

BRIDGING GENERATIONS AND RETAINING UNIVERSITY ENROLLMENTS: INTEGRATING AI IN ELT FOR GEN Z AND UNDERPRIVILEGED REGIONS

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ABSTRACT

The integration of Artificial Intelligence in English Language Teaching has become a critical issue in today's evolving educational environment, especially in underprivileged regions with limited technological infrastructure. This qualitative study, grounded in the Technological Pedagogical Content Knowledge (TPACK) framework by Mishra and Koehler (2006), examines the perspectives of ELT practitioners and university students from Central Punjab, Pakistan, on incorporating AI to meet the academic needs of Gen Z learners. The study focused on students enrolled in BS English and M.Phil/MS English programs, as well as ELT practitioners and faculty members from both public and private universities in the region. Participants were selected through purposive sampling based on their exposure to AI tools and their affiliation with resource-limited institutions. Data were collected through semi-structured interviews and focus group discussions. The findings suggest that while AI tools can support language teaching and alleviate instructional burdens, an over-reliance on these technologies may undermine essential human competencies such as creativity, leadership, and critical thinking. As highlighted by Khan (2024), the growing dependence on AI tools in English studies may unintentionally diminish learners' capacity for independent thinking, creativity, and critical engagement. Although these tools can improve productivity, they should be used to support, not substitute, the development of intellectual autonomy and original thought. Notably, the study emphasizes that not all Gen Z learners are digitally literate, particularly those from marginalized or rural areas with limited access to technology. The research stresses the importance of AI literacy training before AI tools are integrated into classrooms to ensure responsible and ethical use. Moreover, the study highlighted the ongoing decline in university enrollments across various disciplines, particularly in science and humanities fields like physics, chemistry, biology, and mathematics. While English programs have also experienced some decline, they have not faced the same severe reductions as these other disciplines. This trend may be attributed to the broader skills gap between graduates and market demands, especially in the fields of soft skills and digital competencies. Graduates are increasingly expected to possess skills like problem-solving, communication, and technological proficiency, yet many universities have been slow to adapt curricula to meet these needs. The study suggests the introduction of market-driven courses such as Artificial Intelligence (AI), Search Engine Optimization (SEO), and digital marketing into both BS and MS/M.Phil English programs. By aligning academic offerings with contemporary market needs, such a curriculum revision could not only help sustain current enrollment figures but also attract more students to

these programs. In conclusion, while AI should complement, rather than replace, human-led education, the study advocates for timely curriculum reforms to ensure that educational policies are culturally relevant, inclusive, and responsive to diverse learner needs. These changes are essential not only in retaining enrollments but also in addressing the growing demand for digital competencies among students. Although the study is based in Pakistan, the findings are applicable to other regions with similar technological and infrastructural challenges.

Keywords: Artificial Intelligence, ELT, Gen Z, Underprivileged Regions, AI Literacy, TPACK Framework, Skills Gap, Inclusive Education Policy.

INTRODUCTION

The rapid integration of Artificial Intelligence (AI) into education has fundamentally altered teaching practices worldwide, with English Language Teaching (ELT) being a prominent area of transformation. As technology continues to shape modern pedagogical approaches, the expectations of university learners, particularly those from Generation Z, have evolved greatly. These students, who are often immersed in digital environments from a young age, thrive in interactive, technology-enhanced settings that emphasize immediacy, customization, and continuous engagement (Stern, 2023). However, the integration of AI in ELT across developing nations, including Pakistan and other countries in South Asia and Africa, faces distinct challenges. These challenges stem from infrastructural gaps, socio-economic factors, and cultural differences that impede the seamless adoption of AI tools in classrooms (Ali & Ullah, 2022).

A pressing concern in contemporary education is the ongoing decline in university enrollments, particularly in disciplines like the humanities and sciences. This decline can be attributed to a growing disconnect between academic curricula and the demands of the job market, where employers increasingly prioritize graduates who possess digital competencies, problem-solving skills, and proficiency in AI technologies (World Economic Forum, 2023). In many developing countries, universities continue to face challenges in adapting to these shifts, with a lack of technical expertise among teachers and a failure to incorporate relevant skills into the curriculum. This results in graduates who are ill-prepared for the demands of modern work environments, further worsening issues like unemployment and underemployment (Holmes et al., 2021). The integration of AI in ELT curricula is important, but it must be accompanied by comprehensive training

programs that equip both teachers and students with the necessary tools to leverage these technologies responsibly and effectively.

