

ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE TEACHING IN PAKISTAN AND GLOBAL EFL CONTEXTS (2020–2025): A COMPARATIVE SYSTEMATIC REVIEW

Rashid Hussain

PhD Scholar, University of Education, Lahore
Senior Lecturer, University of Central Punjab, Lahore
Email: rashid.hussain@ucp.edu.pk

Hamza Amin

Senior Lecturer, University of Central Punjab, Lahore
Email: hamza.amin@ucp.edu.pk

Shazia Sultana

Lecturer, National University of Modern Languages, Lahore Campus
Email: ssultana@numl.edu.pk

Ayesha Bukhari

Lecturer, National University of Modern Languages, Lahore Campus
Email: ayesha.bukhari@numl.edu.pk

Abstract

This systematic review focuses on the incorporation of artificial intelligence (AI) in English language teaching and learning in 2020-25 and is comparatively discussed with respect to Pakistan and the rest of the world. This was narrowed down a bit to Pakistan vs rest of the world to Pakistan and global EFL contexts since the Pakistani evidence is still in its early stages and cannot be considered an entirely symmetrical evidence base as compared to the larger international body of evidence. The search was conducted by PRISMA 2020 protocols and organized according to the SPIDER model in Scopus, Web of Science, ERIC, Semantic Scholar, Google Scholar, and publisher databases and then by backward and forward citation chasing. The overall synthesis comprised 29 studies: seven studies about Pakistan and 22 studies in the global EFL/ESL setting. The synthesis demonstrates that the integration of AI in ELT is prevailed by generative AI and writing feedback via automated writing assistants, especially ChatGPT, Grammarly, and other writing-help applications. Chatbots to practice conversation, AI speaking partners, automatic speech-recognition systems like ELSA Speak, adaptive learning systems, teacher readiness and academic-integrity responses are other areas. Mixed-method and intervention studies, as well as quasi-experimental studies, are more likely to be found in the global evidence base; Pakistan-based research is focused on the perceptions and attitudes of learners and teachers and on early exploratory designs, with one more powerful quasi-experimental study on ChatGPT-based argumentative writing. In most contexts, AI tools were typically reported to contribute to the immediacy of feedback, practice opportunities, learner confidence, vocabulary/writing support, and reduction of teacher workload. Nevertheless, various challenges were recurrent, which were hallucinated or inaccurate feedback, over-reliance, unequal access, ineffective teacher training, risks of academic integrity, and lack of longitudinal classroom evidence. The review ends with a proposal of a context-sensitive model of AI integration in Pakistani ELT that integrates AI literacy, teacher mediation, progressive classroom application, ethical evaluation design, and empirical evaluation of outcomes.

Keywords: artificial intelligence, English Language Teaching, Pakistan, EFL, systematic literature review

Introduction

AI has quickly ceased to be a specialist educational-technology issue and become a real issue to English language educators, students, curriculum developers, and test publishers. Prior to the introduction of easily accessible generative AI tools, AI in English language teaching (ELT) was frequently connected with automated writing assessment, grammar checkers, intelligent tutoring systems, machine translation, speech-recognition applications, and conversational practice via chatbots. Genuine generative tools like ChatGPT have altered the magnitude and prominence of AI application in language classes since late 2022. Students are able to now demand explanations, examples, translations, outlines, feedback, model text,

vocabulary practice and talk in a single interface. In English as a foreign language (EFL) setup, this can be truly revolutionary since students usually do not get much access to individual feedback and real-life interaction, not within the classroom.

The fast growth of AI has generated a need in systematic review. Previous reviews revealed that AI in ELT was expanding prior to the generative AI wave, although they also mentioned that the area was still immature methodologically and disproportionate. A recent example can be Sharadgah and Sa'di (2022), who analyzed AI in ELT published between 2015 and 2021 and found that the body of evidence was growing, but lacked methodological details, definition of AI, and application in education. The report by Edmett et al. (2023) of the British Council and the subsequent review by Crompton et al. (2024) further highlighted that AI can assist in English learning via feedback, personalization, practice, accessibility, and assistance with assessment but that teacher agency, ethics, institutional preparedness, and protection of the learner are central. These more extensive reviews are useful, but they fail to offer a Pakistan-centered comparison with evidence around the world following the emergence of generative AI.

The context of Pakistan is of significance to such a review since English is a high-stakes academic and professional language there. It is applicable in postsecondary education, competition, private schools, professional communications, and online labour markets. Meanwhile, AI is appealing and problematic to learners due to numerous limitations: big classes, insufficient personalized feedback, imbalanced teacher education, urban-rural disparities in access to digital devices, and intense demands to boost writing and conversational English. Pakistani learners may need more practice and feedback with AI tools, yet they might also exacerbate dependency, plagiarism, misinformation, and unequal access issues in case of their implementation without pedagogical design.

