STUDENTS' DIGITAL TECHNOLOGY ACCESS AND UTILIZATION FOR LEARNING LISTENING SKILLS

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Article Info	Abstract
	This study examined the access and use of digital technology and the approach preference and experience in learning listening skills among undergraduate students at Addis Ababa Science and Technology University (AASTU). The researchers conducted a case study with a randomized sample of students. They collected data through a questionnaire (292 students) and focus group discussions. The data was analyzed using descriptive statistics and thematic analysis. Though students possessed smartphones, computers, and internet access, inconsistent Wi-Fi coverage presented challenges. A mixed-methods approach revealed a preference for technology-enhanced learning, with students appreciating its potential for authentic accents and fluency practice. However, traditional teacher-read approaches remained valuable for comprehension and familiarity. While comfortable with technology, students had not fully explored its potential for language learning. Limited listening practice and exposure to diverse accents were highlighted. Integrating diverse listening materials, technology-assisted practice, and differentiated instruction based on English language proficiency is recommended to create a more effective and engaging language learning environment that harnesses the power of technology without neglecting the comfort of familiar methods. The research urges teachers to leverage students' tech savvy and access to enhance listening instruction by intentionally embracing diverse digital tools and materials beyond classic classroom limitations.

INTRODUCTION

English is crucial for academic achievement in Ethiopia (Beyene & Yimam, 2016) but students' English proficiency, even at the tertiary level, falls below average. Many instructors are concerned about the decline in tertiary-level students' ability to use English for their studies. Thomas (2011) stated that "the English language skills of tertiary-level students in many countries have been declining in recent years." One way that teachers are trying to address this problem is by using technology in language teaching. Technology can help to provide students with more opportunities to practice English and give them access to a wider range of resources. The use of technology in language teaching can be a valuable tool for improving English language skills in HEIs Thomas (2011) .It can also help learners access resources at any time and from anywhere. This is especially beneficial for learners who are studying a foreign language in a non-native-speaking environment (Warschauer and Meskill, 2000). Current students are demanding interactivity from technology in the classroom. They want to interact with computers, professors, and classmates. Traditional lectures are not meeting their learning needs. As technology in the classroom progresses, more and more students will demand that it be included (Oblinger, 2004)

Of the four basic language skills, listening is an active and interactive process that is essential for communication and academic success. Picard andVelautham (2016); Pudichery (2003), Yavuz, and O. Celik (2017) also emphasize the importance of listening skills, stating that listening comprehension is a vital skill in all areas of academic life. Effective listening is required for higher education students to understand formal lectures and tutorials, as well as to interact with other students. Ayuanita (2013:115) also states that One of the main reasons for getting students to listen to spoken English is to let them hear different varieties and accents. In today's world, they need to be exposed not only to one variety of English (British English, for example) but also to varieties such as American English, Australian English, Caribbean English, Indian English, or West African English.

To meet the needs of current students and to help them develop effective listening skills, teachers should use technology in the classroom in a way that is interactive and engaging. This study propose three research questions: What types of digital technology do students have access to for listening skills learning? How do students' preferred methods for learning English listening skills relate to their actual learning experiences? And How confident do students feel using digital technology for their listening skills development?

Literature Review
Student Access to Technology
While technology access seems widespread in schools, a closer look reveals an emerging "digital divide." (Becker, 2000). Technology access varies widely among students, with disparities evident across geographic locations, socioeconomic backgrounds, and educational institutions. Students in urban areas and wealthier families typically enjoy greater access, often benefiting from school-provided resources and home technology. College students generally have good access to technology through university facilities and wireless networks. Back in 1998, a national survey of teachers revealed that access to computers in schools was surprisingly high, with more than 75% of students having them (Becker, 2000).

