Teachers' Perspectives on the Use of Technology in English Language Teaching in Pakistan

Iftikhar Khan
M.Phil. Scholar
Department of Education
Benazir Bhutto Shaheed University Lyari
Iftikharkhan2009@gmail.com

Abstract

The digital age has changed the teaching of English (ELT) in the world and has brought new ways to teach, evaluate and attract students. In Pakistan, this change is more noticeable because teachers manage opportunities and challenges of technology teaching improved. This study aims to discover the views of Pakistan teachers in English on the use of digital technologies in ELT classes. A quantitative research method was used and data was collected through a structured survey distributed to teachers 250 in public and private schools across Pakistan. The results showed that although the teacher had a positive opinion on technology integration, some obstacles hindered its success such as lack of resources, lack of training and infrastructure issues. These results show that efforts are targeted as necessary in developing teaching programs, training teachers and educational policies to facilitate the effective and long-term integration of technologies in English classes in Pakistan.

Keyword *Technology integration, ELT, teacher perspectives, digital tools, Pakistan*

Introduction

Background

Technology has changed the way people are taught and learned in all places in the world. A major change is educational technology (EDTECH) integrated into language learning. Over the past ten years, applications, websites and artificial intelligence have contributed to more interactive language courses and focus on students (UNESCO, 2023).In English Language

Teaching (ELT), technology enables students to communicate more effectively, to learn at their own pace, and to better access education (Stockwell, 2021; Akhtar et al., 2020).). The successful use of technology in ELT was influenced by how teachers were able to adapt their methods, the support from their schools, the strength of the systems, and many other contextual factors differences may vary in Pakistan, where the country's education system faced many challenges, technology brought both opportunities and threats to ELT (Akhtar et al., 2021). If we expect these opportunities to be sustained over time, it is important to understand how teachers make sense of what technology can do for them.

ICT or Information and Communication Technology, can increase the impact of language lessons by integrating online resources with regular instruction (Akhtar et al., 2020). It was found that students remained engaged, experienced new cultures and learned by themselves through activities like videos, group work on the internet and language apps (Irum, 2020). Blended learning was successful because it offered online activities as well as classroom lessons, allowing personal-teacher interaction to continue (Sharma, 2023). However, in order to achieve this, educators had to be familiar with technology, feel equipped to teach classes on it and be backed by support from their schools. This was often a problem in Pakistan for teachers working in communities with fewer educational resources. Because being able to speak English helped people in Pakistan to get better education and jobs, teaching methods needed to improve (Hussain et al., 2021). Nevertheless, the difficulties of poor infrastructure, power shortages and spotty internet often slowed the process (Aziz et al., 2024).

Pakistan demonstrated how the desire for more technology in schools reflects the reality of what actually happens. Despite starting policies such as the Ministry of IT (2020) for schools, there were still challenges with getting enough resources and educating teachers. The problem became worse as there was a gap between city education and education in villages, as well as between public and private schools. Back then, many teachers relied on traditional teaching methods because they didn't have the technology or knowledge to use them (Khan, 2021). One research revealed that most English teachers in Pakistani secondary schools do not have much experience with digital tools because too few training classes are offered (Abbasi et al., 2021; Hussain et al., 2021). Social reasons were involved as well—there were doubts about digital learning from some individuals and women often found it harder to access technology (Barra et al., 2024).

It was common for studies to concentrate on how infrastructure and policies affected education but without much attention to what teachers experienced. Opinions from teachers were valued since they were the ones using technology in the classroom. They might inform us about their findings, including what benefited the students and what did not. The research in India and Bangladesh revealed that effective use of technology in schools depended on teacher involvement (Hennessy et al., 2022; Rahman & Pandian, 2018). That is why Pakistan needed to carry out research specific to its issues. It investigated the feelings, struggles and opinions of English teachers in Pakistan about using technology. Designed to achieve better results and equal treatment in education (Hussain et al., 2021).

Problem Statement

Technology use in English Language Teaching (ELT), as elaborated by Altun & Ahmad (2021) and UNESCO (2023), has been visualized in the global context as a means of enhancing teaching, engaging students, and equalizing opportunities in education. However, in Pakistan, the scenario has been dismal, especially because of major inequalities in the quality of education and inadequate infrastructure (Miah, 2023). The use of technology in ELT was, therefore, not well-developed or well-studied in Pakistan, and there was a scarcity of information on the actual use of technology by English teachers in Pakistan and the attitudes and problems they faced/argued.

While international research has noted that teachers' perceptions matter in a good education technology (EdTech) policy (Razali et al., 2023; Pischetola, 2021; Zubairi et al., 2021), limited local studies have been conducted in this regard in Pakistan. The resulting deficiency of this information has, thus, made it extremely difficult to align national plans, especially the Ministry of IT (2020), with the reality on the ground in the classroom, resulting in poor uptake of educational technology and inequitable access.

A large part of the research carried out in Pakistan dealt with major hindrances like bad electricity supply, poor internet services, and lack of devices (Ahmed & Kazmi, 2020; Kormos & Wisdom, 2021). For instance, the 2022 survey of 500 schools revealed that, with a percentage as low as 27, only 135 schools had operational computer labs, and a mere 18% of teachers had access to digital tools on a regular basis. These major issues were important but often overshadowed smaller yet equally significant issues, such as teachers' perceptions about

technology, how they adjusted in spite of problems, and what their actual needs in terms of support were.

Some studies, however, found distinctly that many teachers in the villages considered technology to be more of a problem than a solution. 76% of English teachers in rural Sindh characterized technology as “disruptive,” because of lack of training to fit it with exam-based teaching (Afzal et al., 2023). This raised deeper cultural and pedagogical resistance not fully explainable through simple surveys.

It was also difficult to find in-depth information about the relationship between teachers’ attitudes and system problems. Even though using digital tools with in-class teaching was worldwide, Pakistani teachers depended on memorization due to having many students and feeling obligated to achieve high exam scores (Khan, 2021; Razzaq, 2023). Many teachers in Punjab shied away from technology even if they were skilled with it, due to their fear of failure, difficulty in managing time or lack of support from school administrators (Jawaid et al., 2024). The problem was more severe in rural regions since schools usually lacked basic equipment, but private schools in cities were able to use new technologies.

If people did not recognize these differences, national plans might give all their attention to cities and leave rural schools behind, causing greater inequality. Teachers received laptops under the Prime Minister’s Laptop Scheme but missed out on proper training, so many were unable to make the best use of them (Shahzad, 2024). The standards for teaching included digital skills, without offering specific ways to include them in daily lessons. Because of this, training for teachers mainly centred on traditional teaching techniques. In April 2023, it was found that only 18% of English teachers had ever joined a digital teaching workshop and over half of them felt unsure about the tools used in the classroom (Khan, 2021; Razzaq, 2023).

Pakistan also missed the opportunity to gain knowledge and experience from its neighbours. In India, low-cost educational tools were developed with the help of teachers, while Bangladesh successfully launched learning programs delivered via mobile phones (Akhtar et al., 2024; Ahmad et al., 2014). In Pakistan, the fact that women were second-class citizens, colonial British education and political control of textbooks made things different. The lack of local studies

meant that policies in Pakistan did not properly address real challenges, for example, the lack of funds, low interest from teachers and lack of trust in new technologies.

