

Developing AI Literacy In The Algerian EFL Context: Teachers' Challenges And Experiences

تطوير الثقافة المتعلقة بالذكاء الاصطناعي في سياق تعليم اللغة الإنجليزية كلغة أجنبية في الجزائر: تحديات الأساتذة وخبراتهم

Khedidja LATRECHE

Higher School of Teachers Training, (ENSB), Bouzareah Algiers, Algeria .

Khadidja.latreche@ensb.dz

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ملخص:

لقد أحدث ظهور الذكاء الاصطناعي ثورة في مختلف مجالات الحياة، و لم يكن المجال التعليمي إستثناء من ذلك. و بناءا عليه، تحاول هذه الدراسة إستقصاء موقف أساتذة التعليم العالي من مفهوم الثقافة المتعلقة بالذكاء الإصطناعي. كما تهدف إلى التعمق في فهم مدى إستعدادهم لتطوير هذه الثقافة، بما يمكنهم من دمج أدوات الذكاء الإصطناعي في دروسهم لتعزيز ممارساتهم التعليمية و نمو طلابهم الأكاديمي. و لجمع البيانات اللازمة، إعتمدت هذه الدراسة النوعية على مقابلة شبه موجهة و إستبيان حول المواقف. و لتحقيق هدف الدراسة، تم إختيار عينة مكونة من 67 أستاذا جامعيًا يعملون في جامعات جزائرية مختلفة، و ذلك بإستخدام أسلوب العينة الهادفة غير الإحتمالية. و قد تم تحليل البيانات التي تم جمعها بإستخدام كل من التحليل الوصفي و التحليل الموضوعاتي. أظهرت نتائج الدراسة أن الأساتذة لديهم موقف إيجابي إتجاه الثقافة المتعلقة بالذكاء الاصطناعي. فهم يعتقدون بأنها تساهم في توفير فرص تعلم مخصصة و تعزز من قدرة الطلاب على التعلم.

الكلمات المفتاحية:

الذكاء الاصطناعي، تطوير المدرسين، ثقافة الذكاء الاصطناعي، موقف المدرسين.

Abstract

The emergence of Artificial Intelligence has revolutionized different life domains; and the educational one is no exception. Accordingly, this study attempts to investigate the attitude of higher education teachers regarding AI literacy. It further aims at getting in-depth insights about their readiness towards integrating AI tools in their classes to augment their teaching practices and promote their students' academic growth. To gather the necessary data, this qualitatively-oriented study opted for a semi-structured interview and an attitude questionnaire. To achieve the study objective, a sample of 67 higher education teachers working in departments of English at different Algerian universities was conveniently selected based on a non-probability purposive sampling technique. The collected data were analysed using both descriptive and thematic analysis. The study findings demonstrated the teachers' positive attitude towards AI literacy. They believe that AI helps in providing personalized learning opportunities and enhancing the students' potential for learning.

Keywords: Artificial Intelligence; AI Literacy; Teacher Education; Teachers' Attitude

1. INTRODUCTION

The development of Artificial Intelligence (AI) has brought different changes across various disciplines, including the educational field. Noticeably, the way of addressing learners’ needs, assessing their progress, engaging and motivating them, in addition to boosting teachers and learners’ productivity have all been, wittingly or unwittingly, reshaped. Since AI technology was launched, a continuous debate sparked about its integration, use, challenges, and benefits. These debates led to the emergence of considerable researches that seek to address the current issues that revolve around AI tools.

Correspondingly, developing teachers’ AI literacy is instrumental in the sense that it enables them to effectively integrate this technology in their classes in order to augment the teaching/learning process, and prepare their students for this digital era. They are the key stakeholders whose efforts, support, and cooperation are instrumental in advancing AI integration and align it with school curricular. However, it is worth noting that teachers lack the fundamental basics of AI integration. Assuring teacher development programmes to maintain teachers’ practices and facilitate the adoption of AI educational tools in educational settings is the key. Accordingly, this study attempts to provide answers to the following research questions:

RQ1: To what extent Algerian higher education teachers are ready to integrate AI technologies in their classes?

