



## MODERNIZING ENGLISH LANGUAGE TEACHING THROUGH TECHNOLOGY AT THE SCHOOL LEVEL IN MARDAN

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### ABSTRACT

*Technology has emerged as a major power in influencing the modern day education, especially in the teaching of English language. This paper discusses how technology can be incorporated into English language classrooms at the secondary school level in Mardan, Khyber Pakhtunkhwa with the aim of improving vocabulary learning, listening comprehension, and student interest. The study is based on the Socio-cultural Theory of Vygotsky and follows the qualitative approach to investigate the mediation of learning by digital tools like multimedia projectors, language applications, and interactive materials in the form of social interaction and collaboration. Semi-structured interviews and classroom observations were used to gather data among English language teachers and students in the selected institutions. The results indicate that technology-based teaching encourages increased motivation in learners, enhances their language skills, and provides more interactive and student-focused teaching and learning. Nevertheless, it is hindered by the various challenges related to the lack of access to technological resources, unstable internet access, and inadequate teacher training. The paper identifies the necessity of better infrastructure, professional development, and digital material within the context as the key factors to help maximize the opportunities of technology in English language teaching. Generally, the study highlights how technology can be used in transformational ways to modernize the practice of pedagogy in resource-deprived educational contexts in Mardan.*

**Keywords:** Education, linguistics, Technology, Proficiency, English Language, Socio-cultural Theory

### INTRODUCTION

#### Background of the Study

Technology use in the English language teaching (ELT) has brought a revolution in the pedagogical practices, particularly in the region of the world that strives to be in the contemporary trends of education without forgetting the culture. As the world increasingly turns digital English language learners and more so in the developing parts of the world such as Mardan in Pakistan are grappling with the twin threat of acquiring a world language or acquiring the new dynamic way of teaching and learning. It is not a question of making classrooms modern, in terms of tools and equipment that might be present in that context, no, a paradigm shift in the way language is acquired, the way language is theorized, the way language might be acquired, and the way language might be assessed. The literature has revealed a lot of variations in how information and communication technologies (ICTs) can assist in many areas of English language teaching including vocabulary development, oracy, motivation and learner autonomy.

Traditionally, the teaching of English as a second language has been carried out in the form of teacher-based techniques including grammar-translation, direct instructions and audio-lingual. These approaches allowed focusing on repetition, memorization, and accuracy of

language rather than communication and interaction among students (Richards and Rodgers, 2014). Insofar as these plans provided structure and dependence as they did not necessarily generate a creative, cooperative or critical thinking environment in students. Similarly to how the communicative language teaching (CLT) or task-based learning (TBL) grew in popularity in the latter half of the XX century, the methodology became student-centered, its focus on interaction and language use in a particular context and the real world situation a student might need to communicate in (Larsen-Freeman and Anderson, 2011). Technology has now been put in the frame of a logical extension of these pedagogical transformations so, it offers platform and tools that can make achievable constructivist learning theories in the English classroom.

Digital storytelling is one of the areas where the interrelationship of technology and language teaching has proved to be very successful. Younas et al. (2022) did a study to examine the impact of digital storytelling on English speaking competence among primary school students in Pakistan and found that it resulted in the improvements of pronunciation, fluency, word retention, and creativity of students. In both students and teachers, there was an upshot of confidence and expressive power of students who took part in digital story creation and a rise in motivation and engagement of teachers. Although there are certain logistical issues regarding the study, including time-constraint and inaccessibility to devices, the research came to the conclusion that digital storytelling is a rich pedagogical concept that combines teaching language skills with 21st century skills like multimedia creation, cooperative work, and creativity. The narrating and visual interpretation of stories provided the learners with an opportunity to build and internalize vocabulary in meaningful situation which is the same in other empirical research studies.

The integration of technology into language learning is not a mere educational trend but a necessary response to the demands of twenty-first-century learners (Warschauer & Healey, 1998). Digital tools, such as educational applications, virtual classrooms, podcasts, and video-based storytelling, allow learners to engage with language in interactive, multimodal, and student-centered ways (Godwin-Jones, 2018). These tools enhance learner autonomy, self-paced learning, and comprehension, catering to diverse learning styles through multimedia content (Reinders & White, 2010; Mayer, 2009).

### **Statement of the Problem**

Technology has taken a critical role in day-to-day lives, defining how problems are solved and providing innovative solutions. Its incorporation in the education field is very important in improving the teaching practices especially in the acquisition of the second language. Despite the fact that studies have been conducted in Pakistan to understand the practice of technology in general education, there are no studies on the sociological application of technology in teaching English language, in particular in Mardan, Khyber Pakhtunkhwa (KPK). Schools in Mardan started adapting to the use of multimedia projector and LED screens in aiding teaching and learning in recent years. Nevertheless, although it has the potential to enhance the English proficiency and activity of students, little is known about its efficiency in the contexts, where the access to high-tech technologies is limited. This research is an attempt to explore the issue that both teachers and students in Mardan are experiencing in incorporating technology into their approaches to English language teaching and to also address how technology has affected the development of languages in practice. Through comparison of the experiences and perceptions of the two groups, the research aims at offering information about how to optimize the utilization of technology in English learning environments, especially resource-constrained learning environments of KPK.

