



Investigating English Language Teachers' Readiness and Needs Regarding AI Integration through the UNESCO AI Framework.

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DOI: 10.37376/sjuob.v39i1 | Received:23/02/2026 | Accepted:15/06/2026 | Publishing: 30/0/2026

ABSTRACT

Artificial intelligence has recently become the focus of considerable academic discussion worldwide. While AI has been associated with several benefits, its rapid widespread use poses challenges and threatens the teacher's role. Particularly in developing contexts like Libya, adopting AI in education requires a careful, systematic approach to promote its proper use. Accordingly, this study examined English language teachers' readiness and needs for AI integration at the University of Benghazi. The investigation was guided by the UNESCO Competency Framework for Teachers (2024) and used in-depth interviews with six teachers. The results revealed that the teachers have a strong human-centered approach to AI use, basic familiarity with AI ethics, and basic knowledge and use of AI tools in the teaching process and their professional development. Nonetheless, the teachers were constrained by limited professional development opportunities and the resources needed. The findings of the study highlight a promising foundation for AI implementation, but stress the need for policy interventions in light of the UNESCO framework.

KEYWORDS: AI integration, English language teaching, UNESCO AI Competency Framework.

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1. INTRODUCTION

Artificial Intelligence (AI) has been linked to significant developments in education ^(1,2). Specifically, English language teaching has been influenced by AI's numerous capabilities, which have been perceived positively by teachers and learners ⁽³⁻⁸⁾, such as its great potential in fostering a learner-centered, learning environment ⁽⁵⁻¹⁰⁾ and students' proficiency across language areas such as grammar, writing, and speaking ^(4,5,7,11). Nevertheless, research conducted globally has revealed concerns about the accuracy of information provided by AI and its impact on reducing humans' reasoning ability and communication ⁽¹²⁾. In addition, there have been reservations regarding teachers' and students' over-reliance on AI, teachers' AI knowledge and skills, academic integrity, and absence of a strong technological infrastructure ^(3,6,10,12-14).

In Libya, AI use in education is also a key area of current research, where research findings similarly highlighted teachers' positive perceptions ⁽¹⁵⁻¹⁸⁾, and comparable challenges, such as the need for regulations on proper AI use, lack of teachers' training, shortage of technological resources, and fear of misuse ⁽¹⁵⁻²⁰⁾.

Thus, despite its notable advantages, the effective application of AI requires sound policies and guiding frameworks ^(1,2). Correspondingly, the UNESCO AI Competency Framework for Teachers (AI CFT) was developed in 2024 as a guide for AI competencies needed by teachers and teacher-training programs ⁽²¹⁾. It consists of the following five aspects of competency that teachers need to have to use AI successfully ⁽²¹⁾:

- A. Human-centered mindset emphasizes teachers' recognition that AI integration should be based on human control, agency, and responsibility ⁽²¹⁾.
- B. The ethics of AI refers to teachers' knowledge of and adherence to the ethical considerations and regulations of AI use. ⁽²¹⁾
- C. AI foundations and skills pertain to teachers' knowledge of AI fundamentals, which enable them to choose and apply AI tools in their teaching ⁽²¹⁾.

D. AI pedagogy refers to the skills teachers need to develop to integrate AI into different aspects of teaching, such as course planning, teaching, and learning evaluation ⁽²¹⁾.

E. AI for professional development is about the competencies that teachers need to develop to be able to use AI tools to enhance their professional growth and teaching practices ⁽²¹⁾.

In addition, within the aforementioned five aspects, UNESCO established three mastery levels of competence, which range from basic to more advanced (i.e., acquire, deepen, create) ⁽²¹⁾. It is noteworthy that there are several teacher-competency frameworks that clarify what teachers need for meaningful technology implementation, such as TPACK, which highlights the interplay of technological, pedagogical, and content knowledge ⁽²²⁾, and SAMR, which describes four progressive stages of technology integration: Substitution, Augmentation, Modification, and Redefinition ⁽²³⁾. However, the UNESCO framework appears to offer a more holistic, policy and teacher-oriented view, covering multiple aspects and staged levels of teacher competence that can be adapted to specific contexts ⁽²¹⁾. Therefore, this research aimed to examine English teachers' current readiness and needs regarding AI implementation in light of the UNESCO framework. This was particularly important because in settings like Libya, which suffer from notable deficiencies in technological infrastructure, teachers' skills ⁽¹⁷⁾, and the absence of regulations on AI usage ⁽²⁴⁾, more research is needed across various settings to obtain information that promotes effective AI adoption ⁽¹⁵⁾.