RQ2: What is the teachers’ attitude towards developing their AI literacy?

RQ3: What are the challenges encountered by higher education teachers in developing their AI literacy?

2.Literature Review

2.1 – The Concept of AI in Education

The brisk evolution of AI in recent years has revolutionized different life domains; the educational one is no exception. Since then, developing educators’ AI literacy has been a longstanding demand. Put wisely, AI literacy is becoming significantly crucial for the effective adoption and use of AI-based tools in today’s classes, and for shaping teachers’ readiness and confidence for successful integration. In this regard, Annapureddy et al., (2025) conceptualizes AI literacy as a bulk of skills that enable individuals to competently use and understand the

functions, applications, limitations, and ethical considerations of the targeted AI technologies. This view aligns with Long and Magerko’s (2020) who assert that AI literacy is about critically evaluating, effectively interacting with, and meaningfully using AI technologies in different life domains.

The term AI encapsulates the use of computers with human-like intelligence through technological innovation (Russell & Norvig, 2010 as cited in Yim & Wegerif, 2024, p. 319). Historically speaking, David Foster’s book provides a more comprehensive view about the history of AI. He elicited six basic categories of generative AI: Variational Autoencoder, Generative Adversarial Network, Transformer, Normalizing Flow, Energy-Based/Diffusion Model, and Multimodal Model. After the birth of AI systems in the 1950s, these models received prominence in the 2010s (particularly in image generation tasks). Later in 2017, and after the introduction of the Transformer architecture, ChatGPT (Generative Pre-training Transformer) was developed leading to a global surge in generative AI tools (Zhang and Magerko, 2025).

According to Huang et al., (2025) “Digital literacy is one of the core competencies that is widely emphasised in today’s society, especially in the field of education” (p. 30). He further adds that the rapid development of digitalized tools, digital technology has reshaped the way students learn and has supplied new perspectives for educational models and teacher education.

Teaching AI literacy goes far beyond being skillful and well-prepared in using AI-based tools and technologies. It actually furthers its concerns to encompass full understanding of AI ethical considerations to enhance social responsibility and inclusivity (Walsh et al., 2023, as cited in Yim & Wegerif, 2024, p. 320). Consequently, many scholars advocate the usefulness of integrating AI literacy education at early educational stages in order to have future AI responsible citizens (Yim & Wegerif, 2024). In addition to that, “The utilization of AI technologies, such as adaptive systems, personalized learning programmes, and intelligent tutoring systems, enables the creation of learning environments that can adapt to the individual needs and abilities of students” (Kockova et al., 2024, p. 179).

2.2- Challenges for AI Integration and Teacher Competency

The AI literacy is gaining significant attention in the Algerian higher education sector. Several initiatives to digitize the Algerian universities are being made, albeit gradually. Allen (2023, as cited in Kockova et al., 2025) proposed a multidisciplinary framework that accentuated the fundamental role of AI literacy, which emphasizes comprehending AI systems, critically evaluating their implications, and fostering collaboration. Undoubtedly, benefits of AI cannot be denied. Annus (2023, as cited in Alexandrowicz, 2024) “highlighted the potential of AI to provide personalized and rapid assistance to students and teachers by offering various answers and explanations” (p. 347). Indeed, many educators and specialists in the field agreed on the effectiveness of AI technologies in supporting the teaching/learning process. They help in minimizing the burden on teachers, assessing students’ performance, analyzing their weakness areas, creating new content, and providing a differentiated and inclusive learning environment where all types of students are welcomed no matter if they do not share enough commonality. All this and more are to be achieved easily in case AI technologies are handled properly.