Learning preferences
Learning preferences are the different ways in which individuals learn and process information. These preferences can significantly impact how learners understand, retain, and apply new knowledge. Therefore, understanding one's learning preferences can significantly enhance the learning process, ultimately leading to improved performance. Two primary learning concepts exist in an educational environment: traditional learning and technology-influenced learning (Prensky, 2001). Additionally, a blend of these two approaches, known as blended learning, has emerged in recent years (Gilakjani and Sabouri, 2017)

Traditional Learning and Technology-Influenced Learning
Traditional learning is a teacher-centered approach, where the teacher is the primary source of information and instruction. On the other hand, technology-influenced learning incorporates the use of technology to enhance the learning experience, which can help students develop 21st-century skills such as problem-solving, collaboration, and creativity (Naimie et al., 2010)

Technology-enhanced learning (TEL) is a relatively new trend in the educational sector that incorporates the use of technology to enhance the learning experience. Pudichery (2003) argues that technology can play a significant role in the field of education and that well-designed technology-assisted instruction can provide students with more opportunities for in-depth learning. Technology-based teaching is increasingly common in education as it boosts interactivity, engagement, and personalization. However, traditional learning and instruction are still practiced in some countries (Akpinar & Bayramoglu, 2008). One important consideration for improving learning in the classroom is to design a lesson that considers the learner's preferences. Understanding students' preferences empowers learning. McKenzie

(2001) suggested that universities should consider learners' preferences when designing the curriculum and focus on activities that support technology integrated with education. Felder R., Felder G., and Dietz (2002) agreed, stating that one of the causes of low performance and student demotivation is a mismatch between instructions and learning preferences. A mismatch happens when teachers' methods don't match students' learning styles.

RESEARCH METHOD
Research Design

This study investigated how digital technology is accessed and used in learning listening skills by students at Addis Ababa Science and Technology University (AASTU). Recognizing the complexity of educational experiences in a digitally evolving environment, the researchers adopted a mixed-methods research design. This approach integrates both qualitative and quantitative methods, enabling a more holistic exploration of the research problem (Yin, 2006). The use of mixed methods allowed the researchers to collect numerical data that reflected general trends among students, while also capturing in-depth personal experiences and insights through qualitative means. By combining these approaches, the study overcame the limitations that often arise when relying on a single type of data collection. Quantitative data alone might fail to capture the context and meaning behind student behaviors, while qualitative data alone might lack generalizability. The integration of both approaches led to a richer, more nuanced understanding of how students interact with digital technology to develop their listening skills. This methodological choice strengthened the validity and depth of the study's conclusions, providing a comprehensive interpretation that reflects both broad patterns and individual perspectives (Onwuegbuzie & Leech, 2006).

Sampling Techniques

To collect quantitative data, the researchers employed a lottery system to ensure randomness and reduce selection bias. Through this process, six first-year classes were selected from the larger student population. From these selected classes, a total of 292 students participated in the survey, providing a robust sample size for analyzing trends and patterns related to the research objectives. This method allowed for a fair representation of the student body and increased the reliability of the quantitative findings. For the qualitative component of the study, the researchers aimed to gain deeper insights into individual student experiences. They randomly selected one student from each of the six classes to participate in a focus group discussion. However, due to scheduling conflicts or other constraints, only five students were ultimately able to join the session. Despite the reduced number of participants, the focus group still yielded valuable, in-depth perspectives that complemented the broader survey data.

Research Instruments

The researchers employed a mixed-method approach by utilizing two distinct data collection instruments—surveys and focus group discussions—to obtain both quantitative and qualitative data. This strategic combination was designed to provide a more comprehensive and nuanced understanding of students' experiences with digital technology in learning listening skills, thereby avoiding the limitations of relying solely on one type of data source. The survey was administered to a total of 298 students and included a variety of question formats such as yes/no items, multiple-choice questions, and short-answer responses. These questions aimed to capture a broad spectrum of information, including students' access to digital technologies, their preferred methods for developing listening skills, and their overall learning experiences. Teachers played a key role in facilitating the distribution and collection of the questionnaires, which ensured higher response accuracy and completion rates. To complement and deepen the insights gained from the survey, the researchers conducted a focus group discussion with five selected students. This qualitative method allowed for a more

detailed exploration of student perspectives. During the discussion, students shared their personal experiences, challenges, and strategies in using digital tools for improving their listening abilities. This not only added context to the survey data but also highlighted the diverse ways technology is being integrated into language learning.