Respectively, this research sought to answer the following question:

What is the current level of readiness of English language teachers for integrating AI in teaching, and what are their main needs for further development based on the UNESCO AI Competency Framework?

2. MATERIALS AND METHODS

This study followed a qualitative research approach using interviews as the data collection tool, in which information is commonly gathered through face-to-face or telephone discussions based on a limited number of questions designed to encourage participants to share their perspectives⁽²⁵⁾. Interviews enable researchers to obtain rich insights into participants' lived experiences and perceptions⁽²⁶⁾, which justifies their selection as the data collection method in this study, which sought to examine teachers' current AI competency.

Moreover, the study was conducted at the University of Benghazi, which is regarded as a prominent platform for English language education, offered across three of its faculties in Benghazi: the Faculty of Arts, the Faculty of Education, and the Faculty of Languages. The study participants were six English language teachers: two from the Faculty of Languages, two from the Faculty of Arts, and two from the Faculty of Education, whose teaching experience ranges from 5 to 20 years. The selection of participants from different faculties was purposeful to ensure diverse teachers' insights.

The interviews were conducted online via WhatsApp and Telegram, and were semi-structured, allowing the researcher to ask questions more flexibly and participants to express their views more freely⁽²⁷⁾. As for ethical considerations, interviewees were assured confidentiality and anonymity. The interviews were conducted via recording applications, which were later analyzed thematically following Creswell's⁽²⁵⁾ qualitative data analysis process, which includes: (1) organizing data, (2) familiarizing data, (3) coding, (4) developing themes, (5) representing data, and (6) interpreting findings. The sample size was guided by the concept of data saturation and information power, which assumes that a smaller number of participants is sufficient when they provide repetitive, rich, and relevant information that addresses the research objectives⁽²⁸⁾. To ensure the trustworthiness of the qualitative

data, this study applied Lincoln and Guba's (1985)⁽²⁹⁾ four criteria: credibility, transferability, dependability, and confirmability. Credibility was established through in-depth interviews with experienced EFL teachers, transferability through rich contextual descriptions, dependability through transparent research procedures, and confirmability by grounding findings in participants' perspectives rather than the researchers' views.

3. RESULTS

The interview thematic analysis was conducted in light of the five components of the UNESCO framework. Within these components, some subthemes were identified as follows:

3.1. HUMAN-CENTERED MINDSET

3.1.1. Human judgment

All six participants emphasized that they do not rely entirely on AI, but use it as a supporting tool, as they reported: "As teachers, you cannot copy-paste the information from AI. I use them to help me polish my work because I don't trust AI tools 100%" (P 3). Also, the participants stressed the importance of being selective regarding the content generated by AI tools: "I don't take what AI tools provide me as it is, I add my own touch and what suits my students" (P 4).

Moreover, all participants were aware that the content provided by AI tools might not be accurate, as one participant noted, "I don't just accept all AI content; I double check the sources to ensure the information is reliable" (P 2).

3.1.2. Human interaction and classroom management

Most participants highlighted that AI tools cannot replace the teacher-student connection: "AI cannot provide emotional support or understand the facial expression of your students" (P 4).

Furthermore, participants agreed that AI tools cannot replace teachers' skills in classroom management: "In certain activities, you have to put your students in groups or in pairs. I would lead such activities myself.

I wouldn't use AI" (P 5).

