Journal of Faslo el-khitab مجلة فصل الخطاب
ISSN:1071-2335/ E-ISSN:2602-5922/ Legal Deposit N°: 2012-1759
Vol 15, N° 02, June2026, pp 713 - 728

تاريخ الاستلام(2025/11/21) تاريخ القبول (2026/05/21) تاريخ النشر (2026/06/30)

Teachers' Readiness and Challenges in Integrating Generative AI Tools into EFL Classrooms: The Case of EFL Teachers at Ibn Khaldoun University

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Summary:
This study investigates EFL teachers' readiness to integrate generative AI tools, the factors influencing their readiness, the challenges encountered, and their perceptions of AI's pedagogical value and risks. Using a mixed-methods design, data were collected from 25 full and part time teachers from department of English at Ibn Khaldoun University via a questionnaire and semi-structured interviews. Quantitative findings revealed moderate readiness levels with AI literacy, technological competence, and pedagogical knowledge emerging as significant determinants. Major challenges included lack of training, limited institutional support, technical infrastructure issues, and ethical concerns. Qualitative insights highlighted both the pedagogical benefits and systemic barriers. Overall, teachers were willing to adopt AI but required structured training and institutional support to do so effectively. The study contributes to EFL pedagogy by integrating TPACK, TAM, and AI literacy frameworks, emphasizing AI literacy as a critical mediator between teacher perception and successful classroom implementation.

Keywords: Generative AI, EFL, Teachers' Readiness, AI Literacy, TPACK, Educational Technology

INTRODUCTION

The emergence of generative artificial intelligence (AI) has created new possibilities for enhancing English as a Foreign Language (EFL) teaching and learning through automation, personalized feedback, adaptive content generation, and data-driven instructional support (Zawacki-Richter &Marín, 2022). However, the successful integration of AI tools depends largely on teachers' readiness, competencies, and beliefs regarding its pedagogical

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value. As many educational systems in developing contexts rapidly adopt AI-
driven platforms, understanding teachers' actual capacities and challenges becomes essential for informed policy and practice.

1.1. Background of the Study

In recent years, generative AI systems such as ChatGPT, Claude, and other large language models have begun reshaping pedagogical practices in higher education and EFL settings (Deng & Yu, 2023). Globally, these tools assist in tasks such as writing correction, speaking practice, vocabulary expansion, and instant feedback. Despite growing enthusiasm, research highlights gaps in teachers' digital readiness, AI literacy, and institutional support, particularly in North African and Middle-Eastern EFL contexts (Hammond, 2023). This landscape necessitates an in-depth investigation into teachers' readiness and the obstacles they face in integrating generative AI tools.

1.2. Problem Statement

While generative AI holds considerable promise for supporting language learning, many EFL teachers may not possess adequate technological, pedagogical, or ethical preparation to integrate such tools effectively. Preliminary studies indicate that although teachers acknowledge the usefulness of AI, their implementation remains limited by insufficient training, technical infrastructure, and concerns related to academic integrity and data privacy (Al-Khalili, 2022; Shrestha & Yang, 2024). The gap between potential benefits and actual classroom adoption reveals an urgent need to explore teachers' readiness and challenges in the local context.

1.3.Research Questions

1. To what extent are EFL teachers ready to integrate generative AI tools in classroom practices?
2. What factors influence teachers' readiness, including their technological competence, pedagogical beliefs, and AI literacy?
3. What major challenges do teachers face when implementing generative AI in EFL contexts?
4. How do teachers perceive the pedagogical value and risks associated with generative AI tools?

1.4. ResearchHypotheses

1.EFL teachers demonstrate a moderate level of readiness to integrate generative AI tools.

2.Teachers' readiness is influenced by AI literacy, technological competence, and pedagogical knowledge.

3.Teachers face significant challenges, including lack of training, institutional support, and ethical concerns.

4.Teachers hold positive perceptions of AI's pedagogical value while expressing concerns about its risks.

1.5. Objectives of the Study

-To assess EFL teachers' technological, pedagogical, and AI-related readiness.