Data Analysis

To analyze the collected data effectively, the researchers employed both thematic analysis and descriptive statistical techniques, aligning with the study's mixed-methods approach. For the qualitative data, thematic analysis was used to identify recurring patterns, categories, and themes that emerged from student responses during the focus group discussions. This method allowed the researchers to interpret the deeper meanings and insights conveyed by participants, providing context-rich understanding of their experiences with digital technology in learning listening skills. The qualitative data were organized and analyzed using NVivo 10, a specialized software that aids in coding and categorizing textual data systematically. For the quantitative data derived from the student surveys, the researchers applied descriptive statistics to summarize key trends and distributions, such as frequencies, percentages, and averages. This analysis was conducted using SPSS 20, a widely used statistical software package. The combination of these tools enabled the researchers to draw meaningful interpretations from both numerical trends and thematic narratives.

RESEARCH FINDINGS AND DISCUSSION
Quantitative Results

A survey was administered to 300 students, but only 292 completed questionnaires were included for analysis. Eight questionnaires remained unreturned. Among the participants, 54 were female (18.5%), while 238 were male (81.5%). The analysis results are presented below.

Technology Access and Use

The survey probed students' access to digital devices suitable for honing listening skills, and their responses on the use of these devices on campus are reported.

Table 1
Digital Technology Access & Use for English Listening Skills Learning

DT Devices Access	Response	Frequency & Percent
Desktop	Yes	205 (70.2%)
Laptop	Yes	164 (56.2%)
Smartphone	Yes	276 (94.5%)
Tablet	Yes	70 (24%)
Smart Watch	Yes	20 (6.8%)
Student Internet	Yes	251 (86%)
Technology (Apps) Use	Yes	240 (82.2%)

Students have relatively good access to digital technology devices. They have access to smartphones (95%), desktop computers (70%), and laptop computers (56%). Many students had access to digital devices. Most students (86%) also have internet access on campus, but Wi-Fi is spotty, especially in dorms and classrooms. Students are tech-savvy; 82% use devices to access the internet daily or every other day. Most have broadband and Wi-Fi, but some report limited Wi-Fi coverage.

Computers and smartphones are the most common digital devices among students. While 45.2% of students use computers occasionally, 31.2% use them regularly. Nearly three out of four students (67.1%) are glued to their smartphones on campus, far exceeding the 45.2% who

regularly use computers. Similarly, the findings indicated that students used the internet regularly, though they had different purposes for using the internet.

Most students also had access to the internet, both broadband and Wi-Fi. However, some students reported that the Wi-Fi coverage in the institution was limited, particularly in the dormitory and classroom areas. Despite this challenge, students use the internet daily, mostly for academic purposes such as learning and doing assignments. In the meantime, the data indicated that university students use the Internet for a range of functions, including learning, communication, and socialization. As can be seen in the graph, 89% of students reported using the Internet for learning, and 79.8% reported using it for doing assignments.
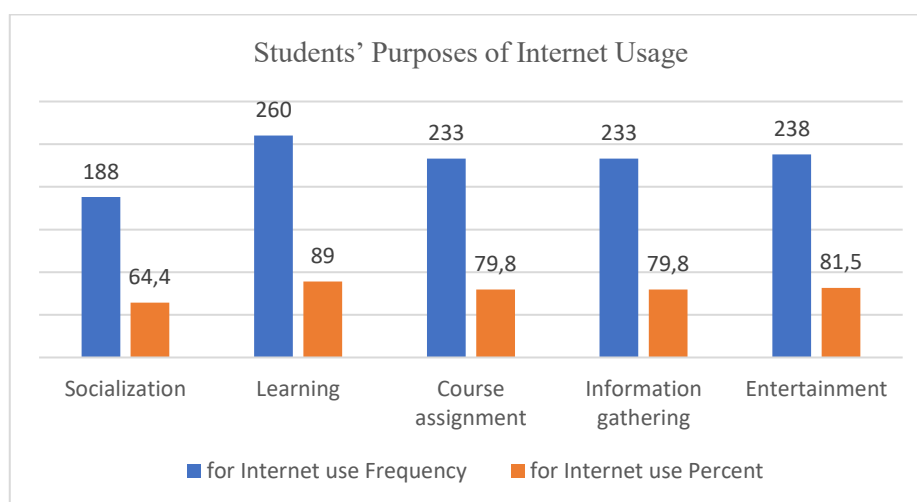

