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## CHALLENGES FACED BY ESL TEACHERS IN INCORPORATING TECHNOLOGY IN ESL CLASSROOMS

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### Abstract:

The integration of technology in English as a Second Language (ESL) classrooms has become increasingly essential in modern education, offering opportunities to enhance pupils' engagement and learning outcomes. As for ESL teachers, it is important to integrate different kinds of technologies to cater different needs of pupils and to attract them towards learning a second language. However, ESL teachers face several challenges in effectively incorporating technology into their teaching practices. This paper explores the challenges encountered by ESL teachers in incorporating technology in ESL classrooms. By understanding these challenges, this paper aims to provide insights for overcoming barriers and fostering more effective and inclusive technology use in ESL education. In this research, the author employed qualitative research methodology to collect data. Semi-structured interview was conducted with five English language teachers from primary government schools to enquire about challenges in incorporating technology in ESL classrooms. Participants ought to have taught for at least five years. The teachers were being chosen using purposive sampling. The interview was transcribed and analysed thematically. The findings had shown that the challenges faced by ESL teachers in incorporating technology in ESL classrooms were such as lack of technology tools, technological barriers in terms of accessibility to the Internet and the inadequacy of the teacher's digital competency. Pedagogical implications to overcome challenges faced by ESL teachers in incorporating technology in ESL classrooms are provided for ESL teachers and policy makers.

### Keywords:

Technology, ESL Teachers, Challenges, ESL Classrooms

## Introduction

Technology has vastly developed over the years. The immense emergence of technology has affected many sectors including the education sector. Many educators have now adopted technology as a tool in assisting their teaching and learning process. This is due to the opportunity that it gives educators to improve their content and delivery of the pedagogies (Mardonovich et al., 2023). As for English as second language (ESL) teachers, it is important to integrate different kinds of technologies to cater different needs of pupils and to attract them towards learning a second language. This is partly a result of the advancement of computer technology, which has given rise to a number of tools and pertinent software designed expressly to assist each individual in adjusting to their new language environment while taking into consideration their level of language skill and specific needs (Amelina et al., 2022). Incorporating current technologies such as artificial intelligences (chatbots), virtual realities and augmented realities would keep the pupils interested and glued to the lesson. Therefore, it is the teachers' responsibility to make use of the advancement in technology in a way that benefits the pupils in an ESL classroom.

The Malaysian Education Blueprint 2013–2025, which focuses on Shift 7, has emphasized the use of ICT in education, encouraging the use of technology in teaching and learning. Therefore, using technology is very likely to help the Education Ministry realize its goals. Incorporating technology helps to increase pupils' enthusiasm for learning English because it is enjoyable and interesting wherein pupils will be motivated to learn. Motivation is a crucial key in developing pupils' proficiency in a second language. Learner autonomy fosters pupils' independence and self-discovery skills. With technology, pupils are able to explore and acquire more information and knowledge by browsing Google for information, learning through interactive applications and reading e-books (Li & Cheng, 2021). However, there are concerns that modern technology can be detrimental to language learning rather than helpful and believes that non-standardized digital environments weaken, falsify, and betray the process of acquiring a language (Ruhul, 2019). It might cut off pupils from in-person interactions, make cheating easier and lead them to use questionable learning resources. Nevertheless, technology has remained to bring an impact to the classroom.

Although technology has been said to be an effective tool in keeping the students engaged and accessing information quickly. There are several challenges that these ESL teachers face in incorporating technology in the classroom. This research aims to evaluate the challenges that ESL teachers face while attempting to incorporate technology in the ESL classrooms. In addition to that, the aim of this research also discusses potential suggestions for pedagogical implications that technology may have for ESL teachers in this era of teaching and learning as well as for the assessment process, ultimately enhancing pupils' learning outcomes.

Conducting a study on the challenges faced by ESL teachers in incorporating technology into their classrooms is crucial for understanding the obstacles that hinder the effective use of digital tools in language education. As technology increasingly becomes a central part of modern education, it is essential to explore how it can be leveraged to enhance language acquisition for ESL students. This study helps identify specific challenges which may prevent ESL teachers from fully integrating technology into their teaching practices.

Understanding these challenges is important for informing policies and practices that can provide the necessary support to ESL teachers. By identifying the barriers ESL teachers face, schools and educational institutions can develop targeted strategies to address these issues. Moreover, this research is vital for improving the overall effectiveness of ESL teaching. It highlights the need for a balanced approach where technology complements traditional teaching methods, helping ESL teachers engage pupils in more interactive, personalized learning experiences. Ultimately, conducting this study helps ensure that ESL pupils can benefit from the advantages technology offers, such as access to diverse learning materials, language practice tools, and global communication platforms, contributing to a more inclusive and effective language learning environment in ESL classrooms.

### **Research Problems**

The use of technology in education has experienced exponential growth in recent years, driven by advancements in digital tools and platforms aimed at enhancing teaching and learning experiences (Kouser & Majid, 2021). The main goal of this research is to discover the challenges faced by ESL teachers in incorporating technology in ESL classrooms. Educators frequently face challenges when incorporating technology into their teaching and learning process in ESL classrooms. Thus, it is also important to explore ways to help ESL teachers to incorporate technology in ESL classrooms.

