

Bridging the Gap: How Technology Integration is Transforming the Classroom Experience

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ABSTRACT

In the ever-evolving landscape of education, the integration of technology into teaching and learning has emerged as a transformative force, reshaping the classroom experience in profound ways. This study aims to investigate the EFLteachers' perceptions on ICT in English classrooms. The participants involved in this research were four English language teachers from two junior high schools in Parepare city. The study results showed that all participants had a positive perception about the use of ICT in English classrooms. The results also showed that the English language teachers supported the existence of ICT in English Classroom which is claimed to be helpful. However, they still had barriers in applying ICT in their classroom technically and non-technically.

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1. INTRODUCTION

In the ever-evolving landscape of education, the integration of technology into teaching and learning has emerged as a transformative force, reshaping the classroom experience in profound ways. The traditional image of a teacher at a chalkboard, surrounded by rows of students diligently taking notes, is gradually giving way to a more dynamic and interactive learning environment (Akram et al., 2022). In this digital age, where technology permeates nearly every aspect of our lives, it is only natural that it plays a pivotal role in reshaping the way knowledge is imparted and acquired.

Some experts have indicated that technology integration in teaching and learning has Transformed students' classroom experience by delving deep into the fascinating intersection of education and technology (Garg & Jain, 2017; Semente, 2017). We embark on a journey to explore the multifaceted impact of technology integration on both educators and students, unveiling a landscape where traditional boundaries are shattered, and new horizons are unveiled. As technology continues to advance and become more prevalent in our society, it is crucial for educators to adapt and incorporate it into their teaching methods (Bachtiar, 2022a). By doing so, they can bridge the

gap between traditional teaching methods and the digital world that students are growing up in. This integration not only enhances students' learning experiences but also equips them with the necessary skills to thrive in an increasingly technology-driven world. Ultimately, technology integration in education opens endless possibilities for both educators and students, fostering innovation, collaboration, and critical thinking (Sunubi & Bachtiar, 2022).

With technology integration in education, educators could create interactive and engaging learning environments that cater to students' individual needs and interests. By incorporating digital tools and resources, teachers can tailor their instruction to accommodate different learning styles and provide personalized learning experiences (Adipat, 2021). This allows students to take ownership of their education and actively participate in the learning process, leading to improved academic outcomes and increased motivation to learn. Additionally, technology integration promotes collaboration among students, as they can work together on projects, share ideas, and provide feedback in real-time. This collaborative approach not only enhances students' social and communication skills but also fosters a sense of community and support within the classroom. Furthermore, technology integration equips students with essential digital skills that are crucial for their future success. By using technology tools and platforms, students learn how to navigate and utilize various digital resources, enhancing their digital literacy and preparing them for the ever-evolving digital world (Bond, 2019). Overall, technology integration in education has the potential to revolutionize the way students learn and equip them with the necessary skills to thrive in the 21st century.

The exploration of technology is not merely about the introduction of gadgets and gizmos into the classroom but a paradigm shift that encompasses a wide array of digital tools, software, and online resources (Bond, 2019; Chen, 2021). It's about fostering an environment where educators become facilitators of learning, students become active participants in their education, and the boundaries of the classroom extend far beyond its physical confines. By embracing technology in education, students are able to develop critical thinking, problem-solving, and collaboration skills that are essential for success in the modern world. Furthermore, incorporating digital tools and resources allows for personalized and differentiated instruction, catering to the unique needs and learning styles of each student. Ultimately, the integration of technology in education empowers students to become lifelong learners, equipped with the necessary skills to navigate an increasingly digital and interconnected society (Seufert, 2021; Shazly, 2021).