Figure 1. Students' Purpose of the Internet

The internet plays a role in the lives of university students, serving as a tool for information gathering, socialization, and entertainment. Around 79.8% of students use the Internet for academic purposes, while 64.4% and 81.5% utilize it for social and entertainment pursuits, respectively. Open-ended responses indicated that some students also connect to the Internet for work and communication. However, the qualitative data suggests that few students intentionally use the internet and Web 2.0 tools like YouTube to enhance their learning. The Chi-Square test of association has shown that male students use the internet for entertainment purposes (80.7% of them) and learning purposes (90.3%), while female students connect to the Internet to do their course assignments (90.7%) and gather information (87%).

Learning Approaches, Preference, and Learning Experience

The table below shows the results of a survey of students on their preferred teaching and learning approaches for listening skills. The data was also disaggregated across sexes. Most students in the survey said that they prefer to use digital technology to learn listening skills, while some students prefer to have the teacher read the text to them.

Table 2
Learning Approaches Preference

Listening skills Teaching/Learning Approaches	Frequency (%)	
	Male	Female
Using Digital technology (computer, smartphone, e-learning, Internet, etc.)	68 (28.6%)	22 (40.7%)
A 'teacher read' (A teacher reads the text and you listen to it)	21 (8.8%)	-
Both approaches (Digital technology and teacher reads)	149 (62.6%)	32 (59.3%)
Total	238 (100%)	54 (100.%)

While 40.7% of female students prefer the digital technology approach to learning, only 28.6% of male students are inclined toward this approach. No single female student prefers solely the traditional/conventional teacher-reach approach for learning, while 21 (8.8%) male students showed their learning preference for this approach. Finally, more than half of students prefer to use a combination of digital technology and teacher reading (62%). The Chi-Square test of association has shown the existence of (ch=6.959, Df=2, P=0.031) a statistically significant association between the sex of students and their learning approach preferences. Male students tend to prefer the teacher-read approach in addition to technology-enhanced learning, while no female student showed preference for the teacher-read approach. However, there is no statistically significant association between learning approach preference and frequency of computer usage (ch = 9.653, Df = 8, P = 0.290) or smartphone usage (ch = 8.951, Df = 8, P = 0.346).

Perceived DT Competence

The table shows the results of a survey in which students were asked to rate their perceived competence in using digital tools to improve their listening skills. Most students (82.2%) said that they felt competent in using digital tools for listening skills learning.

Table 3. DT Competence

DT Competence	Response	Frequency	Percent
Do you feel competent at using a computer and similar technological hardware and software to learn listening skills?	Yes	240 (M=189)	82.2
	No	52 (M=49)	17.8

Qualitative Results
Focus Group Discussion

The FGD data were analyzed using NVivo software and thematically coded into three categories: listening learning practice and experience, learning approach preference, listening learning environment, and technology competence. Refer to the table below for the detailed coding and categorization processes.

Table 3. FGD Data Codes

Initial Codes	Axial Codes
Face to face Vs Online learning	Listening Learning Practice & Experience
Learning Approach Preference	Support for Students
Learning Material Selection	Teaching Approach & Learning Site
Learning Site and Teaching Approach	Learning Material Selection
Listening Learning Environment	Learning Approach Preference
Listening Lesson	Listening skills Practice
Listening skills Practice	Listening skills test
Listening skills test	Listening Lesson
Purposes of technology	Resources for Listening Learning
Recommendation	Recommendation
Resources for Listening Learning	Listening Learning Environment
Student Listening Learning Experience	Why Blended Learning
Support for Students	Face-to-face Vs. Online learning
Technology competence	Technology Competence
Technology Relevance	Purposes of technology
Why Blended Learning	Technology Relevance
Why Technology	Why Technology

Following the three key thematic codes data were analyzed below under each thematic area.

