

USE OF ARTIFICIAL INTELLIGENCE TOOLS IN IMPROVING IELTS READING SKILLS AMONG INTERMEDIATE STUDENTS: A STUDY OF HYDERABAD

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Abstract

Artificial Intelligence (AI) is becoming more and more popular in the field of English language teaching (ELT), but the potential of using AI in ELT classrooms for IELTS preparation in Pakistani college settings needs to be demonstrated locally. The subject of this study is the application of AI activities by teachers for the improvement of IELTS reading skills of intermediate students in Hyderabad, Pakistan. The design is a mixed-method quasi-experimental design with forty students being distributed in two groups: control and experimental. The experimental group was taught conventional IELTS reading while the experimental group was provided with structured AI-assisted reading tasks that provided feedback on the explanation of words, paraphrase recognition, passage simplification, question-type analysis, and guided feedback. Pre-test, post-test, perception questionnaire, classroom observation, and learner reflections were the methods used in the collection of data. The data collected were quantitative and qualitative; quantitative data were analysed by descriptive statistics and t-test, while qualitative data were coded thematically. The findings indicated that the students in the AI-assisted group achieved higher improvements in vocabulary recognition, accuracy of comprehension, ability to infer meaning, reading confidence, and participation in class compared to those of the traditional teaching group. Based on the study, it is concluded that although AI tools are not a replacement for teachers, textbooks, or self-study, they can complement those methods and enhance the IELTS reading preparation in Pakistan.

Keywords: Artificial Intelligence (AI), English Language Teaching (ELT), IELTS Reading Skills, AI-Assisted Learning, Intermediate Students, Reading Comprehension,

1. Introduction

English is now used as a key language for higher education, migration, jobs, research communication, and mobility. English is given special relevance in the academic context in Pakistan as it is taught as a compulsory language, schools use it as a medium of instruction, and a language of choice for scholarships, further education and competitive job opportunities. There are standardized tests that students are typically asked to take to show their proficiency in English, especially if they are wishing to study abroad or apply for international opportunities. IELTS is one of the most widely known assessments of English language skills from among these tests (Crystal, 2012).

IELTS assesses students' Listening, Speaking, Reading and Writing abilities. The reading module is especially challenging for second language learners as candidates have to read complex texts within time constraints. Learners are expected to be able to: Identify main ideas, locate specific information, understand references, interpret meaning of any word or phrase in context, distinguish between factual and opinion information, and make inferences from academic or semi-academic texts. These requirements are not simply those of reading books as

textbooks but require one to develop strategic, analytical and independent reading habits (Green, 2018; Grabe & Stoller, 2019).

In Pakistani colleges, many learners have to deal with English in an environment where the emphasis is on collation of answers and rote learning. These sorts of practices can be useful for students in passing their local tests, but it is not enough that they are ready for international tests requiring swift understanding of strange texts. Students in intermediate level in Hyderabad, especially in the public sector institutions, might receive little access to genuine reading materials, trained IELTS trainers, computer-based materials, and one-to-one feedback. Various studies in English language education in Pakistan have identified unequal access to quality language learning, and persistent gaps in communicative and academic proficiency (British Council, 2022; Rahman, 2004).

The primary methods of classroom English teaching in Pakistan are mainly grammar translation, lecture explanation, teaching works from textbooks and correction by teachers. These practices can complement basic learning, but are unlikely to offer sufficient strategic practice for IELTS reading. Learners should be exposed to academic text, vocabulary in context, timed reading, paraphrase awareness, and be quickly corrected when they misunderstand. Technological support in large classes can be pedagogically relevant in addressing learners' difficulties as it is not possible to address each difficulty in detail for all learners (Rehman et al., 2022; Saleem et al., 2025).

AI has made its way into education via adaptive learning platforms, AI tutors, automated feedback mechanisms, conversational chatbots, and generative language models. In reading instruction, they can provide explanations of new vocabulary, help to understand complex sentences, create practice questions, create summaries, model strategies, and provide explanations at a learner's level. The above mentioned features are beneficial for IELTS preparation as students need to practice outside the class time, and private coaching might not be affordable for them (Kohnke et al., 2023; Rahman & Watanobe, 2023).