### **Research Purpose**

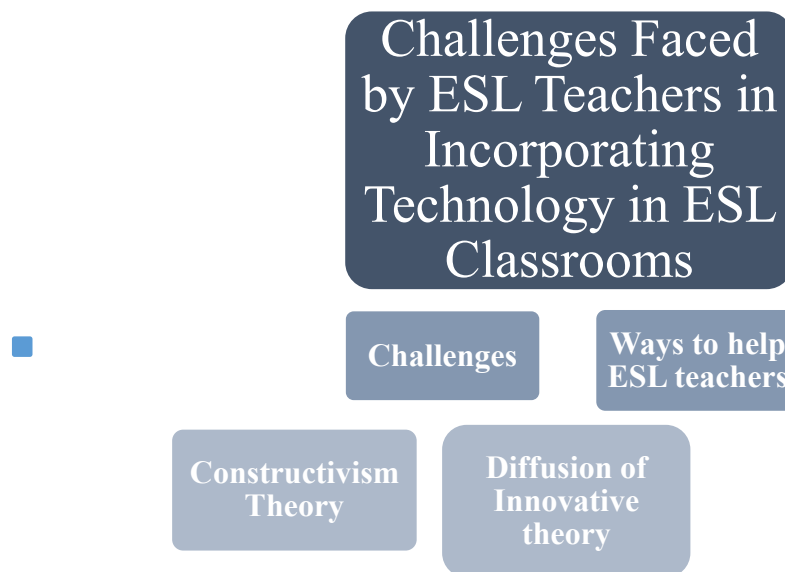
The research aims to explore the challenges faced by ESL teachers in incorporating technology in ESL classrooms. Factors such as challenges faced by ESL teachers and ways to help ESL teachers to incorporate technology in ESL classrooms will be taken into account through this study. This study seeks to discuss potential suggestions for pedagogical implications that technology may have for ESL teachers in this era of teaching and learning as well as for the assessment process.

### **Research Objectives**

The objectives of this study are:

1. To discover the challenges faced by ESL teachers in incorporating technology in ESL classrooms.
2. To explore ways to help ESL teachers to incorporate technology in ESL classrooms.

## Conceptual Framework



**Figure 1: Conceptual Framework of Challenges Faced by ESL Teachers in Incorporating Technology in ESL Classrooms**

## Literature Review

This subtopic highlights the theoretical base for understanding challenges faced by ESL teachers in incorporating technology in ESL classrooms. The two main theories highlighted are constructivism theory and diffusion of innovation theory.

### *Constructivism Theory*

Constructivism is a learning theory that emphasizes the active role of learners in constructing their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. When applied to ESL (English as a Second Language) teaching and the integration of technology, constructivism suggests several key principles and challenges.

Firstly, according to constructivist principles, ESL teachers need to create learning environments where pupils can engage actively with the language and content. This means moving away from traditional, teacher-centered methods towards more interactive and pupil-driven approaches (Mattar, 2018). However, incorporating technology into ESL classrooms can be challenging due to varying levels of access to technology among pupils, which may create disparities in learning opportunities.

Secondly, constructivism highlights the importance of authentic tasks and real-world contexts in learning. ESL teachers often face the challenge of finding technology tools that provide authentic language use opportunities, such as interactive simulations, collaborative platforms or multimedia resources (Fetylyana et al., 2019). Ensuring that these tools align with the language proficiency levels and cultural backgrounds of diverse ESL learners is crucial for effective integration.

Moreover, constructivist theory underscores the role of social interaction in learning. According to constructivist theory, education should be centered on the learner, with pupils gaining information by interactions with their environment and peers (Mattar, 2018). ESL pupils benefit from opportunities to interact with peers and native speakers of English. Technology can facilitate such interactions through online forums, virtual classrooms and video conferencing. However, challenges arise in managing these interactions effectively, ensuring they are meaningful and contribute to language acquisition rather than becoming distractions.

Additionally, constructivism encourages teachers to assess learning through ongoing feedback and reflection. Technology offers various assessment tools, such as online quizzes, interactive exercises and data analytics (Fetylyana et al., 2019). Yet, ESL teachers must navigate the challenge of using these tools in ways that provide timely and constructive feedback while respecting the privacy and learning pace of individual pupils, especially those who may struggle with technology use.

Furthermore, constructivist theory promotes learner autonomy and self-regulation (Mattar, 2018). ESL teachers aiming to integrate technology must empower pupils to take ownership of their learning journeys. This involves guiding them in selecting appropriate digital resources, setting goals and monitoring their progress. However, the challenge lies in balancing freedom with guidance, ensuring that pupils do not feel overwhelmed or lost in the vast sea of digital information and tools available.

Lastly, constructivism emphasizes the importance of reflection and metacognition in deepening understanding. ESL teachers incorporating technology should encourage pupils to reflect on how digital tools enhance their language learning experiences. This reflection can help pupils identify effective strategies, adapt their approaches and become more proficient users of both language and technology. However, ESL teachers must address the challenge of fostering reflective practices in diverse classrooms where pupils may have varying levels of digital literacy and prior experience with technology.

In conclusion, while constructivism provides a solid theoretical framework for ESL teachers seeking to integrate technology into their classrooms, it also highlights significant challenges. Addressing these challenges requires thoughtful consideration of pupils' needs, access to technology, cultural backgrounds and language proficiency levels. By aligning technology integration with constructivist principles, ESL teachers can create dynamic learning environments that foster meaningful language acquisition and preparation for real-world communication.

### ***Diffusion Of Innovative Theory***

Everett Rogers' Diffusion of Innovation (DOI) theory explores how new ideas, products or technologies spread through a social system. The DOI theory recognizes various phases in the adoption process: awareness, persuasion, decision, implementation, and affirmation (Pinho, Franco, & Mendes, 2021). Applied to ESL (English as a Second Language) teaching and the integration of technology, this theory highlights several pertinent challenges that teachers often encounter.

Firstly, according to Diffusion of Innovation theory, ESL teachers face the challenge of navigating the varying levels of readiness among pupils to adopt and effectively use new technologies. According to the hypothesis, adopters can be categorized as innovators, early adopters, early majority, late majority or laggards, depending on how ready and responsive they are to new technology (Wang, Hong, & Huang, 2023). This readiness, often influenced by factors such as prior experience, attitudes towards technology and perceived benefits, can significantly impact the successful implementation of technological innovations in the classroom. Teachers must strategize ways to build enthusiasm and confidence among pupils, addressing concerns about technology's relevance, accessibility and potential drawbacks.