-To examine teachers' perceptions of generative AI's usefulness and ease of use.

-To identify technical, ethical, and pedagogical challenges affecting AI integration.

-To provide recommendations for enhancing AI-supported language instruction based on findings.

2. Literature Review

2.1. Overview of AI in Education

AI in education encompasses a wide range of technologies that support learning analytics, adaptive learning, automated assessment, and personalized instruction (Holmes et al., 2022). Recent advances in generative AI have intensified interest in AI-driven educational tools capable of producing human-like text, offering real-time feedback, and simulating communicative scenarios. Globally, AI is increasingly integrated into higher education systems, though adoption remains uneven across regions.

2.2. Generative AI in Language Education

Generative AI has demonstrated considerable value for language learning by assisting students with grammar correction, vocabulary enhancement, reading comprehension, and writing development (Golonka, 2023). Tools such as ChatGPT can provide instant content creation, conversation simulations, and feedback that traditional classroom environments often cannot support at scale. Studies suggest that AI can enhance learner engagement and autonomy, especially for writing and speaking tasks (Fitria, 2024). However, concerns persist regarding misuse, over-dependence, and the accuracy of AI-generated content.

2.3. Teachers' Readiness for Technology Integration

Teacher readiness refers to the extent to which teachers possess the knowledge, skills, attitudes, and confidence needed to adopt technological innovations. Research shows that readiness is influenced by teachers' technological competence, professional beliefs, access to institutional support, and perceived usefulness of the tool (Can, 2022). In EFL contexts, readiness for AI integration also depends on teachers' understanding of AI capabilities, ethical dimensions, and classroom applications (Yang *et al*, 2024). Limited training and lack of AI literacy remain persistent barriers.

2.4. Challenges to AI Implementation in EFL Contexts

Teachers face multiple challenges when incorporating generative AI into EFL teaching, including:

– **Technicalbarriers:**unreliable internet connections, limited hardware, and insufficient digital infrastructure (Benlamri& Cheng, 2021).

– **Pedagogical challenges:** lack of training on AI-enhanced pedagogies and difficulty aligning AI tools with curriculum objectives (Tondeur et al., 2022).

– **Ethical concerns:** plagiarism, data privacy, academic integrity, and potential bias in AI-generated content (Dwivedi et al., 2023).

– **Attitudinal challenges:** hesitation or anxiety related to replacing traditional roles or losing control over classroom processes.

These challenges are particularly pronounced in developing EFL contexts where institutional support is limited.

2.5. Theoretical Frameworks (TPACK, TAM, AI Literacy)

This study draws on three theoretical models:

2.5.1.TPACK Framework

The Technological Pedagogical Content Knowledge (TPACK) framework emphasizes that effective technology integration requires teachers to combine technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK) (Mishra & Koehler, 2006; updated discussions in Martin et al., 2021). For AI integration, teachers must understand how generative AI supports language pedagogy and content delivery.

2.5.2. Technology Acceptance Model (TAM)

TAM posits that technology adoption is influenced by perceived usefulness and perceived ease of use (Davis, 1989). Contemporary AI education research confirms that teachers are more likely to use AI tools when they believe the tools enhance teaching effectiveness and require manageable effort (Sánchez-Puentes&García-Peñalvo, 2023).

2.5.3. AI Literacy

AI literacy refers to the knowledge and skills required to understand, use, evaluate, and communicate about AI systems (Long &Magerko, 2020; updated in Sun et al., 2023). In EFL contexts, teachers with higher AI literacy are better equipped to use generative AI responsibly and effectively (Lin & Chen, 2024).

3. Methodology

3.1. Research Method and Design.

This study adopts a mixed-methods design, combining quantitative and qualitative approaches to provide a comprehensive understanding of EFL teachers' readiness to integrate generative AI tools. (Creswell & Creswell, 2018; Johnson, Onwuegbuzie, & Turner, 2007). A This design is selected because it permits direct comparison of numerical trends (teachers' readiness and perceptions findings) with teachers' lived accounts (interviews) to produce a clear understanding of readiness and barriers to AI integration in EFL classrooms (Creswell & Plano Clark, 2018). It also allows for the triangulation of findings by collecting and analyzing numerical data alongside in-depth qualitative insights.