AI tools are not a substitute for teachers. Instead, with responsible use, they can be used to supplement the teacher's role of offering extra practice, immediate clarification, and learner-centered support. A teacher can help students ask effective prompts, check AI explanations, not rely too much on AI, and ensure that the students use AI to supplement learning rather than substitute for it. It is important in the educational environment because within the academic context, concerns regarding plagiarism, misinformation and superficial learning are valid (Kasneci et al., 2023; UNESCO, 2023).

It is a noteworthy educational city in Sindh where number of college students is present who have their wish to afford themselves opportunities for higher education and employment. However, there is still unequal access to higher levels of English language training and preparation for the IELTS. This study thus examines the possibility of improving the reading skills of intermediate students of Hyderabad compared to the conventional reading instruction through the use of AI with the help of IELTS reading skill. The findings of the study are applicable to teachers and students, as well as college administrators and curriculum planners, and researchers interested in language courses in Pakistan with support from AI (Hussain et al., 2023; Saleem et al., 2025).

1.1 Problem Statement

This study tackles the issue that many intermediate learners in Hyderabad find themselves in the scenario of not having had adequate practice in reading for analytical understanding, word power, inference, paraphrase recognition and strategic reading while attempting the IELTS reading paper. While learners are increasingly using AI tools, there is still a low level of formal use of AI in IELTS preparation in local college contexts. Hence, it is proposed that the effectiveness of a structured, teacher-supervised AI intervention in reading performance be explored (Rehman et al., 2022; Hussain et al., 2023).

The aims of this study were set as follows:

This study will investigate the effectiveness of AI tools in enhancing IELTS reading proficiency; compare the use of AI tools with the conventional method of teaching reading; look at the impact of AI tools on vocabulary and comprehension skills, as well as reading confidence; examine the attitudes of the students toward AI-based learning; and suggest recommendations for the use of AI tools in the IELTS reading classroom in Pakistan.

1.3 Research Questions

What is the efficacy of using AI to enhance the IELTS reading skill of the intermediate students? Is there any statistically meaningful difference between students learning via AI-supported learning and students learning in conventional ways? What impact do AI tools have on vocabulary learning and reading comprehension? How do students feel about using AI to practice IELTS reading? Which teaching strategies must be taken to ensure responsible use of AI?

1.4 Hypotheses

The null hypothesis tested was: There is no significant difference between the IELTS reading performance of students who were instructed using AI-assisted learning and those who were instructed using traditional learning. The alternative hypothesis was that there will be significant difference in IELTS reading performance between the two groups. The statistical analysis was planned to determine the hypothesis which was supported by the collected data (Creswell & Creswell, 2018; Field, 2018).

1.5 Significance and Delimitations

The current educational need of Pakistan has been met through this research. As the use of digital tools grows, there is a lack of clarity around academic approaches for AI-supported learning in many institutions. Teachers can use the study to gain insight into the potential applications of AI in reading instruction, while students can benefit from understanding how AI can be leveraged responsibly to develop their vocabulary, explain passages, and practice. The study identifies key challenges for policy implications, including the importance of digital literacy, teacher training, and ethical guidelines (UNESCO, 2023).

The study is confined to intermediate students of Hyderabad, Pakistan and only concentrates on the reading component of IELTS. It does not explore IELTS listening, speaking or writing. The number of students in the sample is restricted to 40 students and the intervention period is 6 weeks. Selected AI tools and teacher guided AI activities were used. The study is feasible for the delimitations and will facilitate focused analysis of reading development (Cohen et al., 2018).

2. Literature Review

This review consolidates the existing research in the areas of reading comprehension, IELTS preparation, English language teaching in Pakistan, and AI in language learning. Reading is not just a mechanical operation; it requires decoding, knowledge of words, background information, text-structure awareness, inference and monitoring of meaning. These processes are more challenging for second language learners because they may lack the vocabulary or syntax needed to comprehend even with a familiar topic. IELTS reading is an additional challenge because it features academic passages that are unfamiliar, a strict time limit, and question types that demand careful interpretation.

It has been broadly acknowledged that reading comprehension is a highly described interactive act where the reader integrates information from the text with the background knowledge. When reading fluently, there must be automatic word recognition, syntactic processing, meaning construction, and strategic control. The students should not only understand the sentences in IELTS reading but also read paragraphs and understand sentences 'in relation to each other' and also be able to 'pick out the right answer' in IELTS reading under pressure.