English language classrooms underwent the same experiences where technology can play a transformative role. With the integration of technology, language learning becomes more interactive and engaging. Students can access online resources, practice speaking and writing skills through digital platforms, and collaborate with classmates on projects. Furthermore, technology allows for personalized learning, as students can work at their own pace and receive immediate feedback (Mian, 2020; Scherer, 2019). Overall, the use of technology in the English language classroom enhances the learning experience and prepares students for the demands of a digital world. In addition, technology also provides opportunities for virtual immersion in the English language. With virtual reality and augmented reality tools, students can explore different English-speaking countries and interact with native speakers, enhancing their language skills and cultural understanding. Moreover, technology facilitates real-time communication with English speakers from around the world through video conferencing and language exchange platforms, providing authentic language practice and exposure to different accents and dialects. By incorporating technology into language learning, educators can create a more dynamic and inclusive classroom environment that promotes active engagement and fosters a love for the English language (Dashtestani, 2022; Shazly, 2021).

For example, students can use online language learning platforms to access a wide range of interactive exercises and multimedia resources that cater to different learning styles. These platforms often provide personalized feedback and progress tracking, allowing students to monitor their own language development and set goals for improvement. Additionally, technology enables teachers to incorporate multimedia content, such as videos, podcasts, and online articles, into their lessons, making the learning experience more engaging and relevant to students' interests (Rahim, 2019). Overall, technology has revolutionized language learning, making it more accessible, interactive, and enjoyable for learners of all ages and backgrounds.

Despite the growing recognition of the transformative potential of technology integration in education, there remains a notable gap in understanding the nuanced challenges and opportunities associated with this shift. While numerous studies have explored the impact of technology on teaching and learning (e.g. Adipat, 2021; Chen, 2021; Dashtestani, 2022), there is still a need for comprehensive research that delves into the specific dynamics of how technology is transforming the classroom experience. Moreover, many studies have focused on either the benefits or the challenges, but there is a lack of holistic research that examines both aspects in an integrated manner, especially in Indonesian context. This study was guided by two research questions: (1) What specific technological tools and strategies are being adopted by the EFL teachers in classrooms, and how do they impact the teaching and learning processes? (2) What challenges and obstacles do EFL teachers encounter when implementing technology in their teaching practices?

2. LITERATURE REVIEW

2.1. The shift from traditional to technology-based education

The shift from traditional to technology-based education represents a significant transformation in the way students learn and teachers instruct. This transition is primarily driven by the increasing ubiquity of digital devices and the internet in modern society. In the traditional education model, students relied heavily on printed textbooks and face-to-face interactions with teachers. However, technology-based education has introduced a multitude of digital tools, such as computers, tablets, and online resources, which have fundamentally altered the learning process (Akram et al., 2022; Zhou, 2021).

One key aspect of this shift is the accessibility of information. Technology-based education allows students to access a wealth of information from around the world instantly. This access empowers learners to explore topics in greater depth, facilitating a more self-directed and independent learning experience (Bachtiar & Nirmala, 2023; Semente, 2017). Furthermore, it enables teachers to provide a broader range of resources, multimedia content, and interactive lessons to enhance the educational experience.

Another crucial element is interactivity. Technology-based education offers a more interactive and engaging learning environment. Using multimedia, gamification, and virtual simulations, students can actively participate in their lessons. These interactive tools can make abstract concepts more tangible and practical, thereby improving comprehension and retention.

Moreover, technology-based education supports personalized learning. Adaptive learning platforms and educational apps can tailor content to individual student needs and learning styles. This customization ensures that students receive the support and challenges appropriate for their abilities, ultimately leading to more effective and efficient learning experiences. The shift from traditional to technology-based education underscores the need for educators to adapt their teaching methods and curricula to meet the demands of the digital age (Marcella et al., 2022; Zhou, 2021).

2.2. Advantages of Technology Integration in education

The advantages of technological integration in education are numerous and have the potential to revolutionize the learning process. First and foremost, technology in education enhances student

engagement and motivation. Interactive and multimedia content, such as educational games, videos, and virtual simulations, captivate students' interest and make learning more enjoyable. This heightened engagement not only fosters a positive attitude toward learning but also encourages students to take an active role in their education, leading to improved academic outcomes.

