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# Artificial Intelligence-Supported English Language Learning in Islamic Education: Pedagogical Opportunities, Challenges, and Ethical Considerations

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***Abstract:***
*The rapid diffusion of artificial intelligence (AI) into second-language pedagogy has generated extensive evidence on adaptive platforms, conversational agents, and automated feedback for English as a Foreign Language (EFL) learners, yet comparatively little conceptual work addresses how these tools intersect with the normative commitments of Islamic higher-education institutions operating in low-resource, post-conflict settings. This paper synthesises 50 peer-reviewed and institutional sources to examine the pedagogical opportunities, implementation challenges, and ethical considerations of AI-supported English language learning within Islamic education, using Samangan University, Afghanistan, as an illustrative case context. Employing a critical literature review combined with a proposed sequential explanatory mixed-methods design, the paper develops a conceptual framework in which AI affordances are filtered through Islamic pedagogical values (tawhid, adab, tarbiyah) as a contextual condition, and further conditioned by ethical and institutional safeguards; this framework is conceptual and has not yet been empirically tested. Findings from the synthesised literature indicate that AI can meaningfully support personalised feedback, speaking practice, and access for geographically isolated learners, but that infrastructural, financial, and digital-literacy constraints, together with concerns over content authenticity, data privacy, and the erosion of teacher-mediated moral formation, require a values-sensitive rather than purely technocratic model of adoption. The paper proposes a research instrument and institutional roadmap for future empirical validation at Samangan University and offers policy recommendations for Afghan higher-education stakeholders seeking to integrate AI responsibly into EFL instruction.*
***Keywords:*** *Artificial intelligence; English language learning; Islamic education; educational ethics; Afghanistan*

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## INTRODUCTION

Artificial intelligence (AI) has moved from a peripheral experimental technology to a mainstream component of language-education infrastructure. Systematic reviews spanning more than a decade of research report consistent, if uneven, evidence that AI-based tools such as intelligent tutoring systems, automated writing evaluators, and conversational chatbots can improve specific dimensions of second-language performance, including writing accuracy, vocabulary retention, and oral fluency (Zawacki-Richter et al., 2019; Guo et al., 2024; Koç & Savaş, 2025). The emergence of generative AI, exemplified by large language models capable of open-ended dialogue, has intensified this trend: recent meta-syntheses covering the 2024-2025 period describe a genuine paradigm shift in English as a Foreign Language (EFL) pedagogy, with productive skills such as writing and speaking benefiting most consistently from AI-mediated feedback and practice (Jeon, 2025; Kundu & Bej, 2025; Deng & Jamaludin, 2026).

This growth in the evidence base has not been geographically or institutionally even. Deng and Jamaludin (2026) note that empirical studies on generative AI in EFL instruction concentrate

heavily in East Asian and Middle Eastern higher-education settings, while low-income and conflict-affected contexts remain comparatively under-examined. This asymmetry is consequential because the pedagogical and ethical calculus of AI adoption is not context-neutral: infrastructure, teacher preparedness, and institutional values all condition whether AI functions as an equalising or a stratifying force (Kundu & Bej, 2025; Al-khresheh, 2024).

A second, largely parallel body of scholarship has begun to interrogate what AI adoption means specifically for Islamic educational institutions. This literature converges on a shared concern: that AI systems, most of which are trained and optimised outside any explicit religious or moral framework, may be pedagogically powerful while remaining ethically under-specified for institutions whose mandate extends beyond content transmission to character formation (tarbiyah) and spiritual accountability. These commitments are commonly anchored in three interlocking concepts: tawhid (the oneness of God and the accountability of all human action, technology use included, to that ultimate reference point), adab (right conduct and intellectual-moral comportment cultivated through the teacher-student relationship), and tarbiyah (holistic character formation that extends beyond content transmission). Any framework for AI integration at such institutions must therefore be evaluated against these commitments and not solely against instructional-efficiency criteria. Scholars examining Islamic schools and universities in Indonesia, Saudi Arabia, and beyond have identified recurring tensions around content conformity with Islamic teachings, algorithmic bias reflecting secular design assumptions, data privacy, and the risk of "dehumanisation" in learning relationships that Islamic pedagogy has traditionally treated as sacred trusts between teacher and student (Achruh et al., 2024; Hasanah et al., 2024). Ethics-focused work grounded in Islamic jurisprudence has proposed virtue-based and maqasid al-shariah-oriented frameworks as an alternative to purely utilitarian AI-governance models (Raquib et al., 2022; Budiman et al., 2024), while other scholars have introduced the concept of muraqabatullah, or the awareness that technology use remains under divine observation, as an organising ethical principle for hybrid religious learning environments (Jumrianah, 2025).