3.2. Sample and Sampling Procedures.

The study population comprised university teachers, and the target sample consisted of 25 full and part time teachers at Ibn Khaldoun University, Tiaret. Teachers were selected using purposive sampling to ensure participants had at least one year of experience with digital instructional tools which maximizes information richness for the qualitative component (Patton, 2015). By centering on teachers, the study seeks to better understand the professional factors influencing the adoption of AI in EFL contexts.

3.3. Research instruments

Data were collected using two complementary research instruments: (1) a structured questionnaire and a semi-structured interviews with teachers (n=25) to triangulate evidence of AI use and its pedagogical integration. Using multiple instruments increases construct validity and allows methodological triangulation (Lincoln &Guba, 1985).

3.3.1. Questionnaire

The questionnaire comprises four sections: Section one is about *Demographics and background* (age, gender, years teaching, and prior AI training) and section two is related to *AI knowledge & usage* (items on familiarity with LLMs, frequency of use). As for the third section, it englobes *Readiness & perceptions* (items operationalizing TPACK constructs and TAM constructs: perceived usefulness, perceived ease of use, behavioural intention) whereas the fourth section is about *Barriers & ethics* (technical, pedagogical, and ethical concerns). This instrument uses 5-point Likert scales (1 = Strongly disagree to 5 = Strongly agree). Scale scores are computed as subscale means (Readiness, Perceived Usefulness, Perceived Ease of Use, Barriers). The questionnaire was adapted from validated instruments in the literature (Davis, 1989; Al-Emran et al., 2021; Pallant, 2020) and refined for the EFL context. Moreover, A pilot study (5 students) tested item comprehension; items with low clarity were reworded. As for piloting of the research instrument, internal consistency reliability for multi-item scales was assessed with Cronbach's alpha during pilot and main data collection; alpha values were more than (70), so they were considered acceptable.

3.3.2. Semi-structured Interview

The teacher's interview contains height main open-ended prompts with follow-ups like (experience using AI, perceived benefits and risks, concrete classroom examples, institutional support needs). Interviews are audio-recorded with the teachers' consent, and transcribed verbatim. The qualitative protocol prioritizes eliciting concrete examples of AI integration, teacher decision-making, and reflections on student outcomes, thereby linking practice to TPACK and TAM constructs (Mishra & Koehler, 2006; Venkatesh& Davis, 2000).

4. Data Analysis Procedures

Quantitative data (questionnaires) are analysed using SPSS: descriptive statistics (means, SDs), reliability analysis (Cronbach's alpha). Furthermore, qualitative data (interviews) are analysed via thematic analysis (Braun & Clarke, 2006) using theme development.

5. Analysis of Collected Data

This section presents the results of both quantitative (teachers 'questionnaires) and qualitative (semi-structured teacher interviews) data.

5.1. Analysis of the Questionnaire Results

Table 1. Summary of Questionnaire Findings

Construct	Item Focus	Agree (%)	Neutral (%)	Disagree (%)
AI Literacy	Understanding AI concept	44%	20%	36%
	Understanding how AI works	40%	16%	44%
	Writing effective prompts	36%	24%	40%
	Evaluating AI output	32%	28%	40%
	Awareness of ethical issues	48%	20%	32%
	Confidence in using AI	36%	16%	48%
PerceivedUsefulness	Improveswriting	80%	12%	8%
	Generatesmaterials	84%	8%	8%
	Provides feedback	88%	8%	4%
	Enhances engagement	76%	16%	8%
	Saves time	92%	4%	4%
	Improvesoutcomes	84%	8%	8%
Ease of Use	Easy to learn	68%	16%	16%
	Easy to use	72%	12%	16%
	No assistance needed	60%	16%	24%