Logically speaking, this pervasive technology is endowed with challenges that are deemed inevitable. Alexandrowicz (2024) advocates that “Even after the introduction of ChatGPT in 2022, teachers at all levels of education have continued to grapple with the idea of ‘embracing’ or ‘resisting’ the use of AI for teaching and learning” (p. 348). Equipping teachers with the necessary skills and competencies to understand and aptly use the AI-driven tools is conceived as one major challenge in the process of integrating AI in the Algerian schools and universities. This is because teachers are the purveyors of knowledge; they are the ones who are going to adopt AI tools to augment the teaching/learning process. Additionally, AI tools can produce biased responses that can lead to undesirable outcomes. This would ultimately raise ethical issues and doubt the credibility of the generated output (Alexandrowicz, 2024). Finley (2023, as cited in Alexandrowicz, 2024) goes further in emphasizing the importance of “...verifying AI-generated information for accuracy before it is presented to students, underscoring the need for vigilant human intervention in educational contexts to maintain ethical standards and protect learners” (p. 348).

Moreover, educators handle serious concerns regarding plagiarism and the lack of adequate tools to detect AI-generated content (Keegin, 2023, as cited in Alexandrowicz, 2024). Blind copying from AI resources without critical evaluation or without citing the original sources is becoming a common practice amongst students (Khalil & Er, 2023, as cited in Alexandrowicz, 2024). Correspondingly, AI literacy is not only about showing high qualities in using and appropriately integrating AI-based tools in the classroom to enhance and accelerate the teaching and learning process. In fact, AI literacy programmes need to equip teachers with the necessary skills and competencies that enable them to detect such unethical practices. This is why teachers tend to encounter abundant barriers and challenges in developing their AI literacy. These challenges need to be addressed in the preparation of teachers who are required to develop a foundational understanding of the AI technology to ascertain they orbit around the benefits of AI and diminish the challenges in preparing their students for this digital era (Alexandrowicz, 2024).

2.3- Significance of Teacher Professional Development in AI

With the increasing significance of AI that is escalating day by day, fostering AI literacy has become mandatory. Teachers need to tackle this issue with scrutiny. Inevitably, “AI literacy teaching in the 21st century is becoming an increasingly popular topic among researchers and educator” (Neg et al., 2023, as cited in Yim & Wegerif, 2024, p. 319) “with many arguing that AI literacy is now essential for all individuals” (Long & Magerko, 2020, as cited in Yim & Wegerif, 2024, p. 319). Initially, due to the significance of the teachers’ role in adopting AI tools, there an imperative need to understand and consider their perceptions and readiness in this regard. Lin et al., (2022) argue that understanding teachers’ views and experiences is of focal and central importance to foster the sustainable teaching of AI literacy. Contrariwise, educators are usually bound to face considerable barriers in teaching AI literacy, including “AI’s capabilities, limitations, and ethical considerations, along with developing effective pedagogical skills” (Ayanwale et al., 2024, as cited in Yim & Wegerif, 2024, p. 321). Moreover, effective AI literacy development requires deep comprehension of the practical realities of the AI-enhanced tools’ adoption in the educational settings (Han et al., 2024, as cited in Yim & Wegerif, 2024). To amplify, teachers would feel ignorant and lost when dealing with AI tools when they lack the necessary skills and pedagogies. This would eventually result in lowering their confidence, performance, and even willingness to adopt AI—enhanced systems in their classes. A negative attitude would be generated in their minds the thing that would hinder the process of AI adoption to great extents.

There is a growing endeavour and support to integrate AI literacy in teachers' pre- and in-service training as a part of teacher professional development, and "...some advocate collaboration between humans and AI as a means to improve educational outcomes for students" (Yim, 2024a, as cited in Yim & Wegerif, 2024). Huang et al., (2025) assert that for teacher education, AI literacy is far beyond merely showing teaching abilities; it includes their capacity to effectively use digital technologies in future teaching practices. They further argue, "With the ongoing digital transformation of education, teacher education ... need solid digital technology skills and innovative teaching abilities to meet the needs of future education. Generative AI ... provides new opportunities for enhancing the digital literacy of teacher education". That is, equipping teachers with the necessitated AI technology skills empowers their capacities for this AI-driven world. Similarly, "Educators are required to develop not only technological and pedagogical strategies" (Ayanwale et al., 2024, as cited in Yim & Wegerif, 2024, p. 321), "but also acquire fundamental knowledge and skills to understand, create, use, apply, and evaluate AI applications to deliver content effectively within an educational context" (Wilton et al., 2022, as cited in Yim & Wegerif, 2024, p. 321).