These two literatures rarely intersect with a third, more localised body of work: research on English language teaching (ELT) in Afghanistan. Afghan higher education has faced a distinctive constellation of challenges, including limited information and communication technology (ICT) infrastructure, under-resourced curricula, and strategic planning that has historically preceded rather than followed genuine needs analysis (Wali & Zafir, 2022). English retains high strategic value in Afghanistan as the language of higher education, medicine, and international engagement, yet EFL instruction continues to rely heavily on grammar-translation methods, with technology access remaining inconsistent between urban and provincial universities (Wali & Zafir, 2022; Faizy et al., 2026). Preliminary exploratory work on AI-based tools in Afghan English classrooms suggests considerable latent interest among students and instructors, alongside caution grounded in unfamiliarity with AI tools and concern about their appropriateness for a still-developing digital infrastructure (Yaseeni, 2025, preprint, not yet peer-reviewed).

Samangan University, a public university in northern Afghanistan, exemplifies the setting in which these three literatures converge. As an Islamic-values-informed public institution operating with the infrastructural and resourcing constraints typical of Afghan provincial universities, Samangan's English Department represents a context in which the promises of AI-supported EFL learning, the ethical demands of Islamic pedagogy, and the practical constraints of a fragile-state higher-education system must be reconciled simultaneously. To date, however, no published study has examined AI-supported EFL learning at Samangan University specifically, and the broader literature offers no integrated conceptual model connecting AI pedagogical affordances, Islamic educational values, and the structural realities of Afghan higher education.

This paper addresses that gap. Rather than reporting primary survey or interview data, which have not yet been collected at Samangan University, the paper undertakes a critical synthesis of 50 sources spanning general AI-in-education research, AI-EFL pedagogy, Islamic education

ethics, technology-acceptance theory, and Afghanistan-specific higher-education scholarship. It develops a conceptual framework situating AI-supported EFL learning within Islamic pedagogical values and ethical safeguards, and it proposes a concrete mixed-methods research design through which the framework can be empirically validated at Samangan University in future work. The paper is guided by four research questions:

RQ1: What pedagogical opportunities does the existing literature identify for AI-supported EFL learning, and which are most transferable to a resource-constrained Afghan university context?

RQ2: What implementation challenges and barriers are documented for AI adoption in EFL and Islamic-education settings, and how do these map onto Samangan University's institutional conditions?

RQ3: What ethical considerations, grounded in Islamic pedagogical values, should govern AI-supported English language learning in Islamic higher-education institutions?

RQ4: What research design and institutional roadmap would allow these opportunities, challenges, and ethical considerations to be empirically tested at Samangan University?

The remainder of the paper is organised according to the journal's recommended structure. Section 2 details the literature synthesis procedure and the proposed mixed-methods design for future data collection at Samangan University. Section 3 presents the synthesised findings organised around the three substantive research questions and offers a conceptual, literature-grounded application to the Samangan context, explicitly distinguished from empirical results. Section 4 concludes with recommendations, limitations, and directions for future research.

## METHOD

### Research Design

This paper adopts a two-part methodological structure. First, it employs a critical, narrative literature-review design to synthesise pedagogical, technological, ethical, and contextual scholarship relevant to AI-supported EFL learning in Islamic higher education. Narrative synthesis was chosen over a formal systematic review protocol because the aim is integrative and conceptual, namely, to connect literatures that have so far developed largely in isolation from one another, rather than to quantify effect sizes within a single well-defined intervention type. Second, building on this synthesis, the paper proposes a sequential explanatory mixed-methods design intended for future empirical implementation at Samangan University. This second component is explicitly a research proposal embedded within the paper rather than a completed study: no primary survey or interview data from Samangan University are reported here, and all quantitative figures presented in Section 3 describing the reviewed literature (e.g., Figure 1) refer to counts of sources synthesised for this review, not to data collected from Samangan students or staff.

### Literature Search and Source Selection

Sources were identified through structured searches of Scopus-indexed and Web-of-Science-indexed journals, ERIC, and Google Scholar, using combinations of the terms "artificial intelligence," "English as a Foreign Language," "EFL," "chatbot," "generative AI," "Islamic education," "ethics," "technology acceptance," and "Afghanistan." Priority was given to systematic reviews and meta-syntheses published in 2024-2026 to capture the post-ChatGPT surge in AI-EFL research, supplemented by foundational technology-acceptance and computer-assisted language-learning sources published between 1989 and 2021, ethics-of-AI-in-education sources, Islamic-education-specific AI scholarship, and Afghanistan-specific higher-education and ELT studies. Sources were included if they (a) addressed AI or a specific AI-enabled tool in a language-learning or broader educational context, (b) addressed the ethics or governance of AI in education generally or in Islamic education specifically, (c) addressed technology-acceptance theory relevant to AI adoption in higher education, or (d) addressed English language teaching, higher-education policy,

or ICT infrastructure in Afghanistan. In total, 50 sources meeting these criteria were retained and are synthesised below and listed in the References section.

