first question shows the participants' universities; the second question indicates the participants' teaching experience. The participants were from twelve (12) different Algerian universities. The participants were from the following universities: BelhadjBouchaib University (14%), Abderrahmane Mira University (11%), Abu Bekr Belkaid University (10%), Oum El Bouaghi (10%), Hassiba Ben Bouali University (9%), Abd El Hamid Ben Badis University (8.5%), 08/05/1945 University (7.5%), Mentouri Brothers University (7%), Djilali Bounaama University (6.5%), Hamma Lakhder University (6%), Ahmed Draia University (5.5%), Kasdi Merbah University (5%).

As for teaching experience, 42 % of the respondents had between 0 to 5 years of experience. Other 33.5% of participants had between 6 to 10 years of experience. The experience from 11 to 15 years accounted for 14.5% of participants, while only 10% of the teachers had experience exceeding 15 years. The following table demonstrates the demographic information of the sample.

Table 1. *Sample demographics*

Sample Demographic Data		
Universities	Participants	Percentage
Abu BekrBelkaid University (Tlemcen)	20	10%
Belhadj BouchaibUniversity (Ain Temouchent	28	14%
DjilaliBounaama University (KhemisMeliana)	13	6.5%
Hassiba Ben Bouali University (Chlef)	18	9%
Oum El BouaghiUniversity (Oum El Bouaghi)	20	10%
HammaLakhder University (El Oued)	12	6%
Abderrahmane Mira University (Bejaia)	22	11%
Abd El Hamid Ben Badis University (Mostaganem)	17	8.5%
KasdiMerbah University (Ouargla)	10	5%
08/05/1945 University (Guelma)	15	7.5%
Mentouri Brothers University (Constantine)	14	7%
Ahmed Draia University (Adrar)	11	5.5%
Years of Experience	Participants	Percentage
0-5 years	84	42%

6-10 years	67	33.5%
11-15 years	29	14.5%
+15 years	20	10%

Part 2: AI Tools Used by EFL Teachers

In the second section, the participants were asked about their use of AI tools in their teaching practices. The first question identifies the frequency of AI tools' usage by the participants. A considerable majority of teachers (34%) admit that they sometimes use these AI tools. A significant portion of the participants (30.5%) usually incorporate AI tools into their teaching practices. 19% of the participants rarely use AI tools in their teaching practices. 10.5% of the respondents admit that they never used AI tools in their teaching. Only 6% of teachers said that they consistently use AI tools in their teaching practices.

The second question explores the AI tools used by EFL teachers; respondents were allowed to choose more than one answer and to add other choices. Based on the results of the questionnaire, Chatgpt (56%) and Grammarly (55.5%) are the widely used AI tools among teachers. In other words, teachers prefer using natural language processing and chatbots such as ChatGPT in addition to Grammarly due to their advantages. Chatgpt and Grammarly can assist teachers with various aspects of their teaching practices, answering questions, providing feedback and support, and enhancing grammar and writing, which can be vital for grading students' assignments and improving their writing skills.

Chatbots also have a considerable percentage of users (38%) followed by SlidesAI (35%). The latter can be used to design, create, and enhance visual aids and materials, such as presentations, which are frequently used in language teaching. Duolingo, with 25% of users, is another tool that is gaining popularity among teachers. Poe.com (17.5%) and Notion (14%) are examples of other AI tools used by teachers for, but not only, organising teaching content and planning lessons. Tools such as Twee.com (11.5%), Barely (4%), Gradescope (4%), Edmodo (4%), Century Tech (1.5%), and Knewton (1%) are used by a few teachers.

Furthermore, 5.5 % of the participants mentioned other AI tools that were not suggested in the questionnaire, such as Knowji, Quillbot, Bard, Bingo AI, Perplexity AI, Copilot, and Wordwall. These suggestions made by the participants demonstrate diversity in teachers' choice of AI tools. A remarkable portion of participants (9.5%) negated their use of AI tools. Thus, a considerable number of teachers still have not yet integrated AI tools into their teaching practices for various reasons. The table below details the AI tools used by the participants in their teaching practices.