Eventually, teachers need to bear in mind that their roles will always remain indispensable. Their human nature and experience in the education field allows them to predict the struggling areas of their students, and hence they can adjust the curriculum to fit their students' needs (Prothero, 2023, as cited in Alexandrowicz, 2024). Indeed, the stress of the educational domain can never be solely and completely handled by AI technologies and an automated curricular. The complexity of this domain can never be reduced to a set of algorithms (Batchelor & Petersen, 2019, as cited in Alexandrowicz, 2024, p. 349).

3. Methodology

This section comprises the methodological choices made to reach the underlined research objectives. It depicts the nature of the research in addition to the research approach, sampling technique, and the instruments that were selected to gather the necessitated data. Furthermore, this section portrays the procedures through which data were gathered and analysed.

Research Approach

Based on the nature of this study, the qualitative approach was selected. This approach is about “Exploring a problem and developing a detailed understanding of a central phenomenon” (Creswell, 2012, p. 16). It is generally opted for when researchers want to collect firsthand insightful data about a given phenomenon that the literature review yield little information about it (Creswell, 2012). In the same vein, Dornyei (2007) postulates that qualitative research concerns itself with describing individuals’ perceptions, feelings, and views regarding a certain phenomenon. It endeavours to explore a social phenomenon in their natural context far from any manipulation of the study variables.

The aim is not to reach generalizations, but rather to provide deep understanding of the AI literacy in the higher education sector, how it is perceived amongst university teachers, and how ready are they to integrate AI-enhanced technology in their classes to maximise their students’ academic growth and performance. It further attempts to highlight the challenges encountered by teachers when adopting AI-driven tools.

3.1- Participants and Sampling Technique

Given that AI literacy is an emerging area of research in higher education, this study employed non-probability purposive sampling technique to select a sample of 67 teachers (24 males and 43 females) working in the department of English from different universities. Purposive sampling was appropriate in the sense that it guaranteed the inclusion of teachers with the needed experience, insights, and readiness to take part in this research. This insured the credibility, richness, and relevance of the gathered data.

3.2- Data Collection Tools

There is mounting evidence that teacher AI literacy is a milestone in the strategic adoption of AI-enhanced technology in educational contexts. Accordingly, to gather the necessary data for this study, two data collection instruments were selected: a semi-structured interview and an attitude questionnaire. For the interview, it consists of eight questions and was mainly designed to get in-depth data about the teachers' knowledge about AI, their attitude towards this topic, and their readiness to adopt it in their classes. It actually endeavours to gather useful data about the challenges teachers encounter with this evolving technology. This would help in preparing well-grounded strategies directed to equipping teachers with the demanded skills to deal with AI. Their insights would also help in enhancing the quality of teacher development training programmes.

The questionnaire, on the other hand, was opted for to cross-check the data gathered via the interview to add relevance and credibility to the obtained results. It consists of 16 close-ended questions that are geared towards uncovering the teachers' attitudes and opinions regarding developing their AI literacy along with the challenges that would accompany this process. The findings obtained from the participants added invaluable perspectives on the benefits, challenges, and potential areas of improvement to be considered when embarking upon the teachers' training.

3.3- Research Procedure

The research tools were administered to the participants online. First, the researcher contacted a number of teachers from different Algerian universities through email to consent their collaboration. The universities included: ENS Bouzareah, University of Constantine 1, ENS Constantine, ENS Setif, University of Batna, Tebessa, Mila Center, and Biskra University. A total of sixty-seven teachers (29 males and 38 females ranging from 31 to 47 years old) agreed to take part in this research.

