

ICT's Benefits and Challenges in EFL Classroom: A Systematic Review of the Literature from 2017 to 2023

Eka Noviyanti¹, Oei Stefani², Songidah³, Umi Kulsum⁴

^{1,2,3,4}Universitas Muhammadiyah Purwokerto

ARTICLE INFO

Article history:

DOI:

[10.30595/pssh.v21i.1503](https://doi.org/10.30595/pssh.v21i.1503)

Submitted:

Jan 25, 2025

Accepted:

Apr 16, 2025

Published:

Apr 25, 2025

Keywords:

ICT; Benefits of ICT;
Challenges of ICT; Rural Area,
EFL Classroom

ABSTRACT

Information Communication Technology (ICT) has become a significant aspect of teaching English as a Foreign Language (EFL) worldwide, including Indonesia.. This paper aims to investigate both the benefits and difficulties associated with using ICT in Indonesian EFL classrooms and explore ways to better prepare teachers to integrate ICT into their language instruction. The use of ICT in EFL teaching has been advantageous, particularly in enhancing classroom interaction and diversifying educational resources. This significance spurred the researchers to examine existing literature on ICT in English classrooms, both within Indonesia and internationally. A comprehensive literature review covering 2017 to 2023 was conducted, sourcing data from electronic databases such as SCOPUS, Semantic Scholar, Scimago, ERIC, ELICIT, Dialnet, and Google Scholar. Twenty selected studies were analyzed following the systematic review methodology outlined by Gough and Newman (year). The findings highlight several advantages of ICT in education. One key benefit is that it allows students to be more actively engaged and take on more significant roles in their learning experiences. However, there are notable challenges in implementing ICT, especially in regions with poor connectivity, like rural areas. From the students' perspective, some lack the necessary communication tools to participate fully in ICT-supported teaching and learning activities. On the teachers' side, one of the primary obstacles is the lack of adequate training and access to the necessary technological devices.

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).



Corresponding Author:

Eka Noviyanti

Universitas Muhammadiyah Purwokerto

Jl. KH. Ahmad Dahlan, Dukuhwaluh, Po. Box 202 Purwokerto 53182, Indonesia

Email: ekanoviyanti19@guru.smk.belajar.id

1. INTRODUCTION

Information and Communication Technology (ICT) has become an essential part of our daily lives, and this is also true in Indonesia, particularly in teaching English as a foreign language (references to support the claim). The country is beginning to see both the positive impacts and challenges of using ICT in language education. However, the full potential of ICT in Indonesian language classrooms has still not been wholly tapped into. Research is needed to explore various aspects, including the views of teachers and students on using ICT (Kossybayeva, et al. 2022), implementation strategies (Wong, 2017), and the challenges involved (Mai, 2020). Indonesia faces several hurdles in incorporating ICT in education, such as limited internet access, availability of technological resources, teacher training, attitudes of teachers and students towards ICT, consistency in using ICT effectively, and integration of ICT into curriculum and textbook design.

Knowledge and the swift exchange of information are crucial in the modern world. Countries involved in the digital era's socio-cultural and economic developments are those with the necessary technology and knowledge. Technology, especially in English language education, has shown significant potential and importance. ICT includes various tools and resources for communication, information creation, storage, and management (Mai, 2020), such as computers, the internet, broadcasting technologies, and various devices like satellite systems, radios, TVs, and mobile phones.

ICTs play a crucial role in delivering services to citizens effectively. Shao (2022) supports this view. The term ICT encompasses hardware and software for communication, including satellite systems, computers, radios, TVs, mobile phones, and related services like video conferencing and distance learning. The better ICT is implemented in English as a Foreign Language (EFL) classes, the more influential the results. The actual value of ICT lies in its ability to facilitate improved communication and information access, even over long distances. EFL classrooms have seen various innovative uses of ICTs.

Technological and scientific developments have greatly influenced language teaching. Education formats and methodologies are evolving. Today, integrated pedagogy using ICTs, supported by purposeful tools, is increasingly common in language education. Davies (2011) describes ICT-integrated education as an interactive learning approach that heavily utilizes ICT, often involving collaborative learning with technology and online support. With the widespread use of smart devices, our daily lives are deeply intertwined with technology. The advancement of ICT in education has led to the development of numerous educational software and platforms (Mai. L.T, 2020). Learning a language has become more accessible with technology, making English lessons with technological support the most engaging and effective for students.