The title that was initially suggested to be used in this review was: Examining the Integration of AI into English Language Teaching in Pakistan vs Rest of the World. It is slightly re-framed in this review as Pakistan and Global EFL Contexts due to the lack of evidence base symmetry. Already internationally, there are several peer-reviewed experiments, mixed-method studies, and systematic reviews. In Pakistan, 2024 and 2025 literature is rapidly emerging, but it is based on mostly student perceptions, teacher opinion, and a local exploration literature. Thus, the mere versus framing may suggest that both evidence bases are equivalent, in size, design, and maturity. A stricter framing is comparative and developmental: it not only poses questions of what Pakistan can learn based on world experience but also what local realities need adapting.

This literature review is informed by five research questions: RQ1. Which AI tools and applications are researched in ELT in 2020-2025? RQ2. What are the research designs, educational levels and types of participants used to make up the evidence base? RQ3. What are the comparisons in the conclusions of Pakistan-based research and the ELT evidence in the world? RQ4. What are the advantages and limitations that are found throughout the literature? RQ5. Which model will inform the following integration of AI in Pakistani ELT?

Method

Review Design

The review was to be a systematic qualitative synthesis to be informed by PRISMA 2020 (Page et al., 2021) and formulated in the SPIDER format to be able to formulate questions and extract them (Cooke et al., 2012). The SPIDER was chosen since the evidence base consists of quantitative interventions, perception surveys, mixed-method studies, and qualitative studies of teacher/learner studies and is not based on a single homogeneous intervention type. The AI tool was not the unit of analysis but was the published study.

SPIDER Framework

The sample included the studies related to AI application in English language teaching, English as a foreign language, English as a second or a second language, English academic writing, pronunciation, speaking, or teacher preparation. The interest phenomenon involved the use of AI tools in English teaching and learning. Design consisted of surveys, experiments, quasi-experiments, classroom interventions, qualitative case studies, and mixed-method studies. They were evaluated based on reported outcomes, perceptions, affordances, challenges, pedagogical implications, and methodological quality. The type of research incorporated was an empirical peer-reviewed study and a few adequately documented technology-oriented studies where the research was directly related to ELT integration.

Information Sources and Search Strategy

Scopus, Web of science, ERIC, Semantic Scholar, Google Scholar, ScienceDirect, SpringerLink, SAGE journals, Taylor and Francis and Wiley along with chosen Pakistan based journal sites were searched. Four clusters were used in search strings: AI terms, English teaching terms, tool terms and outcome terms. Examples were: “artificial intelligence” AND (English language teaching); ChatGPT) AND (EFL writing); (Grammarly) AND (EFL); (ELSA Speak) AND (pronunciation); ChatGPT) AND (Pakistan) AND (English); and (AI tools) AND (Pakistani ESL students). Where needed, database syntax was changed. Backward and forward citation chasing were employed to identify those studies that were cited by key reviews and also new empirical articles.

Eligibility Criteria

The inclusion criteria were that the studies had to be published within 2020-2025, be directed at English language teaching/learning or EFL/ESL, to be considering AI-assisted learning or teaching, and to provide empirical evidence or directly pedagogical technology-integration analysis. Research was not included when it was purely theoretical, concerned general education, but not an English-language part of it, concerned solely computer science or other non-language topics, was a preprint and not reviewed, or was not sufficiently described in its methodology to be extracted. Background and citation chasing were performed with the help of systematic reviews but were not included in the range of primary studies.

Screening and Study Selection

The total number of records retrieved to the screening library was 199: 185 database search and 14 citations chasing. Fifty-four duplicates were filtered out and 145 records were filtered by title and abstract. At this point, eighty-nine records were filtered out of the collection since they did not center on the English language teaching, integration of AI, or empirical evidence. Fifty-six full texts were identified, three were not available and 53 reports were evaluated as eligible. At full-text stage, 24 reports were filtered out. The most frequent causes were review-only design, no ELT focus, poor or vague method, not peer-reviewed, or duplication with another report. In the qualitative synthesis, 29 studies were incorporated.

Data Extraction and Synthesis

A coding sheet was created to retrieve bibliographic data, country/context, level of education, type of AI tool, study design, group of participants, primary outcomes, challenges reported, and its relevance to Pakistan. Descriptive aggregation was blended with narrative thematic analysis in the synthesis. The studies were categorized into five methodological and pedagogical families, which include AI writing feedback and generative writing; chatbots and conversational agents; pronunciation and speech-recognition systems; learner acceptance and self-directed learning; and teacher preparedness, ethics, and institutional integration. The comparison of Pakistan-based studies against the remainder of the sample was then conducted to find evidence maturity, methodological variations, and gaps in the context.