### **Research Questions:**

1. How does the use of technological tools affect students' English language proficiency and classroom engagement?
2. In what ways do multimedia and interactive technological tools support the improvement of listening skills among secondary school students in Mardan?

### **Research Objectives:**

1. To evaluate the impact of technological tools on students' English language skills and their level of engagement in the classroom.
2. To examine the effectiveness of multimedia and interactive tools in strengthening listening comprehension skills of secondary school students in Mardan.

### **Significance of the Study**

This paper is important because it offers important information on how technology can be used to improve teaching and learning of English language in secondary schools in Mardan, Khyber Pakhtunkhwa. It supplements the existing body of knowledge by providing a contextualized knowledge of the role of digital technology like multimedia projectors, mobile applications, and interactive platforms in developing vocabulary and listening comprehension and classroom engagement among students. This study unlike most of the earlier studies that research the urban or higher education contexts, points out the experiences of both teachers and students in resource-bound contexts and thus fills a significant gap in the literature.

This study will have a positive impact on the English language teachers to enhance their teaching methods through effective inclusion of technology in their classrooms. It is also useful because it has implications that can be used to guide school administrators and policymakers when formulating strategies to improve the development of infrastructure, training of teachers and allocation of resources in educational institutions in Khyber Pakhtunkhwa. Moreover, the research promotes more interactive and student-centered learning practices, which may promote motivation, engagement, and general language proficiency.

Moreover, this study can be used as a source of future researches in the area of technology-enhanced language learning, especially in such socio-cultural and educational environments. The study will contribute to the creation of more efficient, inclusive, and contemporary English language teaching practices by emphasizing the positive and negative aspects of technology integration.

### **LITERATURE REVIEW**

A new study conducted by Alshammari (2021) was dedicated to the role of mobile-assisted language learning (MALL) applications in the development of the vocabulary of Saudi students of the university. The researcher employed a mixed-method design and revealed that learners who employed mobile apps to study vocabulary had much higher retention results than those who did not use the apps and relied on the traditional method of vocabulary learning. Students indicated that they have felt more engaged because of the gamification of quizzes, flashcards, and the multimedia-enhanced content and interactivity of the apps. In the paper, the author emphasizes the true nature of digital tools in that rather than detractive they can be supportive of both intrinsic and extrinsic motivation which are critical elements of second language acquisition when carefully blended within the curriculum. The tools provide repeated practice, context reinforcement, and immediate feedback that would help in deeper processing of lexical and better memory retrieval.

In parallel, Nation and Webb (2011) have also pointed to the application of digital games and simulations to vocabulary acquisition and noted that vocabulary is learned more successfully under the condition that it is presented to the learner in the interactive and contextualized form. Games, in contrast to the list of words or grammatical exercises are an opportunity to

make students use vocabulary not only in theory and syntax skills training. Such application teaching promotes syntactic manipulation as well as semantic mapping, thus, supporting usage. Moreover, different kinds of learning-visual, auditory and kinesthetic-can be satisfied on gamified platforms, and this means that learning of vocabulary is a multi-sensory process, which stimulates not only understanding but long-term memorization. As part of the general objective to develop communicative competence as opposed to vocabulary recognition, such immersive involvement helps achieve it.

Videos, animations, and infographics are also visual media that have become a pivotal part of the technology-aided language classroom. Cognitive theory of multimedia learning is the learning theory first posed by Mayer, this theory claims that people learn more when both visual and verbal modes are used to provide information (Mayer, 2009). In ELT terms, it implies the fact that animation of explanation of the grammar rules, videos with subtitles, or illustrations of vocabulary can help to enhance comprehension and retention of students. Shyamlee and Phil (2012) used empirical evidence to support this theory, indicating that multimedia content facilitates the acquisition of new vocabulary as well as developing curiosity and lessening emotional barrier to learning put forward by Krashen (1982), viz. the affective filter. Students who fear less and do more, are in a much better size to absorb and utilize new language systems.

The multimodal pedagogy has evolved to include composite multimodal through integration of text, audio, images and interactivity, becoming an ELT technology-enhanced staple. According to Cope and Kalantzis (2009), multimodal learning environment allows a learner to read and construct a meaning that incorporates multiple semiotic modes; it therefore enlarges communicative repertoire. It is a very practical process when it is applied to those students with different learning requirements or simply not able to cope with the conventional textual learning. The homogeneity of resources that can be offered and the degree of competence can be low at certain areas such as Mardan; consequently, a multimodal approach can become critical to the realization of equal access to language learning at inclusion schools. Videos, podcasts, digital posters, and story platforms that can be integrated into the English curriculum will help to make the classroom learning process more inclusive and enriching as each student will have the opportunity to contribute in a more valuable manner.

