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EXAMINING EFL TEACHERS' PERSPECTIVES: ENHANCING LEARNING THROUGH TECHNOLOGY-INTEGRATED INSTRUCTION

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Abstract

This study aims to examine EFL teachers' perspectives on improving learning by integrating learning with technology. This research utilized a qualitative case study methodology. Data collection was conducted using a combination of observation and in-depth interviews. Observations provided direct insight into the classroom environment, while interviews allowed teachers to share their perspectives and experiences regarding technology integration. The participants of this study were two purposively selected English teachers from a public secondary school in Batam City, each of whom had more than five years of experience in integrating technology into their teaching practices. The findings showed that technology integration significantly increased students' motivation and engagement, facilitating a more dynamic learning environment. Teachers reported that multimedia resources, interactive apps, and authentic language materials improved language proficiency and fostered important skills such as digital literacy and problem-solving. In addition, this study highlights the importance of flexibility and adaptability in teaching strategies, as teachers have to face technical challenges and adjust their lesson plans accordingly.

Keywords: EFL Teachers' Perspectives, Technology Integration, Enhanced Learning, Case Study

INTRODUCTION

The advancement of information and communication technology (ICT) in recent decades has transformed education, shifting from traditional indoctrination methods to more creativity-centered approaches (Marsevani, 2022). As a result, integrating technology in the classroom has become increasingly important in the 21st century, particularly in English as a Foreign Language (EFL) classes (Erdoğan, 2019). This integration allows for the delivery of authentic materials and enables teachers to utilize the vast online resources available. However, teachers must develop specialized skills to adapt these learning resources to meet their students' needs (Laksani et al., 2020).

Technology-enhanced instruction offers a beneficial approach to education, facilitating teachers' efforts to enhance learning processes and achieve educational goals more effectively (Habibi et al., 2019). By integrating technology into teaching strategies, educators can create interactive activities, foster collaboration between students and teachers, provide effective assessment and feedback, and ensure that student learning keeps pace with technological advancements (Nurhidayat et al., 2024).

Research has shown that integrating technology into EFL classrooms boosts students' confidence and motivation. Educational technology increases students' motivation to express

their views and boosts their confidence in their language skills (Tanjung, 2020). Offering students diverse learning experiences through technology is essential (Rintaningrum, 2023). The study emphasized that incorporating modern technology into classroom settings allows students to explore various learning methods, ultimately motivating them to engage actively in the learning process. These findings highlight the importance of implementing technology-integrated instruction in EFL classrooms to provide students with enriching and dynamic learning experiences.

Many believe that integrating technology in educational settings is a natural progression aligned with rapid technological advancements. It is rarely necessary to force people to acknowledge the significance of technology integration in instructional contexts (Habibi et al., 2019). Demonstrating that technology can increase student engagement and motivation through multimedia and interactive content (Tanjung, 2020). Without technology, students may find language learning less stimulating and, as a result, become less engaged. Furthermore, technology facilitates personalized learning experiences, which are crucial for meeting the unique needs of each student (Schmid et al., 2022). Many teachers struggle to address the diverse needs of their students without the aid of technology, which can limit the development of essential language skills. The use of technology in the classroom can foster dynamic and engaging teaching methods (Michelle, 2023). Educators who rely solely on traditional teaching approaches without incorporating technology may inadvertently limit the quality of language instruction, preventing students from being exposed to a range of cultures, accents, and language usage.

The study is particularly important in the context of the 21st century, where the use of technology-based instruction provides new opportunities to enhance learning quality (Zhang, 2022). However, if students are unable to effectively implement technology-integrated instruction due to various constraints, the learning experience may become less interactive and fail to align with current technological trends. Additionally, a lack of technology utilization by educators can limit the development of innovative teaching approaches. A significant issue highlighted by this research is the restriction on students' use of smartphones, which hampers their ability to access essential information technology resources. This study aims to identify these barriers and offer insights into creating a more inclusive, technology-responsive education system.

Previous studies, research on pre-service EFL teachers, have explored the benefits and challenges of integrating technology into EFL instruction. Their research revealed that while technology integration offers numerous advantages, such as enhancing student engagement and learning outcomes, it also presents challenges, such as the time-consuming nature of preparation and the lack of technological facilities in schools. The classroom environment can also become less conducive to learning if technology is not used effectively. This study, however, seeks to expand on these findings by examining the perspectives of experienced EFL teachers and the specific challenges they face in integrating technology into their classrooms (Ridha & Fithriani, 2023).