ICT has become vital to the global education curriculum (Chubakumzuk & Moameren, 2021). The introduction of ICT in education is changing the structure of the educational process and the roles of students and teachers (Yamaletdinova, 2016). The growing use of ICT in EFL, particularly in speaking classes (Idayani and Sailun, 2017), and the increasing use of ICT by teachers in young learners' EFL classrooms (Taufik, 2023) highlight the importance of addressing the challenges and benefits of using ICT in EFL. This also includes training teachers to overcome their lack of ICT competence (Wu, 2023). The following are the research questions:

1. What are the benefits and challenges of using ICT in EFL classrooms?
2. Based on the literature study, how to overcome the lack of teachers' competence in using ICT?

2. METHODOLOGY

In this study, we performed a systematic review to explore the research questions mentioned earlier. As defined by Gough (2017), a systematic review is a methodical and rigorous examination of existing research using transparent and accountable methods. We adopted the systematic review process and methodology outlined by Newman and Gough (2017), primarily utilized in educational research. The details of this approach are elaborated in the following sections.



Developing Research Question

The research question for this systematic review was developed collaboratively by a team of researchers and a mentor professor. The focus was on the benefits and challenges of using ICT in EFL classrooms. Our interest in this area grew particularly during the extended period of remote learning brought about by the COVID-19 pandemic, leading us to investigate how ICTs are utilized in classroom settings. We initially searched to determine if other studies had summarized the role of ICT in English classrooms, revealing a research gap. Consequently, we reviewed literature from 2017 to 2023 on ICTs in EFL classrooms, both domestically and internationally. Our research question was broad, encompassing various aspects like purpose, focus, outcomes, design, methods, trends, and limitations of the studies, forming the primary dimensions of our review.

Designing Conceptual Framework

Our conceptual framework was based on national and international research on ICT. We started by examining Wong's (2017) study on using ICT for instant and asynchronous feedback in Hong Kong. Observations from this study highlighted ICT's role in enhancing student engagement, collaborative learning, and autonomous learning. We then extended our focus to ICT research within the EFL context, determining that the key aspects of our study would be ICT implementation, tools, and strategies within an EFL framework.

Constructing Selection Criteria

Following Newman and Gough's (2017) guidelines for systematic reviews, we set inclusion and exclusion criteria for our research. These criteria were refined by reviewing other systematic reviews from various authors. The criteria for including and excluding studies are detailed in Table 1.

Table 1. The Inclusion and Exclusion Criteria

<i>The studies were included if.....</i>	<i>The studies were excluded if.....</i>
Published between 2017 and 2023	Duplicates
Empirical and published as peer-reviewed articles in the journals.	Published before 2017
Focus on EFL.	Based on ESL and ESP.
Aimed at primary and secondary education	Based on EAP
Conducted in EFL classroom	Published in books
Context of primary and secondary education	Tertiary education context
	Theses/dissertations.

Developing a search strategy

We used various search strategies to ensure accuracy and reliability. We began by breaking down the concept of ICT and used Semantic Scholar to cover all aspects of ICT, including technology, media, software, hardware, and smartphones. This helped us create a search string for different databases. However, not all databases could accommodate the extended search string, so we used only primary terms in some cases. Our search covered electronic databases like SCOPUS, Semantic Scholar, Scimago, ERIC, ELICIT, Dialnet, and Google Scholar, focusing on ICT for EFL using both electronic and manual searches with two main concepts: ICT and EFL.

3. RESULTS AND DISCUSSIONS

ICT has long been integral to education, significantly altering traditional teaching and learning methods. The concept of "rote and drill" learning machines, introduced by an Ohio University professor named Pressey, highlights this change (Spulber, 2021). Advances in science and technology have made ICT a viable tool for teaching and learning, leading to its widespread adoption in educational institutions for teachers and students (Davis & Ellison, 2011). According to Chigisheva et al. (2021) and Soltovets et al. (2020), ICT is defined as organizing and managing the educational process and students' cognitive activities using computer technology, software, and methodological support within a communicative, educational environment to achieve expected results. Manako and Voronkin (2014) view the evolution of ICT and informatization as synonymous with developing "information epochs," playing specific educational roles and objectives.