Student motivation is another important aspect that is influenced by technology. The application of motivational dynamics which Dornie and Ushioda (2011) attribute to language learning and which can be significantly intertwined with the relevant perception of relevance, autonomy, and competence among the learners are pertinent. The dimensions are satisfied in languages learning apps, digital stories, online games etc., which provide individual challenge and instant feedback in addition to creative expression. And you can refer to the example of when students are writing personal blogs, stories or arguments in the virtual world they are never bothered about that they need to do their homework at all, but are rather engaged in the actual act of communication, which is expression of their interests, and identities. Such communicative experiences facilitate intrinsic motivation and improve engagement with the target language in the long term view.

This peer role may be complemented, along with other important functions of peers in the second language development within the team based learning processes, by tools based online. According to Vygotsky (1978), the central assumption of cognitive development is the problem of social interaction. The learners are offered a chance to co-construct knowledge, negotiate meaning and have actual conversations through forums or shared documents and online classrooms. Focusing on the effects of collaborative digital storytelling on the speaking proficiency in the learners, Sun and Yang (2015) have discovered that the

linguistic performance and social cohesion improved to a significant degree. By scripting, digital stories in groups, recording and editing, not only have learners been given the chance to build language in use, but they have also noted an increased sense of confidence and support as a direct result. The learning activities to include this kind of cooperation will be helpful in enhancing the sense of community and responsible in the classroom that will play a pivotal role in ensuring that the students are motivated and hold themselves responsible.

Research has focused on the use of immediate feedback, which can be achieved by using online quizzes, voice recognition, and automatic scoring. According to Hattie and Timperley (2007), feedback is one of the strongest factors that influence learning. Online, feedback can be instant, extensive and allow students to detect errors, deliberate and revise their responses. This performance-feedback cycle reinforces the rate of learning and creates awareness at the Meta cognition level. The learners get to know how to be more mature in knowing what they really need, setting goals and measuring their progress which is a valuable tool in life time learning. The meaning of technology here is that it re-plants the evaluation effort as an end game into a dynamic dialogue between the learner and the learning material.

However, though integration of technology in the English language classrooms comes with numerous advantages, it also experiences its fair share of complications especially in the rural or under-resources regions. Such problems as the lack of infrastructure, unreliable access to the internet, inadequacy of trained staff, and the pedagogical conservative nature are still considerable barriers. A recent study was conducted by Ahmad et al. (2020). The study of ICT implementation in Pakistani schools showed that most teachers can understand the pedagogical importance of technology, but they inevitably feel underprepared to incorporate it into their practice. The research recommended the provision of professional development programs, resource provisions, and curriculum comprehensive change favoring technology facilitated learning. Moreover, educational inequities could be increased by the digital divide the inequalities in means of accessing devices and connectivity unless global interventions tackling the issue are put into place.

Last but not least, culturally responsive digital content cannot be overestimated. In a culturally and linguistically practiced society such as Mardan, English language education needs to follow the international norms without making it area specific. Specifically, when digital texts are localized, allowing them to mirror the cultural experiences, values, and daily experiences of students, they will be more likely to appeal to the latter and enable them to conduct meaningful engagement (according to both Shamsi and Khan, 2021). These locales may contain such subjects as stories, idiom, and examples based on local traditions, voices and visuals that mirror lived experiences of students. This and other such culturally rooted pieces do not only make it easier to successfully establish specialties, but also justify the identity of the learners.

Finally, the technological advancement of studying English should also be viewed as the radical shift, as far as the pedagogical process is concerned. The technology will assist in delivering the learner-centred, multimodal, culturally responsive, individualistic oriented language learning process by incorporating digital storytelling, mobile applications, multimedia contents, and collaborative platform in accordance with the in and out conception. There exist severe limitations, too, especially when there are small amounts of resources, but the literature does not contradict each other regarding the opportunities of digital tools in stimulating motivation, learning vocabulary, oral performance and learning through collaboration. To achieve this potential, it is necessary to develop local content, provide professional training to teachers, and invest in infrastructure to support inclusive and equal access to technology-enhanced learning spaces alongside exploiting massively open online course ware resources.

## **THEORETICAL OVERVIEW**

### **Constructivism**

The constructivism theory which was based on the studies of Piaget and further developed by other scholars such as Bruner implied that the learners themselves employ constructive knowledge that is formed as a result of interaction with the surrounding world. In teaching the English language, technology provides a very wide range of resources that can be used in line with the ideas of constructivism. Multimedia communities, interactive application and virtual learning systems allow learners to discover, experiment and internalize linguistic knowledge in some meaningful way.