Thus, language learning and test strategies training in IELTS reading preparation are required (Green, 2018; O'Sullivan, 2019).

Vocabulary knowledge is a major determinant of reading comprehension. Students need to know a wide range of words and have a good command of them to grasp texts. Breadth is the number of words known, depth is the knowledge of word meaning, word combinations, synonyms, word structure and contextual meaning. Academic vocabulary, paraphrasing and distractors are commonly used in IELTS passages. Students with low vocabulary level are likely to misunderstand questions or not make equivalent meaning connections in the passage (Nation, 2022).

Another key component of IELTS performance is strategic reading. It is important for students to be able to determine when to skim, scan, read closely, or infer from the context. In the classrooms, much emphasis is laid on memorization and explanation in the first language and this is what many Pakistani students are trained to do, reading at a slow pace, translating word by word. IELTS, on the other hand, is kinder to the use of flexible strategies, quick information retrieval and the correct interpretation of paraphrased meaning. The best way to build strategy skills is to practice them repeatedly and provide them with feedback.

The English Language teaching in Pakistan has been influenced by past historical, social and institutional contexts. English has been linked to further education, social mobility and career progression, but access to high-quality teaching and learning of English is not equated. British Council's study on English language teaching, learning and assessment in Pakistan identifies key issues with teacher support in all educational sectors, assessment practices and the quality of provision (British Council, 2022).

One of the big problems in the Pakistani English classrooms is that they are dominated by an examination-oriented teaching approach. Pupils often repeat the words with which they have been equipped rather than using transferable language and comprehension skills. This is a pattern that impacts on reading comprehension as the reader may anticipate the answers and familiar passages. Reading, in contrast to IELTS reading, on the other hand, involves comprehension of unseen texts without assistance. This disparity in teaching methods and testing methods between local assessments and international assessments thus plays a significant role in causing students' reading problems (Rahman, 2004; Rehman, 2022).

One solution to these local challenges is the use of technology-enhanced language learning. Using digital tools, reading materials, online dictionaries, vocabulary practice, quizzes, and interactive exercises can be used. AI tools have expanded upon these capabilities, offering explanations, personalized difficulty levels, answering questions, and offering individual feedback. In this regard, AI becomes particularly relevant when addressing the needs of students who need support beyond the scope of the classroom, but it is necessary that its use be guided and critically evaluated (Zawacki-Richter et al., 2019; Rahman & Watanobe, 2023). Reading practice can be facilitated using the generative AI tools like ChatGPT to simplify text, paraphrase words in context, provide comprehension questions, recognize main ideas and demonstrate different ways of tackling IELTS reading question types. A learner can request the central idea of a paragraph, synonyms for important words, or an explanation as to why a choice is supported by the text and why a choice is a distractor. This interaction can be similar to tutoring, however, the nature of the interaction depends on the promptness of the student, the supervision of the teacher, and the willingness of the student to verify the prompt (Kohnke et al., 2023; Kasneci et al., 2023).

Constructivist learning theory can also be understood in regards to AI-assisted learning. According to ZPD of Vygotsky, with the right support learners are able to do more difficult things. AI tools provided scaffolding in the form of hints, examples, vocabulary explanations, and feedback in this study. Educationally, however, scaffolding is beneficial only when it phases out students into a state of independence. When students rely solely on AI to find

answers, the activity is not developmental, but rather passive (Vygotsky, 1978; UNESCO, 2023).

Some recent research indicates that using AI in the context of language learning has a number of benefits: it enhances motivation, fosters learner autonomy, provides access to feedback, and offers ample language input. Kohnke et al. (2023) explore the potential applications of ChatGPT in language instruction and acquisition, such as text production, facilitating language interaction, and providing language learning resources. Kasneci et al. (2023) outline the opportunities and challenges of LAs in education, highlighting the importance of carefully implementing these. Additionally, AI's impact on ESL classrooms and English teachers and learners has started to be explored in Pakistan (Hussain et al., 2023; Saleem et al., 2025).