Prior to data collection, participants received detailed instructions on how to complete both the attitude questionnaire and the interview. The questionnaire was administered online via Google Forms, following the interview. The participants answered and submitted their responses automatically through the platform. For the interview, it was conducted in the form of a focus group discussion because "Focus groups can be used to collect shared understanding from several individuals ... The researcher asks a small number of general questions and elicits responses from all

individuals in the group” (Creswell, 2012, p. 218). Since the process was online, interviews were carried out over a week. Each day, the researcher interviewed a number of participants in a Google Meet session, asked the questions, directed the respondents’ answers and wrote down notes about their responses.

3.4- Data Analysis

The collected qualitative data were descriptively analysed using thematic analysis process. Thematic analysis is “one of the most widely used methods for analyzing qualitative data, offering a structured yet flexible approach to identifying, analyzing, and reporting patterns or themes within a dataset” (Ahmed et al., 2025, p. 1). The interview and the attitude questionnaire provided non-statistical data that were gathered, organised, and put under themes. The analysis of the data led to the emergence of three major themes for the interview and four other themes for the questionnaire.

4. RESULTS AND DISCUSSION

To better demonstrate the teachers’ attitude towards AI literacy, a detailed discussion and analysis of the research findings is presented below.

4.1 The Semi-structured Interview

As mentioned earlier in this research, data were analysed using thematic analytical procedures. This has led to the emergence of three main themes. Theme one (includes questions 1, 2, and 3) is about the teachers’ perceptions and readiness towards AI tools integration in higher education. The second theme (consists of two interview questions: the 4th and the 5th) tackles the potential barriers that may hinder the process of AI adoption and literacy development; and the third theme (comprises two questions: the 6th and the 7th).

Theme 1: Teachers’ attitudes and readiness towards AI technology integration

The majority of the interviewed teachers, though held a positive attitude about the AI tools, were very cautious. For them, AI integration is still a new experience that needs to be processed gradually and carefully. One of the respondents claimed that: *“AI is a significant supporting tool that, when used properly, would bring outstanding results in the teaching and learning process ... but, I think, we should not underemphasize that we are not well qualified to integrate AI tools efficiently. I mean, there is a lot still to be learnt and acquired ...”*. Another interviewee asserted:

“this eminent technology is remarkably reshaping our teaching practices, either we like it or not ... and I believe that we need to go hand in hand with that change otherwise we will be left behind, and as teachers, we should never be left behind”. Similarly, another participant advocated that “AI adoption can never be done overnight, and I think it is irrational to claim the opposite. Personally, it strikes me as a very useful leap towards digitizing our universities and enhancing our teaching practices, let alone that AI tools may save our time, minimizes the burden of preparation, and offers a variety of resources, but it needs to be well thought of”. That is, AI tools are welcomed by the majority of teachers since they *“foster creativity”* as one of the interviewees said. This is considered as a good starting point. Teachers’ positive attitude is pivotal to the process of AI adoption.

Theme 2: Challenges in AI integration and literacy development

When it comes to the challenges, teachers were too honest in expressing their thoughts and opinions. Their answers ranged from enthusiasm to cautious views and opinions. The first team showed readiness to develop their AI literacy through the training devoted to this end, and hence adopt the AI tools effectively. For them, there is no escape, and mastering the skills to use AI tools is becoming a must. Alternatively, one of the teachers postulated that: *“... challenges and barriers are found in all life domain and disciplines. The same goes for this new technology. It is new and little is known about its properties, but once we get familiar with it, experience its usefulness, and be able to handle it properly beyond its risks and limitations, things will all be better”*. Likewise, another respondent asserted: *“Honestly, I see that, in this time and age where technology is revolutionizing our life; it is mandatory for us, higher education teachers, to be familiar with these AI tools and with what is going on in the world in general”*. Another one said: *“Well! I think it is time for use to familiarize ourselves with AI-driven tools and systems because it is unaccepted that our students show high skills in using such tools whereas we do not.”*