Technology is a crucial learning component, as Soltovets et al. (2020) emphasized. The forced isolation due to geophysical remoteness during the pandemic has made this even more apparent. ICT acts as both a setting and a tool for learning, with its effectiveness primarily determined by the users. Therefore, one of the primary objectives of educational ICT usage is to enhance learning motivation (Idayani and Sailun, 2017). They found that ICT usage in speaking classes motivated 76.19% of students and increased the creativity of 35.71% of students in EFL classes. These findings suggest that ICT is advantageous for EFL classes.

Though ICT in education is not a novel concept, its rapid advancement in recent years is noteworthy. Wang and Woo (2007) consider ICT indispensable in education, encompassing both software like Microsoft Word and PowerPoint and hardware like computers and digital cameras. Kent and Facer (2004), as cited by Fu (2013), note that schools are primary venues for various computer-related activities, with homes as secondary settings. The role of ICT in education, learning, and assessment is increasingly recognized as vital for educational reform.

The evolution of information technology, including the internet, has marked a new era in educational technology. Online educational services, whether for degree or non-degree programs, primarily operate through the Internet, involving steps like registration, testing, payment, and assessments. Despite the varied approaches to

using ICT for educational purposes. Day, 2012 found from a survey of Greek schools that teachers generally perceive ICT positively in teaching English, favoring E-groups over traditional face-to-face groups.

ICT encompasses various communication devices and applications, including satellite systems, smartphones, computers, televisions, radios, and associated hardware and software for services like videoconferencing and remote learning (Sailun & Idayani, 2017). With the global rise of the English language, teachers must revamp their teaching methods. The integration of ICT into language education has created opportunities for innovation in English language teaching models. Mwendawa (2017) observed that ICT implementation programs have enhanced the quality of Indonesian education. Ahmadi (2018) suggests that well-planned ICT-enriched classrooms can significantly boost student learning efficiency. Teachers are encouraged to find engaging and effective English teaching strategies that incorporate technology.

E-learning is not the only ICT application in education; e-books also play a role. For example, using Booktrack (E-book) allows students to enhance their reading and writing skills by reading books while listening to corresponding music. Teachers can further engage students by assigning tasks like writing original songs or stories. Apps like Google Classroom are also prominent, as highlighted by Iftakhar (2016) and Febrianto (2021), for their unique features that streamline teachers' work by simplifying assignment creation, management, and collection, thus reducing administrative burdens.

Write a heading for each of the sections as it is hard to follow which belongs to the results and discussions.

This critical or systematic review study explores the advantages and challenges of ICT for EFL classes in Indonesia and how to prepare teachers to incorporate ICT in their language teaching. Then, the first paper is from Sailun and Idayani (2017) about "The Roles Of Integrating Information Communication Technology (ICT) In Teaching Speaking at The First Semester, English Students of FKIP UIR." This finding is that students were more motivated and gave better speeches using information and communication technology (ICT). It significantly affects how well pupils learn as well. Students preferred group projects, unstructured conversations, role-playing, or student presentations. Many of the students said that their lecturer used technology to teach speaking. They said that using ICT has benefited and made speaking the language easier. Most students confirmed that ICT improved their speaking abilities, knowledge, and creativity. Regarding their preferences for educational technology, some said they preferred using a projector and laptop or notebook, while others said they preferred watching videos. However, the percentage indicated that 66,67% of students did not have access to the internet at home, while 33,33% stated that they had it and were skillful in using ICT tools. The result showed that 47,62% of pupils possessed the necessary skills to operate these devices. While 9,52% of students claim they are not proficient in using these devices, 42,86% claim they feel standard in using ICT. Also, 80,95% of the sample's students reported using technology in English as a foreign language class. Conversely, eight students, or 19,05% of them, did not use it for studying. This study asserted that learning a language through advanced technologies is advantageous. The majority of students also confirmed that using ICTs improved students' knowledge, creativity, and motivation, in addition to helping them become more proficient speakers. We underline the challenges in the use of ICT. In this case, teachers should be masters in operating the ICT in the class. Therefore, the use of it will be more beneficial for the students.