Table 2.*AI tools used by EFL teachers*

AI Tools	Users	Percentage	AI Tools	Users	Percentage
Chatgpt	112	56%	Twee.com	23	11.5%
Grammarly	111	55.5%	Bearly	8	4%
Chatbots	76	38%	Gradescope	8	4%
SlidesAI	70	35%	Edmodo	8	4%
Duolingo	50	25%	Smart Sparrow	6	3%
Poe.com	38	17.5%	Century Tech	3	1.5%
Notion	28	14%	Knewton	2	1%
Other tools	11	5.5%	None	19	9.5%

In short, the table above illustrates the prevalence of AI tools in educational settings. Natural language processing, chatbots, and presentation tools are gaining popularity among teachers to enhance language teaching and learning. The diversity noticed in the tools used by teachers

reflects the diversity of teachers' needs and preferences and the flourishing of educational technology.

Part 3: Teachers' Attitudes

The third section seeks to discover EFL teachers' attitudes towards AI use in language teaching and learning. Accordingly, the first question in this section was a five-point Linkert scale (5= strongly agree, 4= agree, 3= neutral, 2 = disagree, 1= agree); it encompasses twelve (12) statements. The table below (table 3) indicates the descriptive statistics of teachers' attitudes toward the use of AI in language teaching and learning. Participants agreed with statements 1-6, with the mean varying between 3.67 and 4.08. Respondents agreed that they support and have a positive attitude toward the use of AI in language teaching and learning. Participants agreed that AI facilitates lesson planning, preparation (Mean=4.08), and delivery (Mean=3.96); it also enhances their assessment practices (Mean=3.75). Teachers demonstrate agreement with statement six (Mean= 3.67); they believe that AI tools may have drawbacks on academic integrity.

However, participants were neutral regarding the ethical concerns and the creativity issues that may be associated with the use of AI tools in language teaching. Teachers express neutrality with statement seven (Mean=3.04), which holds that using AI tools in language teaching may be considered unethical. Respondents were also neutral about statement eight (Mean=3.34), that AI tools may lower teachers' creativity. Furthermore, The mean of the last four statements reflects participants' agreement. Teachers agreed on the changes that AI tools brought in the traditional role of the teacher (mean 3.55); They acknowledged the transformative effect of AI on teachers' roles. The mean of statement ten (Mean= 3.72) and statement twelve (Mean= 3.86) reflect respondents' agreement with these two statements. Teachers are concerned with how AI tools may influence their teaching practices and students' learning. The last statement highlights the positive influence of AI tools on teaching effectiveness; the participants confirm that AI tools can enhance their teaching practices (Mean=3. 91).

Table 3. *Participants' Attitudes toward AI in LTL*

Statements	Mean
I support using AI tools in language teaching and learning	4.03
I have a positive attitude towards the use of AI tools in language teaching and learning	3.94
AI tools facilitate lesson planning and preparation	4.08
AI tools facilitate lesson delivery	3.96
Using AI tools enhances my assessment practices	3.75
Using AI tools may have drawbacks to academic integrity	3.67
Using AI tools in language teaching may be considered unethical	3.04
AI tools may lower teacher's creativity	3.34
Using AI tools changes the role of teachers	3.55
I am concerned with how AI tools may influence my teaching practices	3.72
I am concerned with how AI tools may influence my students' learning	3.86
Using AI tools enhances my teaching's effectiveness	3.91

In brief, the analysis of the statements mentioned in the table above indicates that there is general agreement and overall support for the use of AI tools in language teaching and learning. However, teachers also demonstrate some concerns and insecurities regarding the drawbacks of these tools in certain aspects, including academic integrity, teachers' creativity, and their roles.