This research focused on teachers and students of English as a Foreign Language (EFL) classes in a Batam City high school. The study investigated the teachers' perspective towards technology-integrated instruction and their considerations in choosing technology features as

learning media. This study was conducted using case study research with an action research approach through observation and interview completion. The objective of this study was to explore teachers' perspectives on technology use, practical benefits, challenges, and strategies for integrating digital tools into English language teaching. Specifically, the research aims to identify the barriers teachers face, such as limited access to devices and insufficient time for professional development, and assess the impact of technology on student creativity and engagement. By investigating these challenges, this research seeks to provide recommendations to overcome them, to optimize the use of technology in education, improving student learning outcomes, and fostering critical thinking and problem-solving skills.

There is a clear gap between the expectation of seamless technology integration and the reality faced by teachers and students. While technology is meant to improve education by offering accessible and interactive tools, the challenges of unequal access to devices, unreliable internet connectivity, and concerns of decreased student creativity remain. These issues emphasize the need for further research to overcome these obstacles and fully realize the potential of technology in the classroom. Previous research has focused on the benefits of technology, such as increased student engagement and personalized learning experiences (Chen & Tsai, 2021; Haleem et al., 2022), but has also highlighted issues such as the digital divide and students' over-reliance on digital resources (Cheung et al., 2021; Zheng et al., 2022). This research adds a new perspective by examining these challenges in a resource-constrained environment, offering practical insights into balancing technology use with fostering creativity and critical thinking.

However, this study has some limitations that need to be noted. First, this study may only involve a small number of teachers and students in one of the public schools in Batam, thus limiting the generalizability of the results to a wider population. Second, the results of the study conducted in a public school setting in Batam may need to be more directly applicable or relevant to different situations, either geographically or in various teaching contexts. Third, limitations may arise in measuring and interpreting the perspectives of EFL teachers in technology-integrated instruction and their considerations in choosing technology as a medium of instruction.

Nevertheless, challenges like limited resources, resistance, and technical difficulties can impede progress (Faridah, 2022; Nugroho et al., 2021). Addressing these issues is essential for equitable and effective technology-integrated instruction.

Based on the above background, the following research questions can be asked: (1) What are teachers' perspectives toward technology-integrated instruction? and (2) How do they select particular technology features to be integrated into EFL learning activities?

METHOD

Research Design

The researchers used qualitative case studies as the methodology in this study. Qualitative case studies are invaluable for exploring complex phenomena in their real-life context, allowing in-depth investigation of specific cases (Sitorus, 2021). Its strength lies in its ability to capture the complex interactions between various variables in real-life contexts, which facilitates a comprehensive understanding of the research topic. This methodological choice

allows researchers to immerse themselves in the intricacies of the phenomenon under study, fostering a deeper understanding that goes beyond surface observations. Through careful analysis of individual cases, researchers are able to discover patterns, subtleties and underlying dynamics that may have gone unnoticed before, thus contributing significantly to the advancement of knowledge in the high schools where the research was conducted.

Respondents

This research was conducted in a public high school located in Batam City. The participants of this study are two English as a Foreign Language (EFL) teachers. The participants were selected using a purposive sampling technique, where the sample was not randomly selected, but focused on EFL teachers who have been teaching for more than five years and have integrated technology into their teaching practices. This is because teachers have encountered various curricula and used various methods in learning activities. Moreover, by focusing on this group, this study aims to uncover nuanced insights into teachers' perspectives on integrating technology in learning as well as how they choose which technologies to integrate into language education learning activities in a predetermined secondary school context, potentially informing pedagogical practice and policy decisions on a broader scale.

Instruments

This research used a combination of data collection instruments commonly used in qualitative case studies, which are observation and interviews.

Observation

Through observation, the researcher aims to directly observe the high school environment, thus gaining insight into the dynamics, interactions, and behaviors of the participants in their natural context. Observation holds an important position in observation and assessment in education, especially in assessing teachers and what it means to be a 'professional' in the field of teaching in the 21st century (O'Leary, 2020). The observation used in this study is a checklist observation that contains several categories that focus on teachers' technological pedagogical skills and students' digital literacy skills. Observations were taken using an observation checklist which was adopted and adapted from Aryati (2021) and Suherdi et al. (2021) cited in Auliana (2023).

