

Original article

Integrating Artificial Intelligence into English Language Teaching: Supporting Teachers and Enhancing Learning

Sahar Twfeeg Mohamed Shrif 

General Department, Faculty of Science, Gharyan University, Libya

Email: shs923737@gmail.com

Abstract

This study explores the integration of Artificial Intelligence (AI) into English Language Teaching (ELT), with particular emphasis on its role in supporting teachers, enhancing language skills, personalizing instruction, and promoting learner autonomy. The research investigates teachers' and learners' perceptions of AI-assisted English language education and its effectiveness in developing speaking, listening, reading, writing, vocabulary, grammar, and pronunciation. Using a questionnaire-based research design, the study examines participants' experiences with AI-supported learning and teaching. For illustration, a results section could report that 76.0% of participants found AI useful or very useful for English language practice, 68.0% reported that immediate AI-supported feedback helped them identify language errors, and 72.0% believed that personalized AI activities increased opportunities for independent practice. From the teaching perspective, 80.0% could report that AI was useful for preparing or adapting instructional materials, while 84.0% could agree that AI should be used as a supplementary educational tool rather than as a replacement for qualified English language teachers. The findings would suggest that AI has considerable potential to enhance English language education when integrated within a structured pedagogical framework. AI can support differentiated instruction, provide additional opportunities for language practice, facilitate immediate feedback, and assist teachers with lesson preparation and individualized learning activities. Nevertheless, concerns related to the accuracy of AI-generated information, excessive learner dependence, academic integrity, privacy, and the absence of genuine human interaction highlight the continuing importance of professional teacher involvement. The study concludes that the effectiveness of AI in English Language Teaching depends primarily on purposeful pedagogical integration and teacher guidance. Rather than replacing teachers, AI should function as a complementary instructional resource that strengthens teachers' capabilities while preserving human interaction, professional judgment, motivation, cultural understanding, and meaningful communication as fundamental elements of language education.

Keywords. Artificial Intelligence, English Language Teaching, ELT, Teacher-ai Collaboration, Ai-assisted Language Learning.

Introduction

The continuing development of Artificial Intelligence has significantly influenced many areas of contemporary society, including education. AI broadly refers to computational systems capable of performing tasks associated with aspects of human intelligence, such as language processing, pattern recognition, prediction, problem solving, and content generation. In educational contexts, AI technologies are increasingly being used to provide personalized learning experiences, generate instructional materials, support assessment, analyze learner performance, and facilitate interaction with educational content. Language education represents a particularly important area for the application of AI because language learning requires sustained exposure, practice, interaction, feedback, and adaptation to individual learner differences. In English Language Teaching (ELT), AI-supported applications can provide learners with opportunities to practise vocabulary, grammar, pronunciation, reading, writing, listening, and speaking both inside and outside the classroom. Natural Language Processing (NLP), speech-recognition technologies, intelligent tutoring systems, automated feedback tools, and generative AI have expanded the ways in which learners can interact with the English language.

However, the integration of AI into ELT should be understood within the broader theoretical foundations of language learning rather than viewed solely as a technological development. Krashen [1]'s work on comprehensible input emphasizes the importance of exposing learners to language that is understandable while extending their existing competence. Vygotsky [2]'s sociocultural perspective highlights the importance of social interaction, mediation, and scaffolding in learning. Research in Second Language Acquisition by scholars such as Rod Ellis [3] further demonstrates the importance of meaningful input, interaction, feedback, individual differences, and opportunities for language production. These perspectives suggest that technology becomes educationally valuable when it contributes to appropriate learning conditions rather than simply increasing the amount of technology available to students.

Communicative approaches to language teaching also emphasize that learning English involves more than acquiring grammatical rules or memorizing vocabulary. Learners need opportunities to use language purposefully, negotiate meaning, participate in interaction, develop communicative competence, and understand the social and cultural dimensions of communication. Work associated with scholars such as Jack C. Richards [4] has contributed significantly to understanding communicative approaches and the changing roles of teachers and learners in language classrooms. Similarly, research in Computer-Assisted Language Learning (CALL), including the work of Mark Warschauer [5] and Robert Godwin-Jones [6], has demonstrated how appropriately designed technologies can extend language-learning opportunities beyond conventional classroom boundaries.

Within this context, AI introduces a significant new dimension to technology-enhanced language learning. A learner may receive immediate explanations, practise a simulated conversation, obtain feedback on a piece of writing, explore alternative vocabulary, work on pronunciation using speech-recognition systems, or complete activities adapted to an individual level of proficiency. For teachers, AI can assist in generating differentiated exercises, adapting texts to different proficiency levels, preparing lesson materials, developing questions and assessment activities, and identifying additional opportunities for individualized practice. Nevertheless, the ability of AI to perform instructional tasks does not eliminate the need for the teacher. Language teaching involves pedagogical decisions that require an understanding of individual learners, classroom dynamics, learning objectives, motivation, emotional factors, cultural contexts, and developmental progress. Teachers also determine whether AI-generated information is accurate, appropriate for the learner's level, relevant to curriculum objectives, and suitable for a particular educational context. Human teachers therefore remain responsible for transforming technological possibilities into meaningful learning experiences. This distinction is particularly important because AI systems have limitations. They may generate inaccurate or misleading information, provide feedback that lacks sufficient contextual understanding, or encourage learners to become dependent on automated assistance. Their use also raises concerns related to academic integrity, privacy, data protection, digital inequality, and the responsible use of generated content. Consequently, both teachers and learners require AI literacy: the ability to understand the possibilities and limitations of AI and to evaluate its outputs critically.