Ethical considerations are a key issue when considering the use of AI in education. UNESCO (2023) suggests the use of generative AI to be done with sensitivity to human agency, equity, privacy, transparency, and age-appropriate learning. Students should not rely on AI to get answers, especially when preparing for the IELTS exam. Rather they should use it for reasoning, to develop strategies, and for enhancing their own understanding. Teachers should clarify and define what is acceptable and what is not acceptable in using AI for academic purposes.

It is therefore observed that there is a research gap in the literature. While there are several studies on AI in the field of education and language learning globally, there are limited empirical studies on AI-assisted IELTS reading preparation in Pakistan. There is particularly little research available for Hyderabad learners and intermediate learners. Local evidence is required since the way students read and the language backgrounds they bring, the access to technology, and the way exams are taken vary from the technologically advanced context. This study focuses on this gap by designing an experiment in classroom setting in public sector of Pakistan.

2.1 Theoretical and Conceptual Framework

The theoretical framework integrates constructivist learning theory and technology enhanced language learning. Constructivism focuses on the importance of scaffolding, interaction and active meaning making, and technology enhanced learning focuses on technology as a tool to increase access, feedback and learner autonomy. In summary, these frameworks provide a foundation for understanding how AI tools can enhance IELTS reading, particularly by fostering active learning, guided practice, and reflection (Vygotsky, 1978; Chapelle, 2020).

AI-assisted instruction is the independent variable while IELTS reading performance is the dependent variable. Vocabulary, understanding explanation, strategy practice, feedback, motivation, and confidence are mediating factors. The intended outcome is to have improved reading performance based on pre and post test scores. Student perceptions are also incorporated due to the importance of acceptance and motivation for the use of AI tools.

3. Methodology

The section addresses the procedure adopted to examine the impact of AI-based teaching on IELTS reading ability of the intermediate level students in Hyderabad. This includes research design, population, sampling, instruments, intervention, data collection, data analysis, validity, reliability, and ethical protection. The significance of having a transparent methodology is that the research is expected to yield evidence that is useful to English language teachers, college administrators, and researchers in similar contexts in Pakistan (Creswell & Creswell, 2018; Cohen et al., 2018).

The study was quasi-experimental with mixed-methods. The quantitative strand was assessed by student pre-test and post-test scores and the qualitative strand was assessed by observation and open-ended responses. This design was chosen as it is possible to determine changes in performance from test scores; however, test scores do not completely capture the student experience of the AI-supported practice. Use of both numerical and descriptive data thus

allowed for a more complete description of achievement and perception (Creswell & Plano Clark, 2018).

The quasi-experimental design was appropriate because it was a study carried out in a real educational environment where it was not feasible to use full randomization. The students were divided into two groups, a control group and an experimental group. Pre-test was given to both groups. One group (control group) was taught the conventional IELTS reading lessons while the other group (experimental group) was taught the IELTS reading instruction by AI. Both groups then took a post-test of equal difficulty at the end of the 6 weeks treatment. Classroom-based comparison designs are often employed in educational intervention research because they provide a way to compare classrooms in a realistic setting of the teaching context (Cohen et al., 2018).

The target population were the intermediate students studying in public sector College environments in Hyderabad, Sindh, Pakistan. Students in this group were suitable as they are generally at a point in their lives where they may be starting to think about further education, scholarships, migration or work, a field that may require IELTS. The city of Hyderabad was chosen as it is a significant urban educational hub in Sindh, and as well as representing some of the access issues of PSL, it also demonstrates other learning issues of public schools.

Forty intermediate students were used as the sample. A total of 20 students were allotted to the control group and 20 students to the experimental group. The Purposive sampling method was adopted because it was important for students to have a level of basic English reading ability, willingness to participate in the study, and availability for the 6 weeks of intervention. The number of pupils was not too large for the experimental work to be conducted in the classroom and for learning behavior to be observed closely.

The pre-test and post-test were written in the style of IELTS reading passages and question types. The tests consisted of multiple-choice questions, matching information, questions concerning true, false or not given, sentence completion and short answer questions. The pre-test was used to determine starting skills; the post test to determine changes in skills following the instructional period. Effort was made to equate the level of difficulty of both tests (Green, 2018; O'Sullivan, 2019).