Objectives of the Study

1. To explore the attitudes of teachers towards using technology in ELT.
2. To understand which technological tools are implemented across schools.
3. To examine the challenges that businesses encounter when using technology.
4. To compare how people perceive work differently because of factors like their experience, gender and the type of institution they belong to.

Research Questions

1. What is the attitude of English teachers toward the use of technology in teaching?
2. What types of digital technology are found in ELT classrooms in Pakistan?
3. What are the obstacles teachers encounter when using technology in education?
4. Are the ways teachers are perceived influenced by their experience, gender or the type of school they teach in?

Significance of the Study

This study contributed significance by surfacing issues and opportunities for using technology in teaching English in Pakistan. It examined actual classroom practice, whereas the Ministry of IT (2020) and other national policies neglected this aspect. The technology aspect was mentioned in the plans, but teachers were not part of the conversation. The study supplied useful details that could shape policies to support teachers. One example is that 73% of public schools didn't consistently have internet, while 68% of teachers were not prepared to work with digital tools (Ahmed & Kazmi, 2020). Examining the real conditions including power shortages, problems with communities and test formats conflicting with digital teaching helped find more effective and practical choices.

Secondly, the research revealed the areas of training required by English teachers in Pakistan. Educators around the world were expected to modernize digital education, but in Pakistan,

training sessions were not up-to-date and did not provide new skills (Afzal et al., 2023). According to a 2022 study, about 78% of English teachers did not take part in any technology training and for those that did; many did not find it useful in their classes (Khan, 2021; Razzaq, 2023). The findings led to the creation of better small online classes and support groups for teachers. At that time, Pakistan needed to hire a large number of teachers and many of them were unfamiliar with digital or mixed tools for teaching (Zeewaqar, 2024).

Third, the study contributed to a global understanding of how technology helps teach English in deprived regions. Many similar studies focused on rich nations, but this one centred on the particular issues faced by people in Pakistan, including those related to city and rural areas, men and women and stressful examination methods. There are examples where teachers from conservative areas (female) had extra barriers in terms of internet connectivity and societal rules barring them from digital training according to Jawaid et al., (2024). Learning about how technology was used locally made me question the idea of one solution fitting all. It also applied a critical approach to see how power, resources and the past affected the use of technology in English teaching.

The research outcomes helped to achieve the United Nations' goal of quality education for every individual (SDG 4). Having English helped people in Pakistan secure jobs in the global market (Diemer et al., 2020; Abbas et al. (2021), this meant that while improving teachers' use of technology was important for schools, it was also vital for the economy. This study made it possible for teachers to help develop their education technology, ensuring lasting effects from below rather than using pre-made solutions from other countries. As a result, many similar nations could use the findings to improve tech use and increase teacher-friendliness in schools.

2. Literature Review

2.1 Theoretical Framework

The main ways to discuss technology in education are through two main models. Two of the main models are the Technology Acceptance Model (TAM) and the Technological Pedagogical Content Knowledge (TPACK) model (Akhtar, 2020). Yang et al. (2019) introduced TAM and

claimed that the usefulness (PU) and easy-to-use factor (PEOU) of technology encourage people to use it. In ELT, it was believed that PU led teachers to think that using technology aided students' learning and PEOU meant they had no trouble adapting to and using digital tools (Abbasi, Ibrahim, & Ali, 2021). For example, using Google Classroom could have been preferred by teachers if they felt it made learning easier and was easy to handle (Rosli et al., 2022). However, TAM emphasized the role of individuals and paid little attention to issues like the lack of proper infrastructure which Pakistan faced.

The addition of the TPACK model (Mishra et al., 2022) expands on the original idea further. It covered the connection between technology, teaching and subject knowledge. When teachers used videos in games to show grammar, we could see good use of technology in ELT (Parks, 2023). In Pakistan, it was essential because teachers had difficulties adjusting technology to standardized examination goals or what students require (Ahmed & Kazmi, 2020). As stated by Nazari et al. (2019), Pakistani teachers who knew about TPACK well were able to get peer feedback from WhatsApp even if the school had few facilities.

2.2 Global Perspectives on Technology in ELT

Across the globe, technology has brought changes to the way English is taught. They started using smartboards, apps including Duolingo and learning platforms like Moodle. Research findings point out that by using these tools, students can learn effectively according to their ways of learning. Altun & Ahmad (2021) note that using videos in lessons made it possible for students to improve their listening skills and gain an understanding of different cultures. Apps such as Quizzing! Encouraged students to enjoy learning and remember more words (Ashari et al., 2023). A mix between classroom instruction and online learning called blended learning was gaining popularity because it was adaptable to various student requirements (Razali et al., 2023).

Virtual education made it possible for all students to participate on the same level. Through the pandemic, Zoom and similar apps made it possible for schools in Brazil and Japan to continue classes, despite difficulties faced by poorer families (Kukulska-Hulme, 2021). Students could use AI chatbots to improve their skills, but this works best if teachers are aware of how to use them (Kim et al., 2021). At times, it was the lack of good internet, suitable devices and well-prepared teachers that prevented developing countries from succeeding like other nations.

2.3 Technology Integration in Pakistan's ELT Classrooms

The Digital Pakistan policy of 2020 and projects by the Punjab IT Board were introduced by Pakistan to improve technology in schools (Ministry of IT., 2020). They were meant to help schools and strengthen teacher education. However, the results varied greatly. Some urban areas could use technology and varied learning materials, but rural schools were still short of resources. In public schools, computer labs worked in 27% of them, while electricity was absent in 35% based on (Ahmed and Kazmi, 2020; Kormos & Wisdom, 2021). The "e-Learn Punjab" site had digital books and quizzes available, yet only about 18% of rural teachers accessed it because of poor internet coverage.

A number of universities have begun to offer blended learning programs. At Aga Khan University, Moodle was used, but the teachers felt it was difficult to adapt the courses for online learning (Afzal et al., 2023). In poorer places like Balochistan, where money is scarce, universities use PowerPoint out of necessity. Most educators used WhatsApp for sharing assignments, indicating they were not afraid to use what was available, even if it wasn't the best fit (Ajani, 2021).

Other problems made things harder. There were some communities where the cultural rules were against female teachers getting training or learning to use technology (Mehmood, 2024). Teachers were limited by traditional exams that needed mostly memorization, so they weren't keen on trying new technology (Khan, 2021; Razzaq, 2023). Despite the National Education Policy 2021 giving importance to technology, the problems mentioned above had to be handled first. Otherwise, having technology in education might widen the gap between students.

2.4 Teachers' Attitudes and Competencies

Many things affected teachers' opinions on using technology in ELT, including their age, the training they had, their experience teaching and the help provided by their schools. Researchers found that younger teachers preferred technology since it was already a part of their lives, despite older teachers commonly sticking to older teaching methods (Abbasi, Ibrahim, & Ali, 2021). Even so, there were other important aspects to consider besides age. For example, Akram et al. (2021b) noticed that some young teachers in Pakistan avoided technology in education as it

wasn’t part of official tests. It led to the conclusion that experience as a teacher is more important than age.

Training was very important. If teachers were trained in ICT well, they were almost twice as likely to apply technology effectively (Ahmed & Kazmi, 2020). However, in Pakistan, just 22% of English teachers attended these courses and this led many to feel hesitant about using technology.