Another significant advantage is the ability to offer personalized learning opportunities. Technology allows for adaptive learning platforms and software that can assess students' strengths and weaknesses, tailoring content, and assignments to their individual needs. This personalized approach ensures that students can learn at their own pace, address their unique learning styles, and receive the support necessary to excel. It also empowers educators to track and analyse student progress more effectively, making data-driven decision-making a cornerstone of modern education.

Technology integration in English language teaching offers a range of advantages, enhancing the teaching and learning experience in many ways. First and foremost, it provides students with increased access to authentic language materials. The internet and digital resources make it easier for students to engage with real-world content, such as news articles, podcasts, and videos, allowing them to immerse themselves in the language and culture. This exposure helps improve language proficiency, comprehension, and cultural awareness.

Second, technology allows for personalized language learning. Language learning apps, platforms, and adaptive software can tailor lessons to individual student needs, focusing on grammar, vocabulary, and pronunciation areas where they may need more practice. This personalized approach enables students to progress at their own pace, boosting their confidence and motivation. Furthermore, technology provides instant feedback, which is crucial for language acquisition. Automatic language tools can correct pronunciation and grammar errors immediately, helping learners refine their skills more effectively.

Additionally, technology integration in English language teaching fosters collaboration and communication. Language learners can connect with fellow students, teachers, and native speakers worldwide through various online platforms, video conferencing, and social media. This communication enhances their language skills and cultural understanding, while also breaking down geographical barriers. Moreover, technology offers interactive language learning games and exercises, making the learning process more engaging and fun. In sum, the integration of technology in English language teaching transforms the classroom into a dynamic and interactive environment that better equips students with the linguistic skills needed for today's interconnected world.

2.3. Future Trends in Classroom Technology

Future trends in classroom technology hold the promise of further transforming the educational landscape. As technology continues to evolve, it is essential for educators and institutions to stay ahead of the curve to ensure that they are meeting the needs of 21st-century learners. Several key trends are emerging, which will play a pivotal role in shaping the future of education.

First, the integration of augmented reality (AR) and virtual reality (VR) is poised to revolutionize the classroom experience. AR and VR technologies can transport students to virtual worlds or overlay digital information on the real world. This offers immersive learning experiences, allowing students to explore historical sites, conduct virtual science experiments, or learn complex concepts in a more interactive and engaging way. These technologies have the potential to make learning more memorable and enjoyable.

Second, artificial intelligence (AI) and machine learning will play a critical role in the future of education. AI-driven tools can provide personalized learning experiences by adapting content to individual students' needs and learning styles. They can also assist teachers in grading assignments, monitoring student progress, and identifying areas where students may need extra support. Additionally, AI-powered chatbots and virtual tutors can provide 24/7 support to students, helping them with homework and answering questions.

Another significant trend is the growing emphasis on remote and hybrid learning. The COVID-19 pandemic accelerated the adoption of online and remote learning, and these modalities are likely to remain an integral part of education in the future. Educational institutions are likely to invest more

in online infrastructure, offering a flexible and accessible learning environment that accommodates a diverse range of students.

Additionally, the role of edtech startups and innovations is expected to expand in the future. These startups are driving creativity and innovation in education, introducing new tools, platforms, and methods to enhance the learning experience. From AI-driven tutoring platforms to new approaches to digital curriculum design, these startups are contributing to the ever-evolving landscape of classroom technology.

Lastly, technology is expected to play a crucial role in supporting more inclusive and diverse classrooms. Assistive technologies, such as speech recognition software and screen readers, are helping students with disabilities access educational materials more easily. Moreover, technology is facilitating language translation and bridging language barriers, making education more accessible to non-native English speakers and students from various cultural backgrounds.

In conclusion, future trends in classroom technology are poised to make education more immersive, personalized, and accessible. By embracing these innovations and staying adaptable, educators can provide a richer learning experience that equips students with the skills and knowledge needed in an increasingly digital and interconnected world.