Interview

In this study, the interviews were conducted with EFL teachers, providing a platform for them to share their perspectives, experiences, and insights related to the research topic. Engaging in dialog with the participants allows the researcher to delve deeper into their thoughts, reflections, and practices, thus enriching the qualitative data and allowing for a more nuanced analysis. The interviews conducted were in-depth interviews that allowed researchers to explore information by asking additional questions from the 10 questions that had been provided. In this study, the researchers asked 2 additional questions to find out additional information from the participants. The questions asked during the interview explored teachers' perspectives on the use of technology, their challenges, and strategies for using technology in learning. The interview questions were adopted and adapted from several relevant studies,

including studies by Dinc (2019), Kuru Gönen (2019), Khatoony & Nezhadmehr (2020), and Kaden (2020), and were designed to answer this research question.

Procedures

This research collected data from two main sources which are observation and interview results. The first data was obtained from Observation. These observations aimed to identify teachers' knowledge and use of technology and students' digital literacy in the teaching-learning activity. The observations were conducted three times to ensure the researchers gained a comprehensive understanding of the issue under study.

The second data source was an interview. Interviews with open-ended questions to the participants. The questions asked during the interview were 10 main questions to explore the perspective of the EFL teacher and 2 additional questions to find out how long the teacher has been teaching and whether they have used technology in their learning. The interview was voice-recorded to prevent data loss. Before analyzing the data, the recorded interviews were transcribed verbatim.

Data analysis

The data analysis method for this qualitative case study used thematic analysis as its framework. Thematic analysis refers to a systematic approach that involves identifying patterns, themes, and categories in the data collected, aiming to reveal meaningful insights relating to the research question or objective. Through an iterative process of coding and categorizing the data, the researcher can uncover recurring themes and variations, thereby facilitating the development of rich and comprehensive findings. By carefully examining data to find underlying patterns and organizing them into coherent themes, thematic analysis allows researchers to distill the essence of qualitative data, offering a deeper understanding of the phenomenon under investigation. This methodological approach ensures that the analysis is grounded in empirical evidence, allowing for a rigorous and systematic exploration of the research topic while providing flexibility to capture the complexities and nuances inherent in the data. Ultimately, thematic analysis serves as a powerful tool to generate insightful interpretations and contribute to the advancement of knowledge in the field.

FINDINGS

Supportive Role of Technology

The first research question focuses on finding out teachers' perspectives on integrating technology into their learning. In this section, some teachers' perspectives on the integration of technology in their learning were explored. During the interview process, the participants made the following statements:

> *"I think it is very good because as we know, education must develop every year. So, if we don't keep up with developments, especially technological developments, education can be left behind. So, when the implementation or integration between technology and education takes place, it is a positive thing I think." (Mr. MN)*

"It is very supportive because technology can make it easier for teachers to provide material to students and make it easier for teachers to create interesting learning conditions in the classroom for students." (Ms. VJ)

The participants highlighted the positive impact of integrating technology into education. Mr. MN emphasized the importance of keeping up with technology to ensure that education evolves and stays current. He views the integration of technology in education as a beneficial development. In another session interview, Ms. VJ stated that technology supports teachers by facilitating the delivery of materials and enabling an engaging learning environment. Their statements underscore the important role of technology in improving educational practices and enhancing the overall learning experience for students.

Therefore, through interviews, the researchers asked and observed the technology tools or support used by the participating teachers. The results of observations and interviews found that teachers use various tools or supports with details in the table below.

Table 1. Tools or technology support used by participants

No	Participant	Technology Tools or Support
1	Mr. MN	Smartphones, mobile apps, laptops, Chromebooks, speakers, audio listening, and projector.
2	Ms. VJ	Projector, laptop, YouTube videos, PowerPoint or Canva, and Smartphones.

Based on the data in the table above, it can be inferred that teachers use various technologies to support their learning. Teachers use essential technology tools such as laptops, projectors, Chromebooks, and smartphones, which they integrate into lessons to share materials and support teaching strategies. These tools, combined with digital resources such as PowerPoint presentations and YouTube videos, help students understand the learning material more effectively. The participants made the following statements:

"There are many, the first can be by using their smartphones as a tool, then technological support can be in the form of using a very lightweight teaching platform so that students can also download it on their mobile phones because we also know the limitations of students where their mobile phones are on average, maybe there are those who use iPhones with high specs, it's just difficult to enter heavy applications. So finally, sometimes that becomes an obstacle." (Mr. MN)

"Facilities. Yes, the projector, then YouTube, we use material from YouTube, videos, PPT, or Canva. Yes, that's it." (Ms. VJ)

Other tools and support used by the teachers; the researchers found during the observation. The main technologies used by teachers are laptops, projectors, and PowerPoint Presentations which are used to convey material to students more easily because not all students get textbooks from school due to the limited books available at school.