## Thematic Synthesis Procedure

Retained sources were read and coded inductively against three broad themes corresponding to the paper's first three research questions: pedagogical opportunities, implementation challenges, and ethical considerations. A fourth, context-specific theme captured findings directly relevant to Afghanistan or comparable low-resource, conflict-affected higher-education settings. Coding was conducted by the author using a coding matrix in which each source was tagged for the theme(s) it substantively addressed; a source could receive more than one tag. The distribution of sources across the first three themes, disaggregated into finer sub-themes, is reported descriptively in Figure 1 below, as a characterisation of the literature base consulted for this review rather than as an empirical finding. Because a source could be tagged to more than one theme, the counts reported in Figure 1 sum to more than the total number of sources reviewed.

Writing- and speaking-related pedagogical applications and ethics-and-privacy considerations receive the most sustained attention in the corpus, while developing-country and low-resource contexts, though present, remain comparatively less represented.

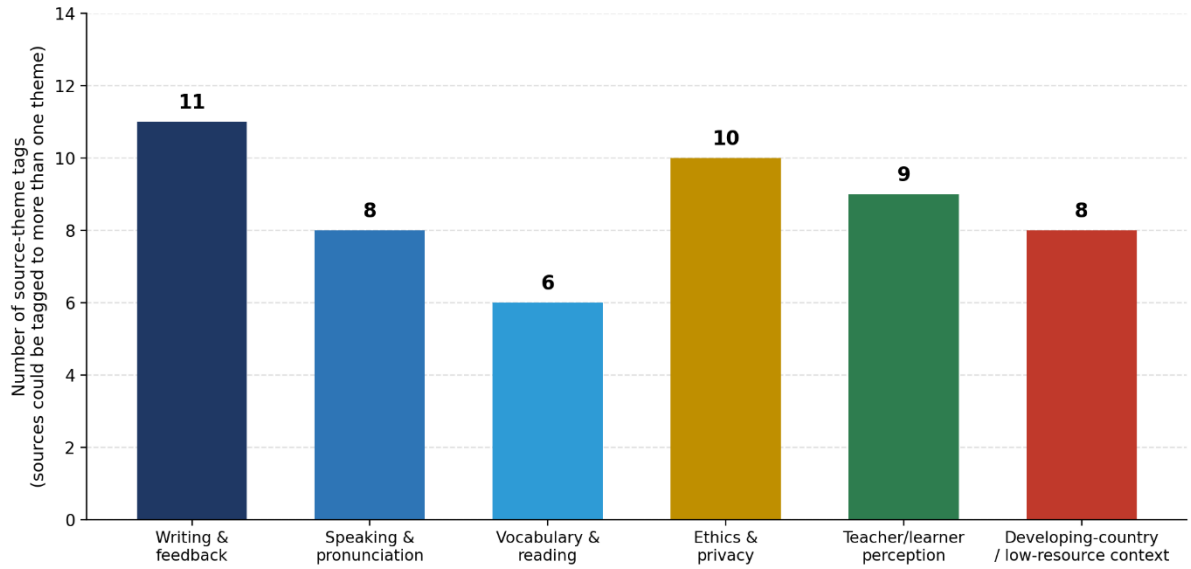


**Figure 1.** Thematic distribution of the 50 sources synthesised for this literature review

## Proposed Mixed-Methods Design for Samangan University

To move from conceptual synthesis toward institutionally grounded evidence, this paper proposes a sequential explanatory mixed-methods design for future implementation in the English Department at Samangan University (Figure 2). The design unfolds in four phases. In Phase 1, a closed-ended questionnaire combining constructs from the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology (Davis, 1989; Venkatesh et al., 2003, 2012) with Islamic-values-specific constructs adapted from Abubakari et al. (2023) would be administered to a purposively stratified sample of EFL students and instructors at Samangan University. In Phase 2, semi-structured interviews with a smaller, purposively selected subsample would be conducted to explain and contextualise quantitative patterns, following the sequential explanatory logic described by Creswell and Plano Clark (2018). In Phase 3, descriptive and inferential statistics from the survey would be triangulated with thematic analysis of interview transcripts. In Phase 4, findings would be translated into institution-specific recommendations for ethical, values-aligned AI integration. Table 1 outlines the proposed construct structure for the Phase 1 instrument.