Secondly, the theory emphasizes the importance of clear communication and demonstration of the advantages of adopting new technologies in ESL instruction. Teachers must articulate how these tools can enhance language learning outcomes, such as improving listening and speaking skills through interactive simulations or facilitating collaborative writing exercises. However, the challenge lies in ensuring that the benefits are perceived as substantial and tangible by all stakeholders, including students, parents and administrators, who may have diverse expectations and priorities.

Moreover, Diffusion of Innovation theory underscores the significance of effective leadership and support systems within educational institutions. Creating a beneficial community of practice can facilitate the shift from early acceptance to long-term use by exchanging best practices and providing ongoing assistance (Wang et al., 2023). ESL teachers may encounter resistance or skepticism from colleagues or administrators who are hesitant to invest time, resources, or effort into integrating technology into ESL classrooms. Overcoming these challenges requires proactive leadership to advocate for technological integration, provide training and ongoing support and foster a culture of experimentation and collaboration among educators.

Lastly, the theory highlights the critical role of contextual factors in influencing the adoption and diffusion of innovations in ESL education. These factors include institutional policies, infrastructure limitations, budget constraints and cultural considerations (Wang et al., 2023). ESL teachers must navigate these complex contexts to identify suitable technologies that align with curriculum objectives, accommodate diverse learner needs and comply with educational standards. Balancing innovation with practicality and sustainability is essential to ensure that technological integration enhances rather than disrupts the teaching and learning process.

In conclusion, while Diffusion of Innovation theory offers insights into how new technologies can be integrated into ESL classrooms, it also illuminates the challenges that ESL teachers face. By understanding and addressing these challenges—such as varying readiness levels, communication of benefits, leadership support, and contextual factors—teachers can strategically navigate the adoption process, maximizing the potential of technology to enrich language learning experiences for ESL students.

### ***Incorporating Technology in ESL Classrooms***

Incorporating technology into ESL classrooms has become increasingly essential in modern education, offering innovative ways to enhance learning experiences and bridge language barriers. One significant benefit is the accessibility to authentic language materials through the Internet (Fetylyana et al., 2019). ESL pupils can explore real-world contexts, from news articles



to social media posts, which enriches their vocabulary and cultural understanding. Moreover, digital resources like language learning apps and online dictionaries provide instant support, enabling pupils to independently explore and reinforce language skills outside of class.

Interactive multimedia tools also play a pivotal role in engaging ESL learners. Platforms offering audiovisual content, such as videos, podcasts and interactive simulations, cater to diverse learning styles and preferences. These resources not only make learning more dynamic and enjoyable but also provide contextualized language use that aids comprehension and retention (Pozo et al., 2021). For instance, virtual language labs allow pupils to practice speaking and listening in a controlled, supportive environment, which builds their confidence and fluency.

Furthermore, technology facilitates personalized learning experiences in ESL classrooms. Adaptive learning platforms can assess pupils' proficiency levels and tailor exercises accordingly, offering targeted practice in grammar, vocabulary and pronunciation (Amelina et al., 2022). This individualized approach caters to the specific needs and learning pace of each pupil, fostering a more effective and supportive learning environment. Additionally, digital portfolios and online collaboration tools enable pupils to showcase their progress and engage in peer feedback, promoting reflective learning and enhancing communication skills.

Incorporating technology also encourages ESL pupils to interact with authentic language communities worldwide (Pozo et al., 2021). Social media platforms, discussion forums and online language exchange programs connect learners with native speakers and other language learners globally. These interactions provide invaluable opportunities for authentic language practice, cultural exchange, and gaining insights into different linguistic nuances and expressions.

Moreover, technology facilitates differentiated instruction in ESL classrooms, allowing teachers to accommodate diverse learning abilities and preferences. For example, interactive whiteboards and multimedia presentations can be used to present content in multiple formats, including visual aids, audio clips and interactive exercises. This flexibility ensures that all pupils have access to the material in a way that suits their learning style, enhancing comprehension and engagement.

Another advantage of technology in ESL education is its role in developing digital literacy skills (Amelina et al., 2022). As pupils navigate online resources, evaluate information and communicate effectively in digital formats, they develop critical thinking and problem-solving abilities essential for success in the digital age. These skills extend beyond language learning, preparing ESL learners to thrive in academic, professional and social settings where digital competence is increasingly important.

Furthermore, incorporating technology into ESL instruction fosters a more inclusive learning environment. Assistive technologies, such as speech-to-text software and translation tools, support pupils with diverse learning needs and language backgrounds. These tools remove barriers to learning, enabling all pupils to participate fully and achieve their language learning goals.

Additionally, technology enables ESL educators to create flipped classroom models where instructional content is delivered online outside of class time, freeing up valuable in-class time for interactive activities and personalized instruction. This approach promotes active learning and student-centered teaching methodologies, empowering ESL pupils to take ownership of their learning journey (Fetylyana et al., 2019).

Furthermore, incorporating technology into ESL classrooms facilitates ongoing assessment and feedback (Kee et al., 2021). Learning management systems and online assessment tools allow teachers to monitor pupils' progress in real-time, track their performance on assignments and quizzes, and provide timely feedback. This continuous feedback loop supports pupils' growth and helps teachers tailor their instruction to address specific learning needs effectively.

In conclusion, integrating technology into ESL classrooms offers myriad benefits that enhance learning outcomes, engagement and inclusivity. By leveraging digital tools and resources, educators can create dynamic, personalized learning environments that cater to the diverse needs of ESL pupils, promote language proficiency, and prepare learners for success in an increasingly interconnected world.