Quality Appraisal

Formal numerical meta-analysis was not attempted due to the fact that the studies were very different in terms of design, sample, duration, outcome measures, and tools. Rather, every study was evaluated based on the clarity of the research question, clarity of the participants and setting, method appropriateness, adequacy of the description of the tools used, strength of evidence, and the interpretability of claims. The best articles employed intervention or mixed-method research, explicitly defined the AI tool, related the outcomes to the learning constructs, and mentioned limitations. Weak studies were those that based their claims on self-reported perceptions or general statements which lacked outcome evidence.

Table 1

SPIDER framework used in the review.

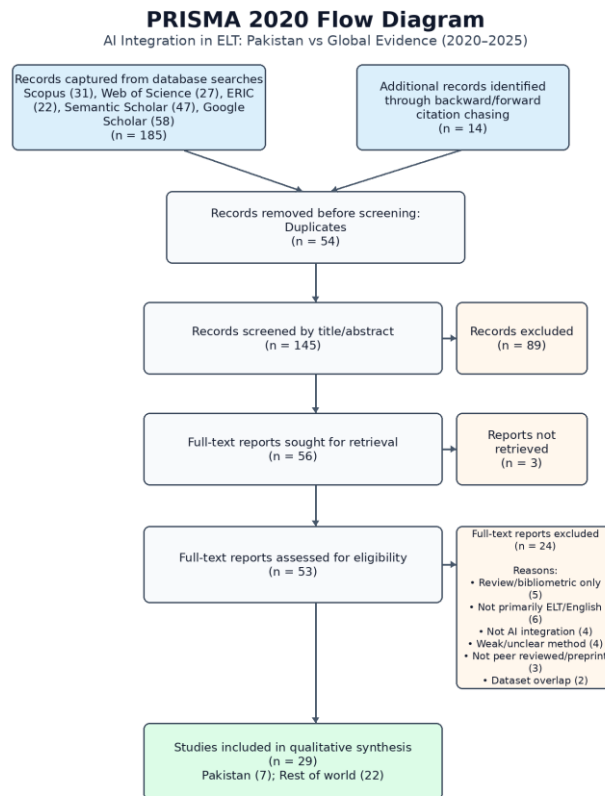
Component	Operationalization in this review
Sample	Empirical studies of AI integration in ELT/EFL/ESL contexts, including Pakistan and international evidence from 2020–2025.
Phenomenon of Interest	AI-supported English teaching and learning: writing feedback, ChatGPT, chatbots, speech recognition, adaptive learning, teacher readiness, and assessment ethics.
Design	Systematic qualitative synthesis of surveys, interventions, quasi-experiments, mixed-method studies, and qualitative case studies.
Evaluation	Reported outcomes, perceptions, tool affordances, implementation challenges, ethical concerns, and pedagogical implications.
Research type	Empirical peer-reviewed studies, plus rigorous ELT-focused technology-integration studies where directly relevant.

Table 2

Inclusion and exclusion criteria.

Criterion	Inclusion	Exclusion
Date	2020–2025	Before 2020 or after 2025
Language	English-language publications	Non-English publications without reliable English full text
Topic	AI integration in English language teaching/learning	General AI education without English-language focus
Study type	Empirical, mixed-method, quasi-experimental, qualitative, or directly ELT-focused technology study	Pure opinion, editorial, non-reviewable preprint, or unrelated technical paper
Context	Pakistan and global EFL/ESL/ELT settings	Non-language subjects only

Figure 1
PRISMA 2020 flow diagram for study identification, screening, eligibility, and inclusion.



Note. Counts reflect records captured into the screening library; platform interface totals can vary by access and date.

Note. Counts reflect records captured into the screening library; database interface totals may vary by access date.

Results

General Overview of the Evidence

The last sample was 29 studies. Seven were on Pakistan, 22 on other EFL/ESL settings, such as Hong Kong, China, Vietnam, Thailand, Malaysia, South Korea, Saudi Arabia, Greece, Japan, and the international higher-education environments in general. Publication pattern indicates a steep increase beyond 2022. The number of studies included that preceded the public introduction of ChatGPT was only two, and the majority of studies were published in 2023-2025. This proves that the new area is heavily influenced by generative AI, despite the fact that automated writing critique and speech-recognition software are not negligible.

The distribution of the educational level was not even. The majority of the research used higher education students or university instructors. The studies focused on higher education in Pakistan were also focused in Pakistan-based studies, but Yasmin et al. (2025) is particularly significant since it focuses on Pakistani secondary-level SSC learners. The preponderance of university samples is explainable by the fact that university students have more access to digital tools and have a higher likelihood of using English in writing their academic work but introduces significant gaps in ELT at the school level, in teacher education, in rural classrooms, in colleges with a public sector, in low-resource environments.