Learning Experience and Learning Approach Preference

The five FGD students had a mixed bag of listening experiences. Students had both teacher-read and technology-enhanced learning experiences, though they had few listening lessons given in the semester in general. They also mentioned that their teacher only took them to the language lab once. Some remembered specific lessons, while others recalled mainly tests. One student remembered their test most vividly because of the narrators' accents, hinting at a lack of practice with diverse accents in class. But the real eye-opener was the test itself. Students, used to simpler in-class exercises, found the multi-tasking demands (listening, writing, note-taking, and answering) on the test unexpectedly tough. One student even felt they'd bomb without the teacher's repeated practice sessions. This suggests the need for teachers to gradually ramp up listening exercise difficulty, preparing students for the test's real-world complexities.

Students 1 and 2 painted a grim picture: easy lessons, and brutal tests. They specifically mentioned that the test had multiple speakers, which made it difficult for them to understand the material. This, combined with the fact that the lesson material was less challenging, could be why the students did not remember things from the listening lessons. In addition to that, the students expected the listening test to be of moderate difficulty, but they found it difficult to respond to the questions. Student 2 said that the teacher could have given them more exercises and practice in the classroom before the test.

Concerning the listening skills' learning and practice, students barely dipped their toes into listening practice. One or two lessons, as they described, barely scratched the surface. "Exercise, then test." Student 1 summed it up. This lack of exposure left them unprepared for the test and even impacted their overall listening skills, as Student 5's IELTS trial test fumble suggests. It's time to ramp up listening lessons, not tests!

Student 1 said that the test was difficult because he could not understand the accent of the narrators in the audio text. He said, "We didn't comprehend the accent of the narrators, which was almost incomprehensible. We didn't understand." He added that he would have preferred if the teacher had read the listening text or transcription instead of the students listening to the audio tape. This would have made it easier for the students to understand the material and perform better on the test. He said, "I even preferred for the teacher to narrate it. It's not like the narrators in the audio."

Learning Approach Preference

Speaking of learning approach preferences, students preferred both technology-enhanced and conventional/traditional ways of learning. Student 2 said that she preferred technology-enhanced listening learning instead of the teacher's reading-aloud approach. She believed that the technology could provide an authentic accent and pronunciation, from which she could improve hers. Specifically, she said,

> *I strongly favor technology-based learning because our current teachers aren't native English speakers. While exposure to diverse accents is valuable, mastering proper pronunciation and nuances requires learning from native speakers. Therefore, audio lessons narrated by native speakers are my preferred resource.*

Students 3, 4, and 1 championed tech-assisted listening lessons. They saw it as superior to teacher-reading, praising its fluency, practice, efficiency, and ability to keep up with modern times. Students 5 and 1, on the other hand, preferred teacher-read listening. Student 5 found the native accents in audio texts tough, while Student 1 wanted the teacher's voice for both

comprehension and assessment, as the audio was unfamiliar and different from his usual English exposure. Both felt the teacher's voice helped them grasp the material better.

Students 1 and 5 suggested that English teachers should adapt listening sessions to the student's abilities. Student 5 said that students from Addis Ababa have native-like speaking, writing, and reading skills, but students from other places have more trouble listening to native English speakers. Student 1 agreed and said that teachers should assess students and divide them into beginner, intermediate, or advanced groups. Student 1 also said that English language skills affect how well students do in other areas. He suggested that students watch movies in English to improve their language skills. He said that watching movies is fun and can help students learn new words and grammar. The recommendations highlight the importance of providing differentiated instruction for English-language learners. From the FGD data, some students, word for word, said, "We prefer our teacher to read the texts for us during listening tests so that we can understand what he said and perform better on the test." The qualitative data also reveals a near-unanimous preference for technology-enhanced learning, with Student 2 declaring it "embarrassing" for teachers to read transcripts in the 21st century.