The involvement of schools had a helpful impact. The presence of an IT coordinator and team effort improved the confidence of teachers (Razali et al., 2023). Many Pakistani teachers found that they lacked significant support and rewards which decreased their motivation (Khan, 2021; Razzaq, 2023). There are educators who were concerned that technology might take their jobs or add more to their duties. Many South African teachers believed that technology would lessen their authority over students (Pischetola, 2021). Some teachers regarded this as a way to use different teaching methods and get closer to their students (Altun & Ahmad, 2021).

2.5 Challenges in Technology Use

The situation facing educators in Pakistan is complex when it comes to incorporating technology into English teaching classes. The first thing that hinders the development of educators wanting to implement technology, is perhaps the inadequate infrastructure of the schools. Recent studies demonstrated that 65% of public schools did not have reliable electricity, and 73% of public schools lacked internet access, meaning technologies that rely on constant electricity and internet connection, including platforms involving virtual classrooms or learning systems were rendered obsolete (Ahmed and Kazmi, 2020; Kormos and Wisdom, 2021). Even becomes a bigger hurdle when they have computers but can't afford to repair or keep them updated. Research has also established that 58% of rural schools could not even fix minor technical issues with the computers so the teachers didn't bother when they could, too (Khan, 2021; Razzaq, 2023).

With very little teacher training addressing this area of technology advancement, this added even more burden to the pre-service or CPD training. For most teachers, their teacher training did not address using digital tools and teachers did not know how to operate any of the platforms such as Google Classroom or any AI (Wu et al., 2024). Not surprisingly, in a survey conducted in

Punjab, 82% of the teachers responded that using technology is because they were afraid that the technology would fail during class therefore damaging the teachers' credibility (Khan, 2021; Razzaq, 2023). This mindset created resistance and for the school's teachers practised where memorisation of skills dictated learners' progress, it was a challenge. Older teachers in Khyber Pakhtunkhwa remarked that interactive whiteboards took too much time and took away from ensuring their students studied enough for exams (Ajani, 2021).

Cultural issues also represented more significant challenges. For example, in some rural areas, many women teachers had no access to devices. In Balochistan, 14% of female teachers had access to digital devices, while that figure was 68% in cities such as Lahore (Mehmood, 2024). Moreover, some parents expressed distrust of online learning, believing it would negatively affect the values of their children (Khan, 2021; Razzaq, 2023).

Additionally, there was a significant difference between urban and rural schools. Wealthy city schools often had the latest e-learning technologies like smart boards and learning platforms, while rural schools often utilized outdated textbooks and poor internet quality (Ahmed & Kazmi, 2020). There were signs of the same urban-rural divide found in many developing countries, where teachers are left with little other support than a basic tool like WhatsApp (Ahmad et al., 2014). However, there were unique challenges faced by Pakistan itself, including colonial continuities in language education - not to mention the outdated curriculum that some teachers were working under - which means any solutions that may be learned from other countries are unlikely to be directly transferrable.

Synthesis and Implications

While teachers' attitudes and abilities were important to their use of technology, larger structural and cultural challenges undermined their use of technology effectively in Pakistan. Even actors who endorsed the use of technology were unable to use it if they had poor facilities and social structures that limited their engagement. This called into question the potential for simple solutions, and by extension, highlighted the need for comprehensive solutions that also included people and places. Government policy needed to incorporate localized training in programs related to technology, transform school infrastructure, and partner with local communities to

strengthen the potential of educational technology initiatives in terms of classroom experience and practice across the country.

Methodology

This research has applied a research design description to check the awareness of English teachers related to the use of technology in junior high schools and junior high schools in Pakistan. The research has used a survey-based approach to gathering digital data and classification related to the attitude of the use of technology, technology frequency, obstacles that are identified and automatic digital skills confirmed. Description research design is appropriate to determine the trends and relationships in large populations and has previously been used in similar studies (Akram et al., 2021; Razzaq, 2023).

The population of this study was English teachers in the main schools of the Government and secondary schools in Pakistan. A multi-layer design method has been used to select participants from different types of organizations like Public vs. Private schools and different geographical locations such as urban and rural areas. In total, 250 people participated in the research project. The size of the sample is determined by the formula of Cochran, providing enough power to analyze and comply with statistics with previous research conducted in equivalent contexts (Rahman & Pandian, 2018).

A structured questionnaire was used to collect the data, based on previous studies using valid and established instruments. The survey was divided into five sections. Section A Demographic information collected, such as age, gender, years of educational experience, and type of institution. Section B included a five-point Likert scale element that measured attitudes of teachers using technology in the classroom. Section C asked teachers how often they would use a variety of educational technologies, such as Zoom, Google Classroom, Quizzing, and Microsoft teams. Section D examined barriers that investigated technology-based integration, such as lack of training, lack of infrastructure and internet connectivity issues, Section E, examined the digital capabilities of self-awareness and training needs. The elements were adapted and contextualized from established tools used in previous valid studies (Akram et al., 2021b).

The validity and reliability of the instrument was ensured by three academics who were experts in the field of education technology and English lessons that checked the questionnaire. A pilot study was conducted with ten to fifteen English teachers to check if the items were clear and appropriate for the method and then feedback from the pilot was included to revise any unclear questions. Internal consistency of the instrument was calculated using Cronbach's alpha, with values > 0.70 considered acceptable and indicating good reliability (Trabelsi et al., 2024).

Data collection was done on both online and in-person basis dependent on the participants' access to technology and internet capabilities for the use of online survey through Google Forms, printed copies were employed in area lacking such infrastructure. All ethical standards were upheld including informed consent from all 250 participants, confidentiality of the respondent's participation. All participation was voluntary, and respondents were advised they could voluntarily leave the study anytime with no ramifications.

Data was analyzed using the software program SPSS. Descriptive statistics (frequencies, means and standard deviations) were used to describe participants' demographic information and their responses. Inferential statistics were also performed. Independent samples t-tests were employed to evaluate the attitudes towards technology between male and female teachers. One-way ANOVA was used to evaluate the differences in years of experience in technology usage. Pearson correlation analysis was used to study the relationship between teachers' digital self-efficacy and the frequency of technology use. Finally, multiple regression analysis was used to evaluate the possible predictors of positive attitudes towards technology integration. The statistics provided a comprehensive understanding of the influencing factors of English language teachers' adoption and utilization of education technology in Pakistan (Shah et al., 2020).

Result

4.1 Demographic Profile

Table 1.1: Gender of Respondents

Gender	Frequency (n)	Percentage (%)
Male	110	44.0%
Female	132	52.8%

Total	**250**	**100.0%**

The table indicates the respondent's gender distribution from a sample of 250. In total, 52.8%of the teachers were female, 44% male and the rest (3.2%) declined to say. The equal proportions add trustworthiness to the findings' generalizability.

Table 1.2: Age Distribution of Respondents

Age Group	Frequency (n)	Percentage (%)
Under 25	28	11.2%
25–34	90	36.0%
35–44	72	28.8%
45–54	40	16.0%
55 and above	20	8.0%
Total	**250**	**100.0%**

The age range of 25-34 years had the highest representation (36%) of all age ranges, denoting a younger working force that is actively participating in the ELT domain. The next largest group was 35-44 years (28.8%). This diversity represents a broad range of teaching world views and also the availability of technology.