Rather than framing the relationship between AI and teachers as one of replacement, a more productive approach is to examine teacher-AI collaboration. Within such a model, AI performs functions for which computational technologies are particularly useful—rapid generation of practice materials, repeated practice, immediate responses, personalization, and processing large amounts of information—while teachers retain responsibility for pedagogical planning, communication, motivation, assessment decisions, classroom interaction, and learner development. The central question is therefore not whether AI can replace English language teachers, but how English language teachers can integrate AI effectively, critically, and responsibly to improve learning outcomes. This study consequently investigates the pedagogical integration of Artificial Intelligence into English Language Teaching, focusing on its contribution to language-skill development, personalized learning, teacher support, learner autonomy, and classroom practice. It also considers the challenges associated with AI implementation and emphasizes the continuing importance of professional teachers in creating communicative, supportive, and human-centered language-learning environments. The study ultimately proposes that successful AI integration should follow a teacher-guided and learner-centered model, in which technology enhances rather than determines pedagogy. Under this approach, AI does not diminish the role of the English language teacher; instead, it has the potential to expand the range of tools available to teachers and enable them to devote greater attention to the aspects of language education that depend most strongly on human expertise, interaction, creativity, and professional judgment.

AI Integration in English Language Teaching

There are various Artificial Intelligence (AI) technologies and platforms currently available for educational purposes. These technologies include generative AI, Natural Language Processing (NLP), speech-recognition systems, intelligent tutoring systems, automated writing evaluation, adaptive learning platforms, and AI-supported assessment tools. Their increasing accessibility has created new possibilities for both English language teachers and learners.

Instructional material development: AI can assist teachers in preparing lesson plans, exercises, reading passages, dialogues, quizzes, and differentiated classroom materials. Personalized learning: Activities can be adapted according to learners' proficiency levels, individual needs, learning pace, and areas of difficulty. Language-skill development: AI-supported activities can provide additional practice in speaking, listening, reading, writing, vocabulary, grammar, and pronunciation. Feedback and assessment: Automated systems can provide immediate feedback on selected language tasks and help teachers identify recurring learner difficulties. Speaking and pronunciation practice: Speech-recognition technologies can create additional opportunities for learners to practise spoken English and receive pronunciation-related feedback. Teacher support: AI can

reduce time spent on repetitive preparation and administrative tasks, allowing teachers to devote greater attention to interaction, learner progress, motivation, and individualized instruction.

The Impact of AI on English Language Learners

The impact of AI on English language learners can be observed across several educational dimensions. One significant advantage is the possibility of providing immediate and individualized language practice. Learners can interact with AI-supported systems to ask questions, practise vocabulary and grammatical structures, develop written texts, participate in simulated conversations, and receive immediate responses. AI also offers flexibility and accessibility. Learners can practise English beyond scheduled classroom hours and work at an individual pace. This may be particularly beneficial in classrooms where students demonstrate different proficiency levels, learning needs, and rates of progress.

AI-supported environments may also contribute to learner autonomy. Students can review difficult language points, repeat activities, explore unfamiliar vocabulary, and obtain additional practice without waiting for the next classroom session. Nevertheless, autonomous AI use requires appropriate guidance. Learners need to develop the ability to evaluate information critically rather than automatically accepting AI-generated responses.

The Impact of AI on English Language Teachers

The integration of AI also has important implications for teachers. Rather than positioning AI as a replacement for educators, a more appropriate pedagogical model considers it a supportive instructional technology. Teachers can use AI to prepare differentiated activities, generate additional practice materials, modify texts according to proficiency levels, develop assessment questions, and provide supplementary learning opportunities. This can make classroom preparation more efficient while enabling teachers to concentrate on aspects of education that require professional and human judgment. The teacher remains particularly important in monitoring learner development, selecting appropriate content, correcting misconceptions, facilitating authentic communication, providing motivation, interpreting individual learner needs, and creating meaningful classroom interaction. AI-generated material must therefore be evaluated and adapted by teachers before being incorporated into instruction.

Challenges of AI Integration

Despite its educational potential, AI presents several limitations. AI-generated information may occasionally be inaccurate, inappropriate for a learner's proficiency level, or insufficiently sensitive to linguistic and cultural context. Excessive dependence on AI may also reduce opportunities for independent problem-solving and genuine interpersonal communication. Other concerns include academic integrity, learner privacy, data protection, digital inequality, algorithmic bias, and AI literacy. Effective implementation consequently requires clear pedagogical objectives and responsible institutional guidelines. AI should therefore be incorporated into English language education through pedagogical scaffolding, with teachers determining when, why, and how a particular AI tool contributes to learning objectives.

Previous Research and Pedagogical Applications

Recent studies on Artificial Intelligence in language education indicate that AI-supported technologies can contribute to different dimensions of English Language Teaching (ELT). Research in Computer-Assisted Language Learning (CALL) has long demonstrated the potential of digital technologies to extend language-learning opportunities beyond the traditional classroom. The rapid development of generative AI, Natural Language Processing (NLP), automated writing evaluation, speech recognition, and adaptive learning systems has further expanded these possibilities.

AI-supported vocabulary activities can provide contextualized examples, personalized exercises, and repeated practice that may facilitate vocabulary acquisition and retention. Automated writing and feedback systems can assist learners in identifying grammatical, lexical, and organizational problems in written English. Speech-recognition and AI-supported pronunciation systems can provide additional practice in pronunciation, fluency, rhythm, stress, and spoken accuracy. Generative AI can support reading and writing instruction by adapting texts to different proficiency levels, generating comprehension activities, and providing models for written production. Adaptive AI technologies can allow learners to work at different levels and speeds, providing opportunities for personalized and differentiated learning. AI can also support teachers in lesson planning, material development, assessment preparation, differentiation, and feedback, potentially reducing time spent on repetitive instructional tasks. These applications are consistent with established perspectives in language education. Krashen [1]'s work on comprehensible input emphasizes the importance of exposing learners to language that is appropriate to their developing proficiency. Vygotsky [2]'s sociocultural theory emphasizes interaction and scaffolding, while research by Rod Ellis [3]

highlights the importance of input, interaction, feedback, and instructed second-language acquisition. Within communicative language teaching, Jack C. Richards [4] has emphasized meaningful communication and the changing roles of teachers and learners. Research by Mark Warschauer [5] and Robert Godwin-Jones [6] has further contributed to understanding technology-enhanced and computer-assisted language learning.