3.2. AI ETHICS

3.2.1. Basic AI ethical awareness

All participants reported practices related to basic responsible and ethical AI usage. They noted that they do not rely on AI to make a subjective or final assessment of students: "I could seek the opinion of AI when I am having difficulty assessing a student, but I would never rely on it 100%" (P 4). In addition, the participants were aware of AI's limitations in providing accurate information: "AI can hallucinate a lot. So, I always check the main source of the information" (P 1). Nevertheless, most participants stressed that they use AI tools ethically, shaped by the limited access to free AI tools: "I am satisfied with the way I use AI tools, but I am not sure if I am using them appropriately since we only have access to free ones" (P 5).

3.2.2. Lack of AI institutional Guidelines

Five of the six participants affirmed the absence of institutional regulations that reinforce responsible AI usage, as noted by one participant: "up until now, I could not find a source that tells students and teachers how to use AI properly" (P 4).

In this respect, the participants expressed their desire for an urgent solution to the absence of AI guidelines: "We don't have guidelines, we use AI randomly. Policymakers should consider formulating rules based on well-known universities" (P 1).

3.3. AI FOUNDATIONS

3.3.1. Teacher's awareness of basic AI tools and their use

Collectively, all six participants confirmed that they are knowledgeable about common AI tools and employ them selectively and wisely for teaching purposes: "When I prepare my lessons, I usually ask ChatGPT for help, not to generate lesson plans but only to provide me with new ideas" (P 4). Moreover, most participants indicated that providing AI with suitable prompts is key to gaining the required information: "The information you receive is more reliable

when you ask AI the right questions" (P 2).

Moreover, participants recognized that AI tools serve different purposes: "I usually use Napkin for generating PowerPoint presentations, and ChatGPT for lesson planning" (P 3).

3.3.2. Teachers' awareness of AI benefits and limitations

All interviewees agreed on the positive impact that AI tools have on teaching practices, such as in lesson preparation, providing extra materials and worksheets: "AI tools help me a lot, especially in polishing my lesson plans and suggesting a variety of teaching practices" (P 3).

Moreover, most participants highlighted that AI tools save their time and increase students' engagement: "Using AI tools eases my lecture preparation, and most students feel motivated and become attentive when I use it" (P 5).

However, all six participants pointed out that these tools have limitations, such as students' overreliance and misuse: "Students have started relying on AI for almost 90% of their assignments and homework" (P1).

3.4. AI PEDAGOGY

3.4.1. Using AI for preparation

All participants stated that their primary use of AI in teaching occurs when they plan their lessons. Respectively, the participants noted various purposes for which they use AI, such as to obtain more information about the content they are going to teach: "I like to be prepared for any questions from the students. So, before I teach, I go to AI to understand more about the topic" (P 3). In addition, the participants noted that they use AI for creating activities, "I went to Gemini and asked it to prepare an activity with scenarios for me to teach students different teaching methods. The students love the ideas" (P 1).

Moreover, the participants explained that they use AI to enhance students' understanding of the lesson: "AI is great for providing clarifications and illustrations to explain the lesson" (P 5).

3.4.2. Using AI in the classroom

The participants commonly agreed that they do not use AI inside the classroom for several reasons. The main reason is that the classrooms are not equipped with internet access or technological devices: “It would be a great helping tool to use AI in the class, but we still do not have labs, laptops, or internet connection” (P 3). Another reason reported by the participants was that they did not feel confident or trained to use it professionally: “I rely heavily on AI at home for different teaching purposes, but I do not use it inside the classroom because I am afraid it might fail me” (P 5).

3.4.3. Using AI for evaluation

The participants collectively reported that they do not use AI for evaluating students’ work. However, they noted that if they had access to appropriate AI tools, they would use them for certain types of assessments: “If I knew of suitable AI tools, I might use them to mark grammar, MCQ, something objective, but I would never use them for marking writing, for example” (P 3).

Notably, one participant described an instance where she once resorted to AI to help her in making a fair assessment of a student’s work:

“I was marking the paper of a student who was active and punctual in class. Surprisingly, he did not do well on the test. I asked AI to help me mark his paper, to be fair. AI gave me ideas that I was familiar with when I was training teachers in the past, but I forgot those ideas when I was marking. I was surprised that AI knew these techniques. It was really helpful for me”. (P 4)

3.5. AI FOR PROFESSIONAL DEVELOPMENT

3.5.1. AI for advancing knowledge and teaching practices

Most participant reported relying heavily on AI to promote their professional growth, noting they use it to advance and deepen their understanding of the content they teach. “I like to know in-depth information about what I am teaching. AI helps me to increase my

knowledge of the subject. It enables me to answer my students’ questions” (P 1).