### ***Challenges Faced by ESL Teachers in Incorporating Technology***

Globalization has heralded a booming development in technology that connects people across borders. With the spread of technology, information is easily accessible to the public. Schools could fully utilize the resources to ensure holistic development of the pupils. Technology has contributed to a variety of professions, especially in education. According to Kouser & Majid (2021), the Internet has become an indispensable part of a pupil's life. Modern teachers are assigned tough obligations in a new era. Exceptional access to technology has drastically changed the traditional teaching approach. The use of technology provides more engaging and effective teaching and learning sessions, especially for language learners (Fetylyana et al., 2019).

In today's digital age, many are considered to be digitally literate. This is mainly because of the availability of gadgets and devices as compared to ancient times. ESL teachers have also gradually shifted from the traditional way of teaching to a more digitally advanced way of teaching. In relation to this, the TPACK framework is one of the teaching and learning models that takes into account the appropriate incorporation and use of ICT in education. According to this paradigm, teachers must have pedagogical knowledge(PK), knowledge of the subject they teach(CK) and technological knowledge(TK) (Gomez & Yanez, 2021). The model also emphasizes the significance of these three components' simultaneous interaction in the teaching and learning process. It should be used and understood by teachers to properly integrate ICT into their daily classroom activities or tasks. The TPACK framework acknowledges the permanence of technology. Due to this new reality, teachers must acquire adequate training in using the technology and also to enhance skills to adapt to changes brought on by new software and hardware.

The first challenge in using technology in ESL classrooms is the lack of technology tools. Without technology tools, technology can't be implemented in ESL classrooms. Kee et al. (2021) has stated that technology consists of gadgets, social media, and Web 2.0 and they could be utilized in various forms to design fun and innovative teaching and learning tools in an ESL classroom. It is undeniable that the use of technology will make ESL classrooms lively. The



technology tools that are commonly and widely used in ESL classrooms to cater to pupils' needs are netbooks, computers, LCD projectors, laptops, audio speakers, interactive boards and so on. Technology is highly helpful in motivating pupils and making them more interested in studying (Fetylyana et al., 2019). The incorporation of technology in classroom setting supposedly becomes great assistance to teachers to make the pupils be more focused in class so when the technology equipment is insufficient, teachers cannot maximize the benefits of technology in ESL classrooms.

There are many interesting activities in ESL classrooms and the implementation of technology will definitely help ESL learners to enjoy the class in many ways. Sometimes, when ESL teachers want to teach a topic that is unfamiliar to ESL learners, using videos is the best option to improve ESL learners' understanding towards the topics taught as well as to ensure meaningful learning takes place in ESL classrooms. ESL learners do not have to visualize the object of the lesson because it is already in front of them so using videos in ESL classrooms is a great option. However, when there is a lack of technology tools, it means teachers have to take the responsibility for the visualization part to facilitate ESL learners better. A study conducted by Liew and Ganapathy (2019) on ESL teachers in Penang regarding the use of technology showed that 56.7% ESL agreed that the lack of netbooks and computers was one of the challenges in implementing technology in their teaching and learning sessions. The study also remarks that according to their respondents which were ESL teachers, they did not have sufficient netbooks and computers to carry out activities efficiently in their classrooms so teachers had to demonstrate an activity or good students would have to share their works as the guidance for lower proficiency pupils. This study has proven that the lack of technology tools is undoubtedly a challenge in using technology in ESL classrooms. The lack of technology tools causes ESL teachers to lose interest in integrating technology in their classrooms even though they are full of excitement in the beginning. In another study conducted by Vanessa Jill and Melor (2019), the ESL teachers who were involved in the study stated that when they wanted to use technology in ESL classrooms, they had to take turns to use LCD projectors and laptops because they were limited in number and this situation led to teachers' demotivation in using these technology facilities.

Alamri (2021) carried out a case study on the challenges of implementing technology in ESL writing classrooms and there were many challenges gathered from results and discussion of this study such as technical problems, pupils' attitudes towards using technology, lack of time, lack of computers and other devices and lack of technical support. In this study, the respondent also mentioned that some pupils did not own the computers which caused the respondent to have difficulties in using technology in the classrooms. The lack of computers and other devices is mentioned again this time in a different study as one of the challenges of using technology in ESL classrooms. This study was clearly not conducted in Malaysia but it still highlighted the same issue which was the lack of technology tools as a challenge in implementing technology in ESL classrooms.

Based on these past studies, the lack of technology tools is certainly one of the challenges in using technology in ESL classrooms globally and it affected the delivery and the effectiveness of teaching and learning sessions in ESL classrooms. This challenge should be solved to ensure a proper and smooth use of technology in ESL classrooms which will eventually contribute to a better learning environment.

The next main challenge is technological barriers in terms of accessibility to the Internet. It is crucial to note that there are significant distinctions between rural and urban areas in terms of Internet connectivity. Park (2017) stated that rural areas have higher costs, few options for suppliers, and poor Internet coverage. Young (2019) mentioned that rural areas have less capacity for infrastructure as compared to urban areas. These distinctions explain why private-sector telecommunications companies find that providing service to rural areas is less profitable (Domínguez & Rivera, 2020). This results in disadvantages and widening the digital divide for rural pupils who are unable to access the advantages of ICT-provided goods and services.

Teachers who teach in rural and suburban areas are more likely to struggle with the incorporation of technology in ESL classrooms. Learning a second language can be challenging especially in semi-urban and rural areas (Endriyati, 2019). It is because the schools in rural and suburban areas are not equipped with Internet access. The main components of the lag in technology adoption includes places, infrastructure and socio-demographics (Park, 2017). Internet accessibility is viewed as a luxury under these circumstances when compared to necessities like food and housing. Accessing study materials is made challenging for teachers due to a lack of internet accessibility. Teachers are unable to download the videos and the materials needed for the teaching process. For example, when teachers want to show the pictures that aren't available in the textbook, due to the problem of internet accessibility, they are unable to do so. This will affect the effectiveness of the teaching and learning process in ESL classrooms as pupils wouldn't be able to visualize what the teacher is trying to explain.