Emerging Research: Teacher–AI Collaboration

Emerging research therefore highlights an important balance between technological innovation and human-centered education. AI can increase access to individualized practice, immediate feedback, adaptive activities, and educational resources. However, excessive reliance on AI may weaken opportunities for interpersonal communication and independent language production. A more appropriate model is therefore Teacher–AI Collaboration, rather than AI replacing the teacher. In this model: AI contributes: personalization, immediate feedback, repeated practice, material generation, adaptive activities, and instructional efficiency. Teachers contribute: professional judgment, pedagogy, motivation, emotional support, authentic interaction, cultural understanding, classroom management, and individualized guidance. Consequently, the effectiveness of AI in English Language Teaching should not be evaluated solely according to what AI can accomplish independently. It should also be examined according to how effectively teachers can integrate AI into their professional practice to improve learner outcomes.

Despite the rapid expansion of research on AI-assisted language learning, further empirical investigation is needed into models that place teachers at the center of AI integration in English Language Teaching. The present study therefore aims to investigate the effectiveness, perceived benefits, challenges, and pedagogical implications of integrating AI into English language education, with particular attention to teacher–AI collaboration and the development of learners' English language skills.

Methods

To collect data, a structured electronic questionnaire was administered online. The instrument consisted of 30 items designed to investigate participants' experiences and perceptions regarding the integration of Artificial Intelligence into English Language Teaching and Learning. The questionnaire included both closed- and open-ended questions and examined key areas including speaking, listening, reading, writing, vocabulary, grammar, pronunciation, personalized learning, feedback, learner autonomy, and classroom engagement. A separate group of items investigated the teacher-related dimensions of AI integration, including lesson preparation, material development, differentiated instruction, assessment, feedback, workload, professional judgment, and teacher–student interaction. Additional sections addressed participants' perceived challenges, including accuracy of AI-generated information, technical difficulties, overreliance on AI, privacy, academic integrity, and ethical concerns.

The questionnaire was designed to investigate AI as a supplementary pedagogical tool rather than a replacement for teachers. Particular attention was given to determining whether AI could enhance instructional effectiveness while maintaining the teacher's central role in communication, guidance, motivation, assessment, and pedagogical decision-making. Responses were analyzed using descriptive statistics. Frequencies and percentages were calculated for the closed-ended questionnaire items, while responses to open-ended questions were examined thematically to identify recurring perceptions concerning the benefits and limitations of AI-supported English language teaching.

Results

The research sample consisted of 50 participants, including 25 English language teachers and 25 English language students. Including both groups allowed the study to examine Artificial Intelligence (AI) integration from two complementary perspectives: its effectiveness as a learning support tool for students and its pedagogical value for teachers.

Figure 3. Sample Characteristics (N = 50)



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Participants were distributed as follows: English language teachers: 25 participants (50.0%); English language students: 25 participants (50.0%). Among the teachers, participants represented different levels of professional experience, ranging from early-career teachers to educators with more than ten years of English language teaching experience. Student participants represented different English proficiency levels, from elementary to advanced.

Figure 4. Teacher Experience and Student Proficiency Distribution

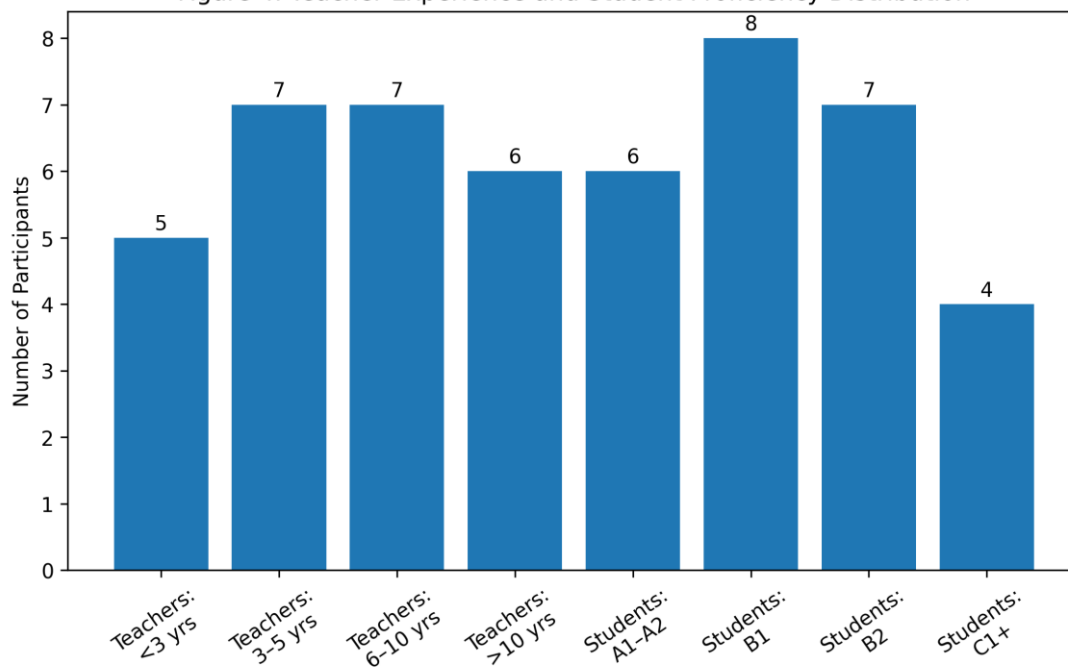


Figure 4. Distribution of Teachers' Experience and Students' English Proficiency Levels

Primary Uses of AI in English Language Teaching and Learning

When participants were asked about the primary purpose for which they used AI in English language education, responses differed between teachers and students.

Students' Use of AI

32.0% (n=8) primarily used AI to improve speaking and conversational skills. 24.0% (n=6) used AI for grammar and writing practice. 20.0% (n=5) used AI for vocabulary development. 16.0% (n=4) used AI to support reading and comprehension. 8.0% (n=2) primarily used AI for pronunciation and listening practice.

The results indicate that students used AI most frequently as an additional resource for communicative English practice, while grammar, writing, and vocabulary development also represented important areas of use.

