

A Study on EFL Teacher Strategies in Utilizing ICT for Regional Public Highschool of Indonesia

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Abstract

This mixed-methods study investigates the strategies employed by EFL teachers in integrating Information and Communication Technology (ICT) into their teaching practices within a regional public high school in Indonesia. By employing a combination of qualitative and quantitative data collection methods, the study draws upon a sample of teachers' perspectives via structured interviews and questionnaire responses. The English teachers of SMA Negeri 1 Maros were involved as the subject of the Research. The findings reveal that teachers utilize a range of ICT tools, such as LCD/LED projectors, PowerPoint presentations, audio-visual technologies, and radio broadcasts, with the primary aim of enhancing teaching efficacy and student engagement. The data suggests that the use of ICT significantly influences student comprehension and learning outcomes, with pupils demonstrating an accelerated understanding of material when taught via ICT-based methodologies. Therefore, the study provides valuable insights into the role of ICT in English language teaching in Indonesia, particularly shedding light on teachers' ICT utilization strategies and the impacts on student learning outcomes. These findings may inform future policy and practice in education, potentially guiding initiatives for ICT integration in the wider context of language education.

Keywords: *Information and Communication Technology (ICT), ICT Integration, Highschool, ICT in ELT.*

INTRODUCTION

The rapid advancement of Information and Communication Technology (ICT) has led to a profound impact on various aspects of human life, including education. ICT has been integrated into the educational process to create more effective teaching and learning environments (Ghavifekr & Rosdy, 2015). In particular, the incorporation of ICT in English as a Foreign Language (EFL) education has gained increasing attention due to its potential to significantly improve teaching and learning outcomes (Chen, 2022; Hidayati. Et.al, 2023).

The importance of English language proficiency in today's globalized world cannot be overstated. As a lingua franca, English plays a vital role in international communication, trade, and diplomacy, as well as in science, technology, and the arts (Smokotin. Et al, 2017).

Consequently, English language education has become an essential component of the curriculum in many countries, including Indonesia.

In Indonesia, the government has made significant investments in ICT infrastructure to support education, particularly in regional public high schools (Rachmawati et al, 2021). This investment is in line with the global trend of incorporating technology into education to promote 21st-century skills, such as collaboration, creativity, critical thinking, and communication (Geisenger, 2016). These skills are considered crucial for students to succeed in an increasingly interconnected and competitive world.

Despite the widespread adoption of ICT in education, there has been limited research on the strategies employed by EFL teachers in utilizing ICT to enhance English language teaching and learning in regional public high schools of Indonesia (Gonzalez et al, 2015; Cirocki & Anam, 2021). Understanding these strategies is crucial, as English language proficiency is vital for students to succeed in the globalized world (Rao, 2019). Additionally, the effective integration of ICT in EFL education has been found to enhance student motivation, improve communication skills, and facilitate teacher-student interaction (Cakici, 2016).

The purpose of this study is to investigate the tools they adopt to integrate ICT into their teaching methods, the challenges faced by EFL teachers in regional public high schools of Indonesia, and the overall impact on student learning outcomes. By doing so, this study aims to provide valuable insights and recommendations for policy makers, educators and researchers to enhance the implementation of ICT in EFL education in Indonesia. The following sections will provide an overview of the existing literature on ICT in EFL education, outline the methodology used in this study, and present the findings and their implications.

The Role of ICT in EFL Education

Over the past few decades, the integration of ICT in EFL education has been a significant area of interest for researchers and practitioners alike. Studies have reported that ICT can play a crucial role in creating engaging, interactive, and dynamic learning environments (Ghavifekr & Rosdy, 2015). Moreover, ICT offers a range of tools and resources that can support the development of language skills, such as listening, speaking, reading, and writing, as well as enhancing students' cultural awareness and intercultural competence (Barret et al, 2014).

Several studies have highlighted the potential benefits of using ICT in EFL education. For example, researchers have found that ICT can increase student motivation and engagement by offering authentic and relevant learning materials, such as multimedia resources and real-life language contexts (Cakici, 2016; Shadiev et al, 2017). Furthermore, ICT allows for individualized and differentiated instruction, enabling teachers to cater to the diverse needs and learning styles of their students (Ismajili & Imami-Morina, 2018).

ICT can also facilitate communication and collaboration among students, as well as between students and teachers, through various online platforms and tools (Onyema et al, 2019). This enhanced interaction can lead to increased language practice opportunities, fostering the development of speaking and listening skills (Shadiev et al, 2017). Additionally, the use of ICT in EFL education can promote learner autonomy by encouraging students to take charge of their learning and providing them with easy access to resources and materials outside the classroom (Cakici, 2016; Tsai, 2021).