The ongoing debate about AI's potential to replace human teachers has gained substantial attention, with high-profile figures like Bill Gates predicting that AI will render human teachers and doctors largely obsolete within the next decade (CNBC, 2025). While such statements reflect the rapid advancements in AI technology, they fail to address the educational realities of countries with underdeveloped technological infrastructures. Furthermore, experts caution against placing excessive reliance on AI, as essential human qualities such as creativity, empathy, and critical thinking remain central to educational and professional success (West, 2023).

In Pakistan, many of our educational systems continue to rely on outdated academic curricula that no longer reflect the evolving demands of the modern job market. These traditional programs often fall short in incorporating current technologies, practical skills, and innovative teaching methodologies. Consequently, graduates find themselves inadequately equipped to navigate real-world professional challenges or to meet the expectations of advanced academic pursuits. (Waqar Mahmood Khan, Shakeel, & Khan, 2024)

Empirical research highlights that, despite the growing prevalence of digital tools like e-books and online resources, traditional print-based educational materials still offer superior cognitive benefits. Neuroscientific studies have shown that reading printed texts and taking handwritten notes engage deeper cognitive processing, improving comprehension and memory retention (Mangen & Balsvik, 2023). These physical interactions with educational content, such as handling books and writing

notes, promote neural pathways critical for learning, which is especially important in language acquisition. Additionally, it is important to note that not all Gen Z learners are part of a digitally literate, urban demographic. In Pakistan, many students from rural or economically disadvantaged backgrounds lack access to advanced AI tools, which limits their ability to fully engage with AI-enhanced classrooms. Consequently, educational policies must be tailored to accommodate these disparities, ensuring that technology integration in education remains inclusive, equitable, and contextually relevant (Iqbal & Habib, 2023). This study explores the perceptions of both ELT practitioners and university students in Pakistan, particularly from rural and underprivileged areas, regarding the opportunities and challenges of integrating AI in ELT. Drawing on the Technological Pedagogical Content Knowledge (TPACK) framework (Mishra & Koehler, 2006), this research calls for a balanced approach where AI enhances rather than replaces human teaching practices, ensuring that the creative and critical faculties of teachers are preserved for the development of future professionals.

Literature Review

The increasing digitalization of education has made the integration of AI into ELT a pressing concern, especially as Generation Z students, known for their comfort with technology, prefer learning environments that offer instant feedback and interactive experiences (Turner, 2021).

However, scholars emphasize that while AI has the potential to enhance educational outcomes, its implementation must be done thoughtfully, taking into account socio-economic and infrastructural disparities that may exist, particularly in developing countries (Selwyn, 2019).

Research indicates that AI-powered tools in ELT can offer several benefits, such as personalized learning experiences, enhanced feedback mechanisms, and reduced workload for teachers (Li et al., 2022). However, an over-reliance on technology presents a risk of diminishing essential soft skills like critical thinking, leadership, and interpersonal communication,

which are indispensable in both professional and social contexts (Luckin, 2018). Therefore, it is important that AI in ELT is used in a way that complements rather than replaces traditional methods of teaching that nurture these skills. Furthermore, the increasing trend of declining university enrollments, especially in disciplines like the humanities and sciences, has been linked to the growing disconnect between academic curricula and the demands of the job market. Employers now prioritize graduates who possess digital competencies, problem-solving skills, and AI literacy (World Economic Forum, 2023). In light of these trends, integrating AI into ELT curricula is viewed as essential, but scholars argue that students must first be equipped with the necessary training in responsible and ethical AI use to mitigate the risks associated with misinformation and academic dishonesty (Holmes et al., 2021). In Pakistan, there is a noticeable gap between urban and rural educational institutions regarding access to technology, which poses challenges to the fair adoption of AI-based teaching methods in English Language Teaching (ELT). Researchers have emphasized that introducing AI into classrooms without considering local contexts may deepen the already existing educational divides (Shamim & Rasool, 2022). To ensure meaningful integration, it is essential to provide not only the necessary technological tools but also to develop inclusive, culturally responsive educational policies that cater to the varied needs of students from different regions.

As a result, universities continue to face a shortage of technically skilled teachers and students who are well-prepared for the rapidly changing digital landscape. The need for universities to revamp their curricula to focus on the development of these skills has never been more urgent, especially as the demand for AI and other digital skills grows in the job market.

Research Methodology

This study adopted a qualitative research design, grounded in the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Mishra and Koehler (2006). The aim was to explore the perceptions of both learners and practitioners regarding the integration of Artificial Intelligence (AI) tools in

English Language Teaching for Generation Z students in underprivileged regions. This framework is particularly relevant as it emphasizes the importance of combining technological, pedagogical, and content knowledge to effectively implement technology in educational practices.