Moreover, the participants stated that they largely use AI in lesson planning to suggest recent teaching methods: “Although I have been teaching for more than 15 years, using AI made me more professional” (P 4).

4. DISCUSSION

Generally, the participants in this study expressed positive attitudes towards AI and its use in various teaching-related tasks. This finding is consistent with previous studies reporting generally positive perceptions among English language teachers globally^(5,9,11) and in Libya^(15,16,19,20,30). This consensus supports the evidence that AI is associated with improved English language teaching outcomes and suggests that future AI integration efforts may be facilitated.

Moreover, the study participants strongly emphasized the importance of maintaining the teacher’s role and human judgment. This finding supports UNESCO’s human-centered AI perspective and is consistent with previous studies reporting English teachers’ preference for AI as a supportive rather than a replacement tool⁽³¹⁾. Such views indicate teachers’ awareness of the importance of human agency.

Furthermore, participants expressed concerns about academic integrity and students’ misuse. These concerns reveal consciousness of ethical considerations emphasized within the UNESCO framework. Comparable reservations have been widely reported in studies on AI adoption in education globally^(32,33) and in Libya^(16,18,20). This observation highlights that this issue is common globally and locally.

In addition, participants demonstrated basic familiarity with AI tools and their mechanisms, although their understanding was often limited. This suggests partial attainment of the UNESCO competency related to foundational AI knowledge. Similar views have been reported in previous studies, where teachers showed basic awareness of AI technologies but lacked deeper conceptual understanding^(30,32). This finding suggests

that awareness may be developing faster than comprehensive AI literacy and emphasizes the need for foundational training.

Moreover, participants reported using AI primarily for lesson planning and material preparation, while classroom-based applications were limited. This finding suggests that teachers have begun to recognize the practical value of AI but have not yet been able to apply more advanced forms of pedagogical integration envisioned by the UNESCO framework. Previous studies revealed that teachers' use of AI was largely confined due to limited training, resources, and implementation support ^(15,16,19,20,32,33). This finding indicates that teachers may require greater institutional support and pedagogical guidance to translate AI use from planning tasks to classroom implementation.

Finally, participants emphasized the value of using AI as a tool to advance their knowledge and teaching practices. This reflects the UNESCO competency related to professional learning, which encourages teachers to use AI to support continuous professional development. This finding is consistent with previous research highlighting that AI can serve as an effective tool for teacher development ⁽³⁴⁾. This finding also suggests that teachers view AI not only as an instructional tool but also as a resource for ongoing learning. It may also indicate that AI has the potential to address the challenges of a lack of professional development opportunities.

The importance of this study lies in its examination of teachers' perceptions of AI at the University of Benghazi, focusing on three different faculties. By doing so, the study responds to the recommendations of Almashrgy and Alburki ⁽¹⁵⁾ by exploring further settings, and complements that of Hadaga and Elfalfal ⁽³⁰⁾, which examined teachers' perceptions at the Faculty of Languages quantitatively. Furthermore, this study provides more in-depth information about teachers' perceptions through the comprehensive UNESCO framework. The findings of this study are promising,

as they highlight a good foundation among the teachers in this setting.

Nonetheless, the study recommends that the University of Benghazi seek foreign and specialized experts to train teachers in AI integration guided by the UNESCO framework. In addition, it recommends that the university equip the classrooms with adequate tools and internet access to promote successful AI implementation.

Respectively, future researchers are recommended to investigate the impact of training teachers on AI following the UNESCO framework, and to conduct classroom observations to follow teachers' progress and needs.

5. CONCLUSION

This study investigated English teachers' readiness and needs for adopting AI at the University of Benghazi. The findings demonstrated great potential among the teachers, while also uncovering several contextual constraints within this environment, reflected in the need for structured teacher-training programs and the provision of fundamental technological tools and internet access at the university.

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