In his teaching activities, Mr. MN more often uses the Chromebook facilities at school to lend to students. Chromebooks can be used to access information on the internet and use Microsoft applications just like laptops, but they use processors that are not as powerful as

regular laptops. Usually, each class can only borrow at least 5 Chromebooks due to limited facilities and students can use them in groups to access materials or work on assignments.

Ms. VJ usually shares her materials through PowerPoint presentations and shares video materials for students to watch and discuss. The material on the PowerPoint is then displayed using the projector provided in the classroom. However, the projectors in some classes cannot be used because they are broken. So Ms. VJ borrows an additional projector from the Vice Principal for Facilities.

The participants made the following statement:

> *"The use of technology, especially in learning English itself, we know there are four parts. The first is reading, and then there is writing, speaking, and listening. In listening to itself, the students and teachers have limitations in conducting the listening program. When for example, the teacher wants to do a listening activity to students. If we don't use technology like mobile phones or laptops with big speakers, it will be difficult to do. [...]" (Mr. MN)*

> *"Supporting learning. Yes, by using technology. It is beneficial in conducting learning in the classroom. Because with this technology it can simplify the teacher in preparing teaching materials, teaching materials that are interesting for students. […]." (Ms. VJ)*

Based on the observation and interview results, the integration of technology in English language learning enhances teaching, especially in reading, writing, speaking, and listening. Tools like mobile phones and laptops with good speakers are essential for listening activities. Without them, both students and teachers face challenges in delivering or participating in exercises. Despite occasional internet issues, technology allows students to practice listening flexibly, improving pronunciation and comprehension by hearing native speakers.

Technology also supports teachers in creating engaging, interactive materials that move beyond traditional methods, promoting student participation. Teachers select technology based on lesson objectives, using videos, interactive presentations, and online tools to demonstrate abstract concepts and foster discussions.

> *"The methods that have been applied are usually by using project-based learning or games that we usually do. So, for example, I give assignments to students using games, and the students are asked to bring their mobile phones. Later we will open a program, in which there is a question and an answer, and given a time limit, the students must answer the questions that have been provided in how many minutes or how many seconds. Well, so the use of technology can be, there we teach students that too. So, students are also more motivated in learning English, especially." (Mr. MN)*

This statement reflects how the teacher integrates games and project-based learning using mobile phones and digital tools in alignment with the lesson's objectives to enhance student engagement and motivation. The statements A statement with the same intention was also conveyed by Ms. VJ:

> *"Supporting learning. Yes, by using technology. It is beneficial in conducting learning in the classroom. Because with this technology it can simplify the teacher in preparing teaching materials, teaching materials that are interesting for students. [...]. However, now we can make students more communicative in the classroom with the methods we use." (Ms. VJ)*

Ms. VJ and Mr. MN incorporate technology tools like YouTube, PowerPoint, and Chromebooks to create engaging materials and interactive activities aligned with lesson objectives. The teachers carefully chose the technology that suited their content, using PowerPoint and video for presentations, and Chromebooks for digital research and discussions. This was discovered by the researchers in the observation process. Smartphones and Chromebooks are used for more collaborative work, enhancing student participation. Mr. MN primarily uses Chromebooks for material sharing and discussions, while Ms. VJ relies on PowerPoint and videos for classroom activities. Their approach highlights technology's supportive role in teaching and learning.

Challenges in Technology Integration

The other teacher's perspective on technology integration in their learning is the challenges they face in integrating technology into their learning. Teachers have predicted the challenges they will face in integrating technology and they have also faced these challenges. In this section, the researchers found that the challenges that teachers predicted and found in integrating technology include.