	User-friendlytools	76%	12%	12%
	Convenient to use	80%	8%	12%
Teacher Readiness	Integrate AI	54%	21%	25%
	Design AI activities	50%	25%	25%
	Guide students	58%	17%	25%
	Combine pedagogy& AI	54%	21%	25%
	Teach AI writing	46%	25%	29%
EthicalConcerns	Misuserisk	88%	8%	4%
	Plagiarismrisk	92%	4%	4%
	Reliability issues	84%	8%	8%
	Data privacy	80%	12%	8%
	Needregulation	88%	8%	4%
Barriers	Lack of training	92%	4%	4%
	Internet issues	76%	12%	12%
	Institutional support	84%	8%	8%
	Lack of confidence	68%	12%	20%
	Overreliancerisk	80%	8%	12%
Behavioral Intention	Continue using AI	84%	8%	8%
	Recommend AI	80%	12%	8%
	Future integration	88%	8%	4%

5.1.1 AI Literacy

As indicated in the above table, the results indicate that teachers' AI literacy remains limited and uneven. Only 44% of participants reported understanding the concept of AI, while 40% indicated understanding how AI tools function. A notable 48% of teachers expressed lack of confidence in using AI tools, which represents the highest level of disagreement in this section. Furthermore, only 32% reported being able to evaluate AI-generated outputs, suggesting limited critical engagement with AI systems. While 48% demonstrated awareness of ethical issues, this awareness does not appear to translate into operational competence. Overall, these findings show that teachers possess partial awareness but insufficient practical mastery of AI tools.

5.1.2 Perceived Usefulness

Teachers demonstrated very strong positive perceptions of AI usefulness. The highest level of agreement (92%) was observed for the statement that AI saves time, indicating that efficiency is a key perceived benefit. Additionally, 88% of participants agreed that AI provides useful feedback, while 84% acknowledged its role in generating teaching materials and improving learning outcomes. Even the lowest agreement in this section (76%) remains significantly high. These results clearly indicate that teachers strongly recognize the pedagogical value of AI tools, particularly in enhancing productivity and instructional support.

5.1.3 Perceived Ease of Use

The results suggest that AI tools are generally perceived as accessible and user-friendly, with 80% of teachers agreeing that they are convenient to use. Similarly, 76% described AI tools as user-friendly, and 72% indicated that they are easy to use. However, 24% of participants reported needing assistance, which highlights a notable gap in independent usage. This suggests that while AI tools are not inherently difficult, a significant minority of teachers still require support.

5.1.4 Teacher Readiness

Teacher readiness appears moderate rather than high. The highest agreement (58%) relates to guiding students in AI use while the lowest (46%) concerns teaching AI-assisted writing. A consistent combination (of neutral and disagree) across the items is 43% (guide students) to 49 % (teach AI writing) which indicates that a considerable proportion of teachers do not feel adequately prepared. These findings may suggest that readiness is developing but not yet fully established.

5.1.5 Ethical Concerns

Ethical concerns are highly prominent. The highest agreement (92%) relates to plagiarism risk, followed by misuse (88%) and the need for regulation (88%).

These results indicate that teachers are highly aware of the risks associated with AI, particularly regarding academic integrity.

5.1.6 Barriers

The most critical barrier identified is lack of training (92%), followed by institutional support (84%) and internet limitations (76%). These findings indicate that barriers are largely external and systemic, rather than purely individual.

5.1.7 Behavioral Intention

Teachers show strong behavioral intention to adopt AI tools. The highest agreement (88%) relates to future integration, indicating a clear willingness to incorporate AI into teaching practices.

6. Analysis of the Interview Results

This section presents the findings from semi-structured interviews conducted with 25 EFL teachers. The data were analyzed using thematic analysis.

Theme 1: Perceived Pedagogical Benefits of AI

The findings indicate that teachers strongly recognize the pedagogical value of AI tools. The most frequently cited benefit was time-saving, reported by 22 teachers (88%), followed by improvement in writing skills (20 teachers; 80%). Additionally, 19 teachers (76%) highlighted increased student engagement, while 18 teachers (72%) emphasized the usefulness of instant feedback.