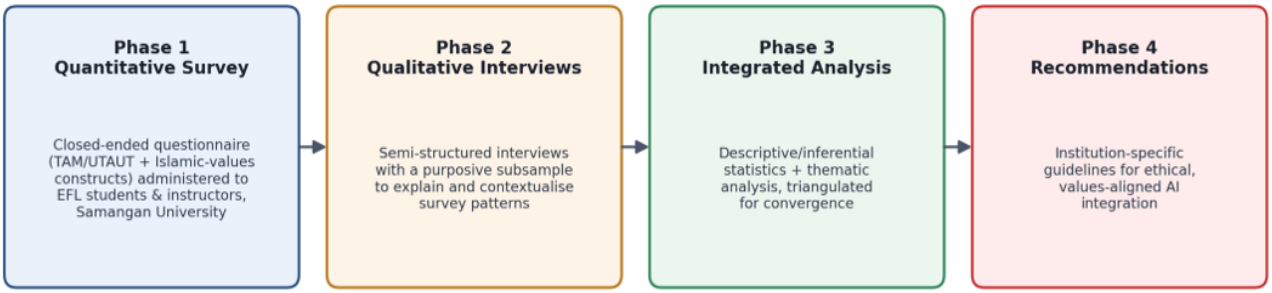


**Figure 2.** Proposed sequential explanatory mixed-methods design for future empirical work at Samangan University.

Table 1 presents the proposed construct structure for the Phase 1 questionnaire, integrating technology-acceptance and Islamic-values dimensions.

**Table 1:** Constructs, Sample Measurement Items, and Theoretical Foundations for AI-Assisted EFL Learning Adoption

| Construct | Sample Item (to be piloted) | Primary Source / Theoretical Basis |
|---|---|---|
| Performance expectancy | "Using AI tools would help me improve my English faster." | Venkatesh et al. (2003, 2012); Davis (1989) |
| Effort expectancy | "Learning to use AI-based English tools would be easy for me." | Venkatesh et al. (2003); Xue et al. (2024) |
| Facilitating conditions | "I have the internet access and devices needed to use AI tools for English study." | Venkatesh et al. (2012); Abbad (2021) |
| Trust and privacy | "I trust that my data will be handled appropriately if I use AI English-learning tools." | Adapted from AI-adoption UTAUT extensions in developing-country academia |
| Religious/value alignment | "AI-based learning tools should be reviewed to ensure they respect Islamic teachings." | Abubakari et al. (2023); Hasanah et al. (2024) |
| Perceived teacher-role preservation | "I am concerned that AI tools might reduce my interaction with my English teacher." | Holmes et al. (2022); Achruh et al. (2024) |
| Behavioural intention | "I intend to use AI-based tools to support my English learning in the coming semester." | Venkatesh et al. (2003) |

The instrument would be administered in Dari/Pashto with an English-language option, piloted with a small non-sampled group for clarity, and reviewed by the Samangan University research ethics process prior to distribution, in line with standard human-subjects protections for survey research (informed consent, voluntary participation, anonymised data storage, and the right to withdraw).

**Scope and Limitations of the Methodological Approach**

Because this paper is a conceptual synthesis rather than a completed empirical study, its findings should be read as literature-grounded propositions rather than institutionally verified results. The proposed instrument and design in Section 2.4 have not yet been piloted, and the discussion of Samangan University in Section 3.4 draws on documented conditions in comparable Afghan higher-education institutions rather than on primary data collected at Samangan itself. This limitation is addressed directly in Section 4. A further limitation is that several claims about Afghan learners' and instructors' attitudes toward AI-based tools draw on a single, not-yet-peer-reviewed

preprint (Yaseeni, 2025); these claims should be treated as preliminary until corroborated by peer-reviewed or primary-data sources.

## RESULTS AND DISCUSSION

This section synthesises the findings of the literature review structured around the paper's three substantive research questions, followed by a conceptual application to Samangan University grounded in documented conditions from comparable Afghan institutions. Consistent with Section 2.5, the Samangan-specific discussion (Section 3.4) presents literature-informed propositions rather than empirical results from Samangan University itself.