In the third section of the questionnaire, two open-ended questions were added to collect teachers' views and beliefs regarding the influence of AI tools on language teaching and learning and their recommendations and suggestions for the effective use of AI tools. These two

questions were optional. Yet, the majority of the participants (64%) answered the first open-ended questions about the influence of AI tools on language teaching and learning. In contrast, only 40.5 % of the respondents offered their suggestions and recommendations for the effective use of AI tools in language teaching and learning. The qualitative data gathered from these two questions were analysed thematically.

The first open-ended question in this section explores teachers' perceptions about the influence of AI tools on language teaching and learning. Participants' responses can be categorised into the following themes:

Personalised and Customised Learning

Participants argue that AI tools can foster personalised learning through tailored content, feedback, and exercises. Students can learn anywhere and anytime at their own pace, and set their own goals, following customised personalised syllabus. Accordingly, AI can provide instant automated feedback to meet learners' specific needs. Furthermore, it can boost learners' autonomy, self-reliance, and regulation strategies. One of the participants maintains that AI tools allow "fostering personalised learning and autonomy by using these tools effectively according to the learner's needs". Similarly, these tools can help learners develop their learning styles and strategies, encouraging them to learn.

Efficiency and resource availability

AI tools revolutionise the process of language teaching and learning by broadening the horizon of choices for both teachers and learners to address any challenges and difficulties. The majority of the respondents perceive AI tools as useful tools that can enhance language teaching and learning efficiency. These tools can be a utilitarian resource for teachers; they can facilitate them in lesson planning, content preparation, information accessibility, assessment, and feedback. It helps teachers gain time and effort in lesson preparation. Moreover, it can provide plenty of teaching and learning resources, which can improve the teaching and learning of the four skills.

Enhancement of Engagement and Enjoyment

Based on the participants' responses, AI tools can make language teaching and learning an enjoyable, interactive, and dynamic experience, leading to high student engagement. One respondent highlights that " teaching will never be boring and the lessons will never be redundant" using AI tools. In other words, AI tools enable teachers to develop and design engaging and fun educational games and quizzes that tailor the lessons to students' interests. Furthermore, participants argue that the use of AI tools may boost students' motivation and interaction, which can ultimately improve the language learning experience.

Over-reliance and Creativity Issues

The majority of the participants addressed the over-reliance on AI tools, which may decrease teachers' and learners' creativity. Respondents argue that teachers' heavy dependence on AI tools will limit the opportunities for creative lesson design. In other words, the over-reliance on AI tools may result in both teachers' and learners' laziness. One of the participants maintained that with the use of AI tools, "learners will put their minds aside, and they will kill all possibilities to enjoy genuine learning experiences. They will become prisoners of others' ideas and will never develop their analytical or critical thinking abilities".

Furthermore, the AI-generated lesson plans may not be tailored to students' needs, teaching, and learning environment, which may have serious drawbacks to the teaching-learning process and students' progress. In the same vein, one of the respondents argued that

"Ready-made knowledge kills the mental ability of learners". In short, despite the utility and advantages of AI tools, they cannot be seen as an alternative to human creativity and guidance.

Loss of Human Interaction Concerns

Results of the questionnaire demonstrate that AI tools may have serious drawbacks to human interaction, leading to a reduction of human interactions and limitations in providing guidance and understanding context and nuances. Some respondents were worried about the loss of human touch and interaction in education; the robotic digital touch may dominate the educational landscape. One participant maintained that "AI lacks the human attitudes and feelings towards the receivers. It is not responsive to students' intake, participation, and reaction to the matter taught. AI does not have the required face-to-face interaction that characterises language teaching". In other words, AI lacks the affective filter, which is crucial in the language teaching-learning process; human instructors remain key stakeholders in guiding and motivating learners.