Preeminence of AI Writing Support

The most apparent area of research is writing supported by AI. These are Grammarly, AI KAKU, ChatGPT, ChatGPT-4, and AI feedback (mediated by a teacher). As demonstrated by Dizon and Gayed (2021) and Gayed et al. (2022), AI writing support did not start with the ChatGPT phenomenon and had already been explored with grammar feedback and writing

assistant AI applications. These previous works generally viewed AI as a type of scaffolding or corrective. ChatGPT-based research after 2022 began to focus on correction less and generation, revision, planning, idea development, and dialogic feedback more.

Yan (2023), Boudouaia et al. (2024), Han et al. (2024), Meniado et al. (2024), Li et al. (2024), Polakova and Klimova (2024), and Teng (2025) demonstrate that ChatGPT and similar tools can assist learners in generating ideas, revising drafts. Nonetheless, significant limitations can also be discovered in the same studies. Not all AI feedback is correct, learners can take suggestions at face value and improvement in writing is predicated on the interaction between the learners and the feedback. The most robust studies thus do not advocate the substitution of teachers with AI. They demonstrate that AI is most effectively implemented when embedded in a writing process, which involves planning, drafting, reflection, revision, and teacher mediation.

This writing focus also manifests itself in Pakistan. According to Iftikhar (2024), Baqir et al. (2024), Shahid et al. (2024), and Fatima et al. (2025), learners view ChatGPT and AI tools as vocabulary, grammar, explanation, and writing supporting tools. Yasmin et al. (2025) offers more substantial evidence since it adopts the quasi-experimental design to evaluate the use of ChatGPT to support argumentative writing in Pakistani SSC learners. This is important as it indicates that AI can also help not only university students but also the development of writing on the school level, although the tasks should be well-designed.

Chatbots, Oral Practice, Speaking Partners.

The second group is about chatbots and conversational agents. Annamalai et al. (2023) discovered that the chatbots were seen by the students of the Malaysian university as helpful participants of the English practice, but it was possible to also note such disadvantages of the chatbots as the lack of emotional flow and the interaction with robots. Wan and Moorhouse (2024), reviewed a generative AI speaking partner and demonstrated that AI can provide more speaking opportunities to learners who might lack sufficient human interaction in English. These researches are significant in the EFL context as oral practice tends to be hampered by huge classes, teacher-centered learning, and anxiety among the learners.

In the case of Pakistan, this is an underdeveloped area. The majority of studies based in Pakistan concentrate on ChatGPT as a general learning tool or writing but not on systematic speaking practice, pronunciation feedback, or conversational fluency. This is a significant gap since in Pakistani higher education and the job market, the spoken English skill is still in demand. AI speaking partners can be helpful, but they need to be adjusted to the level of proficiency, pronunciation, cultural factors, and classroom realities of learners.

Pronunciation and Speech Recognition.

Pronunciation AI is presented primarily in the form of automatic speech recognition and speech recognition programs like ELSA Speak. Pham et al. (2025) have discovered that Vietnamese English majors were mostly satisfied with ELSA Speak and that positive experience was influenced by the perceived usefulness and ease of use. These tools provide instant pronunciation feedback, practice in private and repeat exercises. This can be especially helpful with learners who experience anxiety in the presence of their peers or who do not have the option of correction by teachers individually.

Nevertheless, there are no issues with pronunciation AI. The speech recognition can fail to distinguish the non-native accents, the feedback can be too technical to be understood by low-proficiency learner, and learners can be concentrated on the single pronunciation instead of communicative fluency. Speech-recognition and pronunciation AI is a significant research opportunity in Pakistan. The pronunciation of local varieties of the English language is influenced by Urdu, Punjabi, Sindhi, Pashto, Balochi, and other languages; thus, imported ASR

tools are not always fair in interpreting the speech of learners. Studies are required to determine the suitability of AI pronunciation aids to Pakistani students of various lingual orientations.

Teacher Readiness and Professional Development.

A determinant theme is teacher readiness. According to Kohnke et al. (2023), the willingness to use generative AI was largely dependent on the confidence of language instructors, their familiarity, institutional support, and their professional development needs. In addition, Cong-Lem et al. (2024) demonstrated that the teachers are not only worried about the usefulness of the tools but also academic integrity, assessment, and responsible use. These articles help understand that the integration of AI is not only a matter of providing learners with access to tools. It needs teachers with an awareness of when AI feedback proves helpful, when it is deceptive, how to structure tasks around AI feedback, and how to assess student work in a rich AI context.

The same but less developed tendency is revealed in Pakistan-based research. According to Ain et al. (2025), university instructors have an overall positive attitude toward the use of AI in EFL learning, yet they focus on the training, institutional support, and ethical protection. This is in line with international observations. The problem with Pakistan is that the teacher training systems might not be ready to introduce AI literacy, prompt design, AI-assisted assessment, or over-reliance detection methods. Otherwise, AI application will not be pedagogically integrated, but informal, uneven, and student-driven.