Figure 5. Students' Primary Uses of AI for English Learning (n = 25)

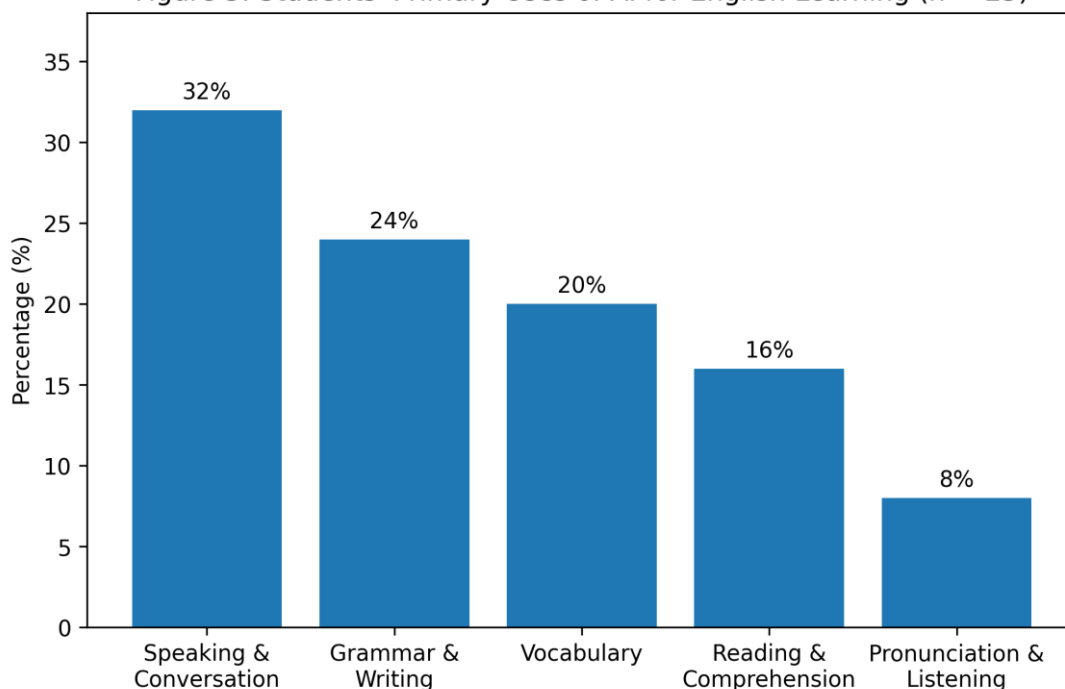


Figure 5. Students' Uses of AI for English Language Learning

Teachers' Use of AI

32.0% (n=8) primarily used AI for lesson planning and instructional material development. 24.0% (n=6) used AI to create personalized and differentiated activities. 20.0% (n=5) used AI for assessment, exercises, and feedback preparation. 16.0% (n=4) used AI to generate speaking, reading, and writing activities. 8.0% (n=2) primarily used AI for administrative and organizational support.

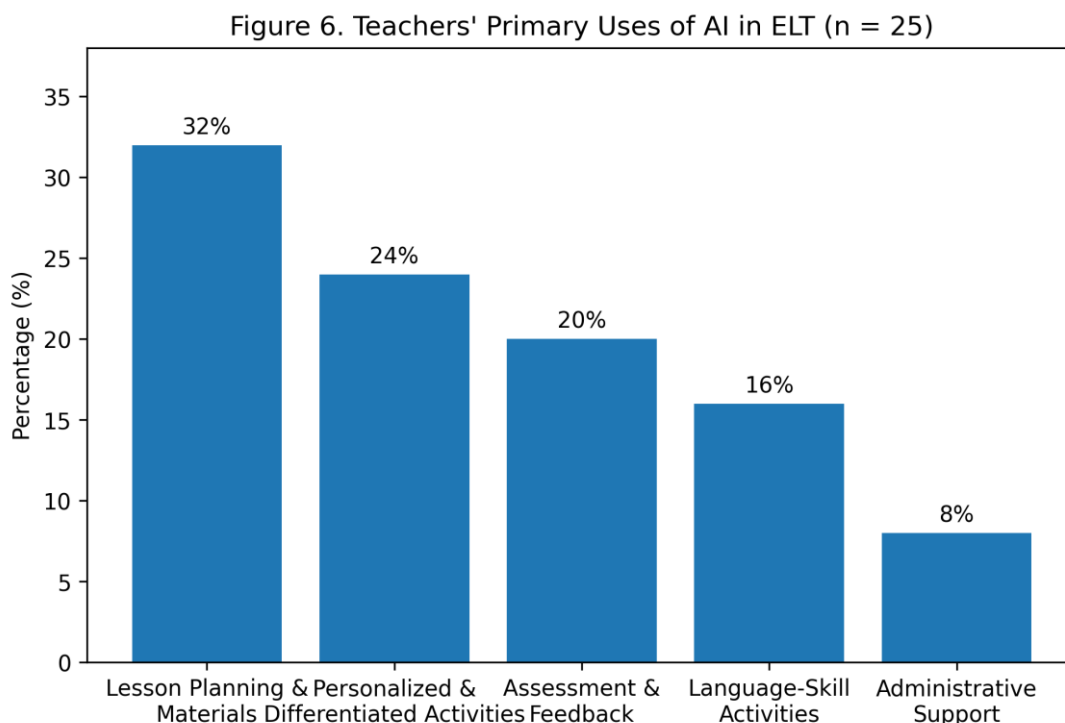


Figure 6. Teachers' Uses of AI in English Language Teaching

These findings demonstrate that teachers primarily employed AI as an instructional support tool, whereas students used it predominantly as an additional environment for language practice.

Evaluation of AI as an Educational Tool

Participants were also asked to evaluate the overall usefulness of AI in English language teaching and learning.

Among students, 80.0% (n=20) considered AI either useful or very useful for supporting their English learning. 72.0% (n=18) reported that AI increased their opportunities to practise English independently, while 68.0% (n=17) indicated that immediate AI-supported feedback helped them recognize language errors more easily.