### Pedagogical Opportunities of AI-Supported EFL Learning (RQ1)

The reviewed literature converges on several recurring pedagogical affordances of AI in EFL contexts. First, personalisation and adaptive sequencing consistently emerge as the most cited benefit: adaptive platforms can adjust content difficulty and pacing to individual learners, a function especially valuable in large, multi-level Afghan classrooms where a single teacher often manages students with widely varying English proficiency (Dutta et al., 2024; Ali et al., 2024). Second, automated feedback on writing has strong empirical support: Guo et al. (2024) found that AI-supported peer-feedback tools improved both feedback quality and writing ability among university EFL students, while Alberth (2023) similarly reports that generative AI tools can meaningfully support the drafting and revision process, provided students are taught to use them critically rather than as a substitute for their own composition. Third, conversational and voice-based chatbots show robust evidence for improving speaking fluency and reducing speaking anxiety; Duong and Suppasetseree (2024) documented measurable gains in Vietnamese undergraduates' speaking skills following chatbot-mediated practice, while Alharthi (2024) found that voice-assistant-based pronunciation coaching improved EFL learners' articulation. Fourth, AI-supported vocabulary and reading tools, including intelligent flashcard and gamified assessment systems, are reported to increase engagement and retention (Alghamdi, 2025).

A fifth and, for the Afghan context, particularly salient opportunity is accessibility. AI-supported distance and self-paced learning tools can partially compensate for the shortage of qualified English instructors in provincial universities and for the mobility and safety constraints that some Afghan learners, particularly women, may face in accessing in-person instruction (Yaseeni, 2025). Learning-management and learning-content-management systems, framed within "smart university" models that gained traction during the COVID-19 pandemic, offer a template for how AI-supported distance EFL provision might extend English instruction to underserved provinces (Yaseeni, 2025).

Figure 3 synthesises these pedagogical affordances into a conceptual framework in which AI inputs (chatbots, automatic speech recognition, adaptive platforms, automated writing feedback) are not assumed to translate directly into learning outcomes, but are filtered through Islamic pedagogical values as a contextual condition, and further conditioned by ethical and institutional safeguards discussed further in Section 3.3. These relationships are proposed conceptually; the terms used here are not statistical claims, since the framework has not yet been empirically tested.

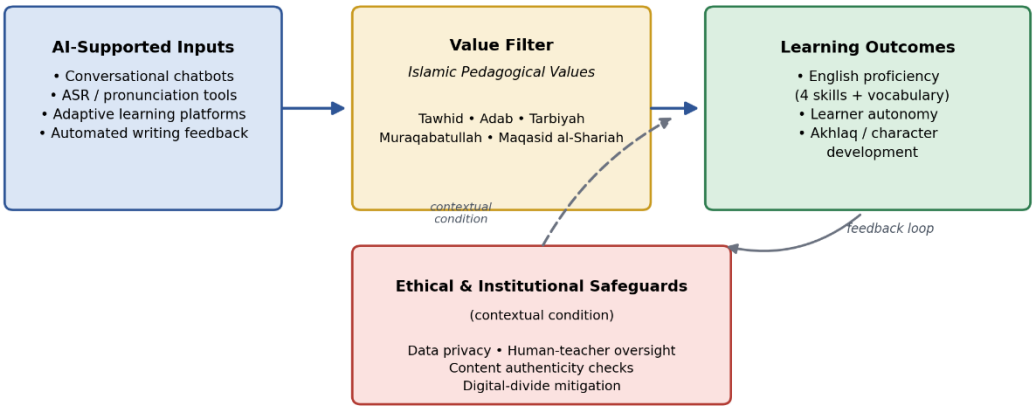


**Figure 3.** Conceptual framework linking AI-supported inputs, Islamic pedagogical values as a contextual filter, ethical safeguards, and EFL learning outcomes.

Table 2 summarises the principal categories of AI tools identified in the literature, their targeted EFL skill domains, and considerations specific to Islamic-values-informed institutions such as Samangan University.

**Table 2:** AI-Based Tools for EFL Learning and Their Alignment with Islamic-Values Contexts

| **Tool Category** | Representative Examples | **Primary EFL Skill Targeted** | **Consideration for Islamic-Values Context** |
|---|---|---|---|
| Generative AI chat assistants | ChatGPT-type conversational agents | Writing, speaking, vocabulary | Requires content-review protocols to avoid inaccurate or value-inconsistent religious references (Hasanah et al., 2024) |
| Automated writing evaluators | Grammarly-type grammar/style checkers | Writing accuracy and revision | Should supplement, not replace, teacher feedback central to tarbiyah-oriented pedagogy (Achruh et al., 2024) |
| Speech-recognition pronunciation coaches | Siri-type voice assistants, ASR apps | Speaking, pronunciation | Useful for gender-segregated or remote practice contexts (Alharthi, 2024) |
| Adaptive learning platforms | Personalised sequencing systems, Kahoot/Quizlet-type assessment tools | Vocabulary, reading, self-paced review | Data-privacy safeguards needed given limited institutional IT capacity (UNESCO, 2022) |
| Machine translation tools | Neural machine-translation engines | Comprehension support, scaffolding | Risk of over-reliance undermining independent language development (Alharbi, 2023) |
| Voice/text chatbots for | Task-based dialogue agents | Speaking fluency, willingness to communicate | Should be paired with human mentorship to preserve relational |