Teachers consistently described AI as a tool that enhances both teaching efficiency and learning outcomes.

– (T7) *"AI helps me prepare lessons much faster, what used to take hours now takes minutes."*

– (T12) *"My students improve their writing when they use AI feedback—it's immediate and clear."*

– (T3) *"It makes students more engaged, especially when they interact with the tool directly."*

Theme 2: AI as a Supportive Teaching Tool

The majority of teachers view AI as a supportive rather than a replacement tool. Specifically, 21 teachers (84%) emphasized that AI cannot replace the teacher, while 18 teachers (72%) stated that it supports teaching tasks, and 17 teachers (68%) described it as a complementary tool.

This reflects a strong belief in the continued importance of the teacher's pedagogical role.

-(T15) *"AI is helpful, but it will never replace the teacher's role in guiding students."*

-(T9) *"I see it as an assistant—it supports me, but I am still in control of the lesson."* (

-(T21) *"Teaching is not only about content; it's also about interaction, which AI cannot fully provide."*

Theme 3: Ethical Concerns and Risks

Ethical concerns emerged as one of the most dominant themes. A total of 23 teachers (92%) expressed concern about plagiarism, while 22 teachers (88%) highlighted misuse of AI tools. Furthermore, 20 teachers (80%) warned about overreliance, and 19 teachers (76%) pointed to reduced critical thinking.

These findings demonstrate that teachers are highly aware of the potential negative implications of AI use.

-(T4) *"Students may rely too much on AI and stop thinking for themselves."*

-(T18) *"Plagiarism is a serious issue—students can generate full essays without effort."*

-(T11) *"There is a risk of misuse if there are no clear rules or guidance."*

Theme 4: Lack of Training and Professional Preparation

A large proportion of teachers emphasized insufficient training. Specifically, 21 teachers (84%) reported lack of formal training, while 22 teachers (88%) expressed the need for workshops. In addition, 20 teachers (80%) highlighted the need for practical guidance.

These findings indicate that teachers require structured and applied professional development to effectively integrate AI.

-(T6) *"We need proper training; we are expected to use AI, but no one teaches us how."*

-(T14) *"Workshops would help us understand how to use AI in real classroom situations."*

-(T2) *"I know AI is useful, but I don't know how to integrate it into my lessons."*

Theme 5: Institutional and Technical Barriers

Institutional and infrastructural barriers were widely reported. 21 teachers (84%) identified lack of institutional support, while 20 teachers (80%) noted the absence of clear policies. Additionally, 19 teachers (76%) reported poor internet access as a key challenge.

These findings suggest that AI integration is constrained by broader systemic conditions rather than individual limitations alone.

-(T10) *"Our institution does not provide any support or guidance for using AI."*

-(T22) *"There are no clear policies about AI use, which makes it difficult to implement."*

-(T5) *"Sometimes the internet is too weak to use these tools effectively in class."*

7.Discussion of Main Findings

This study examined EFL teachers' readiness to integrate generative AI tools, the factors influencing this readiness, the challenges encountered, and teachers' perceptions of AI's pedagogical value and risks. The discussion integrates both quantitative findings (questionnaire) and qualitative insights (interviews) to confirm or reject the above proposed hypotheses.

With respect to the first hypothesis, which assumes that EFL teachers demonstrate readiness to integrate generative AI tools into classroom practices, the findings indicate that EFL teachers demonstrate a moderate level of readiness, though not without important limitations. Quantitative results indicate that 54% of teachers reported being able to integrate AI into teaching, 50% could design AI-based activities, and only 46% felt confident teaching AI-assisted writing, while 20% to 24% expressed disagreement, reflecting notable uncertainty.

These findings are strongly reinforced by the evidence from the interview. Although 20 teachers (80%) recognized the pedagogical benefits of AI, many simultaneously reported limited preparedness due to insufficient training. For instance, one teacher stated: *"I know AI is useful, but I don't know how to integrate it into my lessons."* (T2). Similarly, 21 teachers (84%) reported lack of formal training, and 20 teachers (80%) expressed the need for practical guidance, indicating that readiness is not solely a matter of willingness but also of competence and support.