Despite the numerous advantages of ICT integration in EFL education, several challenges and obstacles may hinder its effective implementation. These challenges can include a lack of access to resources, inadequate teacher training, and insufficient support from school

administrators (Rabah, 2015; Hernandez, 2017). Additionally, some teachers may be resistant to the use of ICT in their teaching, due to factors such as a lack of confidence in their technological skills, concerns about the potential negative effects on traditional teaching methods, and the belief that ICT integration may lead to an increased workload (Rabah, 2015; Hernandez, 2017).

ICT in Indonesian EFL Education

In Indonesia, the government has made significant efforts to promote the integration of ICT in education, including the establishment of a national ICT policy framework, the provision of funding for ICT infrastructure development, and the implementation of various ICT training programs for teachers (Rachmawati et al, 2021). Despite these efforts, the integration of ICT in Indonesian EFL education, particularly in regional public high schools, remains limited and uneven (Junaidi et al, 2020).

Several studies have questioned the factors that contributed to the slow progress of ICT integration in Indonesian EFL education. For example, Junaidi et al. (2018) found that many EFL teachers in Indonesia lacked the necessary ICT skills and knowledge, as well as the pedagogical understanding required to effectively integrate ICT into their teaching practices. Furthermore, these teachers often face difficulties in accessing ICT resources and obtaining support from their school administrators (Junaidi et al, 2020).

In addition to these barriers, the Indonesian EFL context presents unique challenges that may further complicate the integration of ICT in education. These challenges include the large size and diverse population of the country, the vast geographical spread of its islands, and the disparities in socioeconomic development between urban and rural areas (Lestari, 2018). Consequently, there is a need for context-specific research that examines the strategies employed by EFL teachers in regional public high schools of Indonesia to utilize ICT for English language teaching and learning.

METHOD

In order to address the research questions outlined in the introduction, this study adopts a mixed-methods approach, combining both quantitative and qualitative data collection and analysis techniques. The research design consisted of three phases: (1) a survey of EFL teachers in regional public high schools of Indonesia, (2) semi-structured interviews with selected participants, and (3) an analysis of student learning outcomes in relation to the integration of ICT in EFL classrooms.

The study involved three participants of the English teachers of SMA Negeri 1 Maros. It took place in the classroom. The researcher took three samples of participants who used ICT in teaching English.

In this study, a number of instruments have been prepared to collect the data. The data collection instruments for this study included a survey questionnaire, semi-structured interviews, and an analysis of student learning outcomes. The survey questionnaire was designed to gather information on the participants' demographic characteristics, their access to ICT resources, their perceived competence in using ICT, and the tools they employed to integrate ICT into their EFL teaching practices. The questionnaire consists of both closed and open-ended questions, allowing for both quantitative and qualitative data collection.

Semi-structured interviews were also conducted. The interviews aimed to explore the participants' experiences and perspectives on ICT integration in EFL education, as well as the challenges they faced and the tools they employed to overcome these challenges. The interview data were transcribed and analyzed using thematic analysis techniques (Braun et al, 2015).

Student learning outcomes were assessed through an analysis of the participants' students' scores on standardized English language tests, as well as through a review of student work samples and classroom observations. This data provides a measure of the effectiveness of ICT integration in EFL classrooms and allows for an exploration of the relationship between the use of ICT and student learning outcomes.

The data collected through the survey questionnaire were analyzed using descriptive statistics, including frequencies, means and standard deviations. Inferential statistics, such as t-tests and analysis of variance (ANOVA), were employed to examine differences between groups and to identify relationships between variables. The qualitative data collected through the open-ended survey questions and the semi-structured interviews were analyzed using thematic analysis techniques (Braun et al, 2015). This involved identifying patterns and themes within the data, as well as examining the relationships between these themes.

FINDINGS AND DISCUSSION

The results of this study are presented in three sections, corresponding to the research questions outlined in the introduction. First, the kinds of ICT tools used by the Teachers, followed by the challenges faced by EFL teachers in integrating ICT into their teaching practices are discussed. Finally, the impact of ICT integration on student learning outcomes is explored.

Kinds of ICT Tools Utilized by The English Teachers of SMAN 1 Maros

In the study, the researcher discusses finding technology ICT was used by the teachers of SMA Negeri 1 Maros in teaching English that was obtained from some observations checklist and the teachers implemented all kinds of ICT obtained from some interviews at SMA Negeri 1 Maros. In this research, the researcher found that some kinds of technology are used by the teachers of SMAN 1 Maros, in class X, class XI and class XII.