Classroom technology will provide the students an opportunity to control their learning. As an example, students can experience language learning at their own pace using language learning apps, repeat lessons, and get instant feedback. This is backed up by the constructivism premise that students develop their knowledge best when they immerse themselves in the learning experience. Rather than being given information presented by the teacher, students through use of technological tools have the opportunity to engage in activities, solve problems, and put ideas to practice in the real life situation, e.g. writing of emails, engaging in online conversations or reading a multimedia text.

Additionally, constructivism also focuses on the significance of real life learning. Technology offers a natural environment in the application of language such as podcasts, videos and virtual exchange programs as well as online forums. These sites enable students to practice the real life language by opening them to different accents, dialects, and culture. Such contextual learning enhances vocabulary, sharpen listening more efficiently, and understanding the language with better conceptual contexts, this is because language becomes more significant and personal.

The use of whiteboards, quizzes on the internet, and games-based learning platforms, also follow constructivist principles since they enable students to experience a dynamic interaction with content. Differentiated learning using such technologies as well as representations of knowledge are facilitated and this is especially useful in English language teaching because students would be at different levels of language proficiency. Constructivism advocates the use of grams, tension audios, and settings to guide a learnt to think out and create a better comprehension of abstract words concepts.

### **Vygotsky's Socio-cultural Theory**

The Socio-cultural Theory suggested by Vygotsky pays more attention to the social character of learning, with particular focus on the communication process, verbal language and cultural context. The Zone of Proximal Development (ZPD) is the most central concept behind this theory as it represents the tasks range that a student can complete under supervision but still not on his/her own. In that, in the classroom where technology is used, the digital technology as the scaffold and the mediator can serve the learners in the process of moving through their ZPD.

Google Docs, Padlet, and discussion forums are the types of online collaboration tools which enable the co-construction of knowledge by means of peer-to-peer interaction and feedback. This is consistent with the opinion held by Vygotsky that learning depends on social interaction. Group activities such as collaborative writing, peer editing and online role-playing are important in English teaching as they provide a positive model in which students can practice the language, and they can acquire assistance and respond to immediate help and feedback provided by peers and the teachers.

Technology implementation also facilitates teacher scaffolding. The teacher can configure activities that have built-in supports such as vocabulary hint, grammar explanations or a potential recording. The tools help the students to learn complex language tasks that might

otherwise be difficult to perform independently. This facilitating guidance is useful in the development of lingering internalization of linguistic structures by the students and also in their development as more independent students.

Another important fact of Socio-cultural Theory is the importance of cultural tools in shaping of thoughts. Language is already known as a cultural instrument and technology extends the boundaries of several linguistic and cultural resources. The students learn the language in its social context and with cultural focus because English speakers all over the world can meet the students not only via video-call but also in online communities and cultural exchange projects. This type of exposure improves the level of language competence and inter-cultural awareness and communicative competence.

Conclusively both Constructivist and Socio-cultural theories give a powerful theoretical approach to the integration of technology in teaching methodology of English. Constructivism focuses on active learning, learner-directed style, whereas Socio-cultural Theory focuses on language development via interaction and scaffolding. Combined, these theories justify the application of technology as a way to develop rich, interactive and social significant learning experience of language. Since classrooms keep changing as technology improves, these frameworks prove not only instrumental in informing good practice in teaching English language, but they are also useful tools in directing effective teaching progression.

### **RESEARCH METHODOLOGY**

The research design of this study is qualitative research design to examine the role of technology in English language teaching methods in the selected educational institutions of Mardan, Khyber Pakhtunkhwa. This study is a qualitative study unlike earlier methods which merge both qualitative and quantitative methods because this study seeks to establish a comprehensive picture of what the participants have to say, feel and struggle with the incorporation of technology in classes teaching English language. The paper is informed by the Socio-cultural Theory of Vygotsky, which highlights the significance of social interaction, collaboration, and mediated learning in learning a language and thus is quite relevant in the study of technology-mediated learning.

The study is conducted in the chosen schools, one of them Army Public School (APS) Mardan and Peshawar Model School that have already integrated technological devices in their instruction, such as multimedia projector, LED screens, and language learning programs. Participants, who have first-hand experience of technology integration, are selected using a purposive sampling method. The study involves both English language teachers and secondary school students (13-19 years old), which will be sufficient to cover both sides of the coin in learning and teaching.

Qualitative methods (semi-structured interviews and classroom observation) are used to gather data. Semi-structured interviews enable the respondents to express their perspectives on how multimedia tools, digital platforms, and interactive materials can be used to improve vocabulary learning, listening skills, and classroom activities. Classroom observations are great sources of contextual evidence of the practical implementation of technology, as well as the way students engage with such instruments in the classroom.