Technology Competence

The five students engaged in the FGD revealed their use of technology for different purposes, including learning various subjects. They are competent and skilled in using technology for learning, making business, and drawing pictures, as student 2 pointed out. They are tech-savvy but haven't used it for language learning, particularly listening. They've picked up English casually through music and videos. While they see the value of technology in learning, they haven't explored its potential for language acquisition. This might suggest they're unaware of the tech tools available to boost their language skills.

Discussion

The purpose of this study was to explore the students' access to and use of digital technologies, approach preferences, learning experience, and technology competence for learning listening skills.

Technology Access and Use

The study found that a majority of students had reliable access to digital devices such as smartphones, tablets, and computers. These devices were either personally owned or provided by the educational institution, reflecting the growing ubiquity of technology across higher education settings. This finding aligns with the observations of Bartel and Fornsaglio (2019), as well as Pérez-Juárez, González-Ortega, and Aguiar-Pérez (2023), who noted that such devices are now standard tools on university campuses, frequently used both in and outside the classroom. Additionally, Apuke and Iyendo (2018) emphasized that smartphones, in particular, serve as the primary access point for digital learning among university students, due to their portability, affordability, and internet connectivity.

Students are utilizing the internet for a wide variety of purposes that extend beyond academic learning. Online platforms support communication, social interaction, entertainment, and collaborative learning, making the internet an indispensable resource for the modern student. The current study reinforces this notion, revealing that even when institutional resources are limited, students exhibit significant resourcefulness by leveraging widely available platforms like Google and social media for academic support. Smartphones, paired with internet access, function as their central tools for engaging with information and online educational content.

However, this technological accessibility is not without challenges. As highlighted by Affum (2022), the internet presents a double-edged sword in educational contexts. While it

offers vast opportunities for enhancing learning—particularly through access to diverse audio-visual materials that support skills like listening—it also poses significant distractions. Students often struggle to remain focused in environments saturated with non-academic digital stimuli. As such, there is a growing need for students to develop digital discipline and adopt mindful strategies to optimize their online behavior for academic success, balancing entertainment and learning in the digital space effectively.

Learning Approach, Preference, and Learning Experience

Understanding students' learning preferences had implications for teaching methods. To comprehend how students want to learn, broaden one's teaching strategies to be more inclusive, support student learning, and increase the satisfaction of teaching (Deale, 2019). The findings of this study indicated that there are students who prefer a technology-enhanced approach. The students' enthusiasm for technology-enhanced listening instruction stemmed from a dualistic belief. First, technology could grant them impeccable exposure to native English speakers, and second, it could offer them a unique platform to hone their pronunciation and achieve fluency. In their minds, technology transcended the limitations of traditional methods by providing authentic audio from native speakers and interactive tools for practicing pronunciation, ultimately fostering a more immersive and personalized learning experience.

They also felt that technology saves time, as the teacher does not have to read the materials aloud. Due to the advancement of technology, there has been an increase in students' preferences to use technology in class to help them gain a better understanding of the lecture material (Al-Labadi & Sant, 2021; Muhsinin et al., 2025). This also resonates with recent research by Bhuiyan (2022) who found students prefer e-learning for its ability to keep them up to date in a globalized world. However, some students also preferred the traditional approach because they felt that they could better understand the material when the teacher read it aloud. Traditional teacher-reading, while popular in Ethiopia due to its simplicity, falls short in interactivity and engagement compared to digital tools. In sum, the current study declared that both technologies enhanced, and conventional ways of learning were preferred by students. This highlights a need for blended learning that caters to both preferences and encourages students to see listening as a bigger picture, not just a test hurdle.