3. METHOD

3.1. Research Instruments

The current study employed a qualitative case study. This approach is well-suited for exploring complex, context-specific phenomena, such as the integration of technology in education (Yin, 2018). By employing a case study design, the study aims to provide an in-depth and holistic examination of technology integration within real-world educational settings. To ensure the richness and diversity of insights, eight EFL teachers from two junior high schools have been selected as cases for this study. These cases encompass various teaching experiences, including novice, experienced teachers, and very experienced teachers. These selection criteria were taken by considering varying levels of technology integration and teaching experience factors, ensuring a broad representation of experiences.

3.2. Research Instruments and Participants

The study utilizes two primary research instruments: semi-structured interviews and classroom observations to gain a comprehensive understanding of how technology is transforming the classroom experience. Semi-structured interviews provide a platform for in-depth conversations with key stakeholders, including educators, administrators, students, and technology specialists. These interviews are designed to elicit narratives, experiences, and perceptions related to technology integration. The semi-structured format allows for flexibility, enabling interviewers to explore emergent themes and delve deeper into participants' responses (Bryman, 2016). Classroom observations involve the systematic and non-intrusive examination of technology integration in real-time teaching and learning environments. The observations aim to capture the actual use of technology, pedagogical practices, and student engagement. Researchers employ field notes and structured observation protocols to document observations effectively (Creswell, 2014).

The participants are selected purposively based on their roles and experiences related to technology integration. The semi-structured interviews were conducted in a comfortable and private setting. The interviews are audio-recorded and transcribed for analysis. The interview questions are designed to explore the participants' perspectives on technology's role in the classroom, pedagogical shifts, challenges, and perceived benefits. For the classroom observations, they were conducted during regular classroom sessions. The researchers maintain a non-participatory and non-disruptive

presence in the observations. Detailed field notes were taken, focusing on technology usage, teaching methods, student interactions, and any notable events. The researchers use structured observation checklists to ensure consistency and focus on key elements.

3.3.Data Analysis

The collected data from semi-structured interviews and observations underwent qualitative thematic analysis (Braun & Clarke, 2006). This analysis involves identifying patterns, themes, and emergent categories within the data. The analysis aims to uncover insights related to technology integration, pedagogical approaches, and challenges faced in the classroom.

The use of both semi-structured interviews and observations enables data triangulation, enhancing the validity and reliability of the findings. Triangulation involves cross-verifying information from different data sources to ensure a more comprehensive understanding of the research topic (Denzin, 1978).

4. RESULTS AND DISCUSSION

This section provides the findings and discussion of the data. The data are presented based on the key themes that emerge from the findings. The emerging themes were positive perceptions of EFL teachers, barrier to ICT integration, and resistance to change and pedagogical concerns. Below is the discussion of these themes.

4.1.Positive Perceptions of EFL Teachers

The study found that all participants had a positive perception of the use of Information and Communication Technology (ICT) in English classrooms. These teachers recognized the potential benefits of integrating technology into their teaching practices. Their positive attitudes can be attributed to the belief that ICT can enhance the learning experience for students by making lessons more engaging and interactive. The findings of this study emphasize the importance of understanding EFL teachers' perceptions and challenges related to ICT integration in the English classroom. The positive attitudes and support for ICT among the participating teachers are encouraging, as it suggests a willingness to adapt to the changing educational landscape (Hermawar et al., 2021; Rapanta, 2021).

Another finding from this study in relation to the positif perceptions was the existence of ICT in the English classroom. The participants acknowledged the potential of ICT tools to be helpful in facilitating language learning. This support suggests a willingness to adapt to the changing educational landscape and leverage technology for educational purposes. Participants in the study expressed a strong belief that integrating ICT into the English classroom could enhance students' language skills and make learning more engaging. They recognized that ICT tools, such as interactive whiteboards and online language learning platforms, could provide opportunities for interactive and collaborative learning experiences (Cheung, 2023; Park, 2022). This positive perception of ICT demonstrates a progressive mindset among the participants, indicating a readiness to embrace technology as a valuable tool in the educational setting. For example, the English teachers decided to incorporate an interactive whiteboard into their lessons. They used the whiteboard to display engaging visuals, videos, and interactive activities that allowed students to practice their language skills in a fun and interactive way. This not only improved students' understanding of the English language but also increased their motivation and engagement in the learning process.