Table 1.3: Educational Qualifications of Respondents

Qualification	Frequency (n)	Percentage (%)
Bachelor's	52	20.8%
Master's	114	45.6%
MPhil	62	24.8%
PhD	18	7.2%
Other	4	1.6%
Total	**250**	**100.0%**

The majority of respondents had postgraduate qualifications - Master's (45.6%) and MPhil (24.8%), indicating a very educated teaching group. Only 7.2% possessed PhDs. This indicates

that participants probably had the academic background to comprehend and operationalize technological tools in ELT.

Table 1.4: Teaching Experience of Respondents

Experience Level	Frequency (n)	Percentage (%)
Less than 1 year	16	6.4%
1–5 years	74	29.6%
6–10 years	80	32.0%
11–15 years	48	19.2%
More than 15 years	32	12.8%
Total	**250**	**100.0%**

The largest percentage, or 32%, indicated that they had 6-10 years of teaching experience and the next largest group, 29.6% of respondents, stated that they had 1-5 years of teaching experience. This indicates that most of the respondents were practising mid-career teachers and likely balancing traditional and contemporary models of teaching, which, in this case, also means incorporating technology.

Table 1.5: Type of Institution

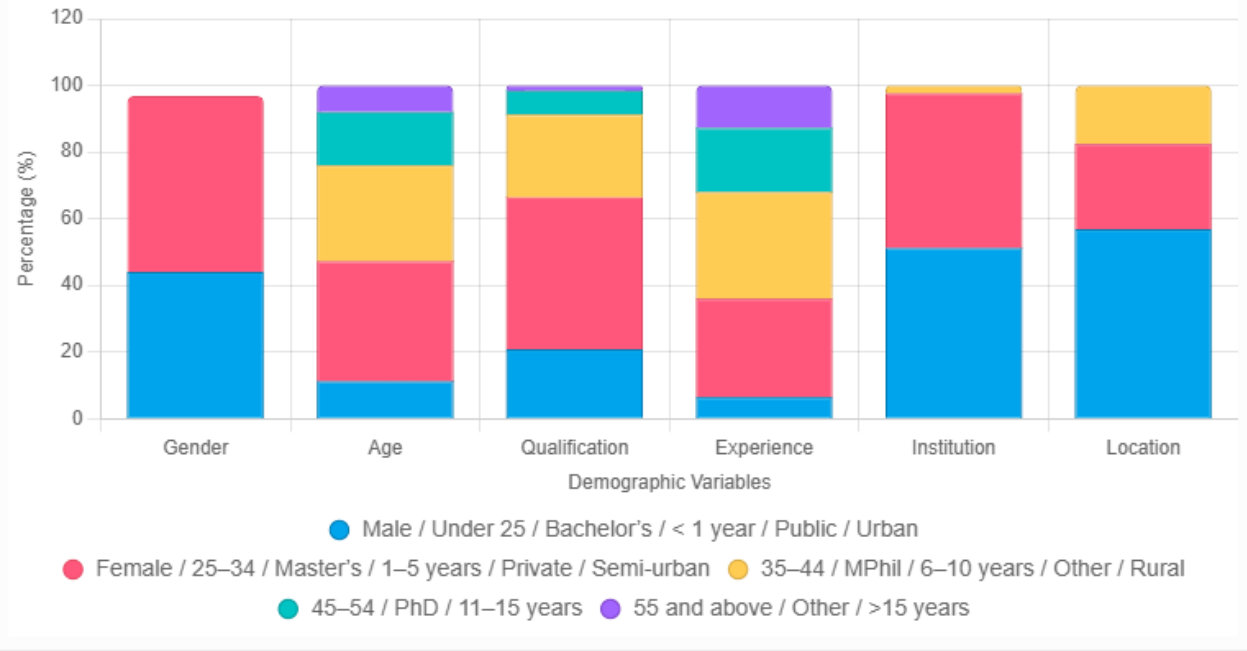
Institution Type	Frequency (n)	Percentage (%)
Public	128	51.2%
Private	116	46.4%
Other	6	2.4%
Total	**250**	**100.0%**

There 51.2% of participants were public institution members and 46.4% came from the private sector. Adding both sectors ensures that both sides of technology use are equally considered.

Table 1.6: Location of Institution

Location	Frequency (n)	Percentage (%)
Urban	142	56.8%
Semi-urban	64	25.6%
Rural	44	17.6%
Total	**250**	**100.0%**

The majority of respondents (56.8%) taught in urban areas where technological infrastructure is often better established. The semi-urban (25.6%) and rural (17.6%) areas included also offer a view into the inequities surrounding technology access and technology adoption in ELT across geographical contexts.



4.2 Teachers' Attitudes Toward Technology in ELT

Table 2: Teachers' Attitudes toward Technology (Mean and SD)

Statement	Mean	SD
B1. Technology enhances language learning	4.35	0.76

B2. Enjoy using technology in classes	4.12	0.82
B3. Increases student engagement	4.28	0.70
B4. Teaches more effectively with tech	4.10	0.81
B5. Confident using educational tech	3.89	0.93
B6. Willing to learn new tech	4.45	0.62
B7. Tech can replace traditional methods	2.31	1.12
B8. Should be part of curriculum planning	4.39	0.67

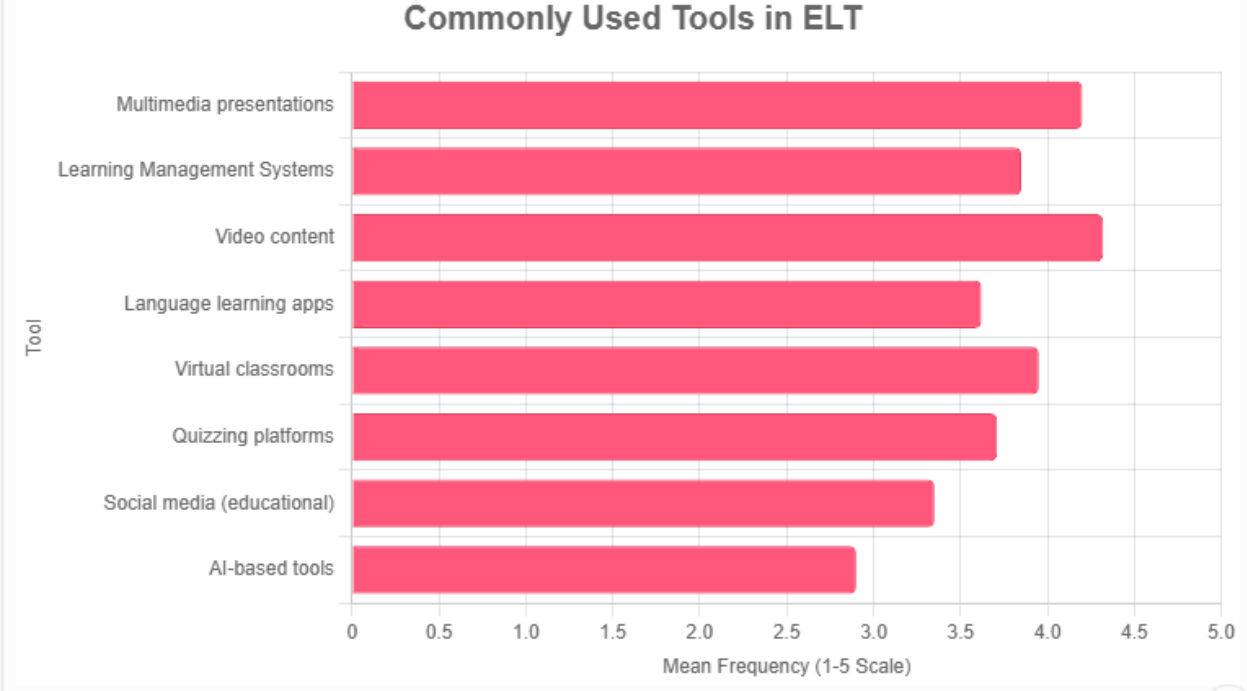
Overall, teachers had a very positive attitude towards technology use, especially in regard to curriculum planning and student engagement. However, there was very strong disagreement relating to technology overtaking traditional methods, which indicates a preference for having blended models of learning.