Educators use information technology to help them prepare instruction materials, so that teaching and learning can be more exciting (Min & Nasir, 2020). The incorporation of technology could address multiple individual learning styles such as auditory, visual, kinesthetic and verbal. Imagine if because of the inaccessibility to the Internet, pupils cannot get information and materials needed. Thus, the inaccessibility to the Internet will decide whether the planned teaching activities would be successful or not. It will be challenging for the teachers to find attractive and effective teaching resources. If pupils cannot access the Internet, it will result in low pupils' participation in ESL classrooms. Low pupils' participation results in subpar learning. These difficulties prompt some pupils to fall behind in the lesson and cause them to put off completing their homeworks.

In addition to poor internet connectivity, an additional study in academia has proposed that the inadequacy of the teacher's digital competency may impede the efficacy of the e-learning paradigm. Teachers have a low level of digital competency because of various factors. The fundamental source of this problem is that technology is still not integrated into the teaching and learning process. As a result, teachers are unfamiliar with using technology in ESL classrooms. This topic has been raised since the COVID-19 epidemic. There is a great demand for educational platforms that allow for distance study during the phenomena. However, teachers are battling with technology, and teaching and learning have suffered as a result. This is primarily due to instructors' lack of digital literacy. They have not previously used the Common Framework of Teaching Digital Competence (TDG) in their ESL classroom teaching and learning, and as a result, it takes them time to adjust to the changes during the COVID-19. People must grasp the importance of technology in order to support future progress (Ferrari & Punnie, 2013). During this phase, teachers attempt to adjust and refine their digital competence in response to the problems that ESL teachers experience when employing technology in the classroom.

However, the post-pandemic period reveals another element that contributes to teachers' inadequacies in digital competence: a casual attitude towards technology. Following the pandemic, most teachers stopped integration computers in their ESL classrooms. They believe that due to a lack of training and the introduction of technology, face-to-face teaching and learning in ESL classrooms is not always preferred. Whenever teachers do not integrate technology into their ESL courses, they are unable to polish their skills, which leads to teachers' digital proficiency being inadequate. As learners of new knowledge, it is important to learn how to apply prior knowledge to real-world challenges and how to manage hands-on tasks throughout the teaching and learning process (Kokkinos and Vlavianou, 2021).

In addition to a lack of ICT assistance, infrastructure, and poor time management, teachers' digital competency is inadequate. Some schools may not have complete ICT support, and others do not have internet access. Technology cannot be used in an ESL classroom without a robust infrastructure. In addition, poor time management is a factor that contributes to teachers' lack of digital competence. Planning, creating, and managing the use of digital tools in ESL classes takes a significant amount of work. As a result, teachers avoid using technology in ESL classrooms and their lack of digital competence remains unchanged.

With the abundance of available educational technology, it is important for teachers to feel confident about their own ability to use them effectively in the classroom. However, the level of confidence teachers possess when it comes to incorporating technology in ESL classrooms is relatively low. Abbasi (2021) pointed out the lack of technical knowledge and skill to be an effective inhibitor to technology integration for teaching English in ESL classrooms. This lack of skill and knowledge will hinder teachers' confidence in incorporating technology into the classroom. Wang asserted teacher's information technology integration self-efficacy is a perception of the ability to effectively master and use technologies to achieve specific teaching objectives (Wang & Zhao, 2021). Research reports that a teacher's self-efficacy affects the implementation of technology. Teachers who have higher levels of efficacy generally result in higher levels of accomplishment (Epstein, 2018). Similarly, Swan (2011) argued that teachers with a high sense of self-efficacy would be able to create a dynamic, pupil-centered learning environment which enables them to take ownership of their learning. This approach would allow more pupils' involvement in the teaching and learning process.

The lack of confidence in skill and knowledge in incorporating technology in the ESL classroom can stem from several factors. Firstly, teachers may feel overwhelmed by the rapid pace of technological advancements, making it challenging to keep up with the latest tools and platforms. This lack of familiarity can lead to self-doubt and hinder their ability to effectively integrate technology into their lessons. Additionally, teachers may have limited training or professional development opportunities focused on technology integration. Teachers would not be capable of using technology to its full potential if effective professional development isn't given (Johnson et al., 2016). Without proper guidance or support, they may feel uncertain about how to leverage technology to enhance language learning and may shy away from incorporating it into their teaching practice. Similarly, many research has been conducted on teachers' self-efficacy in incorporating technology in classrooms. Hence, it is evident that teachers' confidence in skill and knowledge serves as another challenge when it comes to incorporating technology in ESL classrooms.

The way of teaching has evolved over the years due to non-stop innovations and cultural development. Teaching was much more simplistic and basic back in the day due to lack of technological advancement. Today, teachers and pupils are exposed to an endless amount of innovations which are currently used in the education field. Despite being useful for education purposes, technology still has an impact on pupils' thinking potential. Teaching is different for science subjects and language subjects. Science subjects require demonstrations whereas language subjects are taught in the form of questions and answers. Teachers raise on the spot questions, make pupils think, foster their ability to discover and solve problems. The use of technology means too many demonstrations which will be less effective and teachers cannot achieve their goals in relation to pupils' thinking potential.