Population

The study targeted the following groups within the Central Punjab region /universities of Pakistan:

- **BS English and M.Phil/MS English students:** These learners were chosen as they are directly engaged in English language education and are mostly part of the Generation Z demographic, which is central to the study.
- **ELT practitioners and university faculty members:** The study also included Lecturers and Assistant Professors teaching English and ELT-related courses in both public and private universities.

Sampling Technique

A purposive sampling technique was used to select participants who met specific criteria related to the study's focus on AI integration in ELT. The selection was based on the following:

- **Experience with AI tools or interest in integrating AI into ELT:** Participants were chosen if they had prior experience using AI tools or expressed a desire to incorporate them into their teaching practices.
- **Affiliation with under-resourced institutions:** The study specifically targeted individuals from institutions in underprivileged areas or those facing technological challenges, ensuring the research highlighted the disparities in technology access.

The final sample included:

- **20 university students** (BS and M.Phil/MS English)
- **10 ELT practitioners** (Lecturers and Assistant Professors)

Data Collection Tools

To obtain detailed information, the study utilized the following qualitative data collection methods:

- **Semi-structured interviews with ELT faculty:** These interviews allowed for a flexible exploration of faculty members' experiences,

opinions, and concerns about using AI in their teaching.

- **Focus group discussions with students:** These discussions provided a platform for students to share their perspectives on AI-enhanced learning environments and their preferences for technology integration in the classroom.

Limitations

- **Geographical focus:** The study was limited to the Central Punjab region, which may not fully represent trends or challenges experienced in other regions of Pakistan.
- **Sample size:** Due to logistical and time constraints, the sample size was relatively small, limiting the generalizability of the findings.
- **Focus on English language programs:** The study focused specifically on English and ELT courses, excluding other disciplines where AI integration might have different implications.

Delimitations

- **Targeting underprivileged institutions:** The study intentionally focused on students and practitioners from underprivileged and technologically marginalized universities of Pakistan's Central Punjab region to provide a more specific understanding of the challenges faced in these contexts.
- **AI tools for language teaching only:** The study restricted its discussion to AI tools that are specifically designed for language teaching, rather than broader AI applications.
- **Regional scope:** The study was conducted exclusively in the Central Punjab region, ensuring contextual consistency within the selected geographical area. This delimitation was made to keep the study manageable and contextually focused.

Data Analysis

The collected data from semi-structured interviews with ELT faculty and focus group discussions with university students were analyzed thematically. Recurring patterns, similarities, and differences were identified to address the research objectives. Thematic coding was applied manually, ensuring that participants' experiences and perceptions were carefully categorized under relevant themes emerging naturally from the data. These themes included

technological preparedness, perceived advantages of AI integration, barriers to implementation, and evolving pedagogical practices.

Among faculty responses, a clear trend emerged regarding the acknowledgment of AI's potential to enhance individualized learning, automate assessment tasks, and provide authentic language exposure. However, concerns were frequently voiced about institutional barriers, lack of professional development, and limited access to reliable technological infrastructure and poor /stable internet connectivity.

Student responses largely reflected an openness to AI in the learning process, with emphasis on the need for training and proper guidance from instructors. Many students expressed that while AI applications such as chatbots and language learning platforms could supplement traditional instruction, the role of a skilled teacher remained irreplaceable.

During the student discussions, it was revealed that several participants were unfamiliar with modern digital concepts such as Search Engine Optimization (SEO) and questioned the relevance of such skills to an English degree program. This points to a notable gap in students' understanding of current professional demands and highlights the need to re-evaluate academic perspectives and curricular goals to ensure alignment with essential digital competencies in today's world.

Findings

- **Technological Preparedness:** Both students and faculty came up with varying levels of familiarity with AI tools. While most students showed willingness to engage with AI-enhanced learning, faculty members reported a pressing need for formal training in AI applications relevant to ELT beforehand. Additionally, during focus group discussions, several students revealed unfamiliarity with essential digital concepts such as Search Engine Optimization (SEO), Digital Marketing and even questioned their relevance to an English degree. This response highlighted a broader issue of digital unpreparedness, pointing to the urgent need for integrating 21st-century digital literacy skills into English curricula.

- **Perceived Advantages:** Participants viewed AI as a means to promote learner autonomy, offer

personalized feedback, and increase exposure to diverse linguistic resources. Students particularly valued AI-driven grammar correction tools, pronunciation aids, and interactive learning platforms.

- **Barriers to Integration:** Commonly cited obstacles included inadequate infrastructure, intermittent internet connectivity, limited access to updated devices, and a lack of institutional support for technological innovation. Faculty also noted apprehensions about potential overreliance on technology at the expense of critical thinking and human interaction.