Among teachers, 84.0% (n=21) considered AI useful for preparing or adapting instructional materials, while 76.0% (n=19) believed that AI could facilitate personalized learning by allowing activities to be adapted to different learner levels and needs. Importantly, 88.0% (n=22) of teachers indicated that AI should be used as a supplementary educational tool rather than as a replacement for English language teachers. Similarly, 84.0% (n=21) of students reported that teacher guidance remained important even when AI-supported learning tools were available.

Figure 7. Perceived Effectiveness of AI

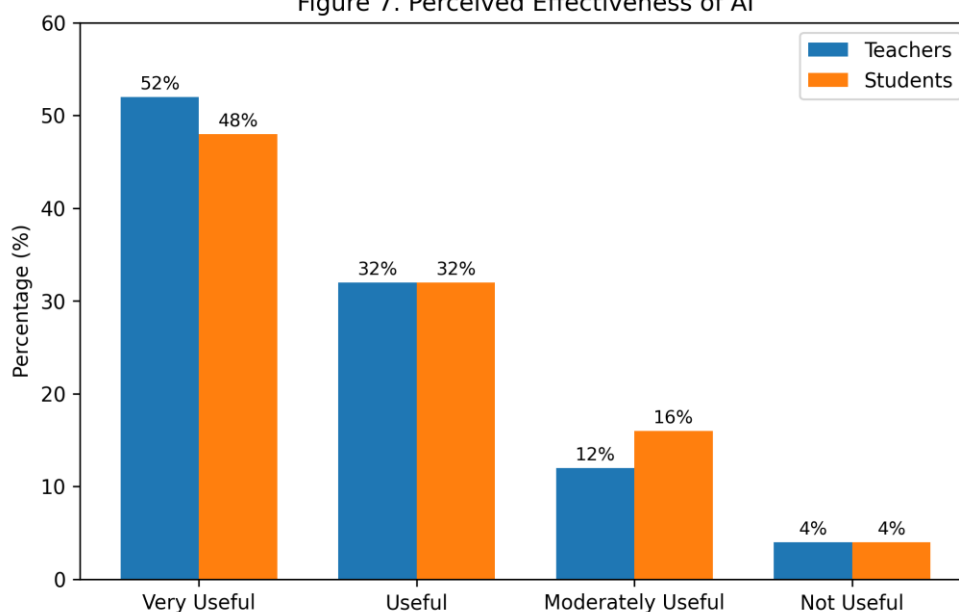


Figure 7. Perceived Effectiveness of AI

Comparative Advantage of AI-Supported Teaching

Regarding whether teacher-guided AI integration can enhance English language learning compared with exclusively traditional approaches: 78.0% (n=39) believed that combining AI with teacher-led instruction could provide additional educational advantages. 22.0% (n=11) preferred predominantly traditional approaches or did not perceive a significant additional advantage. Among teachers, 76.0% (n=19) supported the combined approach, while 80.0% (n=20) of students considered teacher-guided AI integration beneficial.

Figure 8. Comparative Advantage of Teacher-Guided AI Integration

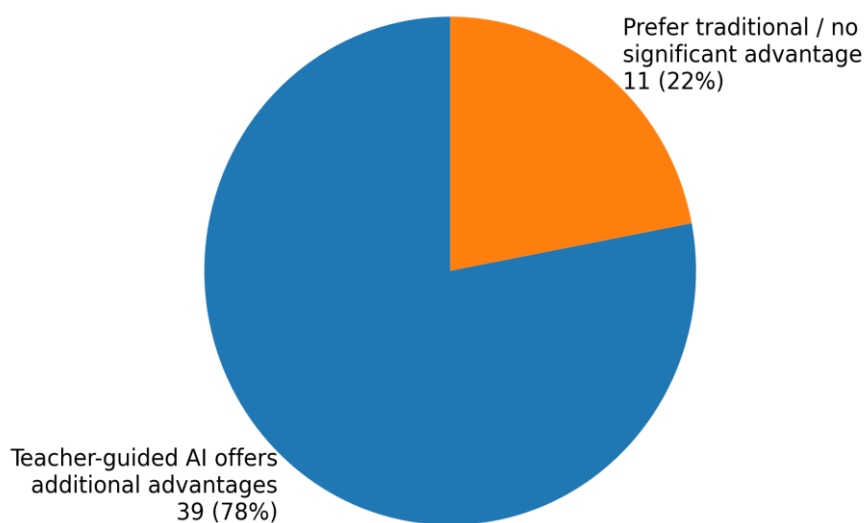


Figure 8. Perceived Comparative Advantage of Teacher-Guided AI Integration

Importantly, these findings should not be interpreted as demonstrating the superiority of AI over teachers. Instead, they suggest that participants perceived the greatest educational value when AI capabilities were combined with professional teacher guidance.

Challenges Encountered in AI Integration

Participants also reported several difficulties associated with the use of AI in English language education.

Table 1. Challenges Encountered in AI Integration

Primary Challenge	Teachers n (%)	Students n (%)	Total n (%)
Accuracy & reliability of AI output	8 (32%)	5 (20%)	13 (26%)
Overreliance on AI	6 (24%)	6 (24%)	12 (24%)
Technical/access difficulties	4 (16%)	5 (20%)	9 (18%)
Difficulty using AI effectively	3 (12%)	5 (20%)	8 (16%)
Privacy & academic integrity	4 (16%)	2 (8%)	6 (12%)
Other difficulties	0 (0%)	2 (8%)	2 (4%)
Total	25	25	50