When it comes to students' classroom experiences, students had mixed experiences with using digital technologies and conventional ways of learning listening, which as teacher reading. The listening skills were not taught to the extent that teachers are expected to do them in the classroom. This result aligns with the study findings by Endale and Kebede (2019). They declared that listening skills training often gets overlooked. Some teachers assume students pick it up while learning vocabulary, grammar, and other things. The listening lessons were minimal and lacked variety, while the test was unexpectedly complex, featuring multiple speakers and accents. This discrepancy unprepared students and likely contributed to their anxiety and poor performance. Students also lacked exposure to diverse accents and materials, hindering their comprehension and adaptability.

Perceived Technology Competence

The study revealed that students generally feel confident and at ease when using technology to support their learning. This comfort with digital tools can be attributed to multiple contributing factors. Many students today have grown up with technology, making it an integral part of their daily lives from an early age. In addition, the integration of digital technologies into educational settings—from primary to higher education—has further normalized their use in academic contexts. Students are also highly motivated to use technology for learning, seeing it not only as a necessity but also as a convenience and a powerful resource for academic success. These findings align with the study by Gasaymeh et al. (2017), which reported that students perceived themselves as possessing strong digital competencies.

Moreover, students demonstrated a broad range of digital skills, using technology not only for academic tasks but also for communication, collaboration, and entertainment. This digital versatility reflects a unique skillset cultivated by their continuous interaction with digital media. Scholars such as Barnes, Marateo, and Ferris (2007), Dede (2005), and Oblinger and Oblinger (2005) have similarly observed that this generation's constant exposure to technology fosters a distinct learning style characterized by multitasking, preference for visual and interactive content, and rapid information processing. These digital natives are accustomed to collaborative learning environments, where knowledge is constructed through shared digital engagement.

Consequently, many researchers have emphasized the need for higher education institutions to rethink instructional strategies to better align with the expectations and cognitive styles of today's learners. Bridging the gap between "digital native" students and "digital immigrant" educators is essential for enhancing educational outcomes (Prensky, 2005; Oblinger & Oblinger, 2005). This includes adapting teaching practices to incorporate more interactive, technology-rich, and student-centered learning experiences that resonate with digitally fluent learners.

CONCLUSIONS

This study reveals that while students at Addis Ababa Science and Technology University generally have broad access to digital technologies and demonstrate a high level of comfort in using them, these resources remain underutilized when it comes to specifically developing listening skills. Most students reported familiarity with tools such as smartphones, laptops, and internet platforms, yet these are often used for general communication or entertainment rather than as targeted learning aids for listening comprehension. Despite the availability of such tools, the instructional practices employed in classrooms do not always align with students' learning preferences or maximize the potential of technology.

Students expressed a preference for varied learning approaches that incorporate both traditional methods and technology-enhanced strategies. A blended model, combining face-to-face instruction with digital tools such as podcasts, video clips, and interactive audio exercises, was viewed as the most effective for improving listening proficiency. However, the study also pointed out a significant instructional gap: students often face complex listening assessments without adequate prior training or exposure to realistic listening tasks. This misalignment between instruction and assessment expectations creates a barrier to success. To address this issue, the integration of authentic audio materials—such as real-life conversations, interviews, and multimedia content—into daily listening practice is recommended. Coupled with diverse and interactive exercises that simulate real-world contexts, such an approach can better prepare students for academic and professional listening demands. Ultimately, aligning instructional methods with students' needs and leveraging digital technology more effectively can significantly enhance listening competence and adaptability.

IMPLICATIONS

Teachers play a crucial role in leveraging students' existing technological skills to enhance the development of listening abilities. In today's digital age, students are already familiar with various devices and platforms, and this digital fluency presents an opportunity for educators to create more dynamic, engaging, and effective listening instruction. By incorporating multimedia tools—such as podcasts, language learning apps, video platforms, and online audio libraries—teachers can expose students to a rich array of authentic spoken language from diverse global contexts. This not only improves listening comprehension but also deepens students' cultural awareness and communication skills. Tech-integrated lessons tend to be more interactive and enjoyable, which increases student motivation and engagement in learning. Although this study confirmed that students have both access to and experience

using technology in learning environments, it did not investigate how specific types of technology impact academic performance, particularly in listening comprehension. Future research should explore this link more deeply to optimize instructional design.

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