For the other team, their answers showed how discomfort and cautious they are when it comes to AI adoption. They see that AI integration is deemed to be tiring and time consuming with no benefits to be gained at the end. AI tools provided abundant resources for teachers and students, the thing that led to laziness, plagiarism, limited creativity, and unethical practices amongst them. In this regard, one of the interviewees said that *“AI is a useful tool -none can deny this truth - but, unfortunately, it is being misused ...”*. *“... it paved the way for resilient students to*

stay lazy and still their works and assignments are getting done. Plagiarism rates are escalating day by day ... we need to do something about that before it is too late” (said one of the interviewed teachers). In the same spectrum, an interviewee mentioned that *“If AI technologies are ever to be integrated in the Algerian universities, I think this should be accompanied with ethical guidelines and pedagogical frameworks to hinder any misuse by either the students or the teachers”*. From these answers and many others, we notice that the cautious views are a result of the misuse of AI that we see in our universities. The AI integration needs to be followed with institutional policy, AI plagiarism detectors, AI professional development, and restricted use that does not go beyond the underlined ethical considerations.

Theme 3: Insights for effective AI integration

When asked about their insights for fruitful AI integration, teachers agreed on one common point which is providing adequate professional development to enhance teachers’ AI literacy and raise awareness amongst students about the potential risks of misusing AI-driven tools and systems. In this regard, one of the participants advocated: *“We really need an official training about how to adequately and adeptly integrate AI tools in our teaching practices; otherwise, we will be left to self-training the thing that would result in nothing but hesitation, discomfort, and inconsistent integration”*. Put clearly, teachers want more than just theory. Their worries and concerns would fade away through introducing them to practical training programmes to recognize the potential of AI tools. Accordingly, one respondent stated that *“The technical challenges they face when adopting AI technologies stresses the urgent need to a well-planned and supportive training, otherwise things will not work as desired.”*.

4.2 The Attitude Questionnaire

The teachers’ attitude questionnaire was designed in a form of a likert-scale with 16 carefully crafted questions aligned with the study objectives. The responses of the likert-scale are meant to provide valuable answers to the generated research questions. This triangulations was opted for to cross-check the data gathered by means of the interview and to add relevance and validity to the obtained research findings.

Theme 1: Teachers attitude towards the integration of AI in their teaching practices

	SA		A		N	D		SD		
	N	%	N	%	N	%	N	%	N	%
Statement 1	13	19,40	23	34,33	03	04,48	19	28,36	09	13,43
Statement 2	11	16,42	23	34,33	16	23,88	12	17,91	05	07,46
Statement 3	21	31,34	30	44,78	05	07,46	08	11,94	03	04,48

Table 1: Teachers' Perceptions regarding AI Integration

Based on the data illustrated in Table 1, teachers held a significantly positive attitude towards the adoption of AI technologies. This was highlighted also in the interview findings. Significantly, more than half of the respondents (53,73%) agreed that AI tools have the potential to enhance the teaching and learning practices in the higher education sector. This is mainly due to the variety of sources it offers. In the same vein, a percentage of 59,75 showed their enthusiasm and endeavour to adopt AI tools believing that this would ascertain differentiated learning opportunities for their students the thing that would maximise their potential for learning and enhance their academic outcomes. Let alone the joyful fact that would accelerate their engagement and motivation levels to take responsibility of their own learning (learner centeredness). Indeed, AI can play as best supportive tool for teachers in the higher education sector if ever used adequately and wisely.