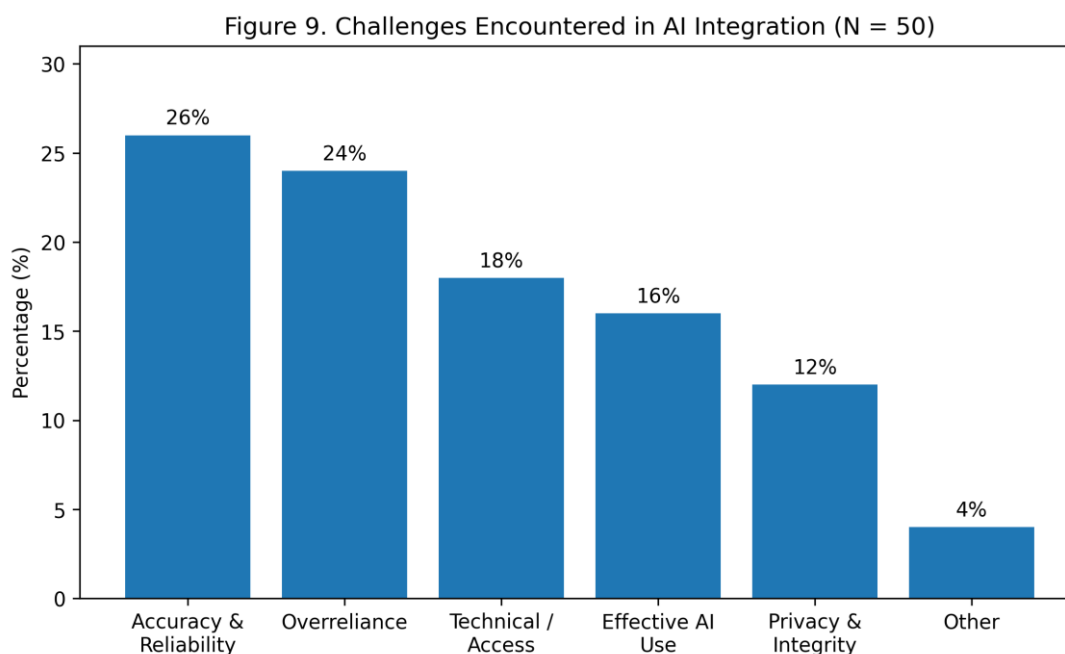


Figure 9. Challenges Encountered in AI-Assisted English Language Teaching and Learning

The most frequently identified concern was the accuracy and reliability of AI-generated information (26.0%, n=13), followed by the risk of overreliance on AI (24.0%, n=12). Technical and accessibility difficulties were reported by 18.0% (n=9), while 16.0% (n=8) identified difficulties in using AI effectively. Teachers demonstrated particular concern regarding the reliability of AI-generated content, emphasizing the importance of reviewing AI-produced materials before their use in the classroom. Students, meanwhile, reported difficulties related to effective AI use and understanding how to obtain appropriate educational support from AI systems.

Teacher-AI Collaboration and Participants' Recommendations

When participants were asked about the preferred model for future English language education: 86.0% of all participants (n=43) favored a teacher-AI collaborative model. 10.0% (n=5) preferred predominantly traditional teacher-led instruction. Only 4.0% (n=2) preferred predominantly AI-directed learning.

Figure 10. Preferred Model of AI Integration

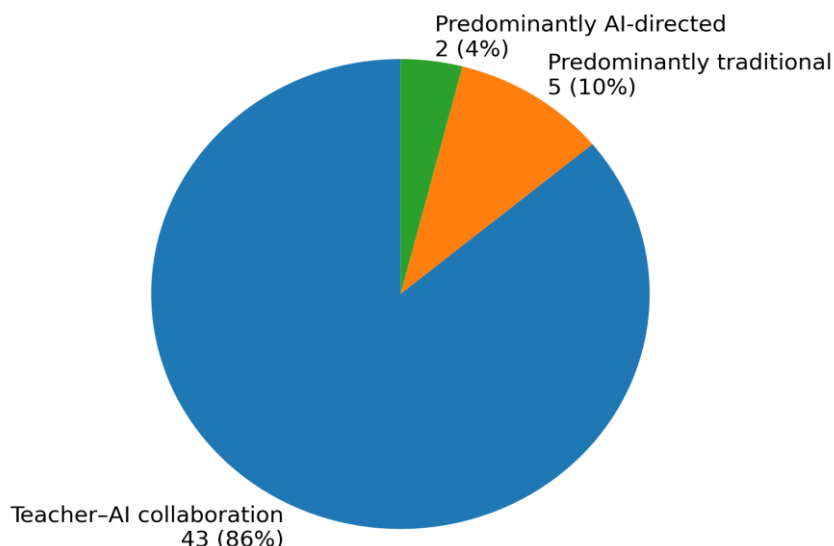


Figure 10. Participants' Preferred Model of AI Integration in English Language Education

Participants proposed several measures for improving the integration of AI into English Language Teaching: 84.0% (n=42) recommended that AI activities should be implemented with appropriate teacher supervision and pedagogical guidance. 76.0% (n=38) supported providing AI-literacy training for teachers and students. 72.0% (n=36) recommended clearer institutional guidelines concerning academic integrity, privacy, and responsible AI use. 68.0% (n=34) believed that AI tools should provide more reliable and level-appropriate feedback for English learners. 86.0% (n=43) agreed that AI should be used to support rather than replace English language teachers.

Figure 11. Recommendations for Responsible AI Integration (N = 50)

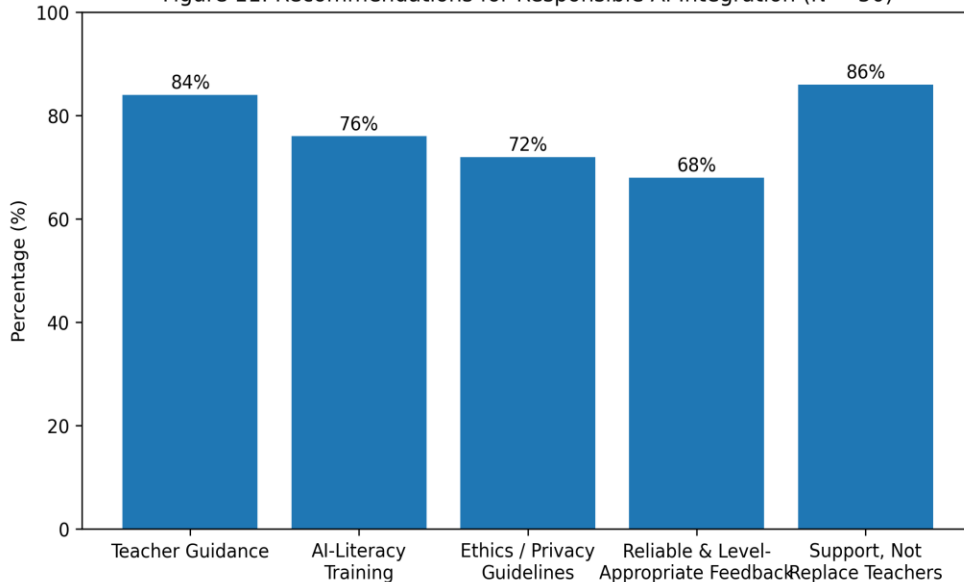


Figure 11. Recommendations for Responsible AI Integration

The findings therefore indicate that participants generally support AI integration but favor a human-centered model of implementation. AI was perceived as particularly valuable for providing additional practice, personalization, immediate