| Tool Category | Representative Examples | Primary EFL Skill Targeted | Consideration for Islamic-Values Context |
|---|---|---|---|
| | conversation practice | | dimension of learning (Zhang et al., 2025) |

**Implementation Challenges (RQ2)**

Against these opportunities, the literature documents a consistent set of implementation barriers, several of which are amplified in fragile-state and low-resource settings such as Afghanistan. Infrastructural constraints, including unreliable electricity, limited broadband access, and insufficient institutional devices, recur as the most fundamental barrier (Dutta et al., 2024; Wali & Zafir, 2022). In the Afghan higher-education system specifically, national strategic planning for English language teaching has historically been developed before, rather than after, systematic needs analysis, producing a persistent mismatch between stated curricular ambitions and the technological and pedagogical resources available to realise them (Wali & Zafir, 2022). Broader Afghan higher-education scholarship similarly documents chronic shortages of qualified faculty, standardised curricula, and instructional technology across public universities (Wali & Zafir, 2022).

A second challenge cluster concerns digital literacy and teacher readiness. Multiple reviews report that instructors frequently lack structured training in how to integrate AI tools pedagogically, leading to inconsistent, ad hoc use rather than systematic curricular integration (Al-khresheh, 2024; Kundu & Bej, 2025). This is compounded, in the Afghan case, by limited prior exposure to AI-based tools among both students and faculty, which Yaseeni (2025) identifies as a central reason for adopting cautious, exploratory rather than large-scale implementation strategies. A third cluster concerns cultural and linguistic fit: several reviews caution that AI tools trained predominantly on high-resource languages and Western pedagogical assumptions can struggle with the cultural and linguistic nuances of learners in non-Western, multilingual contexts, a concern directly applicable to Afghanistan's multi-ethnic, multilingual classrooms (Kundu & Bej, 2025; Faizy et al., 2026). Fourth, over-reliance and academic-integrity concerns are widely documented: machine translation and generative writing tools risk substituting for, rather than scaffolding, independent language development if used without pedagogical guardrails (Alharbi, 2023; Al-khresheh, 2024). Finally, funding and institutional capacity constraints limit the ability of under-resourced public universities to procure, maintain, and update AI-enabled learning infrastructure, a constraint documented broadly across Afghan public higher education (Wali & Zafir, 2022).

**Ethical Considerations Grounded in Islamic Pedagogical Values (RQ3)**

The Islamic-education literature identifies ethical concerns that both overlap with, and extend beyond, the secular AI-ethics literature. Overlapping concerns include data privacy, algorithmic bias, and transparency, all of which are addressed in general AI-ethics frameworks such as the community-wide framework proposed by Holmes et al. (2022) and UNESCO's (2022) Recommendation on the Ethics of Artificial Intelligence. Distinctive concerns specific to Islamic education include content conformity with Islamic teachings, the risk of dehumanisation in a pedagogical tradition that treats the teacher-student relationship as morally and spiritually significant, and the erosion of tacit, experientially transmitted wisdom that AI systems, oriented toward explicit and codifiable knowledge, are structurally ill-suited to convey (Achruh et al., 2024; Hasanah et al., 2024).

Several Islamic-education scholars have proposed values-based alternatives to purely utilitarian technology-governance models. Raquib et al. (2022) develop a virtue-based ethics of AI grounded in Islamic moral philosophy, arguing that AI governance should be evaluated against character-oriented virtues rather than outcome-maximising criteria alone. Budiman et al. (2024) similarly ground AI ethics in the concept of tawhid (the oneness and ultimate accountability of all action to God), while Jumrianah (2025) introduces muraqabatullah, the awareness that all technology use remains under divine observation, as a practical ethical anchor for hybrid religious

learning environments. Chanifah et al. (2021) offer a complementary spirituality-based framework for Islamic higher education more broadly, emphasising that technological modernisation should reinforce, rather than dilute, the formation of a coherent Muslim identity among young learners.

Table 3 synthesises these strands into a comparative overview contrasting conventional, largely secular AI-adoption frameworks with an Islamic-values-integrated alternative appropriate for institutions such as Samangan University.