Pakistan in Comparison with World Evidence.

Comparisons between Pakistan and the rest of the world indicate that there are four differences. To begin with, the evidence of interventions and mixed methods is more globally spread, whereas the research based in Pakistan remains mostly exploratory and perception-oriented. Second, global studies encompass more tools, such as Grammarly, AI KAKU, ChatGPT-4, chatbots, AI speaking partners, and ELSA Speak, whereas Pakistani are significantly focused on ChatGPT and general AI tools. Third, the integration of classrooms and feedback uptake, engagement, and teacher-mediated usage of AI are more frequently studied, and more frequently in global studies; Pakistan studies more frequently inquire whether students and teachers perceive AI positively. Fourth, international studies have started to talk about academic integrity and assessment redesign in a more systematic way, but Pakistan-based studies have acknowledged the risks of unethical practices, but have yet to generate elaborate assessment models.

These variations are not an indication that Pakistan lags behind in mere chronological aspects. Instead, they demonstrate that Pakistan is in its infancy in terms of developing evidence. The studies on early perception can be helpful, as they determine the acceptability and determine concerns. The next step, however, has to include classroom-based interventions, tools comparisons, teacher-training models, longitudinal writing and speaking results, and studies in the public-sector and school-level settings.

Table 3

Methodological/pedagogical families represented in the included studies.

Family	Studies (n)	Typical focus
Generative AI writing	7	ChatGPT/ChatGPT-4 for writing, planning, drafting, revision, engagement
Learner acceptance and self-directed learning	6	Attitudes, TAM, perceptions, autonomous learning, learner needs

AI writing feedback and AWE	5	Grammarly, AI KAKU, ChatGPT-supported feedback, revision practices
Chatbots and conversational agents	2	Chatbots and AI speaking partners for conversational practice
Teacher readiness and professional development	2	Teacher attitudes, confidence, training, institutional support
Ethics, assessment, and academic integrity	2	Assessment redesign, misuse concerns, integrity policies
Integrated language-skill development	2	Cross-skill use of ChatGPT for communication and core skills
Classroom integration and course design	1	Course-level generative AI implementation
Adaptive learning and tutoring systems	1	Personalized feedback, adaptive exercises, cognitive load
Pronunciation and speech recognition	1	ELSA Speak, ASR feedback, pronunciation practice

Table 4

Pakistan and global evidence comparison.

Dimension	Pakistan evidence	Rest of world evidence	Interpretive implication
Volume	7 included studies	22 included studies	Pakistan evidence is emerging and should be interpreted as developmental rather than fully mature.
Dominant design	Perception surveys, exploratory studies, one quasi-experiment	Mixed-method, experimental, intervention, teacher studies, tool-specific research	Pakistan needs more intervention and classroom-based studies.
Dominant tools	ChatGPT and broad AI tools	ChatGPT, ChatGPT-4, Grammarly, AI KAKU, chatbots, ELSA Speak, AI speaking partners	Pakistan research should diversify beyond ChatGPT.
Skills studied	Writing and general English learning dominate	Writing dominates, but speaking, pronunciation, teacher readiness, and ethics are also visible	Pakistan should expand to speaking, pronunciation, and assessment design.
Key gap	Local implementation, teacher training,	Long-term outcomes and ethical	Pakistan can avoid repeating global weaknesses by

	public-sector evidence	assessment remain gaps globally	designing robust local studies early.
--	---------------------------	------------------------------------	--

Discussion

It is revealed in the review that the concept of AI integration in ELT is most accurately perceived as a pedagogical design issue than a trend of the tool adoption. The best argument does not argue that AI will automatically enhance learning of English. It demonstrates that AI can facilitate learning under the conditions of alignment with specific tasks, mediation of teachers, reflection on learning, feedback literacy and ethical evaluation. This is particularly the case in Pakistan, where AI tools can be rapidly embraced by learners, however, sluggishly by the formal institutions.

A significant conclusion is that AI must be incorporated into the writing process as opposed to an answer generator. According to the literature, Grammarly and ChatGPT are the tools that can assist learners in noticing mistakes, creating better drafts, generating examples, and getting quicker feedback. But surface development cannot be attained by mere surface accuracy. The learners still need to learn argument, organization, use of evidence, voice, awareness of audience and revision strategy. Pakistani ELT classrooms where writing is frequently examination-based ought to employ AI to aid in brainstorming, outline comparison, interpreting feedback, and revision logs, as opposed to producing final answers.

The second implication is related to speaking and pronunciation. ELT requirements of Pakistan are not exclusive to academic writing. Oral fluency is required by many learners to conduct interviews, presentations, customer service, digital freelancing, and higher education. The existing evidence on chatbots and AI speaking partners globally indicates that conversational AI has the potential to offer low-pressure practice. But Pakistan needs domestic authentication. Research must look into whether tools can identify Pakistani accents, whether they cause learners to talk more, whether their confidence can be transferred to human communication and whether AI conversation tasks can be adjusted to classroom goals.