Ethical Considerations

Respondents raised some ethical concerns, including plagiarism and cheating; AI tools facilitate cheating and plagiarism. One participant illustrates that some students use AI tools "to get an answer for their assignments and tests without making any efforts. The proof for this statement is their catastrophic answers in exams where they had no access to AI". Furthermore, they highlighted the importance of ethics and the need for responsible use of AI tools in education in general and language teaching and learning in particular. AI users, especially students, should adhere to ethical guidelines to ensure effective and positive use and influence.

Balancing Human and AI Roles

Various participants acknowledged the importance and the need for balanced human and AI use; they perceived AI as a complementary teaching tool but not as an alternative to human instructors. Put differently, AI tools can assist teachers and learners in the process, but they cannot replace the human and affective aspects of teaching. Respondents who highlighted the balanced use recognized both the advantages and disadvantages of using AI tools in language teaching and learning. They emphasised that the outcomes of using AI tools are highly associated with how AI tools are used and integrated into language teaching and learning.

The last question in the questionnaire covers teachers' suggestions and recommendations for the effective use of AI tools in language teaching and learning. Based on the participant's responses, the following recommendations and suggestions can be offered:

➢ Both teachers and learners should be aware of the ethical and responsible use of AI tools. Therefore, they should be trained and equipped with techniques and strategies for the ethical use of AI tools.

➢ Teachers suggest raising students' awareness and responsibility for the effective use of AI tools; students should learn how to be critical thinkers rather than consumers of ready-made knowledge.

➢ Teachers emphasise the importance of the balanced use of AI tools and traditional teaching methods to avoid over-reliance on these tools.

➢ Respondents suggest training and workshops on how to use AI tools effectively; such training sessions can support and guide teachers to integrate AI tools successfully in their teaching practices, mitigating the possible drawbacks.

➢ Teachers argue that AI tools should be seen as supporting teaching materials and not as alternatives to human instructors; they emphasise the importance of

human interaction, affective filters and ethical guidance for learners.

Discussion

This research work aimed to explore Algerian EFL teachers' attitudes toward the use of AI and highlight its contribution to language teaching and learning. Accordingly, the findings reveal that Algerian EFL teachers demonstrate positive attitudes towards AI usage in LTL. The majority of the participants advocate for the use of AI tools, highlighting their advantages. Participants acknowledge the role of AI in enhancing lesson planning, preparation, delivery, and assessment. However, they raise concerns regarding academic integrity and the ethical implications of AI tools.

Furthermore, results indicate that the use of AI tools can revolutionise language teaching and learning by facilitating personalised learning experiences, increasing instructional efficiency and accessibility, and enhancing students' motivation and engagement. Yet, participants point out that excessive use of AI may lead to over-reliance, potential loss of human interaction, and ethical considerations such as plagiarism and cheating. Accordingly, respondents emphasise the need for a balanced human-AI approach, i.e., using AI as complementary teaching aids rather than being the main source of teaching and learning.

The findings of the research are compatible with the findings of earlier research conducted by N. Kim and M. Kim (2022) and Wei (2023), which demonstrate teachers' positive attitudes and optimistic views toward the use of AI tools in language teaching and learning. However, teachers also report concerns about the ethical implications of AI tools and their impact on academic integrity, which align with the results of previous research conducted by Kohnke et al. (2023).

Moreover, the thematic analysis of responses to the last questions illustrates teachers' awareness of the advantages of AI tools in language teaching and learning. However, they stressed the importance of responsible and ethical use, training and professional development, and balanced use of AI tools. This research explored Algerian EFL teachers' attitudes and use of AI tools in language teaching and learning. Similar to the results yielded by Wang et al. (2019) and Ou et al. (2024), the findings of this study indicate that natural language processing tools, including ChatGPT and Grammarly, are among the widely used AI tools by EFL teachers.