Sarıçoban (2019) indicated that ICT can be used to help the teacher and to improve the quality of teaching and learning in the school system. Sarıçoban believes that ICT really helps teachers in the learning process and helps students to understand the material. If students are helped to

understand the material with using ICT in the learning process, it indicates that ICT can improve the quality of teaching and learning in the school system. Adipat (2021) also claimed that ICT's role as a tool that can help the task of the teacher inside and outside the classroom to be better. In short, the function of ICT is to help the task of the teacher and also help the students to understand the material. It is because ICT can improve the quality of teaching and learning in the classroom especially in English classrooms.

Regarding the benefit of ICT in English classroom, Sabiri (2020) explained that ICT facilitate information access, enhance study/reading habits, accelerate academic success by making information easily available, improve managerial and professional skill, increased students' motivation to stay on-task and drive them to behave better and produce high quality work; learn more independently and did more works at a fast pace. It is in line with the P1 and P2 statement that the benefit of ICT is to make it easier to find the material and ICT also facilitates information about the material especially in English lessons. For example, students can use their gadget to search more material about grammar, vocab or many more. And also they can watch videos about how to pronounce something in English language from a native, so they can speak English clearly. As well as the teacher, they can find more interesting material to show to the students. So with using ICT, students will be motivated to learn English because the teacher gives an interesting delivery about the subject.

4.2. Barriers to ICT Implementation

Despite their positive perceptions and support for ICT, the participants faced various barriers in implementing technology in their English classrooms. These barriers mainly about limited access to ICT resources. Some of the participating teachers in this study reported limited access to ICT resources, such as computers, tablets, and the internet, which hindered their ability to integrate technology into their lessons. In addition, lack of technical skills also became a barrier among some of them. One of the participants, for example, said that she still lacked the necessary technical skills to effectively incorporate ICT into her teaching methods.

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It is also important to note that, despite the challenges faced by this participant, integrating technology into teaching methods is a continuous learning process. With the right support and resources, it is possible for educators to develop the necessary technical skills and adapt their teaching methods to incorporate ICT effectively. Providing professional development opportunities and access to technological resources can empower teachers to overcome the barriers they face and embrace the potential of technology in education (Bachtar, 2022b; Bond, 2019). Additionally, fostering a supportive and collaborative environment where educators can share their experiences and learn from one another can also help alleviate the feeling of being overwhelmed by rapid technological advancements. By addressing these challenges head-on and providing ongoing support, educators can develop the necessary skills and confidence to integrate ICT into their teaching practices. This can lead to more engaging and interactive lessons, personalized learning experiences, and improved student outcomes. Furthermore, by keeping up with the latest trends and research in educational technology, teachers can stay informed about new tools and strategies that

can enhance their instructional methods (Chen, 2021; Halim, 2020). Ultimately, empowering teachers to effectively utilize ICT can result in a more innovative and inclusive education system that prepares students for the demands of the digital age.

In conclusion, while EFL teachers in Parepare city expressed positive perceptions and support for ICT in the English classroom, it is crucial for educational institutions and policymakers to address the identified barriers to ensure effective and meaningful integration of technology in language education. Overcoming these challenges will contribute to the continued transformation of the classroom experience and provide students with enhanced learning opportunities.