Theme 2: Challenges and Concerns

	SA		A		N		D		SD	
		%	N	%	N	%	N	%	N	%
Statement 4	39	58,21	14	20,90	05	07,46	05	07,46	04	05,97
Statement 5	27	40,30	34	50,75	01	01,49	03	04,48	02	02,98
Statement 6	12	17,91	22	32,84	11	16,42	12	17,91	10	14,92
Statement 7	29	43,28	21	31,34	08	11,94	04	05,97	05	07,46
Statement 8	43	64,18	21	31,34	01	01,49	01	01,49	01	01,49

Table 2: Barriers to AI Integration

It can be deduced from the results displayed in Table 2 that a high majority of teachers have serious concerns regarding the integration of AI tools in their teaching practices, mainly because they lack professional AI literacy and are not yet familiar with their proposed AI tools. This partial ignorance with the skills and guidelines of using such technology resulted in a sense of discomfort amongst the questioned teachers. They firmly believe that the lack of training programmes is the first barrier that hinders the adoption of AI. Wisely put, this training is needed for both students and teachers. Students nowadays tend to misuse AI tools; they copy and past answers to their questions and homework from AI tools and claim to be theirs without mentioning the original source. Unfortunately, systematic and repeated reliance on AI tools and ignoring the role of the human mind would, ultimately, result in void minds. There would be no creativity or critical thinking to develop in our students. Henceforth, it is critical to assert ethical guidelines that organize the logical and ethical use of AI –driven technologies because the risk of plagiarism is another barrier that hinders the effective adoption of AI in the Algerian higher education institutions.

Theme 3: Ethical Considerations

	SA		A		N		D		SD	
	N	%	N	%	N	%	N	%	N	%
Statement 09	19	28,36	27	40,30	11	16,42	09	13,43	01	01,49
Statement 10	49	73,13	09	13,43	02	02,98	05	07,46	02	02,98
Statement 11	34	50,75	26	38,80	03	04,48	02	02,98	02	02,98
Statement 12	27	40,30	29	43,28	04	05,97	04	05,97	03	04,48
Statement 13	29	43,28	30	44,78	05	07,46	01	01,49	02	02,98

Table 3: Ethical Considerations for Effective AI Integration

As shown in Table 3, the majority of the participants share the opinion that AI integration needs to be followed with clear guidelines that restrict and ensure the ethical and respectful use of AI-driven tools and systems. This is to eliminate any inappropriate practices that would hinder the process of augmenting the teaching and learning process. Clearly, AI tools are created to complement the human mind instead of substituting it. They are there to help guiding our educational practices and boosting our students' productivity. Misusing them has created a gap in the adoption

of AI tools. Thus, 88,06% of the participants totally agree that the teachers' role in eliminating the AI misuse is indispensable. Accordingly, they need to receive a professional training on AI uses to develop their AI literacy the thing that would maximise the potential to effectively integrate AI tools in higher education sector without worrying about all the aforementioned challenges and concerns.

To sum everything up, and to answer the research questions, the targeted sample of this study showed positive attitude towards the adoption of AI-driven tools in the higher education domain provided that it is accompanied with the necessary instructions and guidelines that would assure the ethical use of this technology within the teaching and learning practices. Hence, teachers showed readiness in developing AI literacy so that they can handle such unethical issues properly. Besides, they can effectively integrate AI tools in their teaching practices to boost the quality of higher education training. In fact, plagiarism, lack of professional training, and lack of AI literacy are considered as major barriers and challenges that hinder the process of AI adoption.

5. CONCLUSION

This study has employed a qualitative approach to explore the teachers' perceptions and readiness in developing their AI literacy and embracing it in their classes. The findings suggest that to ascertain the effective and successful integration of AI-enhanced systems, it is paramount to explore teachers' perceptions, readiness, and training requirements. This study provided solid foundation and holistic guidelines for future researchers to investigate the area of AI literacy and to advance AI literacy training programmes. Furthermore, this research provided insights about the challenges encountered by teachers in developing their AI literacy. The results revealed the teachers' readiness to integrate AI-driven technologies in their classes to boost their teaching practices and their students' academic performance; provided that, they receive the necessary training that would ease the process for them. Otherwise, things would backfire on them and this fast-paced technology would be a mere heavy burden. Indeed, there is still a dire need for further comprehension of the basics and procedures of AI integration in the Algerian higher education sector.

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