The data collected are examined through thematic analysis, and this is done after the framework suggested by Braun and Clarke. This includes getting accustomed to the data, creating preliminary codes, detecting themes, revising and refining themes and lastly interpreting and presenting the results. Themes to be covered are likely to be student engagement, interactivity, vocabulary development, and improvement of listening skills, as well as technological access issues, and infrastructural challenges.

Triangulation (interviews and observations), member checking, and elaborate contextual descriptions are some of the strategies that are used to ensure credibility and trustworthiness of the study. Ethical concerns are highly observed by taking informed consent of all the participants, keeping the process confidential and leaving the participants free to withdraw at any point of the study.

On the whole, this qualitative approach allows a rich, contextual study of the impact of technology on English language teaching and learning in Mardan, especially in resource limited contexts, and identifying useful challenges and possibilities to facilitate more successful incorporation.

## **DATA ANALYSIS**

### **Thematic Classification**

In order to obtain a better understanding of the influence of technology on the interaction of the students in the English language classes in the schools of Mardan, this thematic analysis will include the opinion of a mixed population of English language teachers. These participants vary in their length of teaching experience, education, frequency of technology usage, and the kind of digital tools. Some of the key themes of the impacts of technology on engagement, interactivity, motivation, vocabulary acquisition, and listening comprehension are discussed. By analysing these various perspectives, the study will give a holistic view of the pedagogical and practical implications of applying technology in learning students and the classroom situations.

### **Themes and Sub-Themes Used in Data Analysis**

The analysis was carried out using the six-step theme analysis process outlined by Braun and Clarke (2006). It includes (1) becoming familiar with the data, (2) developing initial codes, (3) recognizing the themes, (4) revisiting the themes, (5) defining and labeling the themes, and (6) preparing the report. It will offer systematic and rigorous processing of the qualitative data to ensure that themes can emerge again inductively using the narratives of the participants.

A close examination of interviews revealed several key themes and sub-themes which can be used to explain the contribution of technology towards student engagement in English language classrooms.

### **Thematic Analysis**

#### **Main Theme 1: Enhanced Student Engagement**

The interviews reveal that interactive tools and games significantly boost students' motivation in English language classrooms. One teacher was asked

*“Can you describe how the use of technology, such as interactive games or digital quizzes, has influenced student enthusiasm and participation in your English language lessons?”*

and he explained,

*“Since we started using interactive games and digital quizzes, students show a lot more enthusiasm. They look forward to the lessons and actively participate instead of just sitting quietly.”* (Interview, 2025)

Another participant noted,

*“I noticed that the shy students, who rarely raise their hands, get more involved when we use apps and online vocabulary games. It’s like technology brings them out of their shell.”* (Interview, 2025)

This insight observation is used to describe a radical change in the relationship within classroom setting with the use of technology. According to the old language learning culture, a shy or introvert student becomes a passive participant in the education process that cannot deliver his/her opinion or even a response to an interlocutor before his/her classmates due to fear of being judged, low confidence or fear of being criticized. Nevertheless, the digital tools,

i.e. language learning applications, online vocabulary games, and any other interactive websites seem to break these barriers as the feeling that they give people is not so scary and more welcoming. These tools may trigger game-like elements, incentives, and vitality that the learners are the center of attention and the apparent reduction of the perceived pressure in the making a mistake process. The implication is that mute learners who could not participate in classroom discussions before start participating in the learning processes with more confidence and desire to participate.

Moreover, technology allows differentiation instructions to be used because learners study independently, at their own pace, and when they get immediate feedback. Such personalized learning process helps the students who are not so loud to feel secure in the process of learning and thereby encourages them to attain greater levels of participation. English language classroom is an interactive classroom (active and interactive) because of the interactive character of the following online activities quizzes, flashcards, animated games, real-time competition, etc. It happens that the lessons that may seem boring or strict turn out to be amusing and exciting, and even help to motivate the learners with different personalities and levels of proficiency in order to remain focused and to keep them moving.

The utilization of technology therefore does not imply an addition but a paradigm shift in the process of pedagogy. It develops a sense of autonomy, stimulates a sense of success, and creates an emotionally conducive climate. Technological assimilation enables such students to seek other methods of expressing their voices which they are not able to express through the conventional classroom dialogue cultures. In this context, technology serves as catalyst of nature, it mediates a gap of participation and enables inclusiveness and cognitive and affective involvement in the process of language acquisition. The same process is what results in improved classroom interaction, increased language use and overall improvement of the communicative competence of all learners, even those left behind.

### **Main Theme 2: Improved Classroom Interactivity**

#### **Facilitation of peer collaboration via digital platforms**

The interviewer asked *“How have digital platforms influenced peer collaboration among your students, both during and beyond classroom hours?”* In response the respondents highlighted the role of digital platforms in enabling students to collaborate more effectively. One teacher mentioned,

*“Students use group chats to discuss assignments and help each other, even after school. It keeps them connected and learning all the time.”* (Interview, 2025)

Another participant added,

*“Forums and online platforms let students share ideas and give feedback comfortably. This has really improved teamwork in class.”* (Interview, 2025)

These insights show how digital tools extend collaboration beyond the classroom walls, creating a continuous learning environment. The ability to communicate and cooperate digitally promotes peer support, which strengthens student relationships and builds a more interactive and engaged classroom community.