According to the previous studies done by Jeong et al. (2020), have stated that the usage of mobile technology in the classrooms by pupils predicts their capacity for higher-order skills. Quality learning happens when pupils can understand the questions precisely, think logically and give sensible answers to the questions. What technology does is that in a way it helps pupils to think less and find all the answers on the internet without putting much effort intellectually (Priyadharshini & Azlina, 2022). Therefore, technology hinders pupils' critical thinking skills especially during the teaching and learning process in the ESL classrooms. According to Priyadharshini & Azlina (2022), technology can guide learners to both positive and negative learning whereby positive learning can lead to new innovations and negative learning can lead to destruction of education. Besides, Melor et al. (2013) stated that emergence of technology makes pupils have all the needed information and resources at their fingertips. Thus, these two studies clearly indicate that ICT also causes the pupils to underestimate the importance of teachers and their role in developing pupils' thinking capability. Consequently, the pupils neglect the do's and don'ts of the Internet in the classroom.

The emergence of ICT has increased the gap between human to human interactions. Pupils feel they do not have to interact with each other anymore to brainstorm ideas. Instead, each and everyone feels they can rely on the internet to provide answers for them. They will struggle to have spontaneous face to face conversations not only among themselves but also with teachers if this situation persists for a long time. Simin and Heidari (2013) believe that dependance on the ICT can nullify the communication skills of the students since the conversations between pupils and teachers will keep reducing with time. This creates a concern among teachers and parents that the pupils will find it hard to communicate as they meet each other in real life. Based on the above discussion, it is important to consider that the emergence of ICT especially in the ESL classrooms has the possibility to hinder the interpersonal skills of the pupils.

## Methodology

Qualitative research is a systematic inquiry approach used to explore and understand complex phenomena through detailed descriptions and interpretations of people's experiences, beliefs, interactions and contexts. In qualitative research, information is gathered by open-ended questions from a small sample of participants, typically a few at a time. (Tasker & Cisneroz, 2019). Case study research design was used in this study. Case study research design is a qualitative research method that focuses on an in-depth exploration of a single instance or phenomenon within its real-life context. The Malaysian Primary Government School English language teachers are the population of the study. Primary school teachers are those who teach pupils from Year 1 to Year 6. The research population was deliberately chosen to provide a wide range of perspectives on teaching and learning English language in a classroom setting.

Five English language teachers from primary government schools are the research participants in this study. Participants ought to have taught for at least five years. The teachers were being chosen using purposive sampling. Purposive sampling is a type of non-probability sampling in which the researcher makes decisions about which people to include in the sample based on a range of criteria, such as capacity and willingness to participate in the research or specialized knowledge of the research issue (Rai & Thapa, 2015). The research requires participants who have been incorporating technology in ESL classrooms. Therefore, purposive sampling is chosen in this study.

The research was conducted based on an organized flow to ensure methodological rigor and efficient data collecting and analysis to be followed. First, the goals, research questions and methods were being taken into consideration when developing the research design. Next, consent was being asked from the participants and interview sessions were being scheduled. Semi-structured interviews were being conducted to explore the challenges faced by ESL teachers in incorporating technology in ESL classrooms. The interview sessions were being recorded for further analysis. Researcher transcribed interviews for data analysis. The data was being analysed thematically to identify key insights from the interviews. The interview protocol was being used by the researcher as a tool to collect the required information. They provide researchers with the opportunity to explore participants' perspectives, experiences, beliefs and opinions in their own words. The researcher aimed to use semi-structured interview as the study investigated challenges faced by ESL teachers in incorporating technology in ESL classrooms which required more probing and instant questions from the responses given by the participants. The data was being collected through the interview sessions with the participants. After gathering the data, the researcher carried out a thematic analysis.

## Findings and Discussion

Research Question 1: What are the challenges faced by ESL teachers in incorporating technology in ESL classrooms?

### *Lack of Technology Tools*

In the semi-structured interviews, several ESL teachers reported challenges related to insufficient access to laptops or computers for their pupils.

*"... We have a classroom set of six laptops, but with 30 pupils, it's difficult to provide every pupil with individual access. They have to share, which limits their opportunities to practice on their own..." (IV, P1)*

*"... I want to use educational websites for vocabulary building and grammar exercises, but with only one laptop for every five pupils, it's impossible to engage everyone simultaneously...." (IV, P3)*

These comments reflect the recurring theme of inadequate access to technological tools, which hindered ESL teachers' ability to implement personalised learning experiences and foster independent practice among pupils.

### *Technological Barriers In Terms of Accessibility to the Internet*

During the semi-structured interviews, several ESL teachers shared that unreliable internet connectivity significantly impacted their ability to deliver lessons effectively.



*“... The internet cuts out frequently during lessons. It’s frustrating when we are in the middle of a listening or speaking activity, and the video or audio resources suddenly stop working...” (IV, P1)*

*“... I often prepare lessons using online materials, but the internet speed is so slow that it takes a long time to load videos, making it hard to keep pupils engaged...” (IV, P3)*

*“... I have been reluctant to use technology in ESL classroom because every time I want to use a computer, something happens. I spent some time trying to figure it out, why isn’t the connection working? Why don’t I have internet?” (IV, P5)*

These dialogues highlight how poor internet connectivity disrupts lesson plans and creates challenges among ESL teachers in using digital tools in ESL classrooms that require a stable online connection.

### ***The Inadequacy of the Teacher's Digital Competency***

In the semi-structured interviews, a few ESL teachers also expressed a lack of confidence in using digital tools for lesson planning and instructional delivery in ESL classrooms.

*“... I know there are many great educational tools out there, but I don’t feel comfortable using them. I end up sticking to what I know, which is traditional lesson planning, even though I know technology could make it more engaging...” (IV, P2)*

*“... I’ve tried to use online platforms like Kahoot and Quizlet, but I’m not sure how to use them effectively, and it often feels like a waste of time when they don’t work as expected...” (IV, P3)*

*“... I know how to use a computer, but I’m not sure how to use it in a way that actually supports language learning. I’ve tried using apps, but they don’t always seem to be helping my pupils...” (IV, P4)*

*“... I’ve attended a few workshops, but they didn’t give me enough specific guidance on how to integrate technology into my lessons. I often find myself struggling to connect the digital tools with the language objectives...” (IV, P5)*

These comments reveal that while ESL teachers recognize the potential benefits of technology, their limited digital competency prevents them from fully incorporating these tools into their teaching practices in ESL classrooms.