The second literature study is about "Using ICT to Facilitate Instant and Asynchronous Feedback for Students' Learning Engagement and Improvements," which is written by Wong and Yang (2017), said that by increasing teacher-student and peer interactions, ICT makes a significant contribution to students' improved learning and engagement. One way to afford this support is to use online, mobile, and game-based learning resources to enable asynchronous and instantaneous feedback. In order to better understand how ICT can support both asynchronous and instantaneous feedback for students' learning engagement and advancements, this study

will look at an empirical case study of our classroom. Students received continuous learning support through learning tools like learning management systems and instant response systems, which provide both asynchronous and immediate feedback. Data from teacher interviews (n = 1), student focus groups (n = 15), and this study's conclusion show that ICT has benefits. It can provide synchronous and asynchronous feedback, improving student autonomy as active learners and increasing learning engagement. However, in the writer's opinion, asynchronous feedback will make getting a natural student reaction more challenging.

The following critical review comes from Mai (2020), "Benefits to Integrate ICT in EFL Teaching and Learning Activities." ICT benefits students' learning by boosting their confidence to engage fully in class discussions and encouraging them to communicate with their peers more. It works well in that pupils are engaged with sufficient information to give them the confidence to share and discuss their opinions with their peers. While using ICT in the classroom demonstrates that students behave better and are in control, teachers also view it as having fewer positive effects. Teachers may conclude that when ICT is used in the classroom, students become slightly out of control because the teachers are not the primary focus of the learning process. Teachers could change the way they teach and learn by utilizing ICT. Allowing the students to participate actively in their education might help them gradually switch from a teacher-centered to a learner-centered approach to teaching. Moreover, a wealth of authentic materials and direct communication opportunities with English language learners from various countries or regions can be obtained through the rich multimedia capabilities of ICT, giving teachers greater assurance when it comes to CLT. With ICT tools, students can locate, investigate, evaluate, share, and creatively present knowledge. Additionally, students can use ICT to access concepts and firsthand knowledge from diverse individuals, groups, and cultural contexts.

The benefits of ICT in Vietnamese EFL learning made the students more active, creative, and imaginative, allowing them to think outside the box and make the best use of their learning process to find related knowledge and information for learning. Besides, a lot of educational videos are provided for students online, which helps to improve students' ability in language learning skills such as reading, writing, listening, and speaking, which increases the students' confidence to participate actively in class. Using ICT, teachers change their teaching style from teacher-centered to learner-centered (Mai, 2020). Other than that, there were the challenges found in ICT of EFL learning, such as lack of training, appropriate software, competence, appropriate material, and time

ICT helps students learn more effectively and find related knowledge and information for learning. According to most Vietnamese teachers, using ICT encourages students to participate more actively and enthusiastically in the classroom. It is clear from this that using ICT allows students to participate actively in their education and take on more roles. On the other hand, there are challenges when teachers apply ICT in their classrooms; Vietnamese teachers are rarely given official training on ICT integration for language learning and teaching. Their inability to properly integrate ICT leaves them feeling clueless. Insufficient sources of information regarding the use of ICT in the classroom are available to teachers. Second, the integration of ICT in learning is discouraged by inadequate software. Vietnam has a significant teacher shortage; many lack the necessary technological integration skills. Teachers' lack of expertise severely hinders ICT in elementary and secondary education. Not for pedagogical reasons but due to a lack of ICT skills, many Vietnamese teachers still opt not to use media and ICT in the classroom. Generally, one hour of ICT-enhanced instruction would require roughly three to four hours of preparation, so creating lessons with ICT takes time. Consequently, the teachers encountered difficulties planning or carrying the lessons out in the allotted time. The teachers also require extra time to set up all of the ICT resources in the classroom. Thus, the instructors believed that rather than setting up the ICT equipment, they could complete the necessary tasks during class time. Last but not least, there are instances when teachers cannot use fully supplied ICT resources because of limited access to them.

The implementation of ICT in teaching English by the teachers of MTS Swasta Al-Amin is also one of

the writer's literature sources; it was written by Pasaribu et al. (2023). Information and communication technology (ICT) was used by two English teachers in the seventh and eighth grades as the subject of this study. According to the study's findings, teachers of English utilize a wide range of technological resources in their classes, including focus keys, Microsoft Word, podcasts, WhatsApp, Facebook, Instagram, YouTube, LCD monitors, laptops, speakers, the internet, Google Classroom, email, and PowerPoint presentations. In addition to helping them display materials, assign homework, and send notifications everywhere, technology kept the students engaged and motivated, which is why the teachers loved it. The research above concludes that teachers now find it simpler to create and present educational resources and tools that support students' motivation to learn because of the increased integration of technology, mainly information and communication technology (ICT), into the educational process.