#### **Use of real-time feedback tools and learning through Games**

Following the Interview question *“Can you share how instant feedback from digital tools has impacted student performance or motivation?”* Teachers underscored the importance of real-time feedback tools in digital learning environments. One educator explained,

*“With apps that give instant feedback on quizzes, students know right away where they went wrong and can fix their mistakes immediately. This keeps them engaged and helps them learn faster.”* (Interview, 2025)

Another teacher shared,

*“Modified elements like points and leader-boards make students excited to participate. They*

*enjoy the challenge and compete in a positive way, which pushes them to do better every time.*" (Interview, 2025)

These observations bring to the forefront the increasingly pivotal role that immediate feedback mechanisms play in contemporary, technology-enhanced language learning environments. One of the most transformative aspects of digital learning tools is their ability to provide students with real-time feedback, allowing for immediate identification of errors, quick self-correction, and prompt reflection. This immediacy in evaluation shifts the focus of learning from delayed teacher judgment to autonomous self-monitoring, thereby placing greater responsibility and control in the hands of learners. Students are no longer forced to wait until the next assumptive assessment to know about their performance but rather get direct feedback that guides them on what to do next update their plans and revise right answers as they fill gaps in real-time.

Such a transformation is also enhanced by the incorporation of gamification elements - point scoring, level progression, leader-boards, badges, which are used to create an element of play and challenge in learning process, as well as an intrinsic motivation. The gamification process provides direction and a form of organization to what may be a perceived boring or time-stressful task in academic work. These characteristics capture the interest of the students and make them want to learn more because learning is presented to them as a process that consists of successive milestones which are within the learning ability of the students and break the repetitiveness of the learning process as one achieves one milestone after the other and gain pride and value in doing so. The psychological benefits of passing levels or getting better than the classmates brings an intrinsic motivation to continue, re-watch materials, and work to get better hence introducing a growth mindset to learners.

In addition, this instant feedback with fun competitive environment fosters a habit of lifelong learning that is a necessity in learning a second language. A student is asked to repeat hard words, repeat the practice on grammar or practice pronunciation not because he/she is afraid of failure, but because he/she is interested in what is going on. Frequent games within a low-risk environment aids the students to internalize more complex structures of language and over a prolonged period. The healthy peer pressure of competition against peers through the process of showing the scores, cooperative challenges, or ranking an individual group or the other, encourages students to invest in long-term effort, not to mention, it promotes learning between and among peers through watching and competing.

In this way such digital affordances disrupt the traditional classroom in a manner that pre-digital assessment is usually summative, delayed and controlled by the teacher. Instead, the learners operate within a looping world of interaction goals setting etc. all of which is to make the language learning a more proactive, more reflective and more individual process. Teachers can transform their roles into facilitators and mentors in forcing students to take self-directed courses and assist them in the process of following the behavioral patterns instead of playing the role of a teacher.

The end result of all these technical capabilities is to make learning more electable and enabling. The classroom turns into the smart, data-driven, interactive environment where the students can be able to trace, measure, and modify the producers of the information instead of merely accepting it. This revolution coincides with the current emphasis of self-oriented learning, meta cognition awareness and differentiated instruction in modern pedagogy. In this way, technology does not only foster the best practices, but also alters the learning process and makes it more interesting, transparent, and long-term focused academic growth.

### **Main Theme 3: Vocabulary Acquisition and Retention**

#### **Familiarity with a wide range of vocabulary with multimedia materials**

When question was made to several teachers as to how the use of multimedia materials e.g. videos, songs or animations had affected the learning of vocabulary in their English language classrooms the teachers in response focused on the effects of multimedia on learning of vocabulary. As one respondent put it:

Learning songs and videos in the classroom exposes the students to words they would not normally see in the textbooks, and the context in which the words are heard makes them easier to remember.

One other respondent observed,

*"Interactive applications allow students to study new words on their own non-accelerated pace, which makes learning softer and not pressurized". (Interview, 2025)*

These revelations clearly illustrate that multimedia content is the game changer in that it enhances- boosting vocabulary development in students by providing them with varieties and context-rich language exposure. Compared with the traditional expertise strategy of teaching, which commonly relies on repetition and automatic memorization, the implementation of multimedia is more immersive, fun, and emotionally touching. Be it use of animated videos, interactive storybooks, podcasts, or audio-visual games, it is possible to introduce the vocabulary to students in natural setting to ensure that they learn not only the meaning of words in literal sense, but are also aware of their tone, practice, and their cultural significance. This learning through multiple senses, in which the learners hear the pronunciation, see facial appearance and visual signals, and in some cases, also touch the material makes the learning of vocabularies livelier. It moves out of the black-and-white definitions of a textbook and makes room in the world of students where language is emotional, meaningful and connected. As an example, when a character in a video expresses either happiness or disappointment when saying a specific word, students will be able to associate this specific word with real emotions and therefore will remember it much better compared to just learning a word on its own.