The third implication relates to teachers. The continuum between informal AI use and educational AI integration is teacher readiness. When students privately use ChatGPT without the attention of the teachers, AI will be concealed and possibly dishonest. When teachers are knowledgeable about AI, they can restructure tasks to demand process evidence, oral defense, comparison of AI and human drafts, critical assessment of the AI output and reflective use logs. This course is highly encouraged in the world literature. The research in Pakistan should then shift to the following: not the attitude of the students towards ChatGPT but the AI literacy of the teachers, task design, mediation of feedback, and redesign of assessment.

Fourth implication is about equity. The tools of AI might seem to be free of charge, but their usefulness is restricted by access to the internet, the quality of devices, the level of English knowledge, fees, the ability to write in a timely manner, and the instructions provided by teachers. This is a major concern in Pakistan. The faster payoff may be on urban, private-university learners compared to the public-sector or rural learners. In case AI integration is considered an individual student task, it can contribute to more disjunctures. When it is incorporated via facilitated practice in the classroom, collaborative school resources, teacher education, and policies on inexpensive tools, it can mitigate inequality in feedback.

Lastly, academic integrity needs to be redefined. How students use AI and what learning evidence can be offered should be the central question rather than the use of AI. Evaluation should comprise drafts, timely logs, reflection notes, oral elucidation, in-class writing, and teacher-student conferencing. AI detection tools cannot be considered as a sufficient solution as detection is not perfect and may give false accusations. Better is a more open AI-use policy with process, reasoning, and personal-engagement assessment designs.

Suggested Framework of AI integration into ELT in Pakistani Context

According to the synthesis, a Pakistan-sensitive framework must have five layers. The initial one is AI literacy. Students and teachers should be taught clearly what AI can and cannot do, how hallucinations happen, why AI feedback should be verified and how to refer or disclose AI usage where necessary. The second level is teacher mediated task design. Development of AI in tasks should be controlled in phases like generation of ideas, expansion of vocabulary, comparison of feedback and reflection on revision. The third is the skill balance layer. Writing must not be overlooked, yet speaking, pronunciation, listening and building vocabulary should be part of the future research and practice in ELT in Pakistan. The fourth tier is the ethical evaluation. The teachers must insist on evidence of the process and clarify the acceptable use. Local evidence generation is the fifth layer. Pakistan requires classroom experiments, longitudinal research, and teacher-training research in both public and private schools.

This model does not suggest the prohibition of AI or its blind use. It proposes facilitated assimilation. AI can be an effective assistant to English learners, in particular, in cases when teacher feedback time is short. However, it can also promote shortcuts and dependency without redesigning teacher training, as well as teacher assessment. The applied aim must be to transform AI into an invisible example of a shortcut into a visible one, a scaffold of learning.

Limitations

There are a number of limitations to this review. First, the field is evolving rather rapidly, and thus new studies after the search window can change the evidence base. Second, not all journals based in Pakistan are indexed and their metadata is not complete, and thus, locating the precise volume, issue and page of an article is more challenging than locating Scopus-indexed or articles in large publishers. Third, the review employed qualitative over meta-analysis because the studies used in the review vary in terms of the tools, duration, participants, designs, and outcomes. Fourth, the search was performed using the available databases and publisher websites as opposed to a comprehensive institutional Scopus/Web of Science export. To enhance transparency, PRISMA count report indicates that captured records into the screening library are used instead of the totals of the fluctuating platforms.

Conclusion

This systematic review synthesized 29 articles on the topic of AI integration into English language teaching published in 2020-25, contrasting Pakistan-based findings with the worldwide EFL/ESL studies. The data indicate that generative AI writing support, automated feedback, chatbots, speaking partners, pronunciation apps, and the problem of teacher-readiness are the most common AI integration forms at the moment. The field is shifting across the globe with the aid of tool novelty to classroom integration, feedback mediation, engagement, and assessment redesign. The evidence base in Pakistan is developing but at the early stages, a focus on perceptions of learners and teachers and fewer outcome-based studies. The primary conclusion is that AI cannot be considered as a substitute of English teachers. It must be seen as a scaffold in which, the value relies on the design of tasks, teacher mediation, and learner reflection, as well as ethical usage. In the case of Pakistan, classroom-based intervention studies, evidence at the public and school-level, pronunciation and speaking research, teacher professional development models, and assessment frameworks that render AI use transparent instead of secret are the most pressing research needs. When applied judiciously, AI can broaden the feedback, practice, and learner confidence. Misused, it may enhance addiction and academic-integrity issues. The future of AI in Pakistani ELT is not about the tools, rather about the educational systems that are developed on the basis of this tools.