4.3. Resistance to Change and Pedagogical Concerns

Some teachers faced resistance to change from students or colleagues, which made it challenging to introduce new teaching methods involving ICT. Despite this resistance, teachers who persist in integrating educational technology into their classrooms often find that their students become more engaged and motivated in their learning. By demonstrating the benefits and advantages of using ICT in the classroom, teachers can gradually overcome this resistance and create a supportive environment for the adoption of new teaching methods. Additionally, collaborating with colleagues and sharing success stories can inspire others to embrace change and open to the possibilities that educational technology can offer. For example, an English teacher who introduces interactive online learning platforms in their classroom may notice that students are more eager to participate in class discussions and complete their assignments. The use of technology allows for real-time feedback and personalized learning experiences, which can boost students' confidence and academic performance (Dashtestani, 2022; Ida Siti Hamidah, Melinda Roza, 2020). By sharing their positive experiences with other teachers, the math teacher can encourage them to incorporate educational technology into their own classrooms, leading to a collective shift towards more innovative teaching practices.

The participants also had concerns about how to effectively integrate ICT in a pedagogically meaningful way, aligning technology with their teaching goals and curriculum. They were worried that using technology for the sake of using technology may not enhance student learning. The math teacher addressed these concerns by emphasizing the importance of thoughtful planning and intentional use of educational technology. By showcasing examples of how technology can be seamlessly integrated into lessons to support specific learning objectives, the participants gained a better understanding of how to make technology a meaningful tool in their classrooms (Bachtiar, 2023; Tondeur, 2019). For example, the English language teacher demonstrated how students can use online dictionaries and language learning apps to improve their vocabulary and reading comprehension skills. She also showed how video conferencing tools can be used to connect students with native English speakers from around the world, allowing them to engage in authentic conversations and practice their speaking skills. These practical examples helped the participants see the potential benefits of technology in enhancing (Seufert, 2021; Shazly, 2021) language learning and motivated them to explore further possibilities for its use in their own classrooms.

Furthermore, the participating teachers mentioned various online platforms and resources that can be integrated into language lessons, such as interactive grammar exercises and virtual language exchanges. She emphasized the importance of incorporating technology in language instruction to create a dynamic and engaging learning environment. The participants were eager to experiment with these tools and eager to see how they could enhance their students' language learning experience. The workshop not only provided valuable insights and practical ideas, but it also sparked a sense of curiosity and innovation among the educators, inspiring them to continuously seek out new ways to leverage technology in their teaching practices.

4. CONCLUSION

The ever-evolving landscape of education has witnessed the emergence of technology as a transformative force, reshaping the classroom experience in profound ways. The findings of this study indicate that the EFL teachers held positive perceptions regarding the use of ICT in English classrooms. They recognized the potential benefits of integrating technology into their teaching practices, viewing it as a means to enhance the learning experience for students and make lessons more engaging and interactive. Furthermore, these teachers expressed strong support for the presence of ICT in English classrooms, acknowledging its potential to be a valuable educational tool. However, the study also highlighted the existence of significant barriers to the practical implementation of ICT in the English classroom. These challenges encompassed both technical and non-technical aspects. Technical barriers included limited access to ICT resources, a lack of technical skills, and issues with equipment and network functionality. Non-technical barriers involved resistance to change, time constraints, and concerns about aligning technology with pedagogical goals.

In response to these findings, several key recommendations emerge. First and foremost, there is a clear need for investment in training and professional development programs for EFL teachers to equip them with the necessary technical skills and confidence to integrate ICT effectively. Policymakers should prioritize funding for ICT infrastructure and teacher training to address these technical challenges. Additionally, school leaders play a vital role in fostering a culture of innovation and providing the necessary resources and support to facilitate the use of technology in the classroom. Embracing lifelong learning and professional development ensures that educators remain effective and adaptable in the ever-evolving digital learning environment. Ultimately, educators are key drivers in shaping the future of education in the digital age. The result of this study may help the education system in Indonesia especially in Garut into a modern education. So, the readers, especially a teacher, can be aware of ICT in the EFL classroom so they can realize that ICT has many benefits to the students and then the teachers will apply ICT as a tool in teaching and learning in the classroom. In addition, this study suggests previous studies involve observations to see how EFL teachers implement ICT in their classrooms.

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