Limited Access to Devices and the Internet

Teachers face challenges in integrating technology due to limited devices and internet access. Many students do not have acceptable suitable smartphones, making it difficult for them to participate in technology-based learning. Students who do not have smartphones find it difficult to follow when the teacher assigns activities that require smartphones. Another challenge is unreliable internet access; some students lack data, and the internet connection at school is often unstable which the researchers found in observations 1 and 2. The school's internet facilities only serve teachers, so many students do not have access. Teachers also face difficulties when the school internet is unreliable and sometimes use their own data to ensure that technology-integrated lessons can continue. This was also conveyed by Mr. MN in his statement:

> *"The problem we have been facing is access to the technology itself. [...]. Previously, the number of students who had laptops or mobile phones was very limited. However, now along with the development of information technology and the need for mobile phones. Students increasingly have these technological tools. But the second obstacle after that is internet access. It was a student's internet data package that caused students to have difficulties [...]." (Mr. MN)*

From the statement, in the research school districts, access to technology has been a significant challenge, mainly due to the limited availability of laptops and mobile phones among students in the past. However, as information technology advances, more and more

students have these devices. Despite this progress, internet access remains a major obstacle, as many students struggle to afford data packages. This lack of connectivity hinders their ability to participate in online learning activities, such as accessing class materials shared in group chats or other learning activities.

Time-consuming

The integration of technology in learning also poses another challenge for teachers which is the time-consuming nature of accessing and adapting to new technological tools. So, teachers need to constantly update their technological knowledge to provide engaging and collaborative activities for students. The challenge of continuous teacher training and professional development also needs to be highlighted, indicating that teachers need to continuously improve their skills, which makes teachers face the problem of reduced personal time and adds a burden to their teaching methods. Teachers' spare time must be continuously filled with self-development activities, thus reducing rest time. This was also conveyed by Mrs. VJ in her statement:

> *"The challenge is that teachers have less time to rest because they must keep updating their ability to learn and keep learning. If the time is maybe 24 hours, it is not enough because teachers must continue training to find out how to use the technology in classroom learning." (Ms. VJ)*

Ms. VJ emphasizes that integrating technology into education places significant time demands on teachers, requiring continuous professional development to stay updated. Teachers must attend workshops, complete online courses, and experiment with new tools, which adds to their existing responsibilities like lesson planning and assessment. This extra workload can lead to burnout and stress, as teachers struggle to balance professional development with other duties. The time spent on mastering technology can also reduce their interaction with students, potentially affecting education quality. Adequate support and resources are essential to help teachers integrate technology without compromising their well-being.

Reduced Student Creativity

One of the challenges that arises from integrating technology into learning is the potential decline in student creativity. Ms. VJ said this in her statement:

> *"The benefits are many. So we can prepare teaching materials faster. Then it's more interesting. Yes, but if the drawback is for students, students are less creative. Because if they are given an assignment, they just download it so they are less provoked to make their own creations." (Ms. VJ)*

With easy access to information through the internet, students often prefer downloading existing content instead of developing their ideas, leading to passivity in learning. This reliance can hinder their engagement in exploration and experimentation, which are essential for fostering critical thinking and innovation. During the observation, it was found that teachers find it difficult to monitor students while working on technology-based assignments, making it difficult to prevent cheating. This lack of creativity negatively affects students' problem-solving abilities and adaptability. Relying heavily on online resources can prevent them from practicing essential creative and analytical thinking skills. Therefore, educators must encourage

students to use technology not just for information retrieval but also for creating and contributing to knowledge.

Impact on Learning Activity

The integration of technology in education has been shown to have a significant positive impact on teachers' and students' learning activities. This Impact can be divided into several key areas:

Increase Learning Effectiveness and Motivation

Technology serves as a powerful tool to enhance learning effectiveness by providing students with diverse resources and interactive learning experiences. Educational platforms and multimedia resources commonly used such as videos, interactive simulations, and game-enabled learning, capture students' attention and cater to various learning styles. This variety helps maintain students' interest and motivation throughout the learning process. This has proven to be effective based on observations as well as statements from participants:

> *"Learning conducted by teachers using technology is very effective because, from the process of finding material to the results, it can affect students in reaching the desired results, both from the students themselves and the teacher. It is very effective if the use of technology, especially when we enter learning methods that use technology, it will be much more interesting for students, for teachers, for educators it will also be easier for teachers to convey material, convey learning to students, I think students will be much more interested in using technology." (Mr. MN)*

> *"Yes, very effective. Very effective." (Ms. VJ)*

The integration of technology in teaching significantly enhances the effectiveness of the learning process. Both Mr. MN and Ms. VJ emphasize that utilizing technology not only facilitates access to materials but also positively influences student outcomes. Technology makes lessons more engaging for students and simplifies the teaching process for educators. As a result, students show increased interest and motivation when learning through technological methods, leading to a more dynamic and productive educational experience.