4.3 Commonly Used Tools and Frequency

Table 3: Frequency of Technology Tool Use

Tool	Mean	SD
C1. Multimedia presentations	4.20	0.75
C2. Learning Management Systems	3.85	0.96
C3. Video content	4.32	0.70
C4. Language learning apps	3.62	0.89
C5. Virtual classrooms	3.95	0.82
C6. Quizzing platforms	3.71	0.85
C7. Social media (educational)	3.35	1.01
C8. AI-based tools	2.90	1.15

Video content and multimedia presentations were the most commonly employed tools. AI-based tools and social media were used less often, perhaps due to a lack of training or organizational restrictions.

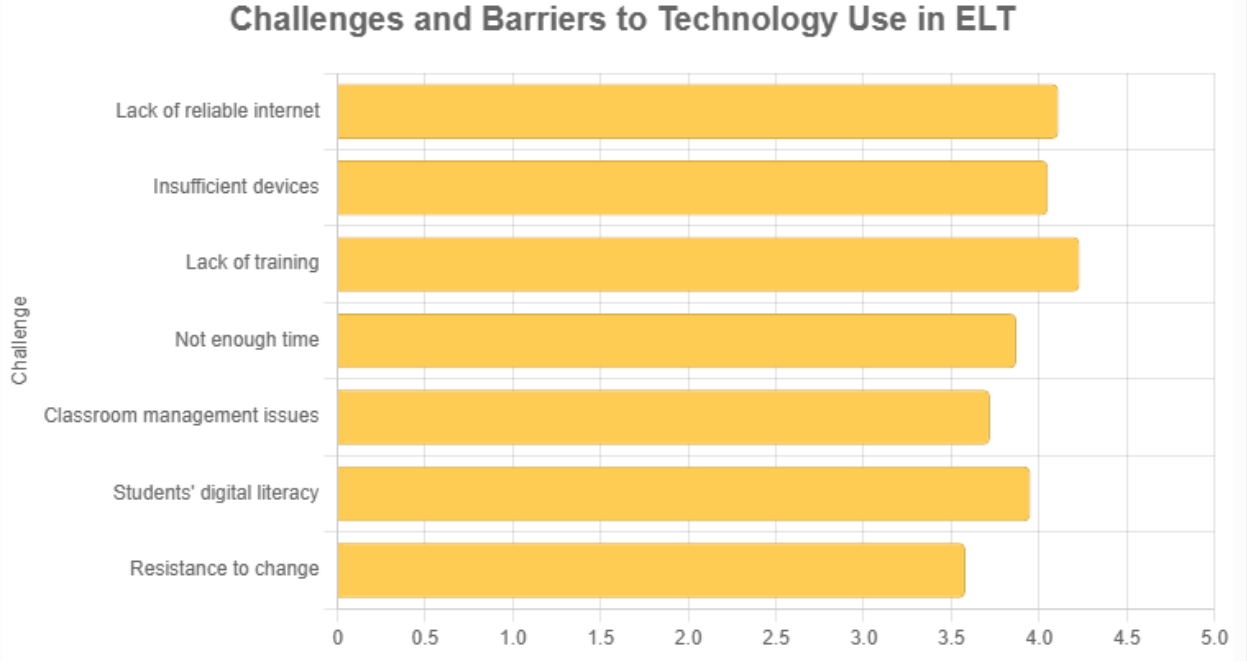


4.4 Challenges and Barriers to Technology Use

Table 4: Perceived Barriers to Technology Integration

Challenge	Mean	SD
D1. Lack of reliable internet	4.11	0.92
D2. Insufficient devices	4.05	0.88
D3. Lack of training	4.23	0.77
D4. Not enough time	3.87	0.90
D5. Classroom management issues	3.72	0.91
D6. Students' digital literacy	3.95	0.84
D7. Resistance to change	3.58	1.02

Lack of training and access to reliable internet were chosen as the biggest difficulties. The challenges in technology and skill areas require immediate change in policies to support tech integration in ELT.



4.5 Statistical Relationships

a. T-Test: Gender Differences in Attitude

Gender	Mean Attitude Score	SD	t	p-value
Male	4.10	0.51	1.76	0.08
Female	4.21	0.49		

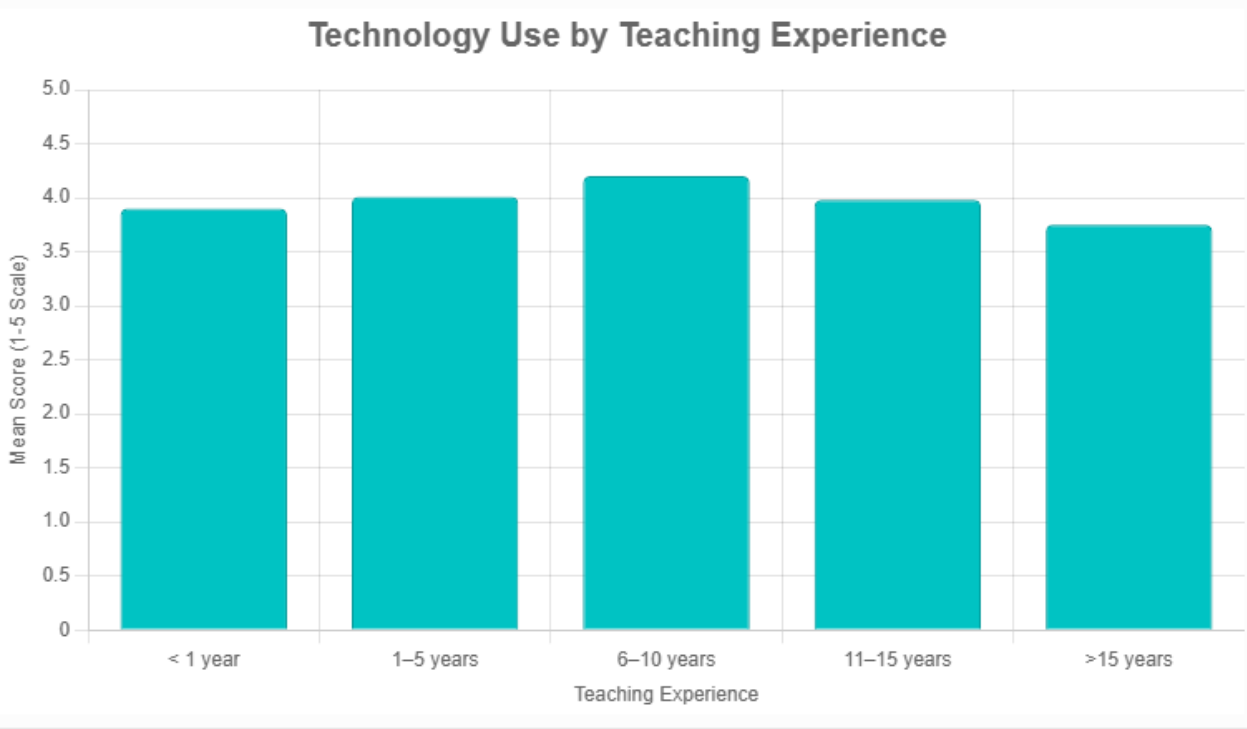
Therefore, it was revealed that there was no noteworthy difference in attitudes toward technology based on gender ($p > 0.05$), indicating a level of acceptance for technology that was comparable across both genders.