- **Pedagogical Evolution:** Some practitioners had begun modifying their teaching practices to incorporate available technological tools, albeit informally. However, a structured framework for AI integration within the curriculum was missing, leading to isolated and inconsistent adoption.

Conclusion

The study concludes that while there appears to be a substantial enthusiasm among Gen Z learners and cautious optimism among ELT practitioners regarding AI integration, systemic limitations do hinder its effective implementation in underprivileged regions. Institutional neglect in providing infrastructure and professional development opportunities continues to widen the digital divide in educational practices. Furthermore, the evident lack of student awareness about fundamental digital tools such as SEO, AI and skills like those of Digital Marketing highlights a huge gap between academic training and real-world competencies. These findings call for a reorientation /revisiting of existing curricula to incorporate digital literacy as an essential component of English education. While AI can greatly support ELT practices, it cannot replace the nuanced, adaptive, and human-centric role of teachers, mainly in linguistically diverse and socioeconomically marginalized contexts.

The observed decline in university admissions specifically in disciplines like the sciences and humanities reflects a growing disconnect between traditional academic offerings and the evolving expectations of Gen Z learners, who seek practical, technology-integrated, and market-relevant education. While English programs have been somewhat resilient, their

continued relevance depends on the proactive inclusion of digital competencies such as AI, SEO, Digital Marketing and digital communication into the curriculum. Gen Z students, even those from underprivileged backgrounds, are increasingly aware of global trends and demand educational experiences that prepare them for the digital economy. Therefore, the reluctance to modernize programs may not only widen the skills gap but also discourage potential enrollees. To reverse this trend, institutions must embrace curriculum reforms that blend core disciplinary knowledge with emerging technologies in a culturally sensitive and accessible manner. Such alignment can enhance academic engagement, restore confidence in higher education, and ensure that future graduates are both intellectually equipped and professionally competitive.

As Artificial Intelligence tools become more common in academic environments, their effect on student engagement with English language and literature is becoming increasingly noticeable. While these technologies support greater efficiency and assist with various academic tasks, concerns are emerging about their influence on students' independent thinking, creativity, and problem-solving abilities. Relying too heavily on AI may limit opportunities for learners to develop critical reasoning and original thought. Therefore, maintaining a thoughtful balance between technological support and the cultivation of human cognitive skills is essential (Khan, 2024). Recent international developments, such as Sweden's decision to phase out classroom technology after two decades of extensive use, highlight the importance of a carefully measured approach to digital integration. Swedish educational authorities observed that face-to-face human interaction yielded stronger learning outcomes compared to technology-heavy models, prompting a shift back toward traditional teaching methods following a decline in students' reading comprehension and academic performance (Cano, 2024). This case reinforces the relevance of the Technological Pedagogical Content Knowledge (TPACK) framework, which advocates for a balanced, context-sensitive application of content, pedagogy, and technology. Meaningful AI integration in ELT must therefore be

approached thoughtfully, ensuring that technology serves as a supportive tool rather than a substitute for human interaction.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

1. **Develop Institutional Support Structures:** Universities and colleges in underprivileged areas should invest in both technological infrastructure and faculty development programs to enable effective integration of AI tools into ELT classrooms.

2. **Prioritize Teacher Training on AI Integration:** Professional development initiatives should focus on equipping ELT practitioners with the skills necessary to blend AI tools with traditional pedagogical methods without undermining the human element of teaching.

3. **Adopt a Balanced AI Use Policy:** Educational institutions should design AI integration policies that maintain a balance between digital tools and human interaction, learning from international examples such as Sweden, which highlights the risks of over-reliance on technology.

4. **Contextualize AI Tools to Local Needs:** AI applications should be adapted to meet the linguistic, cultural, and socioeconomic realities of learners in underprivileged regions rather than adopting a one-size-fits-all approach.

5. **Broaden Curriculum Scope to Include 21st-Century Digital Skills:** English degree programs should be revisited to include foundational digital literacy components such as Search Engine Optimization (SEO), graphic designing, content creation, data visualization, Digital Marketing, Freelancing and basic AI literacy. Integrating these elements into the curriculum will enhance students' employability and align academic outcomes with real-world professional demands.

6. **Conduct Longitudinal Evaluations:** Institutions should undertake periodic evaluations of AI's impact on language learning outcomes to ensure that technology use remains

pedagogically sound and does not replace essential interpersonal learning experiences.

7. Promote Ethical Awareness Among Learners and Teachers: AI literacy programs must include training on ethical usage, data privacy, and critical engagement with AI-generated content to develop responsible digital citizens.

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