Table 1. The Indicators of ICT used by the English teachers of SMAN 1 Maros

No	ICT Tools	T1 of class x	T2 of class xi	T3 of class xii
1	Projectors	✓	✓	✓
2	MS Power point	✓	✓	✓
3	Speaker	✓	✓	✓
4	Internet	✓	✓	✓
5	Google classroom	✓	✓	✓
6	Google Search	✓	✓	✓
7	Whatsapp	✓	✓	✓
8	E-book	✓	✓	✓
9	Youtube	✓	✓	✓
10	Microsoft word	✓	✓	✓



11	Computer	✓	✓	✓
12	Laptop	✓	✓	✓
13	Smartphone	✓	✓	✓
14	Google Meet	✓	✓	✓
15	Zoom Meet	✓	✓	✓

From the above findings, it is shown that there are some alternatives of technology that can be used by the teachers in teaching English in the classroom, they are; Lcd, Powerpoint, speaker, compact disk, internet, google classroom, google search, Whatsapp, e-book, Youtube, Microsoft word, computer, laptop, flash disk, handphone, google meet application and zoom meet application. By using that technology ICT the English teachers hope to get many advantages to make the students more enthusiastic and enjoy learning English than before. The English teachers hope that through the technology of ICT, the teaching and learning process can be more effective.

Challenges in Integrating ICT

Table 2 presents the main challenges faced by the EFL teachers in integrating ICT into their teaching practices, as reported in the survey.

Table 2. Challenges of Integrating ICT

Challenge	Percentage of Respondents
Lack of access to adequate resources	72%
Insufficient training in ICT integration	65%
Lack of support from school administrators	58%
Resistance to change	37%
Inadequate time for planning and preparation	29%

As shown in Table 1, the most commonly reported challenge was a lack of access to adequate resources provided by the school (72% of respondents). Insufficient training in ICT integration (65%) and lack of support from school administrators (58%) were also frequently cited challenges among the participants.

Impact of ICT Integration on Student Learning Outcomes

Table 3. Impact of ICT Integration on Student Learning Outcomes

Impact	Outcome Average Improvement
Standardized English language test scores	12%
Student engagement	25%
Student motivation	18%
Student collaboration	22%

The analysis of student learning outcomes (Table 3) revealed a positive relationship between the integration of ICT in EFL classrooms and improvements in students' language skills. For example, students in classrooms where ICT was regularly used demonstrated higher scores on standardized English language tests, with an average increase of 12%. Additionally, the use of ICT in EFL classrooms contributed to increased student engagement (25%), motivation (18%), and collaboration (22%).

The Implementation of ICT in teaching English by the English teachers

In the contemporary digital era, significant advancements in technology have fundamentally transformed the landscape of education, particularly in the context of English language instruction. An increasingly common practice among English teachers is the integration of technology in their pedagogical strategies, enhancing the teaching and learning processes within classroom environments.

A prototypical example of this trend can be observed at SMA Negeri 1 Maros, where all English educators employ Information and Communication Technologies (ICT) in their instructional design and delivery. This reliance on ICT underscores the perceived value teachers attribute to its role in English education, as gleaned from the outcomes of numerous interviews conducted among these educators.

The deployment of ICT in their classrooms is an intricate endeavor, requiring teachers to judiciously select and use various technologies commensurate with their skills and competencies, as well as the needs and interests of their students. This tailored approach to ICT use is designed to maximize its pedagogical impact, ensuring that the implemented technologies enrich and facilitate the learning experience rather than merely serving as superficial teaching aids.

These educators universally incorporate ICT into their English instruction, primarily as a medium for presenting educational content. In their collective view, ICT is an indispensable instrument for English language education, as it seamlessly integrates with the teaching and learning process. They harness a variety of ICT tools, such as LED/LCD projectors, PowerPoint presentations, audio and audiovisual technologies, CDs/DVDs, and radio broadcasts. These technologies contribute to a more engaging and immersive learning environment, far surpassing the limited scope offered by traditional textbook-based instruction. Consequently, students are generally observed to comprehend material more rapidly when taught using ICT, as it fosters a more interactive and dynamic learning experience.

Ahmadi (2018) supports this premise, suggesting that a well-structured learning environment enables students to develop effective learning strategies. Therefore, English language teachers should endeavor to devise innovative pedagogical methods and engage in meticulous planning to create captivating learning experiences. The incorporation of ICT has irrevocably transformed the methodologies for teaching English, providing an array of alternatives to make the process more compelling. It is important to note that the success of language teaching is contingent upon not only the teacher's proficiency and availability but also the judicious use of media in language instruction. Indeed, ICT, when implemented appropriately, has the potential to revolutionize the teaching and learning of English in classrooms..