In addition, multimedia resources tend to show the same words in various contexts in various formats which maintain the learning process by a natural repetition of the words. This type of exposure permits the students to learn vocabulary in a more intuitive way. Instead of learning words that they will be able to repeat out of context, they start to learn the way how language is used, in a conversation, story, narration, or music. Because of this, they are more prepared not only to identify words, but also employ them confidently both in writing and speaking.

The best strength of the above approach seems to be the extent to which it creates the curiosity of pupils. Compared to the traditional method which some students might find tedious or ineffective, learning is fun or discovery and most students will be ready to react positively to it. Even the fun children have when playing vocabulary games or watching cartoons in English language cannot offer only entertainment; it has to assist them to form practical language skills. It is here the process of associating the words with pictures and situations, with feelings, commences, and such beginnings are far more effective than any subsequent internationalist.

Multimedia content does not just explain vocabulary to you but it gives it life. It provides the pupils with an opportunity to interact more with the language they learn by putting the abstract words into real life. This less detached and participate method of learning will enable students to participate in not only knowledge intake, but also language construction and meaningful language making-an exercise that will be unique, irreversible. That is why, multimedia tools can be considered as a good, human-based path to deeper, more entertaining learning as well as the possibility to improve vocabulary teaching.



#### **Main Theme 4: Listening Comprehension Development**

##### **Use of podcasts, videos, and online lectures to improve listening skills**

some particular question about *“How have tools like podcasts, videos, or online lectures contributed to the development of students’ listening comprehension skills in your classroom?”*

One teacher remarked,

*“Using podcasts and videos in class exposes students to different English accents and speeds, which helps them understand real-life conversations better.”* (Interview, 2025)

Another respondent shared,

*“Online lectures and audio materials make listening practice more engaging and less intimidating for students, encouraging them to improve their skills.”* (Interview, 2025)

These comments illustrate how integrating diverse audio-visual content into English lessons enriches students’ listening experiences. Exposure to various accents and natural speech patterns builds familiarity with authentic language use, enhancing comprehension. Moreover, making listening activities accessible and interesting through multimedia increases students’ motivation to practice, ultimately supporting their overall language development.

##### **Interactive listening exercises with assessment components**

During the interviews when the interviewer asked *“How do interactive listening activities with instant feedback help students improve their listening comprehension skills in your classroom?”* the teachers consistently emphasized the practical benefits of incorporating interactive listening activities into English language lessons, especially when paired with instant feedback mechanisms. One teacher clearly articulated this point, stating,

*“When students do interactive listening exercises and get instant feedback, they can quickly see what they need to improve and work on it right away.”* (Interview, 2025).

This reflection underscores a fundamental shift in how listening skills are approached in technologically enhanced classrooms. Unlike traditional listening tasks that often involve passive reception followed by delayed correction, interactive digital exercises allow students to receive immediate, targeted feedback on their performance. This immediacy plays a critical role in helping learners recognize errors, understand misunderstandings, and make swift, purposeful adjustments to their listening strategies.

Another participant echoed this sentiment, highlighting the role of post-listening assessments in maintaining student engagement and promoting deeper cognitive processing.

*“Quizzes after listening tasks keep students alert and thinking critically about what they heard, which makes the learning more effective,”* the teacher explained (Interview, 2025).

This is in line with the fact that there is an increasing appreciation that the skills of listening are not only an output but an output that is solely dependent on being open but uses the brain. Interspersal of quizzes or short-term tests immediately after the audio exercises will be provided to guarantee the learners an opportunity to retain the most significant elements, read between the lines, and synthesize their knowledge, which is all that would be required in an effective language-learning process and more.

Listening education can be pedagogically utilized through the interactive elements. It will help the students be able to listen and ultimately pay attention and be focused, but it will also promote responsibility and self-awareness. Mobile App based error tracking systems, automated correction systems, and comments made by teachers which provide instant feedback offer students a clear way of improvement. Regardless of whether they need help with speech recognition, the lack of vocabulary, or some misconception of grammar, the students can identify the aspects of their ineffective work quickly and take proactive steps to address the problem. The listening exercises are transformed into a form of active learning activities whereby participants learn through doing and not passively acquiring information.