Conclusion

The utilisation of AI tools in language teaching and learning has witnessed rapid growth in recent years, offering opportunities and posing challenges in the field of EFL instruction. Despite the wealth of prior investigations exploring teachers' perceptions of AI tools in language teaching on a global scale, a notable gap persists in the examination of Algerian EFL teachers' experiences and attitudes toward the use of AI in language teaching and learning. Therefore, this research seeks to address this gap by exploring Algerian teachers' usage and attitude toward the integration of AI in LTL. The findings demonstrate that Algerian EFL teachers' positive attitudes towards AI usage in LTL. Regarding the influence of AI tools on language teaching and learning, these tools can assist teachers in lesson planning, delivery and assessment. Yet, the excessive and unethical use of these tools can raise academic integrity concerns and ethical implications.

Despite the valuable insights gained, this research has some limitations manifested in the use of a single data collection instrument and constraints related to sample size, which impede the generalizability of findings for all Algerian teachers. Recommendations for future research include enlarging the sample scope to include teachers, learners, and different

stakeholders using a mixed-methods research design. Furthermore, future investigations can explore the effectiveness of educational AI platforms and learners' experiences and perspectives of educational AI, as well as investigate the ethical considerations and academic integrity within the context of education AI.

About the Authors

Bochra BENAICHA is a PhD candidate specializing in didactics of English as a Foreign Language at Tlemcen University. Her research interests are in educational technologies and language assessment with a special focus on online language assessment literacy, and teachers' professional development. She also teaches in the Department of English at the University of Tlemcen. ORCID: Bochra Benaicha (0000-0001-7921-7680) - ORCID

Abdellatif SEMMOUD is a full-time professor at Tlemcen University. He had been teaching the English language for more than twenty years at the level of a secondary school before being recruited at the University of Tlemcen in 2008. His field of research is Teacher Education Development; the field which is currently viewed and valued as sine qua non to the continuous professional development of university teachers. Thereby, his academic research targeted two developmental models: The former, as a magister dissertation, for secondary level teachers, and the latter, a doctorate dissertation on Peer Observation as an exploratory task for Algerian university teachers.

Declaration of AI Refined

This research paper has undergone language correction using the AI-powered tools Grammarly and Scholar AI Chat to address grammatical, spelling, and stylistic errors. It is acknowledged that the use of such tools may introduce standardised patterns typical of AI-generated content. Consequently, a certain percentage of content may reflect AI-generated language structures. Yet, the intellectual content and the analysis remain entirely the work of the authors.

Statement of Absence of Conflict of Interest

The authors mentioned above hereby solemnly declare that they are not and shall not be in any situation that could give rise to a conflict of interest in what concerns the findings and recommendations contained in this academic article.

References

Aliouche, M., & Mezghich, D. (2022). *Meeting Students' Needs via Artificial Intelligence Case of Third-Year English Students at Barika University Center.* (Unpublished Master's thesis). Barika University Center, Algeria. DSpace at barika: Meeting Students' Needs via Artificial Intelligence Case of Third-Year English Students at Barika University Center (cu-barika.dz)

Baker, R. S., & Smith, S. (2019). *Educ-AI-tion rebooted? Exploring the future of artificial intelligence in schools and colleges*. https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf

Belferd, C. F. (2023). *An Examination of Algerian Universities EFL Teachers' Attitudes towards the Use of ChatGPT in Civilization Teaching,* (Unpublished Master's thesis). University of Laghouat, Algeria. http://dspace.lagh-univ.dz/items/b3d6c60e-9dc2-4bb5-af4a-e23ba6f1a89a

Benhamou, S., Janin, L., Bocognano, A., Charrié, J., & Thibault, G. (2018). *Intelligence artificielle et travail* 〔 Artificial intelligence and work 〕. Paris: France Stratégie.