**Table 3:** Comparison of Conventional TAM/UTAUT and Islamic-Values-Integrated Frameworks for AI-Assisted EFL Learning

| Dimension | Conventional TAM/UTAUT-Based Framework | Islamic-Values-Integrated Framework |
|---|---|---|
| Primary evaluative criterion | Performance expectancy, ease of use, behavioural intention (Davis, 1989; Venkatesh et al., 2003) | Alignment with maqasid al-shariah and tawhid alongside performance and ease of use (Raquib et al., 2022; Budiman et al., 2024) |
| Content governance | Accuracy and relevance, generally domain-neutral | Accuracy plus explicit review for conformity with Islamic teaching (Hasanah et al., 2024) |
| Teacher role | Facilitator of technology adoption | Preserver of tarbiyah and spiritual mentorship; AI positioned as supportive, not substitutive (Achruh et al., 2024) |
| Privacy and data governance | General data-protection compliance (UNESCO, 2022) | Data protection framed additionally as amanah (trust) owed to learners and their families |
| Accountability framing | Institutional and regulatory accountability | Institutional accountability plus muraqabatullah, or awareness of ultimate divine accountability (Jumrianah, 2025) |

Taken together, this literature suggests that ethically defensible AI adoption in Islamic higher-education institutions requires neither uncritical embrace nor blanket rejection of AI tools, but a values-sensitive integration model in which pedagogical benefit is continuously weighed against the preservation of the relational, spiritual, and character-forming dimensions of Islamic pedagogy.

**Conceptual Application to Samangan University**

Building on Sections 3.1-3.3, this subsection develops a literature-grounded, illustrative application of the conceptual framework to Samangan University's English Department. It is important to reiterate that the propositions below are extrapolations from documented conditions in comparable Afghan public universities (Wali & Zafir, 2022; Yaseeni, 2025; Faizy et al., 2026) rather than findings from primary data collected at Samangan University; their empirical verification is precisely the purpose of the mixed-methods design proposed in Section 2.4.

As shown in the thematic distribution of the reviewed corpus (Figure 1, Section 2.3), ethics and privacy considerations and pedagogical applications in writing and speaking receive the most sustained attention in the literature base consulted for this review, while developing-country and low-resource contexts, though present, remain comparatively less represented, reinforcing the rationale for context-specific work such as the present study.

Extrapolating from this literature, three propositions can be advanced for Samangan University's English Department, each framed as a hypothesis to be tested rather than an established finding. First, AI-supported speaking-practice tools are likely to be well received given documented demand for oral-English opportunities in Afghan EFL contexts, but their impact will plausibly be constrained by inconsistent internet connectivity outside the main campus network

(Wali & Zafir, 2022). Second, faculty attitudes are likely to combine cautious interest with a strong preference for teacher-mediated oversight, mirroring the exploratory, trust-building posture documented among Afghan English instructors more broadly (Yaseeni, 2025) and the teacher-role-preservation concerns emphasised in Islamic-education scholarship (Achruh et al., 2024). Third, successful adoption will plausibly depend less on the sophistication of the AI tools selected than on the presence of institutional content-review processes ensuring religious and cultural appropriateness, professional-development support for instructors, and clear data-privacy safeguards for students, consistent with the Islamic-values-integrated framework in Table 3.

Table 4 summarises these propositions as an opportunities-challenges matrix intended to structure both the Phase 1 survey instrument and the Phase 2 interview protocol proposed in Section 2.4.

Table 4: Anticipated Opportunities and Challenges of AI-Assisted EFL Learning Across Key Domains in Islamic Higher-Education Contexts

| Domain | Anticipated Opportunity (to be tested) | Anticipated Challenge (to be tested) |
|---|---|---|
| Speaking and pronunciation | Chatbot- and ASR-based practice could expand oral-English opportunities beyond limited classroom contact hours (Duong & Suppasetseree, 2024) | Connectivity gaps outside campus networks may restrict consistent access (Wali & Zafir, 2022) |
| Writing development | Automated feedback tools could support revision skills in a context with large class sizes (Guo et al., 2024) | Risk of over-reliance without clear academic-integrity guidelines (Alharbi, 2023) |
| Access and equity | Distance/self-paced AI tools could extend provision to learners with mobility or safety constraints (Yaseeni, 2025) | Device and data-cost barriers may reproduce existing access inequities |
| Faculty engagement | Professional-development programming could build instructor confidence and ownership (Al-khresheh, 2024) | Limited prior AI exposure may generate initial resistance or misuse (Yaseeni, 2025) |
| Institutional and religious governance | A content-review committee could ensure value-aligned tool selection (Hasanah et al., 2024) | Absence of formal governance structures may allow inconsistent, unvetted use (Achruh et al., 2024) |

Overall, the synthesis suggests that the central challenge facing Samangan University, and comparable Afghan institutions, is not whether AI can pedagogically benefit EFL learners, which the broader literature answers affirmatively, but whether adoption can be sequenced and governed in a way that respects infrastructural realities, preserves the teacher-centred, character-forming character of Islamic pedagogy, and safeguards learner data and religious content integrity. This reframes AI adoption from a purely technological decision to an institutional and ethical one, consistent with the conceptual framework presented in Figure 3.