Enhance Teaching Strategies and Students' Learning Outcomes

The adoption of technology in the classroom enables teachers to diversify their strategies, leading to improved student learning outcomes. Digital tools like interactive presentations and educational software make complex concepts more accessible, enhancing understanding. Technology also allows for personalized learning experiences; adaptive learning tools enable educators to tailor lessons to individual needs and paces, supporting all students regardless of their background. This personalization fosters academic success, especially for those struggling in traditional settings. Moreover, technology facilitates innovative assessment methods, such as project-based learning and digital portfolios, providing a thorough evaluation of student skills while encouraging real-world application and enhancing critical thinking. Statements from the participants mentioned:

> *"Okay, if for student learning outcomes, it usually affects for sure, but it just depends on the students again. [...]. So far, the use of technology has had a very good impact, the students' learning outcomes are also very*

high, increasing between 20-30% from the previous score. If on average, the students usually get 60-70, when using technology, the students feel interested and more active, so they want to find out more [...]." (Mr. MN)

"Yes, if it affects, it affects. Because with the development of technology, students will find it easier to gain knowledge. [...], because technology has developed, by using one Android mobile phone, students can access various kinds of knowledge, both local and overseas knowledge. [...]." (Ms. VJ)

The impact of technology on student learning outcomes is significant but depends on students' motivation and intent to use it educationally. Mr. MN notes that technology can improve scores by 20-30%, but its effectiveness relies on active engagement with the material. If students fail to use technology for learning, outcomes won't improve. Ms. VJ emphasizes that technology transforms access to knowledge, enabling students to explore resources like international libraries, and fostering curiosity and engagement. Overall, technology enhances effectiveness, motivation, and teaching strategies, providing customized learning experiences that improve academic performance and prepare students for a rapidly evolving world where digital literacy is crucial.

Flexibility and Adaptability

Flexibility and adaptability are crucial skills for teachers when integrating technology into their lessons. Statement from the participants:

"If there are technical problems in the learning process, students and especially the teacher must be calm, how to control the class. Maybe, what's inside, for example, if the teacher wants to give an exercise in the form of a test to students. However, the average student doesn't have an internet package. [...]. So just do it manually. Because technological limitations are also a barrier in the learning process, but that does not mean that learning cannot be carried out, like that." (Mr. MN)

"Yes, as a teacher we must have various methods. If for example, the electricity is on, and the infocus (projector) is on then this is the lesson plan that I will do in the classroom. But if that happens, the electricity is off, the InFocus (projector) is not on, maybe at that time we have to change our learning strategy." (Ms. VJ)

Both interviewees highlight that unexpected technical issues, such as power outages or internet disruptions, require teachers to adapt their strategies quickly to maintain lesson flow and student engagement. A typical situation is when multimedia presentations are not available, teachers may turn to traditional methods such as discussions or group activities. When internet access is limited, they may use offline resources or hands-on activities to reinforce learning objectives. This adaptability showcases teachers' resourcefulness and models flexibility for students, teaching them to navigate challenges effectively. Ultimately, this ability to adjust enhances the teaching experience, ensuring lessons continue smoothly even when technology fails.

DISCUSSION

The findings of this research highlight the multifaceted impact of technology integration in English language education, emphasizing both its supportive role and challenges for teachers and students alike.

Supportive Role of Technology

The integration of technology is viewed positively by teachers, as it aligns with the continuous evolution of educational practices. Both Mr. MN and Ms. VJ articulate that technology enhances the teaching process by providing tools that make learning more engaging and accessible. This aligns with the broader perspective that technology-integrated instruction improves the learning environment by making it more interactive and dynamic (West & Allman, 2021). The varied technological tools used, such as smartphones, laptops, projectors, and digital platforms like YouTube, PowerPoint, and Google Classroom, allow teachers to present material in ways that cater to different learning styles and increase student interest (Chen & Tsai, 2021; West & Allman, 2021). These tools not only make content more engaging but also help teachers reach learners who may prefer visual, auditory, or kinesthetic modes of instruction, thus supporting diverse learning preferences (Cheung et al., 2021).

The effective utilization of these tools fosters a more interactive classroom environment, promoting student participation and communication (Haleem et al., 2022; Marsevani, 2021). This shift from traditional lecture-based methods to more dynamic, technology-enhanced teaching strategies significantly improves learning outcomes. It offers students the chance to engage more actively in the learning process, transforming them from passive recipients of information into active participants. The interactive nature of technology also supports the development of critical skills, such as problem-solving, collaboration, and digital literacy, which are increasingly important in the modern world (Haleem et al., 2022). Additionally, the ability for students to access information anytime and anywhere is particularly beneficial, allowing for repetition and practice outside the classroom. This is essential for mastering language skills such as listening and speaking, as it provides learners with more opportunities to engage with authentic language resources beyond the confines of the classroom (Uzun, 2023).