Bouarroudj, A., & Belhedri, O.(2024). *Implementing Artificial Intelligence in Teaching English, Teachers" Perceptions and Practices,* (Unpublished Master's thesis). University Center of Abdalhafid Boussouf, Algeria. Implementing Artificial Intelligence in Teaching English, Teachers perceptions and practices.pdf (centre-univ-mila.dz)

Bouras, S. (2024). AI and the bad teacher dilemma. *Journal of Science and Knowledge Horizons*, *4*(1), 39-57. AI and the bad teacher dilemma | Journal of Science and Knowledge Horizons (ajol.info)

Casal-Otero, L., Catala, A., Fernández-Morante, C., Taboada, M., Cebreiro, B., & Barro, S. (2023). AI literacy in K-12: a systematic literature review. *International Journal of STEM Education*, *10*(1), 29-46 https://doi.org/10.1186/s40594-023-00418-7

Celik, I., Dindar, M., Muukkonen, H., &Järvelä, S. (2022). The promises and challenges of artificial intelligence for teachers: A systematic review of research. *Tech Trends*, *66*(4), 616-630.https://doi.org/10.1007/s11528-022-00715-y

Chan, C. K. Y., &Tsi, L. H. (2023). The AI Revolution in Education: Will AI Replace or Assist Teachers in Higher Education?*arXiv preprint arXiv:2305.01185*.https://doi.org/10.48550/arXiv.2305.01185

Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *Ieee Access*, *8*, 75264-75278.https://doi.org/10.1109/ACCESS.2020.2988510

Collins, C., Dennehy, D., Conboy, K., &Mikalef, P. (2021). Artificial intelligence in information systems research: A systematic literature review and research agenda. *International Journal of Information Management*, *60*, 102383.https://doi.org/10.1016/j.ijinfomgt.2021.102383

Da Silveira, T. B. N., & Lopes, H. S. (2023). Intelligence across humans and machines: a joint perspective. *Frontiers in Psychology*, *14*, 1209761.https://doi.org/10.3389/fpsyg.2023.1209761

De la Vall, R. R. F., & Araya, F. G. (2023). Exploring the benefits and challenges of AI-language learning tools. *International Journal Social Sciences Humanities Invent*ion *10*, 7569-7576.https://doi.org/10.18535/ijsshi/v10i01.02

Devasena, R. (2024). Artificial intelligence in education: An alternative to traditional learning. *Journal of English Language Teaching, 66*(1), 13–21. Artificial Intelligence in Education: An Alternative to Traditional Learning | Journal of English Language Teaching (eltai.in)

Djeghoubbi, A., & Abidi Saad, E. (2024). *A Study on Algerian EFL University Teachers' and Learners' Awareness, Use, and Perceptions of Large Language Models in Developing the Writing Skill,* (Unpublished Master's thesis). Kasdi Merbah Ouargla University, Algeria. A-Study-on-Algerian-EFL-University-Teachers-and-Learners-Awareness-Use-and-Perceptions-of-Large-Language-Models-in-Developing-the-Writing-Skill.pdf (researchgate.net)

Felix, C. V. (2020). The Role of the Teacher and AI in Education. In E. Sengupta, P. Blessinger & M.Makhanya (Eds.), *International Perspectives on the Role of Technology in Humanizing Higher Education* (Vol. 33, pp. 33–48). Emerald Publishing Limited. https://doi.org/10.1108/S2055-364120200000033003

Gazaille, M., Léon-Henri, D., Nolin, A. L., & Perrault, N. G. (2022, December). Artificial Intelligence: The Views of Tertiary-Level Foreign Language Learners. In *2022 International Conference on International Studies in Social Sciences and Humanities (CISOC 2022)* (pp. 338-348). Atlantis Press.https://doi.org/10.2991/978-2-494069-25-1_32

Guemide, B., & Sahraoui, A. (2023). Implementing AI applications to improve English language learning among EFL students in Algeria: A survey study from university students' perspective. *International Journal of Literacy and Education, 3*(2), 38-46. Implementing AI applications to improve English language learning among EFL students in Algeria: A survey study from university students' perspective (educationjournal.info)

Jarrahi, M. H. (2018). In the age of smart artificial intelligence: AI's dual capacities for automating and information work. *Business Information Review*, *36*(4), 178-187.Norhttps://doi.org/10.1177/0266382119883999