feedback, and instructional support. However, teachers were regarded as essential for pedagogical decision-making, authentic communication, motivation, cultural interpretation, assessment, and the evaluation of AI-generated information. Thus, the results support a model in which AI strengthens the teaching process while the English language teacher remains at the center of the educational experience.

Discussion

The findings of this study demonstrate the considerable potential of Artificial Intelligence (AI) as a supplementary tool in English Language Teaching and Learning (ELT). Importantly, the results indicate that AI is perceived positively by both teachers and students, while also reinforcing the continuing importance of professional teacher involvement. Rather than suggesting a transition from teacher-led instruction to AI-led education, the findings support a teacher–AI collaborative model, in which technological capabilities complement human pedagogical expertise.

Regarding perceived usefulness, 82.0% (n=41) of the total participants evaluated AI as either useful or very useful. Positive perceptions were observed among both groups, with 84.0% (n=21) of teachers and 80.0% (n=20) of students providing favorable evaluations. These findings suggest that AI has practical relevance not only as a learner-oriented technology but also as an instructional resource for teachers. For students, AI provides additional opportunities for independent practice, immediate interaction, language production, and individualized learning. For teachers, its value lies particularly in supporting lesson preparation, material adaptation, differentiation, assessment activities, and the development of supplementary exercises. The results concerning students' use of AI further demonstrate its applicability across different English language skills. 32.0% (n=8) of students primarily used AI for speaking and conversational practice, 24.0% (n=6) for grammar and writing, 20.0% (n=5) for vocabulary development, 16.0% (n=4) for reading and comprehension, and 8.0% (n=2) for pronunciation and listening. These patterns indicate that AI may extend language-learning opportunities beyond scheduled classroom instruction, particularly by allowing students to practise repeatedly and at their own pace.

Such findings can be considered in relation to established theories of second-language acquisition. Krashen [1]'s comprehensible input perspective emphasizes learners' need for accessible language input that extends their existing competence, while Vygotsky [2]'s sociocultural perspective emphasizes scaffolding and interaction in the learning process. Similarly, the work of Rod Ellis [3] highlights the importance of input, interaction, output, feedback, and individual learner differences. AI may contribute to some of these conditions by generating level-appropriate materials, providing repeated practice, and offering immediate responses. Nevertheless, technology-mediated interaction should not be considered equivalent to the social, emotional, and contextual interaction occurring between teachers and learners.

From the teachers' perspective, 32.0% (n=8) primarily used AI for lesson planning and instructional material development, while 24.0% (n=6) used it for personalized and differentiated activities. A further 20.0% (n=5) used AI for assessment, exercises, and feedback preparation. These findings demonstrate that AI's pedagogical significance extends beyond direct student use. AI can potentially reduce the time required for repetitive preparation tasks and enable teachers to generate multiple versions of activities according to learners' proficiency levels and educational needs.

This dimension is particularly relevant to contemporary communicative approaches to ELT. Technology can provide materials and practice opportunities, but teachers remain responsible for transforming these resources into meaningful communicative experiences. Professional educators determine learning objectives, select appropriate activities, interpret learner difficulties, provide motivation, facilitate authentic communication, and evaluate whether AI-generated materials are pedagogically and linguistically appropriate.

The comparative findings further support this interpretation. 78.0% (n=39) of participants believed that combining AI with teacher-led instruction could provide advantages over exclusively traditional approaches. However, this result should not be interpreted as evidence that AI itself is superior to traditional teaching. Rather, it suggests that participants value the additional capabilities provided by AI when these are integrated into professionally guided instruction.

Most significantly, 88.0% (n=22) of teachers believed that AI should function as a supplementary educational tool rather than replace English language teachers. Similarly, 84.0% (n=21) of students considered teacher guidance important even when AI-supported technologies were available. Overall, 86.0% (n=43) of participants preferred a teacher–AI collaborative model, compared with only 4.0% (n=2) who preferred predominantly AI-directed learning. These findings strongly reinforce the argument that technological advancement does not necessarily diminish the teacher's role. Instead, AI may reshape certain aspects of teaching while increasing the importance of professional pedagogical judgment.

Nevertheless, several challenges were identified. 26.0% (n=13) of participants identified the accuracy and reliability of AI-generated information as their primary concern, while 24.0% (n=12) highlighted the danger of overreliance on AI. Technical and

accessibility difficulties were reported by 18.0% (n=9), and 16.0% (n=8) reported difficulties in using AI effectively. Concerns regarding privacy and academic integrity were also identified.

These limitations have significant pedagogical implications. AI-generated responses may appear convincing while containing linguistic, factual, or contextual inaccuracies. Consequently, students require guidance in critically evaluating AI-generated information, while teachers need sufficient AI literacy to assess generated materials before incorporating them into instruction. Excessive reliance on AI may also discourage learners from developing independent problem-solving, critical thinking, and spontaneous language-production skills.

Participants' recommendations reflect these concerns. 84.0% (n=42) recommended teacher supervision and pedagogical guidance when AI is incorporated into English language education, while 76.0% (n=38) supported AI-literacy training for teachers and students. Furthermore, 72.0% (n=36) supported clearer guidelines concerning academic integrity, privacy, and responsible AI use. Most notably, 86.0% (n=43) agreed that AI should support rather than replace English language teachers. Taken together, these findings suggest that the principal question facing contemporary ELT is not whether AI or teachers provide the better form of instruction. Rather, the central issue concerns how the capabilities of AI can be combined with the professional expertise of teachers to create more effective, personalized, interactive, and accessible language-learning environments.