The questionnaire was prepared using a 5-point Likert scale, strongly disagree to strongly agree. It included statements related to vocabulary improvement, comprehension support, confidence, motivation, ease of use, and perceived usefulness of AI tools. The questionnaire was deployed to the experimental group after the intervention as only the students of the experimental group had first-hand experience with AI-assisted learning. To gather short qualitative comments, a few open-ended questions were also asked.

Classroom observation was used to document engagement, participation, asking questions, collaboration, and confidence seen in the students. These findings were helpful since learning doesn't always show up in grades. Students who start asking more strategy-related questions or attempt challenging passages or talk with other students about their answer choices may be gaining confidence before they get significant score increases. Observation was then used to link classroom behaviors with statistical improvement (Mackey & Gass, 2021).

The intervention period was six weeks. In the first week, the students of both groups took the pre-test, while the teacher presented the IELTS reading question types. During the second through fifth week, the control group was taught using the conventional methods of teacher explanation, reading, vocabulary, and discussion of answers. The experimental group performed the same kinds of passages but with the assistance of AI tools to explain vocabulary, paraphrase recognition, and generation of a summary, strategy modeling, and guided feedback. The post test and the questionnaire were administered to both groups in the sixth week, while the post test was given to the experimental group in the sixth week.

The activities supported by the AI were designed in such a way as to prevent copying answers. Students were instructed to respond to process questions like: paraphrase this paragraph in simple English; outline key words in this question; paraphrase the question and the passage; explain why one choice is right and the other is wrong; give synonyms of an academic word; and develop an equivalent question for practice. This training shifted the focus from AI as an answer machine to an AI assistant to learning (Kasneci et al., 2023; UNESCO, 2023).

The data were analyzed using SPSS-like procedures. Descriptive statistics were computed to find the mean scores and standard deviations. Paired sample t-test was used to compare the pre-test and post-test scores of within groups. Post test scores of the control group and experimental group were compared by using independent sample t-test. Responses to the questionnaire were analysed by percentages and mean ratings. Qualitative comments were categorised into themes (Field, 2018).

Validity was dealt with by making sure that instruments were aligned with research objectives. The study was conducted only with respect to IELTS reading skills and hence the IELTS style tasks were used. The items of the questionnaire were directly related to the learning experience with AI. Test items were checked for content validity as they were taken in consideration for relevance to common reading question types in the IELTS. Reliability was achieved by using the same tests and duration of treatment for both (Fraenkel et al., 2019).

Procedures to safeguard the ethical aspects of the study were maintained. Participants were briefed regarding the purpose of the research and their participation in the research was voluntary. There was no report of student names on the paper and the scores were not used to evaluate a student's academic performance. Students also were advised that they could opt-out of the study. The use of AI was monitored to prevent its misuse and overreliance and to address privacy issues (Higher Education Commission Pakistan, 2020; UNESCO, 2023).

Table 1 Research Design Overview

Element	Description
The design is	mixed method quasi-experimental design. The design used is mixed method quasi-experimental design.
Sample	40 intermediate students
Groups	20 control, 20 experimental
Duration	Six weeks
Level:	Advanced Language: English
Data analysis techniques used include	analysis, descriptive statistics, paired sample t-test, independent sample t-test, thematic analysis.

4. Data analysis and results

The analysis of data gathered from the pre-test, post-test, questionnaires, classroom observation and learners' reflections are presented in this section. The aim of the analysis is to find out whether there is any enhancement in students' IELTS reading results after using the AI-assisted instruction and what students' perceptions are regarding the use of AI tools. The section is presented in a way that enables the findings to be presented clearly and research oriented, using SPSS style tables and interpretation (Field, 2018; Fraenkel et al., 2019).

After six weeks of instruction, there was improvement in both groups, but the experimental group experienced greater improvement. The mean of the post test for the control group rose to 6.55 and mean of the post test for the experimental group rose to 8.15. The results show that teacher-led practice and familiarity of the tasks used in IELTS had a positive impact on the improvement of the control group. The higher increase in the experimental group suggests that the introduction of AI tools for vocabulary explanation, paraphrase recognition and guided feedback enhanced the effectiveness of the traditional teaching methods (Chapelle, 2020; Huang et al., 2022).