Moreover, the teachers' approach to incorporating games and project-based learning highlights how technology can be leveraged to motivate students and facilitate collaborative learning (Kwok, 2024). Gamification taps into students' intrinsic motivation by making learning fun and competitive, encouraging them to practice language skills in a context that feels less like work and more like play. Project-based learning supported by technology allows students to engage in authentic, real-world tasks, fostering creativity and critical thinking (Schmid et al., 2022). The integration of these methods aligns with the broader research that emphasizes the importance of active learning in improving engagement and retention in language education (Pamela Ansayam et al., 2021).

In addition to making lessons more enjoyable, these strategies also prepare students to navigate a digital world, fostering skills that are increasingly relevant in today's society (Michelle, 2023a). Technology not only serves as a tool for enhancing linguistic competencies but also helps students develop broader 21st-century skills, such as digital literacy, communication, and collaboration (Michelle, 2023a). This holistic approach equips students with the necessary competencies to succeed in an increasingly interconnected and digitally driven world (Naik et al., 2020). The integration of technology into EFL instruction supports both language learning and the development of essential life skills.

Challenges in Technology Integration

The integration of technology into education offers numerous advantages, but it also presents challenges that must be navigated carefully. One significant barrier is the lack of access to reliable devices and internet connectivity, particularly in underserved areas, which limits students' ability to fully engage in technology-enhanced learning (Cheung et al., 2021; West & Allman, 2021). Students from disadvantaged backgrounds may struggle to complete assignments or participate in interactive activities, exacerbating educational inequalities (Zheng et al., 2022).

Teachers also face challenges when adapting to new technologies, as the process can be time-consuming and overwhelming. Many educators, such as Ms. VJ, find it difficult to incorporate unfamiliar tools into their teaching practices without adequate support (Bowman et al., 2022). Professional development and institutional support are crucial for helping teachers stay updated and manage their workload effectively (Pamela Ansayam et al., 2021).

A further concern is the impact of technology on student creativity. The ease of accessing online information can lead to a reliance on existing content, which may stifle original thought and problem-solving skills (Zheng et al., 2022). Rather than encouraging students to engage in active creation, technology sometimes promotes passive consumption of materials, which hinders the development of critical thinking and innovation.

Additionally, the rise of technology-based assessments brings challenges in maintaining academic integrity. Monitoring students during online exams or virtual activities is increasingly difficult, leading to concerns about cheating and plagiarism (Torrato et al., 2020). This issue underscores the need for balanced integration of technology, ensuring it enhances learning without compromising the development of essential skills such as creativity, critical thinking, and ethical behavior (Schmid et al., 2022).

Impact on Learning Activity

The integration of technology into educational settings significantly enhances the effectiveness of learning processes. Based on the interview results, Mr. MN and Ms. VJ highlighted that technology transforms how content is delivered, making it more engaging and accessible. This perspective aligns with research that advocates for the use of digital media, simulations, and interactive resources in education, where technology-based instruction improves learning experiences through diverse media (West & Allman, 2021). Educational platforms using multimedia resources—such as videos, simulations, and gamified experiences—cater to various learning styles and help sustain student motivation (Cheung et al., 2021). The ability to create a responsive learning atmosphere that adapts to the evolving demands of modern education is crucial for ensuring that students remain engaged in the learning process (Cheung et al., 2021).

Technology empowers educators to diversify their teaching strategies, which positively correlates with improved student learning outcomes. The use of interactive tools to present complex ideas enhances students' ability to understand difficult concepts effectively (Haleem et al., 2022; Asiyah et al, 2024). Incorporating technology in classrooms requires educators to embrace innovative digital resources to foster dynamic learning environments. Adaptive technologies further support personalized learning experiences, enabling teachers to address individual student needs, as noted in Mr. MN's observation of increased student performance through personalized learning (Zheng et al., 2022). Ms. VJ also noted that technology's role in providing access to vast information resources broadens students' knowledge bases and stimulates curiosity.

Moreover, innovative assessment methods enabled by technology allow for a more nuanced evaluation of student understanding compared to traditional tests. Project-based

learning and digital portfolios provide opportunities for students to apply knowledge in real-world contexts, developing critical thinking and problem-solving skills (Torrato et al., 2020). Insights gathered suggest that technology not only enhances academic performance but also prepares students for future challenges in a rapidly evolving digital landscape (Schmid et al., 2022).