Ji, H., Han, I., & Ko, Y. (2023). A systematic review of conversational AI in language education: Focusing on the collaboration with human teachers. *Journal of Research on Technology in Education*, *55*(1), 48-63.http://dx.doi.org/10.1080/15391523.2022.2142873

Kessler, G. (2018). Technology and the future of language teaching. *Foreign Language Annals, 51*(1), 205-218.https://doi.org/10.1111/flan.12318

Khanzode, K. C. A., & Sarode, R. D. (2020). Advantages and disadvantages of artificial intelligence and machine learning: A literature review. *International Journal of Library & Information Science (IJLIS)*, *9*(1), 30-36

Kim, N. J., & Kim, M. K. (2022, March). Teacher's perceptions of using an artificial intelligence-based educational tool for scientific writing. *Frontiers in Education*, *7*, 1-13. Frontiers.https://doi.org/10.3389/feduc.2022.755914

Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *Relc Journal*, *54*(2), 537-550.https://doi.org/10.1177/00336882231162868

Liu, M. (2023). Exploring the Application of Artificial Intelligence in Foreign Language Teaching: Challenges and Future Development. In *SHS Web of Conferences* (Vol. 168). EDP Sciences.https://doi.org/10.1051/shsconf/202316803025

Ng, D. T. K., Lee, M., Tan, R. J. Y., Hu, X., Downie, J. S., & Chu, S. K. W. (2023). A review of AI teaching and learning from 2000 to 2020. *Education and Information Technologies*, *28*(7), 8445-8501.https://doi.org/10.1007/s10639-022-11491-w

Ou, A. W., Stöhr, C., & Malmström, H. (2024). Academic communication with AI-powered language tools in higher education: From a post-humanist perspective. *System*, *121*, 103225.https://doi.org/10.1016/j.system.2024.103225

Pavlik, J. V. (2023). Collaborating with chatGPT: Considering the implications of generative Artificial Intelligence for Journalism and Media Education. *Journalism & Mass Communication Educator*,107769582211495https://doi.org/10.1177/10776958221149577

Pikhart, M. (2020). Intelligent information processing for language education: The use of artificial intelligence in language learning apps. *Procedia Computer Science*, *176*, 1412-1419.https://doi.org/10.1016/j.procs.2020.09.151

Pokrivcakova, S. (2019). Preparing teachers for the application of AI-powered technologies in foreign language education. *Journal of Language and Cultural Education*, *7*(3), 135-153.https://doi.org/10.2478/jolace-2019-0025

Popenici, S. A., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and practice in technology enhanced learning*, *12*(1), 1-13.https://doi.org/10.1186/s41039-017-0062-8

Qoura, A. A. S., & Elmansi, H. M. (2023). Artificial intelligence in language education: Implementations and policies required. *Journal of Education Faculty, 11* (33), 348-395.

Russell, S., & Norvig, P. (2010). *Artificial intelligence: A modern approach* (3rd ed.). Prentice Hall.http://dx.doi.org/10.1016/j.artint.2011.01.005

Stone, P., Brooks, R., Brynjolfsson, E., Calo, R., Etzioni, O., Hager, G., Hirschberg, J., Kalyanakrishnan, S., Kamar, E., Kraus, S. & Leyton-Brown, K., (2016). Artificial intelligence and life in 2030. *One Hundred Year Study on Artificial Intelligence: Report of the 2015-2016 Study Panel*, Stanford University, Stanford, CA.https://doi.org/10.48550/arXiv.2211.06318

Tiwari, H. P. (2024). Artificial intelligence in the classroom: Revolutionizing English language teaching. *Journal of English Teaching and Linguistics Studies (JET Li)*, *6*(1), 42-59.