The second hypothesis, which posits that teachers' readiness is influenced by AI literacy, technological competence, and pedagogical knowledge, is strongly confirmed by the findings. First, AI literacy appears as a central limiting factor. Quantitative data show that only 44% of teachers understand the concept of AI, 40% understand how it works, and 48% lack confidence in using AI tools. This is clearly echoed in interview responses, where 21 teachers (84%) highlighted lack of training, and 22 teachers (88%) explicitly called for professional development workshops. As one participant noted: *"We need proper training; we are expected to use AI, but no one teaches us how."* (T6). Second, technological competence contributes to readiness. While 72% of teachers reported that AI tools are easy to use, 24% indicated needing assistance, suggesting uneven digital skills. Third, pedagogical knowledge remains a key challenge. Only 56% of teachers felt capable of teaching AI-assisted writing, reflecting difficulty in integrating AI into pedagogical practices rather than merely using the tools. This is supported by qualitative insights such as *"I can use AI, but I'm not sure how to use it effectively in teaching."* (T14)

The third hypothesis, which assumes that teachers face significant challenges in integrating AI, is strongly supported. Results from the questionnaire identify lack of training as the most critical barrier (92%), followed by lack of institutional support (84%), internet limitations (76%), and lack of confidence (68%). Ethical concerns also emerge strongly, with 92% reporting plagiarism risks and 88% expressing concerns about misuse. These findings are powerfully corroborated by the interview data. Specifically, 21 teachers (84%) emphasized insufficient training, 21 teachers (84%) reported lack of institutional support, and 19 teachers (76%) highlighted technical constraints. Teachers also articulated

ethical concerns vividly, as reflected in the following statements *"Plagiarism is a serious issue—students can generate full essays without effort."* (T18) and *"There is a risk of misuse if there are no clear rules."* (T11). Additionally, concerns about cognitive impact were highlighted, with 20 teachers (80%) warning against overreliance on AI and 19 teachers (76%) indicating risks to critical thinking: *"Students may rely too much on AI and stop thinking for themselves."* (T4)

The fourth hypothesis, which proposes that teachers hold both positive and critical perceptions of generative AI tools is confirmed demonstrating that teachers hold simultaneously positive and critical perceptions of generative AI tools. On the positive side, quantitative results show very high agreement levels regarding AI's pedagogical value, with 92% indicating that AI saves time, 88% recognizing its usefulness for feedback, and 84% acknowledging its role in improving learning outcomes and generating materials. These results are strongly supported by interview data, where 22 teachers (88%) highlighted time-saving benefits, 20 teachers (80%) emphasized improvements in writing, and 19 teachers (76%) reported increased engagement. For example, *"AI helps me prepare lessons much faster; what used to take hours now takes minutes."* (T7) and *"My students improve their writing with AI feedback—it's immediate and clear."* (T12)

At the same time, teachers expressed strong awareness of risks. Quantitative findings reveal that 92% are concerned about plagiarism, 88% about misuse, and 84% about reliability issues. These concerns are echoed in qualitative responses and *"Students can use AI without understanding the content."* (T19)

Moreover, 21 teachers (84%) emphasized that AI cannot replace the teacher, reinforcing the importance of human pedagogical roles: and *"AI is helpful, but it will never replace the teacher."* (T15)

The integration of findings across both instruments leads to a central conclusion:

EFL teachers exhibit strong willingness and positive perceptions toward generative AI, but their readiness remains constrained by limited AI literacy, insufficient training, and systemic institutional barriers.

This conclusion is empirically supported by the contrast between:

– High perceived usefulness (92%) and intention (88%)

– Moderate readiness (56%–64%)

– High reported barriers (84%–92%)

The qualitative data further deepen this understanding by revealing the lived experiences behind these numbers, particularly the tension between enthusiasm and uncertainty.