Flexibility and Adaptability

The ability to adapt to unexpected challenges is a crucial skill for teachers using technology in their classrooms. Both interviewees emphasized that technical issues—such as internet disruptions or power outages—require teachers to be resourceful and flexible in their teaching approaches. As Mr. MN pointed out, having alternative strategies is essential for maintaining student engagement when technology fails. Ms. VJ further elaborated on the necessity of adjusting lesson plans on the fly, reinforcing the idea that adaptability is a key component of successful teaching in a technology-integrated environment. Flexibility in technology-integrated instruction ensures that educators can seamlessly shift from digital tools to traditional methods when faced with technical difficulties, emphasizing the need for backup strategies to maintain the flow of learning (Chen & Tsai, 2021).

In technology-integrated instruction, flexibility and adaptability are essential to ensuring the continuity of learning in a dynamic environment. This approach involves not only incorporating technology but also recognizing the unpredictability that may accompany its use (Pamela Ansayam et al., 2021). Educators must prepare alternative strategies, such as transitioning to non-digital methods, to ensure learning remains uninterrupted during technical issues (Chen & Tsai, 2021). Flexibility in teaching methods not only ensures the continuity of learning but also models resilience for students, encouraging them to navigate challenges creatively and productively. The capacity to shift between technology-based and traditional methods helps maintain educational goals, even in the face of technological failures, fostering a responsive learning atmosphere that accommodates disruptions (Mwiinga, 2023; Obispo, 2023).

Moreover, this adaptability reflects the teachers' essential role in creating a dynamic and responsive learning environment, one that adapts to both technological advantages and challenges, ensuring students' learning experiences remain consistent regardless of technical obstacles (Schmid et al., 2022). Flexibility in switching between different instructional methods highlights the importance of preparedness in maintaining engagement and meeting learning objectives (Kwok, 2024).

These findings may not be generalizable to a wider population, especially those in areas with different levels of access to technology and internet connectivity. This is because this study had the limitation of having a relatively small sample size and focusing on specific schools and teachers. It is hoped that future research could benefit from involving larger and more diverse participants to ensure that the results reflect a wider range of experiences. In addition, the reliance on interviews and observations as the main data sources raises the possibility of bias, as participants' self-reported data may not always align with actual classroom practices. Incorporating more objective measures, such as student performance data or long-term studies of technology use in classrooms, may help provide a more balanced view of the impact of digital tools on learning outcomes.

Another limitation is the absence of student perspectives, which are crucial to understanding how technology directly affects their engagement, creativity, and overall learning experience. Although this study focused on teachers' views, including students' voices would have provided a more complete picture of the challenges and benefits of technology

integration. In future research, it is recommended to explore students' perspectives to enrich the research results.

CONCLUSION

The research findings reveal that teachers generally have a positive view of technology integration in education and recognize its ability to improve teaching and learning. Technology facilitates access to diverse resources, encourages interactive and engaging classrooms, and supports collaboration among students. Tools such as smartphones, projectors, and digital platforms have transformed English language teaching, making lessons more dynamic and increasing student participation. However, there are still challenges to overcome, including unequal access to devices, limited time for teachers to keep their technology skills up to date, and concerns that students' creativity will suffer from over-reliance on digital content. To make the most of technology's potential, overcoming these barriers is essential. Solutions such as equitable access to devices targeted professional development, and strategies to encourage original thinking alongside digital literacy are essential. This will ensure that technology not only improves lesson delivery and student learning outcomes, but also encourages creativity and critical thinking, and is well-aligned with educational goals.

These findings imply that while technology integration has the potential to enhance the quality of education, careful planning is necessary to avoid possible drawbacks. Policymakers and school administrators should consider addressing access issues and supporting teachers with ongoing professional development. Schools should also encourage pedagogical approaches that balance technology use with activities that foster creativity, problem-solving, and critical thinking. This balance is vital to ensuring that technology serves as an enabler of innovation rather than a constraint on imaginative thought.

Further research could explore how different types of technology impact specific student outcomes, particularly in areas like creativity and critical thinking. It would also be valuable to investigate the long-term effects of technology integration on both students' academic performance and soft skills development. Moreover, research on the effectiveness of professional development programs in enhancing teachers' technology integration skills, as well as studies focusing on strategies to bridge the digital divide, would contribute significantly to advancing educational practices in a digital era.

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