Research Question 2: What are the ways to help ESL teachers to incorporate technology in ESL classrooms?

### ***Providing Targeted Training and Professional Development***

*“... I’ve had some basic training on using technology, but it wasn’t specific to ESL. It would be really helpful if there were workshops on how to integrate tools like apps or online platforms that cater specifically to language learners...” (IV, P1)*

*“... I’d love more professional development to help me understand how to integrate them in a meaningful way...” (IV, P4)*

*“... I would love to attend workshops that focus specifically on using technology for language learning. I know the tools are out there, but I need more guidance on how to adapt them for my pupils’ needs...” (IV, P5)*

The lack of professional development opportunities in using educational technology was frequently cited as a barrier. In align with the study by Priyadharshini & Azlina (2022), it’s known that ESL teachers are not familiar with integrating technology in ESL instruction. This has creating challenges for ESL teachers to navigate online resources, evaluate information and communicate effectively in digital formats In ESL classrooms. Addressing these challenges requires comprehensive strategies that include targeted professional development programs aimed at promoting a culture of innovation and digital integration in education (Hew & Brush, 2007). Many teachers expressed the need for structured, hands-on training sessions that focus on practical ways to use technology effectively in ESL teaching. These sessions would not only teach teachers how to use digital tools but also how to align them with their curriculum and the specific needs of their pupils.

#### ***Ensuring Access to Technological Resources and Devices***

*“... The biggest barrier for me is not having enough computers in the classroom. We only have a few, so it’s difficult for each student to engage with digital activities. If every student had their own device, I could create more personalized lessons...” (IV, P2)*

*“... If we don’t provide them with access to devices and educational tools in the classroom, we’re not giving them the same chances to learn. The technology we use—whether it’s laptops, tablets, or educational software—helps level the playing field...” (IV, P3)*

*“... Ensuring access to devices and resources helps bridge the gap between pupils who may have different levels of exposure to technology at home. For many of my pupils, the devices they use in class might be their only opportunity to interact with educational apps or participate in online learning activities. Without access to these tools, they can miss out on valuable opportunities to practice English language skills in an interactive, engaging way...” (IV, P4)*

Access to the necessary technology and devices is fundamental in allowing ESL teachers to incorporate technology effectively into their classrooms. Many ESL teachers in the interviews pointed out that while they may be willing to use technology, the lack of appropriate tools (such as computers, tablets, or interactive whiteboards) often holds them back. Providing schools with up-to-date equipment and ensuring that technology is accessible in the classroom is seen as a crucial step in supporting teachers. This is aligned with the study by Jeong et al. (2020) where it stated that the access to technological resources is important to predict pupils’ capacity for higher-order skills in the ESL classrooms.

#### ***Providing Ongoing Technical Support***

*“... It’s frustrating when the projector or the Wi-Fi isn’t working. I know the technology would be great for the lesson, but if there’s no one around to help, I often have to cancel or make do with traditional methods...” (IV, P2)*

*“... Without proper support, small issues can become big obstacles. For example, if a pupil’s microphone isn’t working for a speaking task, and there’s no immediate help available, that*

*pupil might miss out on that whole practice opportunity. Similarly, apps or websites might freeze or have bugs, and without technical support, we might waste time trying to figure out the problem instead of practicing English...” (IV, P3)*

*“... Last semester, we were using an interactive reading app that helped pupils practice pronunciation and fluency. However, a few pupils encountered issues with the app not syncing correctly with their accounts. Without immediate technical support, they would have lost valuable practice time which in turn affecting the smoothness of English lessons...” (IV, P5)*

In many cases, ESL teachers are willing to use technology but feel discouraged by technical issues that arise during lessons. These issues can range from software malfunctions to difficulties with hardware setup. Providing ongoing technical support within schools can help ESL teachers resolve these problems quickly, allowing them to maintain the flow of their lessons without interruptions. The finding supported earlier study by Endriyati (2019) that technical support staff who are knowledgeable and available is important to ensure that ESL teachers have a smooth experience when using technology in their classrooms.

### Conclusion

In conclusion, ESL teachers face a range of significant challenges in incorporating technology into ESL classrooms, including a lack of technology tools, technological barriers in terms of accessibility to the Internet and the inadequacy of the teacher's digital competency. These obstacles hinder ESL teachers' ability to leverage technology effectively for enhancing language learning, often resulting in a reliance on traditional teaching methods that may not engage pupils as effectively. By understanding these challenges, this paper highlights the need for targeted solutions, such as providing targeted training and professional development, ensuring access to technological resources and devices and providing ongoing technical support for ESL teachers.

The incorporation of technology into ESL classrooms has proven to be a transformative approach to language learning, offering both opportunities and challenges. Technology facilitates a more engaging and interactive learning environment, providing pupils with a variety of tools to practice language skills, including apps, language learning platforms and multimedia resources. These tools allow for personalized learning experiences, where pupils can progress at their own pace, receive instant feedback and engage with content in ways that traditional methods may not allow. This dynamic integration of technology enhances the overall language acquisition process by catering to diverse learning styles and needs.