b. ANOVA: Teaching Experience and Technology Use

Teaching Experience	Mean Use Score	SD
< 1 year	3.90	0.54
1–5 years	4.01	0.50
6–10 years	4.20	0.43

11–15 years	3.98	0.51
>15 years	3.75	0.60
F = **3.65,** p = **0.007**		

ANOVA looks at whether there are differences in technology use scores based on teachers' experience in the classroom. The difference in the way these groups use technology is statistically significant, since $p < 0.05$. The score is highest for the 6–10 years group (4.20) so you can say they interact with technology the most.



c. Correlation: Training and Tool Usage

Variable Pair	r	p-value
Training received & frequency of tool use	0.48	< 0.001
Digital confidence & attitude score	0.52	< 0.001

We found that individuals with more training make more use of technology and that those with greater digital confidence have a better attitude towards technology. Therefore, it highlights the

importance of learning technology skills in schools and on your own to help people get used to new technologies.

d. Regression: Predictors of Positive Attitudes

Table 5: Multiple Regression Results

Dependent Variable: Attitude Toward Technology

Predictor	Beta (β)	t	p-**value**
Training received	0.31	4.20	< 0.001
Access to resources	0.28	3.75	< 0.001
Digital self-efficacy	0.35	5.10	< 0.001
Teaching experience	-0.08	-1.12	0.26

The results of the multiple regression predictors of teachers' positive attitudes toward technology are displayed in Table 5. Having training, easy access to needed resources and believing in oneself digitally made a difference, but having much teaching experience did not. The model explained 42% of the variance in people's attitudes ($R^2 = 0.42$, $F(4, 245) = 44.56$, $p < 0.001$).

Discussion

5.1 Interpretation of Results

This research shows that most English teachers in Pakistan have a positive attitude towards the use of technology in their teaching. This corresponds to previous studies that have also found teachers in Pakistan's ESL classes who are often open to the use of digital tools. For example, Sattar, Javed and Zamir (2023) found that ESL teachers in higher cycles are very happy to use digital classes and are ready to apply IT tools when they have good access and good support (Akhtar et al., 2021). In our study, too, many teachers have shown interest in the use of technology, even when they mention certain difficulties.

However, these positive attitudes depend a lot on the teacher's experience with technology and the ease with which they can access digital tools. This agrees with what Ahmed and Kazmi

(2020) have found - people with problems such as trivial internet, lack of good equipment and old software prevent teachers from using technology completely in their classrooms. Therefore, even if the teacher is ready, they often cannot use technology effectively due to these practical problems.

The previous research also supported the experience and the confidence of a teacher with technology that affects their attitude. According to Abbasi, Ibrahim and Ali (2021), teachers used technology before feeling more confident and better comments on this topic. On the other hand, new teachers or people who have no access are not sure or are ready to try new tools. This shows that if many teachers are willing to use technology, there is still a big difference between teachers according to their experience and access, which can lead to uneven educational experiences.

In general, the results confirm the previous results but also add details. They show that even if most teachers feel positive about technology, their ability to use depends on the tools and training they have. This reflects the broader difficulties of the Pakistan education system when he tries to go digital. At the same time, it also shows improved place as better access and more training can help teachers use technology better.

5.2 Practical Implications

These results are very important for political decisions the heads of schools and teachers training organizations want to improve the use of technology in teaching English. Firstly, research shows that appropriate training based on the context is very important. Hennessy et al. (2022) Declaring that training programs should not only teach technical skills, but also point out how to use technology effectively in teaching. This is especially necessary in countries like Pakistan, where schools may not have enough resources.

seconds, it is necessary to have clear policies and funding to ensure that all schools have the same access to technology. Pakistani digital policy of Pakistan (Ghani et al., 2024) has a digital development plan, but it must be applied correctly in schools. To go there, schools, especially those in poor or far areas, must have things like good internet, functional computers and

technology support. Without this, the teacher's positive attitude may not lead to actual use in classes.

In addition, research shows that rural and urban schools face many different issues. Kormos and Wisdom (2021) noted that rural schools often have the worst internet and fewer teachers. This study agreed and suggested that rural areas could benefit from many operating tools without the Internet or on mobile devices. Meanwhile, urban schools can focus on the use of more advanced platforms. Finally, teachers need continuous help. This includes advisors, support groups and technology support. Ajani (2021) realized that online communities where teachers share ideas can be very helpful. These support systems can keep teachers motivated and help them solve problems, which is very important for long -term success with technology.

5.3 Theoretical Reflections

These results also help us better understand everything when we consider them through popular theories such as technology accepting technology (Tam) and technology framework for educational content (TPACK). Rosli et al. (2022) Explain that Tam considers useful and easy-to-think people. In this study, teachers' positive opinions on technology adapted well to this theory. However, the problems of access and digital skills also show that the acceptance of the teacher depends on the support they receive, on which Tam is not always sufficiently concentrated.

The TPACK model is also useful to understand the situation. According to Nazari et al. (2019) and Mishra et al. (2022), Good use of technology in teaching needs three things: knowledge about subjects, good educational skills and technology knowledge. This research shows that many teachers who want to train not only use the tools but also on how to effectively teach them. This corresponds to what Irum (2020) has found about mixing mixed in Pakistan a teacher who needs training in three areas to be ready.

Studies also added to the current discussion about mixed education or online education, especially after COVID-19 motivated many digital schools. While most teachers seem to be open to the use of technology, their different levels of skill and access show a need for more structural training and support (Akhtar et al., 2021). Hennessy et al. (2022) also stated that the use of technology in education is complicated and requires continuous training and support.

Overall, these theories help explain how teachers from Pakistan deal with challenges and opportunities to use technology in teaching English. They also propose areas where many studies can check the attitudes of teachers, school conditions and students connected to the number of technical learning parameters.