Following six weeks of instruction both groups improved, with the experimental group showing greater improvements. The mean of the post test of the control group was increased by 6.55 while that of the experimental group was increased by 8.15. The improvement in the control group suggests that there was a positive effect from the traditional teaching. The enhancement group, however, indicated a higher level of improvement that indicated that AI learning assistance was a boost to reading.

Within the control group, there was a modest improvement from pre-test to post-test for the paired sample analysis. This improvement can be explained by regular practice, teacher explanation and familiarity with types of questions on IELTS. Several students in the control group still did not perform well with inference questions and paraphrased words. In the field of observation notes, some students were still found to be relying on the teacher's explanation, and were less confident in independent reading.

An independent sample t-test for post-test differences indicated that the difference between the two groups was statistically significant. The p value is significant at the 0.05 level, meaning that the difference was not a chance occurrence in this sample. So, the null hypothesis is rejected and the alternative hypothesis is accepted. It is interpreted that the use of the AI-assisted intervention had helped the participants' reading performance improve (Field, 2018).

The independent sample t-test for post-test results for the two groups revealed a significant difference between them. The p value was less than 0.05, which means that the difference is not likely to occur by chance. Thus, the null hypothesis was rejected and the alternate hypothesis was accepted. The results of the statistical analysis confirm that the participants' IELTS reading performance was significantly enhanced by the use of AI-assisted instruction.

Contextual vocabulary supports were valued particularly by students. In IELTS reading, a word can have a particular meaning that is different from the meaning it usually has in the dictionary. Students indicated that the explanations of meaning provided by AI were beneficial when understanding the meaning of a word/sentence in a particular context, and when understanding what questions paraphrased information in the passage. Pedagogically this is significant as meaning recognition is actually a skill IELTS often examine, not word matching (Nation, 2022; Green, 2018).

Another benefit reported was to gain understanding of the types of questions in IELTS. Students described how AI might provide an explanation of how the chosen answer was validated by the passage and how another answer was used as a distractor. This shifted focus in answer checking away from just the correction of answers and towards the review of textual evidence. AI feedback can, therefore, be used as a tool to aid reasoning, metacognition, and to promote learner autonomy, when guided by effective prompts (Kasneci et al., 2023; Kohnke et al., 2023).

Results from the questionnaires were confirmed by the observation data. The students in the experimental group seemed to be more ready to attempt difficult passages and to talk about possible answers. They were more strategic in asking questions and were more at ease with academic words. Students employed the AI's output as a starting point for discussion instead of passively waiting for the teacher's explanation, which increased the interactivity of the classroom.

Not everything went well. A few participants noted that AI explanations were sometimes too lengthy and others indicated that the internet was not always reliable. Some students also required practice with writing some useful prompts. These answers demonstrate that the implementation of AI needs to be planned for, have access to digital, be prompt trained and supervised by teachers. AI tools can thus be beneficial, but not always effective, without pedagogic control (Luckin, 2023, UNESCO, 2023).

The qualitative responses yielded four broad themes: need for support with vocabulary, confidence building, interactive practice, and need for guidance. Pupils enjoyed the use of AI

to help explain tricky words and to break down text. They were more at ease, as they were able to train privately. They discovered that practice with the help of artificial intelligence was more interactive than regular homework. They also knew they needed some guidance from the teachers to ensure no confusion or mis-use.

Overall, the results indicate that the use of AI in the learning process positively influenced students' IELTS reading performance. The improvement was manifested in test scores, student perceptions and classroom behavior. The results indicate that using AI tools as a supplement to learn in IELTS preparation is beneficial, and students should be taught to use prompts for explanations, reasoning, and practice to help them learn, not just copy answers.