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## References

- Alamri, B. (2021). Challenges of Implementing Technology in ESL Writing Classrooms: A Case Study. *English Language Teaching*, 14(12), 36-43.
- Amelina, S. M., Tarasenko, R. O., & Semerikov, S. O. (2022). Using Mobile Applications With Augmented Reality Elements in the Self-study Process of Prospective Translators. *Educational Technology Quarterly* 2022, 4, 263-275.
- Domínguez, M. M., & Rivera, J. M. (2020). Internet Adoption and Usage Patterns in Rural Mexico. *Technology in Society*, 60. 10.1016/j.techsoc.2019.101226
- Endriyati, P., & Abasa, A. (2019). Challenges in Teaching English at Rural and Urban Schools and Their Solutions. *International Journal of Scientific & Technology Research*, 8(10), 3706-3710.
- Epstein, J. (2018). Schools, Families and Community Partnerships in Teachers' Professional Work. *Journal of Education for Teaching: International Research and Pedagogy*, 44(3), 1-10.
- Ferrari, A., & Punie, Y. (2013). *DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe*.
- Fetylyana, N. P., Harwati, H., & Melor, M. Y. (2019). Using Technology in ESL Classroom: Highlights and Challenges. *Creative Education*, 10(12), 3205-3212.
- Gomez-Trigueros, I. M., & Yanez de Aldecoa, C. (2021). The Digital Gender Gap in Teacher Education: The TPACK Framework for the 21st Century. *Eur. J. Investig. Health Psychol. Educ.*, 11(4), 1333-1349.
- Jeong, H. K., Yi, P., & Hong, J. I. (2020). Students' Academic Use of Mobile Technology and Higher-Order Thinking Skills: The Role of Active Engagement. *Educ. Sci*, 10(3), 47.
- Kee, T. P., Harwati, H., & Nur, A. S. (2021). The Use of Technology in Teaching of Writing Among Malaysian ESL Secondary School Teachers. *Arab World English Journal (AWEJ) Special Issue on CALL*, 7, 314-330.
- Kokkinos, C. M., & Vlavianou, E. (2021). The Moderating Role of Emotional Intelligence in the Association Between Parenting Practices and Academic Achievement Among Adolescents. *Current Psychology*, 40, 4333-4347.
- Kouser, S., & Majid, I. (2021). Technological Tools for Enhancing Teaching and Learning Process. *Towards Excellence: An Indexed, Refereed & Peer Reviewed Journal of Higher Education*, 13(1), 366-373.
- Li, S., & Cheng, E. P. (2021). Effects of the Application of Information Technology to E-Book Learning on Learning Motivation and Effectiveness. *Frontiers in Psychology*, 12, 752303.
- Mardonovich, B. K., & Sobirovna, R. K. (2023). Ways of Using Modern Pedagogical Technologies in the Classroom in Primary School. *Web of Scientist: International Scientific Research Journal*, 4(3), 38-43.
- Mattar, J. (2018). *Constructivism and Connectivism in Education Technology: Active, Situated, Authentic, Experiential, and Anchored Learning*. RIED. Revista Iberoamericana de Educación a Distancia.

- Melor, M. Y., Norazah, N., Hadi, S., Choo, H. S., & Mohamed, A. E. (2013). Pros and Cons of Using ICT in Teaching ESL Reading and Writing. *International Education Studies*, 6(7), 119-130.
- Min, H., & Nasir, M. K. M. (2020). Self-regulated learning in a massive open online course: A review of literature. *European Journal of Interactive Multimedia and Education*, 1(2), 1-6.
- Park, S. (2017). Digital Inequalities in Rural Australia: A Double Jeopardy of Remoteness and Social Exclusion. *Journal of Rural Studies*, 54, 399-407.
- Pinho, C., Franco, M., & Mendes, L. (2021). Application of Innovation Diffusion Theory to the E-learning Process: Higher Education Context. *Education and Information Technologies*, 26(1), 421-440.
- Pozo, J. I., Echeverría, M. P. P., Cabellos, B., & Sánchez, D. L. (2021). Teaching and Learning in Times of COVID-19: Uses of Digital Technologies During School Lockdowns. *Frontiers in Psychology*, 12.
- Priyadharishini, P., & Azlina, A. A. (2022). The Effectiveness of the Use of Technology in a Primary ESL Classroom: A Systematic Literature Review. *International Journal of Academic Research in Progressive Education and Development*, 11(2), 1812 - 1835.
- Rai, N., & Thapa, B. (2015). A study on purposive sampling method in research. *Kathmandu: Kathmandu School of Law*, 5(1), 8-15.
- Ruhul, M. A. (2019). The Role of Educational Technology in the ESL Classroom. *Global Journal of Archaeology & Anthropology*, 11(1), 555801.
- Swan, B., Wolf, K., & Cano, J. (2011). Changes in Teacher Self-efficacy from the Student Teaching Experience through the Third Year of Teaching. *Journal of Agricultural Education*, 52(2), 128-139.
- Simin, S., & Heidari, A. (2013). Computer-Based Assessment: Pros and Cons. *Elixir International Journal*, 55, 12732-12734.
- Tasker, T. J., & Cisneroz, A. (2019). Open-ended questions in qualitative research: Keeping an open mind as researchers. *Curriculum and Teaching Dialogue*, 21, 119-122.
- Vanessa, J. J. Berok., & Melor, M. Y. (2019). Chasing the Emerging Trend of ICT: The Challenges Faced by ESL Teachers and Their Attitude in Integrating ICT in Rural Schools of Tatau District. *Journal of Information System and Technology Management*, 4(13), 84-96.
- Wang, Q., & Zhao, G. (2021). ICT Self-efficacy Mediates Most Effects of University ICT Support on Preservice Teachers' TPACK: Evidence from Three Normal Universities in China. *Br. Educ. Res. Assoc.*, 52, 2319-2339.
- Wang, Y., Hong, D., & Huang, J. (2023). A Diffusion of Innovation Perspective for Digital Transformation on Education. *Procedia Computer Science*, 225, 2439-2448.
- Young, J. (2019). Rural Digital Geographies and New Landscapes of Social Resilience. *Journal of Rural Studies*, 70, 66-74.