Conclusion

Summary of Key Findings

This study has shown that English teachers in Pakistan mainly have a positive view of the use of technology in their classes. They believe it helps students care and improve their learning. The most commonly used tools are videos and multimedia, while more advanced tools such as AI applications are rarely used. Major issues include bad internet, not enough training and lack of equipment, especially in rural areas, where these issues are worse in cities. Teachers with 6 to 10 years of experience have used the most technology and officially trained people who are more likely to use it.

Reaffirming the Importance of Teacher Support and Infrastructure

The use of reasonable technology in teaching depends on the training of strong teachers and has appropriate tools. The results showed that even if the teacher was impatient to use digital tools, they could not do many things without training and appropriate resources. To help all teachers, especially in rural areas, the Government must ensure that resources are shared fairly. This will help fill the gap between urban schools and rural schools and provide all students with equal opportunities to benefit from educational technology.

Acknowledging Progress and Gaps in Current Practice

There has been progress, such as Pakistan's digital policy (2020), but putting these plans into action is still a challenge. This study showed a gap between what politics wanted to achieve and what really happened in classes. For example, the pressure focuses on exams that often go against new teaching methods using technology. In addition, cultural and gender barriers -

especially for teachers in conservative areas do not have any special attention to ensure that they can also participate in digital learning. Final reflections on the integration of sustainable technology into the ELT system of Pakistan to make the technology used in teaching English more effectively and more sustainably, Pakistan must focus on a number of main areas:

1. **Localization solutions:** To creates teaching tools and training programs suitable to the local context. Use low offline tools for areas with low infrastructure.
2. **Arrange the implementation of the policies:** To ensure that national policies listen to teachers' opinions and solve real problems such as power outages and lack of digital skills.
3. **Cooperation of related parties:** The study related to teachers, schools and community in designing solutions. This makes it possible to create a sense of property and ensure a long change.

By working in these areas, Pakistan can use technology to build a better, more fair and more modern English teaching system. This will improve not only education but also support economic and social growth larger than.

References

Abbas, S., Nadeem, M. A., & Majoka, M. I. (2021). The United Nations sustainable development goal-4: a case study of Pakistan. *Pakistan Journal of International Affairs*, *4*(4).

Abbasi, W. T., Ibrahim, A. H., & Ali, F. B. (2021). Perceptions about English As Second Language Teachers' Technology Based English Language Teaching In Pakistan: Attitudes, Uses of Technology and Challenges. In *Lecture notes in networks and systems* (pp. 314–325). https://doi.org/10.1007/978-3-030-82616-1_28.

Abbasi, W. T., Ibrahim, A. H., & Ali, F. B. (2021). Perceptions about English as second language teachers' technology based English language teaching in Pakistan: Attitudes,

uses of technology and challenges. In *Lecture notes in networks and systems* (pp. 314–325). https://doi.org/10.1007/978-3-030-82616-1_28.

Abbasi, W. T., Ibrahim, A. H., Ali, F., & Elhussein, F. A. (2021). Barriers to Technology Integration in Teaching English as a Second Language among English Educators in Pakistan. *International Journal of Language Education and Applied Linguistics*, 36–44. https://doi.org/10.15282/ijleal.v11i2.6775.

Afzal, A., Khan, S., Daud, S., Ahmad, Z., & Butt, A. (2023). Addressing the Digital Divide: Access and use of technology in education. *Journal of Social Sciences Review*, *3*(2), 883–895. https://doi.org/10.54183/jssr.v3i2.326.

Ahmad, I., Rehman, K. U., Ali, A., Khan, I., & Khan, F. A. (2014). Critical analysis of the problems of education in Pakistan: Possible solutions. *International Journal of Evaluation and Research in Education (IJERE)*, *3*(2). https://doi.org/10.11591/ijere.v3i2.1805.

Ahmed, S., & Kazmi, N. H. H. (2020). Teacher Educators' Attitude towards the Pedagogical use of ICTs: A Study from Karachi, Pakistan. *Journal of Education and Educational Development*, *7*(2). https://doi.org/10.22555/joeed.v7i2.67.

Ajani, O. A. (2021). Teachers' use of Whatsapp Platforms as Online Communities of Practice for Professional Development. *Journal of African Films & Diaspora Studies*, *4*(1), 103–130. https://doi.org/10.31920/2516-2713/2021/4n1a6.

Akhtar, M., Andleeb, Z., & Akhtar, S. (2024). Problems of Education System in Pakistan: A Critical Analysis and Solution. *Pakistan Social Sciences Review*, *8*(II). https://doi.org/10.35484/pssr.2024(8-ii)17.

Akhtar, N., Aslam, N., &Hussain, S. Q., Memon, A. (2021) "Qualitative Analysis of Diffusing ERE cycle in Teaching at Higher Education: Experiential Learning Practices in Pakistan". *Elementary Education Online*. 20 (5), 7525-7539.

Akhtar, N., Hussain, S. Q., Raja, F., & Tuba, N. (2020) Using Oral Communication Strategies to Enhance Students English Writing Skills of Grade VII Students: Experimenting ESL

Strategies. *International Journal of Disaster Recovery and Business Continuity*. 11(3). 1127–1137.

Akhtar, R. N. (2020). Exploring Experiential Learning Models And Developing An EL Based ERE Cycle in Teaching at Higher Education In Pakistan. *International Journal of Experiential Learning & Case Studies*, *5*(2). https://doi.org/10.22555/ijelcs.v5i2.44.

Akram, H., Aslam, S., Saleem, A., & Parveen, K. (2021b). The Challenges of Online Teaching in COVID-19 Pandemic: A Case Study of Public Universities in Karachi, Pakistan. *Journal of Information Technology Education Research*, *20*, 263–282. https://doi.org/10.28945/4784.

Altun, M., & Ahmad, H. K. (2021). The Use of Technology in English Language Teaching: A Literature Review. *International Journal of Social Sciences and Educational Studies*, *8*(1). https://doi.org/10.23918/ijsses.v8i1p226.

Ashari, M. K., Rohmah, A. N., & Yudi, U. (2023). Joyful Learning with App-Based Interactive Quizzes in Senior High Schools in the Digital Era. *Cendekia*, *15*(02), 210-228.

Aziz, M. A., Azizullah, A., & Baloch, S. (2024). Emerging Trends and Issues in English Language Teaching: A Bibliometric Analysis. *Deleted Journal*, *13*(1), 1004–1016. https://doi.org/10.62345/jads.2024.13.1.83.

Barra, C., Grimaldi, M., Muazzam, A., Troisi, O., & Visvizi, A. (2024). Digital Divide, Gender Gap, and Entrepreneurial Orientation: How to Foster Technology Adoption among Pakistani Higher Education Students? *SocioEconomic Planning Sciences*, *93*, 101904. https://doi.org/10.1016/j.seps.2024.101904.

Diemer, A., Khushik, F., & Ndiaye, A. (2020). SDG 4 "Quality Education", the cornerstone of the SDGs: Case studies of Pakistan and Senegal. *Journal of Economics and Development Studies*, *8*(1). https://doi.org/10.15640/jeds.v8n1a2.

Ghani, S., Malik, F., & Ullah, S. (2024). Identifications of Barriers in Implementation of Digital Technology in Secondary Schools of Punjab. *Pakistan Journal of Humanities and Social Sciences*, *12*(1). https://doi.org/10.52131/pjhss.2024.v12i1.2055.