The first aspect that warrants consideration is the research outcomes dimension, as our findings produce polarized results that can have both positive and negative consequences. We did not anticipate that nearly half of the studies would discuss the obstacles and restrictions associated with using ICTs in EFL classrooms, such as lack of training, technical issues, and the requirement for context adaptation—elements that fall under the category of "negative outcome." ICTs can potentially improve English language teaching and learning in Chilean EFL classrooms, but their successful integration and implementation require careful planning, training, and adaptation to local contexts. The findings conclude that these limitations are directly related to the adverse outcomes. The absence of studies on ICTs in English language instruction is another, perhaps the most important, finding. This finding was written by Abarzua et al. (2023) about the Information and communication technologies in the Chilean English as a foreign language classroom.

Information and communications technology (ICT) has been used in the last few decades to alter the conventional educational system. It has contributed to raising educational standards and enhancing the teaching-learning process. ICT is still, regrettably, not used by enough teachers, or if it is, it is not meaningfully incorporated into their pedagogy. ICT integration in education is hindered in most developing nations, including Bangladesh. Resolving these interrelated obstacles is essential to the success of ICT implementation. By identifying these issues, policy-making and teacher preparation can be strengthened. The obstacles preventing the appropriate integration of ICT in Bangladesh's educational system are identified in this study by the title "Possibilities and Challenges of ICT Integration in the Bangladesh Education System," written by Mai (2020).

Information and communication technology, or ICT, is now crucial to the growth of the services sector, which includes the banking, retail, logistics, and transportation industries (Shao, 2022). The use of technology has become increasingly necessary in many commercial and economic functions due to globalization. These days, information and communication technologies impact all facets of human existence. They are acting in business, education, entertainment, and the workplace. The creation, advancement, and application of information and communication technologies in today's dynamic society significantly impact our lives. The world is changing, and new technologies are a significant factor. Researchers, educators, and students worldwide face challenges and opportunities due to these ubiquitous technologies. Nearly every aspect of human life has been impacted by the advancement and convergence of computer and communication technologies, together known as information and communication technologies, or ICT.

Information And Communication Technology (ICT)-Based Media In Science Learning by Karlina et al. (2018). This study aimed to create information-based learning resources for primary school science classes using information and communication technology (ICT), specifically fruit-themed PowerPoint presentations. Effective media requires careful consideration of a few factors, such as using lowercase text rather than capital letters when introducing concepts to young readers and raising the standard of writing in the media by a letter since this makes word introduction easier for young readers. Then, the added image was not overdone, and an extensive animation

could cause the child to lose focus on the content. In order to avoid giving the students trouble spelling the provided text, both the writing color and size should be increased with vibrant colors. Furthermore, the videos were chosen with the subject matter and media goals in mind, resulting in an ICT-based PowerPoint presentation that was suitable for use by educators when teaching science to students. They were supported by Nazarov (2023), who used information technologies in the educational process, which significantly increases the efficiency of students' learning of material.

Participants with higher self-efficacy used computers more often and experienced less computer-related anxiety. Bao, Xiong, Hu, and Kibelloh (2013) established significant gender differences in computer self-efficacy affecting computer use. There was a strong correlation between practical ICT experience at the school level and self-efficacy (Yamamoto & Yamaguchi, 2016).

Applying new programs always leads to difficulties and so needs evaluation for improvement. Difficulties also occur in the integration of ICT programs in education in Indonesia. Taylor and Fratto (2012) argue that barriers that occur are related to accessibility and facilities. While Wungguli and Yahya (2020) state that constraints in implementing e-learning at the school level are the lack of ICT equipment and infrastructure, including telephone lines and electricity supply, and the unavailability of skillful personnel to manage ICT equipment.

In addition, Insead (2012) mentions that the first-order barrier to technology use in the classrooms is external factors, such as lack of adequate access, time, training, and institutional support. At the same time, the second-order barrier of technology includes teachers' personal and fundamental beliefs, such as teachers' pedagogical beliefs, technology beliefs, and willingness to change. Tsai & Chai (2012) continue describing that the third-order barrier of technology is teachers' lack of design thinking.