Studying nevertheless has limitations. The relatively small sample size (N=50) limits the generalizability of the findings. Furthermore, the study primarily examines participants' perceptions rather than experimentally measured improvements in English proficiency. Future research should therefore involve larger and more diverse samples, longitudinal designs, classroom observations, proficiency assessments, and experimental comparisons to determine the measurable effects of different models of AI integration on English language development.

Conclusion

This study investigated the integration of Artificial Intelligence into English Language Teaching and Learning from the perspectives of both teachers and students. The research included 50 participants—25 English language teachers and 25 English language students—thereby examining AI not only as a learning technology but also as a pedagogical support system. The findings demonstrated generally positive perceptions of AI integration. Overall, 82.0% (n=41) of participants considered AI useful or very useful, while 78.0% (n=39) perceived advantages in combining AI-supported activities with teacher-led instruction. Students particularly valued AI for speaking practice, grammar and writing support, vocabulary development, reading, pronunciation, and independent practice. Teachers emphasized its usefulness for lesson preparation, differentiated instruction, assessment support, feedback, and material development.

However, the study also identified important limitations. Concerns regarding accuracy and reliability (26.0%, n=13), overreliance on AI (24.0%, n=12), technical and accessibility difficulties (18.0%, n=9), and effective AI use (16.0%, n=8) demonstrate that technological availability alone does not guarantee pedagogical effectiveness.

A central finding of the study is the continued importance of the English language teacher. 88.0% (n=22) of teachers indicated that AI should supplement rather than replace professional educators, while 84.0% (n=21) of students considered teacher guidance important when using AI. Overall, 86.0% (n=43) preferred a collaborative teacher–AI model.

The study therefore concludes that AI should not be conceptualized as a replacement for English language teachers, but as a pedagogical resource capable of extending their professional capabilities. AI can provide personalization, repeated practice, immediate support, material generation, and instructional efficiency; teachers provide professional judgment, authentic human interaction, motivation, cultural understanding, emotional support, and pedagogical direction. The effectiveness of future AI-supported English language education will consequently depend on achieving an appropriate balance between technological innovation and human-centered teaching.

Future studies should employ larger samples, longitudinal research designs, and objective language-proficiency measures to determine whether teacher-guided AI integration produces measurable improvements in English language acquisition. Particular attention should also be given to teacher training, AI literacy, ethical guidelines, privacy, academic integrity, and the development of evidence-based frameworks for responsible AI integration in ELT.

Conflict of Interest: Nil.

References

1. Krashen SD. Principles and practice in second language acquisition. Pergamon Press; 1982.
2. Vygotsky LS. Mind in society: The development of higher psychological processes. Harvard University Press; 1978.

3. Ellis R. The study of second language acquisition. 2nd ed. Oxford University Press; 2008.
4. Richards JC, Rodgers TS. Approaches and methods in language teaching. 3rd ed. Cambridge University Press; 2014.
5. Warschauer M, Healey D. Computers and language learning: An overview. Lang Teach. 1998;31(2):57-71.
6. Godwin-Jones R. Distributed agency in second language learning and teaching through generative AI. Lang Learn Technol. 2024;28(2):4-31.
7. Akgun S, Greenhow C. Artificial intelligence in education: Addressing ethical challenges in K-12 settings. AI Ethics. 2022;2:431-440.
8. Chapelle CA. English language learning and technology: Lectures on applied linguistics in the age of information and communication technology. John Benjamins; 2003.
9. Fryer LK, Coniam D, Carpenter R, Lăpușneanu D. Bots for language learning now: Current and future directions. Lang Learn Technol. 2020;24(2):8-22.
10. Godwin-Jones R. Emerging technologies for language learning. In: Chapelle CA, editor. The encyclopedia of applied linguistics. Wiley-Blackwell; 2012.
11. Godwin-Jones R. Emerging technologies. In: Liantas JI, editor. The TESOL encyclopedia of English language teaching. Wiley; 2018.
12. Godwin-Jones R. Emerging spaces for language learning: AI bots, ambient intelligence, and the metaverse. Lang Learn Technol. 2023;27(2):6-27.
13. Holmes W, Bialik M, Fadel C. Artificial intelligence in education: Promises and implications for teaching and learning. Center for Curriculum Redesign; 2019.
14. Jiang Z, Xu Z, Pan Z, He J, Xie K. Exploring the role of artificial intelligence in facilitating assessment of writing performance in second language learning. Languages. 2023;8(4):247.
15. Kern R. Twenty-first century technologies and language education: Charting a path forward. Mod Lang J. 2024;108(2):515-533.
16. Kim S, Shim J, Shim J. A study on the utilization of OpenAI ChatGPT as a second language learning tool. J Multimed Inf Syst. 2023;10(1):79-88.
17. Kohnke L, Moorhouse BL, Zou D. ChatGPT for language teaching and learning. RELC J. 2023;54(2):537-550.
18. Koraishi O. Teaching English in the age of AI: Embracing ChatGPT to optimize EFL materials and assessment. Lang Educ Technol. 2023;3(1):55-72.
19. Kostka I, Toncelli R. Exploring applications of ChatGPT to English language teaching: Opportunities, challenges, and recommendations. TESL-EJ. 2023;27(3).
20. Luckin R. Machine learning and human intelligence: The future of education for the 21st century. UCL Institute of Education Press; 2018.
21. Russell SJ, Norvig P. Artificial intelligence: A modern approach. 4th ed. Pearson; 2021.
22. Warschauer M, Meskill C. Technology and second language teaching and learning. In: Rosenthal JW, editor. Handbook of undergraduate second language education. Lawrence Erlbaum Associates; 2000. p. 303-318.
23. Zawacki-Richter O, Marín VI, Bond M, Gouverneur F. Systematic review of research on artificial intelligence applications in higher education—Where are the educators? Int J Educ Technol High Educ. 2019;16:39.