Hennessy, S., D'Angelo, S., McIntyre, N., Koomar, S., Kreimeia, A., Cao, L., Brugha, M., & Zubairi, A. (2022). Technology Use for Teacher Professional Development in Low- and Middle-Income Countries: A Systematic Review. *Computers and Education Open*, *3*, 100080. https://doi.org/10.1016/j.caeo.2022.100080.

Hussain, S. Q., Akhtar, N., Shabbir, N., Aslam, N., &Arshad, S. (2021) "Causes and Strategies to Cope English Language Speaking Anxiety in Pakistani University Students". *Humanities & Social Sciences Review*. 9 (3), 579-597.

Irum, S. (2020). Blended Learning: Innovative Challenge Faced By Students At University Level In Pakistan. *Indian Journal of Science and Technology*, *13*(42), 4386–4395. https://doi.org/10.17485/ijst/v13i42.1212.

Jawaid, R., Shoaib, A., & Rafique, A. (2024). The Role of the Principals in Supporting Teachers' Performance in Enhancing Online Learning in Secondary Schools: Teachers' Perspectives. *Annals of Human and Social Sciences*, *5*(4), 52-63.

Khan, M. (2021). An Investigation on Transforming Pakistan's Education System: A Path to Sustainable Development. *Journal of Social Research Development*. https://doi.org/10.53664/jsrd.

Kim, H. S., Cha, Y., & Kim, N. Y. (2021). Effects of AI Chatbots on EFL Students' Communication Skills. *21*, 712-734.

Kormos, E., & Wisdom, K. (2021). Rural Schools and The Digital Divide. *Theory & Practice in Rural Education*, *11*(1). https://doi.org/10.3776/tpre.2021.v11n1p25-39.

Kukulska-Hulme, A. (2021). Reflections on research questions in mobile assisted language learning. *Journal of China Computer-Assisted Language Learning*, *1*(1), 28–46. https://doi.org/10.1515/jccall-2021-2002.

Mehmood, S. (2024). Challenges for Female Teachers at Secondary Level and Its Impact on Students. *Kurdish Studies*, 573–578. https://doi.org/10.53555/ks.v12i5.3272.

Miah, M. (2023). Digital Inequality: The Digital Divide and Educational Outcomes. *acet Journal of Computer Education & Research*, *17*(1).

Ministry of IT. (2020). Digital Pakistan Policy. Government of Pakistan.https://moib.gov.pk/Downloads/Policy/DIGITAL_PAKISTAN_POLICY(22-05-2018).pdf.

Mishra, M., Gorakhnath, I., Lata, P., Rani, R., & Chopra, P. (2022). Integration of Technological Pedagogical Content Knowledge (TPACK) In Classrooms through a Teacher's Lens. *International Journal of Health Sciences*, 12505–12512. https://doi.org/10.53730/ijhs.v6ns3.9536.

Nazari, N., Nafissi, Z., Estaji, M., Marandi, S. S., & Wang, S. (2019). Evaluating Novice And Experienced EFL Teachers' Perceived TPACK For Their Professional Development. *Cogent Education*, *6*(1). https://doi.org/10.1080/2331186x.2019.1632010.

Parks, M. (Ed.). (2023). Impactful Classroom Experiences in Elementary Schools: Practices and Policies: Practices and Policies. *IGI Global.*

Pischetola, M. (2021). Re-Imagining Digital Technology in Education through Critical and Neo-Materialist Insights. *Digital Education Review*, *40*(2), 154.

Rahman, M. M., & Pandian, A. (2018). A Critical Investigation of English Language Teaching in Bangladesh. *English Today*, *34*(3), 43–49. https://doi.org/10.1017/s026607841700061x.

Razali, N. H., Ahmad, N. A., Mazlan, N. A., & Rahman, S. F. A. (2023). Technology in the English Language Teaching (ELT): The Impact of Digital Game-Based Learning. *International Journal of Academic Research in Business and Social Sciences*, *13*(7). https://doi.org/10.6007/ijarbss/v13-i7/17344.

Rosli, M. S., Saleh, N. S., Ali, A. M., Bakar, S. A., & Tahir, L. M. (2022). A Systematic Review of the Technology Acceptance Model for the Sustainability of Higher Education during the COVID-19 Pandemic and Identified Research Gaps. *Sustainability*, *14*(18), 11389. https://doi.org/10.3390/su141811389.

Sattar, M., Javed, H. M. H., & Zamir, M. A. (2023). Cultivating Digital Classrooms: Exploring Pakistani ESL Teachers' ICT Knowledge and Attitudes towards ICT at the Graduate

Level. *Pakistan Journal of Humanities and Social Sciences*, *11*(2). https://doi.org/10.52131/pjhss.2023.1102.0577.

Shah, S. N. A., Khan, A. U., Khan, B. U., Khan, T., & Xuehe, Z. (2020). Framework for Teachers' Acceptance of Information and Communication Technology in Pakistan: Application Of The Extended UTAUT Model. *Journal of Public Affairs*, *21*(1). https://doi.org/10.1002/pa.2090.

Shahzad, M. (2024). The Impact of Digital Divide on the Educational Outcomes of Deprived Children In Low-Cost Private Sector Schools In Lahore, Pakistan; Post COVID-19 Era. *Pakistan Journal of Humanities and Social Sciences*, 3240–3256. https://doi.org/10.52131/pjhss.2024.v12i4.2500.

Sharma, S. (2023). English Language Teaching Methodologies: Trends, Issues, and Best Practices. *Journal of International English Research Studies (JIERS), ISSN: 30485231*, *1*(2), 916.

Stockwell, G. (2021). Living and Learning with Technology: Language Learning with Mobile Devices. *English Teaching*, *76*(s), 3–16. https://doi.org/10.15858/engtea.76.s1.202109.3.

Trabelsi, K., Saif, Z., Driller, M. W., Vitiello, M. V., & Jahrami, H. (2024). Evaluating The Reliability Of The Athlete Sleep Behavior Questionnaire (ASBQ): A Meta-Analysis of Cronbach's Alpha and Intraclass Correlation Coefficient. *BMC Sports Science Medicine and Rehabilitation*, *16*(1). https://doi.org/10.1186/s13102-023-00787-0.

UNESCO. (2023). In *Global Education Monitoring Report 2023: Technology in Education: A Tool on Whose Terms?* https://doi.org/10.54676/uzqv8501.

Wu, W., Burdina, G., & Gura, A. (2024). Use of artificial intelligence in teacher training. *International Journal of Web-Based Learning and Teaching Technologies*, *18*(1), 1–15. https://doi.org/10.4018/ijwltt.331692.

Yang, J., Wang, Q., Wang, J., Huang, M., & Ma, Y. (2019). A Study of K-12 Teachers' TPACK On The Technology Acceptance Of E-Schoolbag. *Interactive Learning Environments*, *29*(7), 1062–1075. https://doi.org/10.1080/10494820.2019.1627560.

ZEEWAQAR, M. (2024). Barriers to Digital Learning: Challenges in Online Education in Pakistan.

Zubairi, A., Kreimeia, A., Kaye, T., & Ashlee, A. (2021). Country-Level Research Review: EdTech in Bangladesh. In *Zenodo (CERN European Organization for Nuclear Research)*. https://doi.org/10.5281/zenodo.4943272.