Tredinnick, L. (2017). Artificial intelligence and professional roles. *Business Information Review*, *34*(1), 37-41.https://doi.org/10.1177/0266382117692621

Wang, P. (2019). On defining artificial intelligence. *Journal of Artificial General Intelligence*, *10*(2), 1-37.https://doi.org/10.2478/jagi-2019-0002

Wei, L. (2023). Artificial intelligence in language instruction: impact on English learning achievement, L2 motivation, and self-regulated learning. *Frontiers in Psychology*, *14*, 1261955. https://doi.org/10.3389/fpsyg.2023.1261955

Xu, Y., Liu, X., Cao, X., Huang, C., Liu, E., Qian, S., Liu, X., Wu, Y., Dong, F., Qiu, C.W. & Qiu, J. (2021). Artificial intelligence: A powerful paradigm for scientific research. *The Innovation*, *2*(4). 1-20. https://doi.org/10.1016/j.xinn.2021.100179

Zhang, C., Schießl, J., Plößl, L., Hofmann, F., &Gläser-Zikuda, M. (2023). Acceptance of artificial intelligence among pre-service teachers: a multigroup analysis. *International Journal of Educational Technology in Higher Education*, *20*(1), 1-22.https://doi.org/10.1186/s41239-023-00420-7

Zitouni, S.K. (2022). New trends in EFL online learning and teaching through the lens of artificial intelligence. *Almuqadimah of Human and Social Studies Journal, 1* (07), 1065-1080

Investigating Algerian EFL Teachers' Attitudes Towards AI Utilization in Language Education
ATRAS   5 (Special Issue), pp. 130-150

148

Appendices
Appendix A
Teachers' Questionnaire

Teachers' Attitudes Towards the Use of Artificial Intelligence (AI) in Language Teaching

Dear participant,
This questionnaire is part of a research that explores teachers' attitudes towards the use of AI in language teaching.
Algerian EFL teachers are kindly invited to fill the questionnaire. Filling this questionnaire will take only 2 minutes of your time.
Your identity will remain anonymous and your reponses will be used for research purposes only.
Thank you so much for your collaboration and response.

* Indicates required question

Choose your institution *

Choose ▾

How many years have you been teaching? *

○ 0-5
○ 6-10
○ 11-15
○ +15

How often do you use AI tools in your teaching practices? *

○ Always
○ Usually
○ Sometimes
○ Rarely
○ Never

☐ Chatbots
☐ Chatgpt
☐ Grammarly
☐ Notion
☐ Bearly
☐ SlidesAI
☐ Poe.com
☐ Twee.com
☐ Knowji
☐ Century Tech
☐ Gradescope
☐ Knewton
☐ Smart Sparrow
☐ Duolingo
☐ Edomodo
☐ Other:

Tick the suitable response *

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
I support using AI tools in language teaching and learning	○	○	○	○	○
I have a positive attitude towards the use of AI tools in language teaching and learning	○	○	○	○	○
AI tools facilitate lesson planning and preparation	○	○	○	○	○

149

AI tools facilitate lesson delivery	○	○	○	○	○
Using AI tools enhances my assessment practices	○	○	○	○	○
Using AI tools may have drawbacks on academic integrity	○	○	○	○	○
Using AI tools in language teaching may be considered unethical	○	○	○	○	○
AI tools may lower teacher's creativity	○	○	○	○	○
Using AI tools changes the role of teachers	○	○	○	○	○
I am concerned with how AI tools may influence my teaching practices	○	○	○	○	○
I am concerned with how AI tools may influence my students' learning	○	○	○	○	○
Using AI tools enhances my teaching's effectiveness	○	○	○	○	○

According to your experience, how can the use of AI tools influence language teaching and learning?

Your answer

Any comments or suggestions ?

Your answer

Submit   Clear form

Never submit passwords through Google Forms.

This content is neither created nor endorsed by Google. Report Abuse - Terms of Service - Privacy Policy

Google Forms

According to your experience, how can the use of AI tools influence language teaching and learning?

Your answer