The benefits of ICT in Morocco EFL classrooms include immersion that allows for the production of comprehensible output or the co-construction of sense, increased engagement, enthusiasm, and comprehension of intelligence, more active learning by developing better problem-solving skills, and prompt feedback that provides students with a variety of ways to gain immediate feedback, both during planned activities and in real-time interactions with their teachers. ICT promotes authentic language learning and serves as a motivator; concerns about privacy and copyright remain. However, the implementation and effectiveness of ICT in language classrooms has not reached its full potential as yet in Morocco, a lack of suitable videos and a failure to fully utilize the videos and the system less error-prone (Akhy, 2021).

As the abstract indicates, readers expect your finding regarding "ways to better prepare teachers to integrate ICT into their language instruction" (which seems absent at this section).

4. CONCLUSION

As the writer does a systematic or critical review, the conclusions draw that there are various learning styles and abilities that can be facilitated with the help of ICT; learning can be more effective with it as it involves more senses in a multimedia context, it can empower teachers and students to build a multisensory rich and interactive environment, the use of ICT provides opportunities for students to be active and take more part or role for their best learning experience, ICT helps to provide the latest and current issues where students can obtain them very quickly and integrate them into their learning process. As for some challenges that teachers and students will face, one of them is when ICT is used in areas that are difficult to signal. From the students' side, some students still do not have communication tools to support teaching and learning activities in the classroom. From the teacher's side, there is a lack of training for teachers and devices.

The advantages of ICT also have many good impacts through globalization; using video conferencing instead of travel or lodging costs money. ICT has not only improved international relations and unified people,

but it has also made it possible for businesses to become incredibly cost-effective by connecting with the global economy. E-mailing is undoubtedly more cost-effective than phone calls, so send one. Additionally, ICT has contributed to the automation of business processes, which has made them incredibly economical. Additional Time: By simply clicking the items you want to buy online and sending in your payment electronically, you can have your purchases delivered straight to your doorstep without ever having to move a muscle. The most beneficial effect of ICT has been the creation of new jobs and novel, fascinating jobs. Among the many new job opportunities made possible by IT are web designers, systems, hardware and software developers, and computer programmers. Education: The internet, computer programs, and other technological advancements have made educational opportunities previously unattainable for earlier generations possible. A degree can be earned online from the comfort of one's home. Maintaining a job while pursuing a degree is feasible if you lack knowledge and skills in technology, technology-supported pedagogy, technology-related classroom management, leadership skills, and time. Besides, The writer finds that ICT integration is directly affected by teachers' attitudes and beliefs, benefits, and its challenges; the use of ICT also has its disadvantages, such as technology addiction; many people spend much time in front of their phones, computers, and other devices, leading to a variety of adverse health impacts, such as eye strain, poor sleep, and increased stress levels.

Several benefits also we can get in applying ICT for EFL classes; it can improve the student's motivation and interest in learning English as a Foreign Language, students do not feel bored anymore in EFL classes, the atmosphere will be more favorable than the class, which does not apply ICT in their class. ICT also can improve students' knowledge, creativity, and motivation in addition to helping them become more proficient speakers. ICT can be applied to improve the four skills and the student's vocabulary and grammar skills. Last but not least, feedback can also be applied when using ICT.

The use of ICT in EFL classes also has some challenges; it is time-consuming. Teachers should have plenty of time to prepare everything through ICT. The teachers' role is significant, so they should get professional development training in ICT. There was a lack of teachers' competence, and many ancient teachers could not operate ICT well because they were adult learners when they learned the implementation of ICT in EFL classes, so many of them felt that they were slow to learn new things. Finally, they do not want to learn complicated things or lack facilities to support their slow learning of ICT in EFL classes.

To overcome these lacks, teachers should be trained in how to apply the use of ICT in EFL classrooms. The civil servant teachers and the teachers of internship programs should get training to avoid it. In this case, teacher training is about PPG and teacher training every six months, or what we usually call IHT (In-House Training). The author knows the Teacher Professional Education Program (PPG) only aims at teachers. However, after completing the program, have the teachers been able to apply ICT in the EFL classroom? Sadly, the lessons applied in the program are mostly only about learning theories, so the application is still very minimal in reality in the EFL classroom.

The application of IT in education has positively impacted the culture of teaching English as a Foreign Language (EFL) in secondary schools in Indonesia. The internet, the World Wide Web, and social media help English teachers plan their teaching materials, improve their teaching performance in class, and develop their existing knowledge. This report has shown that the familiarity of EFL teachers with using IT influences how teachers communicate and interact with other teachers and students individually and collectively. It changes the teaching culture: individualism, balkanization, collaborative culture, or collegiality.