From a theoretical perspective, the findings extend existing models by demonstrating that:

– TAM explains positive perceptions (usefulness, intention)

– TPACK explains the difficulty of pedagogical integration

– AI literacy acts as a critical bridge between perception and practice Thus, the study contributes to the literature by proposing that AI literacy is the key mediating variable enabling the transition from acceptance to effective implementation.

8. Recommendations and Implications

Based on the study's findings, several evidence-based recommendations are proposed to support the effective and ethical integration of generative AI tools in EFL education. These recommendations address institutional, pedagogical, technological, and ethical dimensions and are grounded in the TPACK and TAM frameworks, as well as AI literacy principles.

8.1. Institutional-Level Recommendations

8.1. 1. Establish Structured AI Training Programs

Given the low AI literacy findings, institutions should develop mandatory professional development workshops focusing on:

– Fundamentals of AI and large language models
– Practical classroom applications
– Prompt engineering for EFL contexts
– Detecting AI misuse and plagiarism
– Ethical and responsible use of generative AI

8.1.2. Develop Clear Institutional Policies

Institutions must establish AI use guidelines that address:

– Data privacy
– Academic integrity
– Acceptable and unacceptable uses
– AI disclosure norms (students must state when AI contributed to work)

Such policies reduce teachers' anxiety about ethical risks, which were rated high

8.2 Teacher-Level Recommendations

8.2.1. Adopt a Blended AI–Human Feedback Pedagogical Model

Findings show students strongly prefer **AI + teacher combined feedback**. Teachers should:

- Let AI handle surface-level corrections (grammar, spelling, cohesion)
- Provide human feedback for higher-order thinking (argumentation, coherence, creativity)

This model enhances teacher workload efficiency while ensuring pedagogical depth (Holmes et al., 2022).

8.2.2. Integrate AI in TPACK-Informed Lesson Design

Teachers should use TPACK to determine appropriate uses of AI in lesson phases:

- **Content Knowledge (CK):** AI-generated examples, texts

- Pedagogical Knowledge (PK): formative feedback through AI

- Technological Knowledge (TK): tool operation and prompt design

Full TPACK integration bridges the gap between teachers' technological readiness and effective classroom use.

8.3 Curriculum-Level Recommendations

8.3.1. Embed AI Literacy in EFL Courses

Since students increasingly rely on AI tools, curricula should include:

-Critical evaluation of AI outputs

- Ethical writing practices

- Understanding of algorithmic bias

- Responsible AI-assisted research skills

This aligns with global trends promoting AI literacy in higher education (Sun et al., 2023).

8.4 Policy-Level Recommendations

8.4.1. National Guidelines for AI in Language Education

The Ministry of Higher Education should:

- Provide national AI teaching standards

- Ensure equitable access to digital infrastructure

- Offer national training and certification in AI pedagogy

This addresses the top two challenges: lack of training and infrastructure.

8.5 Implications for Further Research

-Comparative studies between AI-trained vs. non-trained teachers

-Longitudinal studies on AI impacts on writing proficiency

-Explorations of students' ethical reasoning around AI

Conclusion

This study explored EFL teachers' readiness and challenges in integrating generative AI tools into language classrooms in Algeria. Results indicate that while teachers demonstrate moderate technological readiness and positive attitudes toward AI usefulness, their AI literacy levels remain low, and significant technical, pedagogical, and ethical challenges hinder effective adoption.

Quantitative findings revealed high perceived usefulness and behavioral intention to use AI, confirming that teachers are open to AI integration. However, the low AI literacy level and severe training gaps indicate a mismatch between willingness and ability. Qualitative data further emphasized teachers' concerns about plagiarism, data privacy, and assessment validity, reflecting global debates in AI integration.

The study concludes that successful AI integration requires systematic training, institutional support, ethical guidelines, and infrastructure development. A blended model combining human and AI feedback appears optimal, aligning with both teacher and student preferences.

Overall, generative AI offers transformative potential for EFL teaching, but its benefits can only be realized through responsible, informed, and well-

supported implementation. The findings contribute to broader discussions on the future of AI-enhanced language education and provide concrete recommendations for policymakers, teacher educators, and institutions seeking to modernize EFL instruction in the age of AI.

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