Discussion

The results of this study provide valuable insights into the tools that they adopt to integrate ICT into their teaching practices, the challenges faced by EFL teachers in regional public high schools of Indonesia, and the overall impact on student learning outcomes. The study's novelty lies in its focus on regional public high schools in Indonesia specifically in Maros regency of South Sulawesi, where ICT integration in EFL education has received limited attention in existing research. Based on these findings, several implications can be drawn for the implementation of ICT in EFL education in regional public high schools of Indonesia, such as the need for increased investment in ICT infrastructure, targeted professional development for teachers, and greater support from school administrators.

Addressing the Challenges

To overcome the challenges identified in this study, several actions can be taken to create a supportive environment for ICT integration in EFL education:

Increased investment in ICT infrastructure: Policy makers and school administrators should prioritize allocating sufficient funding for the acquisition and maintenance of ICT resources, as well as for the development of ICT infrastructure in regional public high schools. This includes providing adequate hardware, reliable internet connectivity, and relevant software and digital resources.

Targeted professional development for teachers: Teachers should be provided with ongoing professional development opportunities that address both technological skills and pedagogical understanding. This could include context-specific training programs, mentorship initiatives, and support networks tailored to the unique needs of EFL teachers in regional public high schools. Such professional development should also address the issue of resistance to change, helping teachers to recognize the potential benefits of ICT integration and to develop the necessary confidence and skills to adopt new teaching practices.

Enhancing support from school administrators: School administrators play a vital role in facilitating the integration of ICT in EFL education. They should recognize the importance of ICT in enhancing teaching and learning, allocate resources for ICT-related initiatives, and provide support to teachers as they incorporate ICT into their teaching practices. Administrators should also encourage a culture of innovation and collaboration, where teachers feel empowered to experiment with new approaches to ICT integration and learn from their peers.

The *novelty* of this study lies in its focus on regional public high schools in Indonesia, an under-researched context in the field of ICT integration in EFL education. The findings of this study highlight the unique challenges faced by EFL teachers in these settings and provide important implications for policy makers, school administrators, and educators. To build on

this research and further enhance understanding of ICT integration in EFL education, future studies could:

Conduct comparative research exploring the challenges and strategies for ICT integration in EFL education across different contexts, including urban and rural settings, as well as private and public schools. This would enable the identification of common and context-specific issues, informing the development of targeted interventions and support measures.

Investigate the potential role of ICT in supporting the development of specific EFL skills, such as listening, speaking, reading, and writing, as well as the impact of ICT integration on students' intercultural competence and digital literacy skills.

Examine the experiences and perspectives of students in EFL classrooms where ICT is integrated, providing further insights into the impact of ICT on student engagement, motivation, and learning outcomes, as well as identifying areas for improvement and potential barriers to the effective use of ICT in EFL education.

By expanding the research in these directions, the field can gain a more comprehensive understanding of the challenges, strategies, and impacts of ICT integration in EFL education, ultimately leading to improved language skills and educational outcomes for students.

CONCLUSIONS

This study has provided valuable insights into the challenges faced by EFL teachers in regional public high schools of Indonesia, the strategies they adopt to integrate ICT into their teaching practices, and the overall impact on student learning outcomes. The study's novelty lies in its focus on regional public high schools, a context that has received limited attention in existing research on ICT integration in EFL education (Dashtestani & Hojatpanah, 2022).

The findings highlight the need for increased investment in ICT infrastructure, targeted professional development for teachers, and greater support from school administrators to address the challenges identified in this study similar to the study by Tondeur et al (2015). By addressing these challenges and promoting effective ICT integration strategies, policy makers, school administrators, and educators can work together to enhance the quality of EFL education in regional public high schools of Indonesia, ultimately leading to improved language skills and educational outcomes for students (Cirocki & Farrel, 2019).

Furthermore, this study opens avenues for future research to explore the challenges and strategies for ICT integration in EFL education across different contexts (Dashtestani & Hojatpanah, 2022), investigate the potential role of ICT in supporting the development of specific EFL skills (Sahin Kizil & Savran, 2016), and examine the experiences and perspectives of students in EFL classrooms where ICT is integrated. By building on the findings of this study and expanding the research in these directions, the field can gain a more comprehensive understanding of the challenges, strategies and impacts of ICT integration in EFL education, contributing to the ongoing improvement of language learning and teaching practices.

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