## CONCLUSION

This paper set out to examine the pedagogical opportunities, implementation challenges, and ethical considerations associated with AI-supported English language learning in Islamic higher education, using Samangan University, Afghanistan, as an illustrative case context. Synthesising 50 sources spanning AI-EFL pedagogy, Islamic education ethics, technology-acceptance theory, and Afghanistan-specific higher-education scholarship, the paper developed a conceptual framework in which AI-supported inputs are filtered through Islamic pedagogical values, tawhid, adab, and

tarbiyah, as a contextual condition, and further conditioned by ethical and institutional safeguards including data privacy, human-teacher oversight, and content-authenticity review; empirical testing of this framework remains a task for future work.

Three conclusions follow from this synthesis. First, the pedagogical case for AI-supported EFL learning is well established in the general literature, particularly for writing feedback, speaking practice, and personalised, accessible instruction, and several of these affordances map plausibly onto documented needs in Afghan higher education, including limited oral-practice opportunities and constraints on qualified-instructor availability. Second, implementation in a setting like Samangan University faces compounding structural barriers, infrastructural, financial, and digital-literacy related, that are more severe than those typically documented in the higher-resource contexts where most AI-EFL research has been conducted. Third, ethical governance of AI adoption in Islamic higher-education institutions cannot be reduced to generic data-protection or bias-mitigation compliance; it requires explicit attention to content conformity with Islamic teaching, preservation of the relational and spiritual dimensions of the teacher-student bond, and accountability frameworks, such as muraqabatullah and maqasid al-shariah, that are internal to the Islamic pedagogical tradition itself.

For policymakers and institutional leaders at Samangan University and comparable Afghan institutions, the synthesis suggests three practical priorities: (a) sequencing AI adoption behind, rather than ahead of, basic connectivity and device infrastructure investment; (b) establishing a faculty-led content-review process for AI tools used in religiously and culturally sensitive instructional contexts; and (c) building structured professional-development pathways so that instructors, rather than external vendors, remain the primary arbiters of how AI tools are integrated into the classroom. For researchers, the priority is empirical: the propositions advanced in Section 3.4 require testing through the mixed-methods design proposed in Section 2.4, ideally as a first step toward a longitudinal research agenda tracking AI adoption, learning outcomes, and ethical governance at Samangan University over time.

This paper's principal limitation is definitional to its design: it is a conceptual synthesis, not an empirical study, and its claims about Samangan University specifically are extrapolations from comparable institutional contexts rather than findings grounded in primary data collected at the university itself. The 50 sources synthesised, while spanning multiple relevant literatures, were identified through a narrative rather than a fully systematic (e.g., PRISMA-compliant) search protocol, and future systematic reviews would strengthen the evidentiary basis for the claims advanced here. Future research should prioritise piloting the proposed instrument (Table 1) at Samangan University, extending the analysis to other Afghan public universities for comparative purposes, and tracking how AI-EFL adoption evolves as national ICT infrastructure develops.

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**Author Contributions**

M. Hakimi is the sole author of this paper and was responsible for conceptualisation, literature synthesis, framework development, drafting, and final approval of the manuscript.

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**Conflict of Interest**

The author declares no conflict of interest.

## Data Availability

This paper is a conceptual literature synthesis; no primary datasets were generated or analysed. The proposed survey instrument outlined in Table 1 will be made available upon reasonable request once piloted, and any future primary data collected under the design proposed in Section 2.4 will be made available in accordance with Samangan University's research ethics and data-management policies.

## AI Use Statement

In accordance with the journal's transparency requirements, the Corresponding author discloses that an AI-based writing assistant (ChatGPT) was used during manuscript preparation and language editing. All substantive conceptual arguments, the proposed research design, and the interpretation of cited sources were reviewed, verified, and approved by the author, who takes full responsibility for the accuracy and integrity of the content. All 50 references listed below correspond to real, identifiable publications retrieved through literature search; each was checked by the author for bibliographic accuracy prior to submission.

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