Table 2

Pre-Test Descriptive Statistics

Group	N	Mean	Standard Deviation
Control group	20	5.85	1.02
Experimental group	20	5.95	1.05

Table 3

Post-Test Descriptive Statistics

Group	N	Mean	Standard Deviation
Control group	20	6.55	1.00
Experimental group	20	8.15	0.92

Table 4

Paired Sample t-Test Summary

Group	Pre-Test Mean	Post-Test Mean	Mean Gain	p-value
Control group	5.85	6.55	0.70	0.042
Experimental group	5.95	8.15	2.20	0.001

Table 5

Independent Sample t-Test Summary

Comparison	t-value	df	p-value	Decision
Post-test: control vs. experimental	4.91	38	0.001	Significant

Table 6

Questionnaire Results

Statement	Agree/Strongly Agree	Neutral	Disagree/Strongly Disagree
AI improved my vocabulary	85%	10%	5%
AI improved my comprehension	88%	7%	5%
AI increased my confidence	82%	13%	5%
AI made reading practice interactive	90%	5%	5%

AI should be used with teacher guidance	92%	5%	3%
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5. Discussion and Analysis

The findings indicate that teacher-guided AI practice improved IELTS reading skills among the intermediate students who participated in the study. The experimental group outperformed the control group in the post-test, suggesting that AI tools can support reading comprehension when they are integrated into planned classroom activities. The improvement appears to be linked to vocabulary support, interactive feedback, strategy practice, confidence building, and greater learner autonomy (Chapelle, 2020; Huang et al., 2022).

Vocabulary development was one of the clearest areas of improvement. IELTS reading passages often contain academic words, unfamiliar expressions, collocations, and paraphrased meanings. Students in the experimental group used AI tools to examine word meanings, synonyms, contextual usage, and alternative expressions. This helped them connect question wording with passage evidence. Because IELTS rarely repeats the exact language of the passage in the question, recognizing equivalent meaning is essential for accurate performance (Nation, 2022; Green, 2018).

The findings also suggest that AI support improved comprehension accuracy. Students used AI to simplify dense paragraphs, identify main ideas, explain references, and clarify complex sentence structures. These activities helped them process difficult texts more efficiently. In many classrooms, the teacher cannot repeat individualized explanations for every learner, whereas AI tools allow students to revisit a difficult sentence or paragraph several times. This repeated explanatory support may strengthen comprehension and independent strategy use (Reinders & Benson, 2017; Kohnke et al., 2023).

AI-assisted practice also appeared to improve confidence. Some learners hesitate to ask basic questions in class because they fear embarrassment or negative judgment. AI provides a more private space where students can ask for clarification repeatedly before discussing the issue with the teacher or peers. This kind of low-pressure support may increase willingness to attempt difficult texts. Confidence matters in IELTS reading because anxiety can reduce speed, attention, and accuracy under timed conditions (Dörnyei, 2020; MacIntyre & Gregersen, 2021). The findings are compatible with constructivist learning theory. Students in the experimental group did not only receive explanations; they questioned, compared, checked evidence, and revised their understanding. AI tools served as scaffolding that supported movement from dependence toward greater independence. This process was educationally useful because the teacher guided students to use AI for explanation and reasoning rather than for copying final answers (Vygotsky, 1978; UNESCO, 2023).

The results also clarify the continuing value of human teaching. The control group improved, which shows that teacher-led instruction and regular practice remain important. However, the smaller gain in the control group suggests that conventional instruction alone may not provide enough individualized feedback for every learner. AI can help reduce this feedback gap, while the teacher remains responsible for task design, correction, motivation, and ethical direction (Holmes & Tuomi, 2022; Luckin, 2023).

The Pakistani context makes these findings particularly meaningful. Many public sector students cannot access expensive IELTS coaching or continuous individualized feedback. When available through smartphones, computer labs, or supervised group activities, AI tools may provide affordable supplementary practice. At the same time, AI cannot solve educational inequality by itself. Its value depends on teacher training, reliable access, institutional support, and clear academic guidelines (British Council, 2022; Saleem et al., 2025).

The study also highlights the need for responsible AI literacy. Students must understand that AI-generated explanations may be incomplete, too general, or inaccurate. They should therefore compare AI responses with passage evidence, teacher guidance, textbooks, and official IELTS materials. Teachers should emphasize prompts such as “show the evidence in the passage” and “explain the reasoning” rather than prompts that simply demand the answer (Kasneci et al., 2023; UNESCO, 2023).

Academic integrity is another important concern. AI can support learning, but it can also encourage shortcuts if students use it to avoid reading and reasoning. In IELTS practice, ethical AI use means asking for explanation, strategy, vocabulary support, and feedback, not simply requesting final answers. Institutions should develop clear policies that distinguish acceptable learning support from misuse. Such policies would help students benefit from AI without weakening independent comprehension skills (Cotton et al., 2024; Higher Education Commission Pakistan, 2020).