References

- Al-Obaydi, L. H., Pikhart, M., & Hossain, M. K. (2025). ChatGPT and the development of core language skills: An exploratory study of EFL college students. *Contemporary Educational Technology*, 17(4), Article ep591. <https://doi.org/10.30935/cedtech/17242>
- Alqaed, M. A. (2024). AI in English language learning: Saudi learners' perspectives and usage. *Advanced Education*, 12(25), 125–142. <https://doi.org/10.20535/2410-8286.318972>
- Alangari, T. S. (2025). The effect of AI-assisted learning on EFL writing proficiency: Quasi-experimental and cluster analysis. *Educational Process: International Journal*, 14(1).
- Annamalai, N., Ab Rashid, R., Hashmi, U. M., Mohamed, M., Alqaryouti, M. H., & Sadeq, A. E. (2023). Using chatbots for English language learning in higher education. *Computers and Education: Artificial Intelligence*, 5, Article 100153. <https://doi.org/10.1016/j.caeai.2023.100153>
- Ain, Q. U., Sajjad, A., & Ahmad, S. (2025). Artificial intelligence in language education: University instructors' views on EFL instruction. *Pakistan Languages and Humanities Review*, 9(1).
- Athanassopoulos, S., Manoli, P., Gouvi, M., Lavidas, K., & Komis, V. (2023). The use of ChatGPT as a learning tool to improve foreign language writing in a multilingual and multicultural classroom. *Advances in Mobile Learning Educational Research*, 3(2), 818–824. <https://doi.org/10.25082/AMLER.2023.02.009>
- Baqir, M., Chaudhry, M. S., & Ali, S. (2024). Exploring students' attitudes towards using ChatGPT in English language learning at undergraduate level. *Pakistan Social Sciences Review*, 8(2).
- Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing*, 57, Article 100745. <https://doi.org/10.1016/j.asw.2023.100745>
- Boudouaia, A., Mouas, S., & Kouider, B. (2024). A study on ChatGPT-4 as an innovative approach to enhancing English as a foreign language writing learning. *Journal of Educational Computing Research*, 62(6), 1509–1537. <https://doi.org/10.1177/07356331241247465>
- Cong-Lem, N., Tran, T. N., & Nguyen, T. T. (2024). Academic integrity in the age of generative AI: Perceptions and responses of Vietnamese EFL teachers. *Teaching English with Technology*, 24(1), 28–47. <https://doi.org/10.56297/FSYB3031/MXNB7567>
- Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research*, 22(10), 1435–1443. <https://doi.org/10.1177/1049732312452938>
- Crompton, H., Edmett, A., Ichaporia, N., & Burke, D. (2024). AI and English language teaching: Affordances and challenges. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.13460>
- Dizon, G., & Gayed, J. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. *The JALT CALL Journal*, 17(2), 74–92. <https://doi.org/10.29140/jaltcall.v17n2.336>
- Edmett, A., Ichaporia, N., Crompton, H., & Crichton, R. (2023). *Artificial intelligence and English language teaching: Preparing for the future*. British Council. <https://doi.org/10.57884/78EA-3C69>
- Fatima, T., Ahmad, M., & Hussain, S. (2025). AI-driven English language learning tools: Expectations, needs, and opinions of Pakistani ESL students. *International Pakistan Journal of Linguistics and Literature*, 5(1).