Also, this immediate feedback is in line with formative assessment that does not grade but teaches. An example of a formative teaching and assessment method that will encourage learning is real-time quiz questions in listening exercises, as compared to summative assessments where learning has already occurred. This plan will help to establish a classroom atmosphere where students are prepared and willing to be in charge of their academic achievements and failure is not considered as a negative phenomenon but as a lesson learned. But, the long-term history of reflection and correction can assist learners to become more self-sufficient, enhance their long-term language memory, and enhance their listening comprehension.

The interactive listening exercises with instant feedback, in general, constitute more responsive and learner-centered model of learning. It enables the students to be increasingly active in listening activities, encourages development of meta-listening abilities, and creates a framework of continuous and incremental progress. Teachers observed that not only did learners cease to make such a high number of errors as previously, but they also expressed increased confidence and willingness to work with more challenging sources of listening. Thus, this is not merely an approach to creating Skill, but also motivations, as the two most significant elements of long-term language success.

### **Main Theme 5: Challenges and Recommendations**

#### **Reaching out reliable internet sources**

One of the recurrent and more troubling - according to the view of the participants of the study - is the problem of poor and unstable internet connection and access to digital devices by students. Although it is increasingly true that technology has become part of the language in the discourse of education, the very infrastructure that is needed to facilitate that integration is unevenly dispersed in terms of geographic location, especially in less urbanized or under-resourced locations. These practical drawbacks were seen to be a major inconvenience to many of the teachers in the way that their teaching and passing across of information is affected by them. One teacher was very open in telling about the role teachers played as the main benefactors in the school.

*"At times, the internet connection fails during our lessons, and it is not easy to maintain students interest when things do not operate as expected." (Interview, 2025)*

This statement shows how much timely loss and failure to concentrate could cost well-designed interactive lessons, because of such disturbances as unstable internet network connections..

Another teacher added an equally pressing concern: the disparity in students' access to devices outside of school hours.

*"Not all students have smartphones or laptops at home, so they can't complete online assignments or practice outside class," the teacher noted (Interview, 2025).*

This reality not only limits the scope of homework and self-directed learning but also deepens the divide between those with consistent access to technology and those without. As a result, while some students thrive using mobile apps, online platforms, or multimedia tools, others are systematically left behind, unable to engage with these resources due to economic or geographic barriers. This increasing digital divide should be a cause of concern because it means that not all learners are getting the benefits of the technology enhanced learning.

Additionally, these infrastructural constraints are compounded. When learning is consistently disrupted or learners are consistently denied a chance to use technology the perceived worth of having technology used in the teaching learning process will decrease both in the eyes of learners and educators. The failure to have technical functionality can result in teachers being unwilling to rely on the use of digital tools because they cannot ensure classroom dominance and maintain student learning activities. Likewise, students who are disadvantaged in terms

of receiving all resources may lose their motivation when they realize that they are not equal to peers in this regard. To, thus, maximize the positive effect of technology in the class of language teaching, it is critical to address the following fundamental infrastructural issues such as enhancement of broadband connectivity in schools and provision of access to basic digital devices. The absence of these underpinnings will only turn an attempt to digitalize pedagogy into nothing more than an incomplete and unjust undertaking.

### **Conclusion**

This paper aimed to discuss the influence of technology on English language teaching in the secondary school level in Mardan, Khyber Pakhtunkhwa with specific reference to the development of vocabulary, listening comprehension, and student engagement. Using the findings guided by the Socio-cultural Theory of Vygotsky and guided by the qualitative data of the experience of teachers and students, it is evident that digital technology, including multimedia projectors, mobile applications, videos, and interactive platforms can play a significant role in classroom activities and the achievement of learners.

The findings show that technology is a great way to increase motivation and participation among students and make the learning experience more interactive, engaging, and learner-centered. In particular, learners, who tend to be quiet or less confident, become more active participants when digital tools and gamified activities are used. Moreover, multimedia media also help in better vocabulary development as they offer contextual, visual and auditory exposure to the language that enhances memory and comprehension. Likewise, listening comprehension skills are enhanced by exposure to a real-life speech through podcasts, videos, and online lectures to enable the student to be more acquainted with various accents, speech rate, and natural patterns of interaction.

Nevertheless, even with these beneficial contributions, the study also demonstrates some of the nagging issues that curtail the full potential of technology integration. These are poor internet connectivity, lack of digital tools, and inadequate training of the teachers in the efficient pedagogic application of technology. These limitations are very pronounced in resource constrained learning environments such as Mardan and bring about a digital divide which impacts on equal learning opportunities of all students.

To sum it up, although technology can revolutionize English language teaching into a more dynamic, inclusive and effective process, its success will be determined by its capacity to counter infrastructural constraints and to empower teachers. To guarantee sustainable, meaningful integration of technology in English language classrooms investment in digital resources, enhanced connectivity, and continuous professional development of teachers is needed. Ultimately, if these challenges are addressed, technology can play a transformative role in improving language proficiency and fostering more engaged and autonomous learners in Mardan's educational context.

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