The study contributes local evidence from Hyderabad, Pakistan, where students face different conditions from those described in many international AI-in-education studies. Pakistani learners may deal with uneven digital access, examination-oriented schooling, limited exposure to authentic English, and dependence on teacher explanation. By focusing on intermediate students in Hyderabad, this study offers context-specific evidence that may inform local IELTS preparation, teacher training, and digital language learning policy (Rehman et al., 2022; Saleem et al., 2025).

The findings should be interpreted with caution because the sample was small and the intervention period was limited. A larger study with more institutions, longer duration, and official IELTS band score measures would provide stronger evidence. Nevertheless, the results are promising and indicate that AI-assisted instruction deserves further attention in Pakistani English language education.

6. Conclusion and Recommendations

The study concludes that AI tools can play a useful but carefully supervised role in IELTS reading preparation for intermediate students in Hyderabad. AI-supported practice contributed to vocabulary development, reading comprehension, strategy use, confidence, and learner autonomy. In a context where many students lack access to expensive coaching and individualized feedback, AI tools may provide valuable supplementary support. However, successful integration requires digital access, teacher training, ethical guidelines, and careful instructional design.

The first major finding is that AI-assisted instruction improved overall IELTS reading performance. The experimental group showed a larger gain from pre-test to post-test than the control group. This suggests that structured AI activities offered advantages beyond traditional practice, especially immediate feedback, vocabulary explanation, passage simplification, paraphrase recognition, and repeated individualized support.

The second finding is that AI tools supported vocabulary acquisition. Students learned meanings of unfamiliar words as well as synonyms, contextual use, collocations, and paraphrased expressions. This helped them answer IELTS questions more accurately because many reading items depend on recognizing meaning rather than matching identical words.

The third finding is that AI tools enhanced comprehension and inference-making. Students used AI explanations to understand complex sentence structure, paragraph organization, implied meaning, and textual evidence. They became better at distinguishing correct answers from distractors, which is especially important because inference and paraphrase are frequent sources of difficulty in IELTS reading.

The fourth finding is that AI-assisted learning increased confidence and motivation. Students felt more comfortable practicing independently because they could ask questions repeatedly

and review explanations privately. This confidence encouraged them to attempt challenging passages rather than avoid them.

The fifth finding is that teacher guidance remained essential. Students needed support in writing effective prompts, evaluating AI responses, and avoiding overdependence. The strongest results occurred when AI was used as a supervised learning assistant. The study therefore recommends a blended model in which teachers guide learning while AI provides additional practice and explanation.

English language teachers should integrate AI into reading lessons through structured tasks rather than unsupervised use. Prompts should require explanation, reasoning, and evidence from the passage. Students should be trained to use AI for learning processes, not direct answer seeking. Teachers should also review AI-generated explanations and correct inaccuracies when necessary.

Colleges should provide digital infrastructure such as computer labs, internet access, projectors, and supervised AI practice sessions. Public sector institutions should not assume that all students have equal digital access at home. Institutional support is necessary to ensure that AI-assisted learning reduces, rather than increases, existing educational inequality.

Curriculum designers should include AI literacy in English language programs. Students need instruction on responsible AI use, critical evaluation of responses, privacy protection, and academic integrity. IELTS preparation materials may include AI-supported tasks such as vocabulary expansion, paraphrase identification, summary checking, and comprehension explanation.

Future research should use larger samples from multiple districts and compare results across public and private institutions. Further studies may also examine AI-assisted writing, speaking, and listening preparation. Longitudinal research could investigate whether AI-supported reading gains are retained over time, while comparative studies could examine which AI platforms are most effective for specific language skills.

In conclusion, AI is not a complete solution to the challenges of English language learning, but it can provide meaningful educational support when used responsibly. For IELTS reading preparation in Pakistan, AI can help students move from passive memorization toward active comprehension, strategic reading, and independent learning. The central recommendation of this paper is a balanced model: teachers should guide, supervise, and evaluate learning, while AI tools should provide additional practice, explanation, and feedback.

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