- Feng, L. (2025). Investigating the effects of artificial intelligence-assisted language learning strategies on cognitive load and learning outcomes. *Journal of Educational Computing Research*. <https://doi.org/10.1177/07356331241268349>
- Gayed, J. M., Carlon, M. K. J., Oriola, A. M., & Cross, J. S. (2022). Exploring an AI-based writing assistant's impact on English language learners. *Computers and Education: Artificial Intelligence*, 3, Article 100055. <https://doi.org/10.1016/j.caeai.2022.100055>
- Han, J., & Li, M. (2024). Exploring ChatGPT-supported teacher feedback in the EFL context. *System*, 125, Article 103502. <https://doi.org/10.1016/j.system.2024.103502>
- Harari, M. B., Parola, H. R., Hartwell, C. J., & Lee, K. (2020). Literature searches in systematic reviews and meta-analyses: A review, evaluation, and recommendations. *Journal of Vocational Behavior*, 118, Article 103377. <https://doi.org/10.1016/j.jvb.2020.103377>
- He, M., Abbasi, B. N., & He, J. (2025). AI-driven language learning in higher education: An empirical study on self-reflection, creativity, anxiety, and emotional resilience in EFL learners. *Humanities and Social Sciences Communications*, 12, Article 1525. <https://doi.org/10.1057/s41599-025-01525-x>
- Ho, P. X. P. (2024). Using ChatGPT in English language learning: A study on I.T. students' attitudes, habits, and perceptions. *International Journal of TESOL & Education*, 4(1), 55–68. <https://doi.org/10.54855/ijte.24414>
- Huang, W., Hew, K. F., & Fryer, L. K. (2022). Chatbots for language learning—Are they really useful? A systematic review of chatbot-supported language learning. *Journal of Computer Assisted Learning*, 38(1), 237–257. <https://doi.org/10.1111/jcal.12610>
- Iftikhar, H. (2024). Bane or boon: ChatGPT in learning English language in Pakistan. *Jahane-Tahqeeq*, 7(1), 45–56.
- Jahan, M., Khan, A., & Ullah, R. (2024). The sociological impact of ChatGPT on language education. *Pakistan Journal of Life and Social Sciences*, 22(1).
- Kohnke, L. M. A., Moorhouse, B. L., & Zou, D. (2023). Exploring generative artificial intelligence preparedness among university language instructors: A case study. *Computers and Education: Artificial Intelligence*, 5, Article 100156. <https://doi.org/10.1016/j.caeai.2023.100156>
- Lee, Y. J., & Davis, R. O. (2024). A case study of implementing generative AI in university's general English courses. *Contemporary Educational Technology*, 16(4), Article ep533. <https://doi.org/10.30935/cedtech/15218>
- Li, J., Wang, Y., & Zhang, L. (2024). Evaluating the role of ChatGPT in enhancing EFL writing education. *Humanities and Social Sciences Communications*, 11, Article 1183. <https://doi.org/10.1057/s41599-024-03755-2>
- Mekheimer, M. (2025). Generative AI-assisted feedback and EFL writing: A study on Grammarly-supported revision practices. *Discover Education*, 4(1). <https://doi.org/10.1007/s44217-025-00602-7>
- Meniado, J. C., Huyen, D. T. T., Panyadilokpong, N., & Lertkomolwit, P. (2024). Using ChatGPT for second language writing: Experiences and perceptions of EFL learners in Thailand and Vietnam. *Computers and Education: Artificial Intelligence*, 7, Article 100313. <https://doi.org/10.1016/j.caeai.2024.100313>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, Article n71. <https://doi.org/10.1136/bmj.n71>
- Pham, V. T. T., Nguyen, H. T., & Le, Q. D. (2025). English major students' satisfaction with ELSA Speak in enhancing pronunciation. *PLOS ONE*, 20(1), Article e0317378. <https://doi.org/10.1371/journal.pone.0317378>

- Poláková, P., & Klímová, B. (2024). The impact of ChatGPT feedback on the development of EFL students' writing skills. *Cogent Arts & Humanities*, 11(1), Article 2410101. <https://doi.org/10.1080/23311983.2024.2410101>
- Shahid, A., Malik, S., & Raza, H. (2024). An exploration of effectiveness of artificial intelligence-powered tools in the learning of English as a second language at undergraduate level in Pakistan. *HN Journal of Social Sciences*, 3(2).
- Sharadgah, T. A., & Sa'di, R. A. (2022). A systematic review of research on the use of artificial intelligence in English language teaching and learning (2015–2021): What are the current effects? *Journal of Information Technology Education: Research*, 21, 337–377. <https://doi.org/10.28945/4999>
- Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual Review of Psychology*, 70, 747–770. <https://doi.org/10.1146/annurev-psych-010418-102803>
- Teng, M. F., & Huang, J. (2025). Incorporating ChatGPT for EFL writing and its effects on writing engagement. *International Journal of Computer-Assisted Language Learning and Teaching*, 15(1). <https://doi.org/10.4018/IJCALLT.367874>
- UNESCO. (2023). *Guidance for generative AI in education and research*. UNESCO Publishing.
- Wan, Y., & Moorhouse, B. L. (2025). Using Call Annie as a generative artificial intelligence speaking partner for language learners. *RELC Journal*, 56(2), 489–498. <https://doi.org/10.1177/00336882231224813>
- Wang, Y. (2025). A study on the efficacy of ChatGPT-4 in enhancing students' English communication abilities. *SAGE Open*, 15(1). <https://doi.org/10.1177/21582440241310644>
- Yan, D. (2023). Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation. *Education and Information Technologies*, 28(11), 13943–13967. <https://doi.org/10.1007/s10639-023-11742-4>
- Yasmin, M., Khan, A. R., & Akram, S. (2025). A quasi-experimental study of EFL learners in Pakistan: ChatGPT and argumentative writing skills. *International Journal of Educational Research Open*, 8, 100412.
- Zhao, X. (2023). Leveraging artificial intelligence (AI) technology for English writing: Introducing Wordtune as a digital writing assistant for EFL writers. *RELC Journal*, 54(3), 890–894. <https://doi.org/10.1177/00336882221094089>