Integrating Information and Communication Technology (ICT) in education in Indonesia faces various challenges, as highlighted by different studies. These challenges include accessibility and facilities, lack of ICT equipment and infrastructure, and the unavailability of skilful personnel to manage ICT equipment. Despite these difficulties, there are efforts to improve the situation, such as the government's use of ICT to expand educational

opportunities and the training of teachers to enhance their ICT literacy and integration in English Language Teaching (ELT) in higher education settings. The government's strategy to integrate technology in education has been a subject of analysis, and it is recognized that successful technology integration provides students with the opportunity to learn and apply ICT skills. Therefore, while challenges exist, ongoing efforts exist to address them and improve the integration of ICT in education in Indonesia.

SUGGESTION

After we read a lot about the advantages, benefits, and challenges of ICT in the EFL classroom, we suggested it would be nice if the use of ICT in the classroom could also be monitored seriously so that students do not underestimate the teacher. Monitoring ICT use in classrooms, improving infrastructure in remote areas, and enhancing teacher training are valuable for advancing education, especially in remote regions like Indonesia. Implementing these suggestions could significantly impact students' learning experiences. Here is an expanded version of our suggestions: (1) Monitoring ICT Use in Classrooms: While ICT offers numerous benefits, its effective integration into the classroom requires monitoring. This monitoring should not undermine teachers but ensure students maximize the benefits without compromising their respect for teachers. This could involve periodic evaluations or assessments of ICT usage and its impact on learning outcomes. Encouraging a balance between traditional teaching methods and technology-based learning can also be part of the monitoring process. (2) the second suggestion is that the government should also pay more attention to inadequate facilities in remote areas. Following the development of technology, the government should be able to provide a satellite so that even remote places in Indonesia get enough signals for students to progress together. Government Attention to Remote Area Facilities: Many remote areas lack adequate infrastructure, including reliable internet connectivity. To bridge this gap, the government should provide the necessary infrastructure, such as satellite-based internet, to ensure remote regions can access digital resources and communication. (3) Teacher training in developing the potential use of ICT, not only based on the theory of the book, but more importantly, how to apply these theories in the classroom. Teacher training can also be done once every six months when school students start entering school again. This can be packaged well in one activity, namely In-House Training.

Additionally, to improve the integration of ICT in education as follows: **Enhanced Training and Support:** Provide comprehensive training and support for teachers to enhance their ICT literacy and integration in English Language Teaching (ELT). **Infrastructure Development:** Invest in developing ICT infrastructure, including ensuring accessibility to ICT equipment, reliable internet connectivity, and electricity supply in educational institutions. **Curriculum Integration:** Integrate ICT into the curriculum across all subjects, not just as a standalone subject, to ensure that students can learn and apply ICT skills in various contexts. **Student-Centered Learning:** Encourage using ICT to create more student-centered learning environments where students have an active role in their learning and can access a wide range of authentic learning materials by implementing these suggestions, we can work towards overcoming the challenges and improving the effective integration of ICT in its education system.

REFERENCES

- Abarzua, Vega J., Vezzoli Lara, F., & Villegas Ramirez, F. (2023). Information and communication technologies in the Chilean English as a foreign language classroom: A systematic review of the literature. Focus on ELT Journal, 5(1), 39–55. <https://doi.org/10.14744/felt.2023.5.1.3>
- Ahmadi, 2018. The use of Technology in English language learning. International Journal of Research in English Education (2018) 3:2, (online) Retrieved from <https://www.ijreeonline.com> Altun
- Akhy, K.B., & Iswari, W.P. (2021). Information Communication Technology in EFL Classroom. Journal of

English as A Foreign Language Teaching and Research

- Bao, Y., Xiong, T., Hu, Z., & Kibelloh, M. (2013). Exploring gender differences on general and specific computer self- efficacy in mobile learning adoption. *Journal of Educational Computing Research*, 49(1), 111-132. Available at: <https://doi.org/10.2190/ec.49>
- Chigisheva, O., Soltovets, E., Dmitrova, A., Akhtyan A. G., Litvinova, S. N., & Chelysheva, Y. V. (2021). Digital literacy and its relevance to comparative education researchers: outcomes of SciVal analytics. *Eurasia Journal of Mathematics, Science and Technology Education*, 17(10), p. 1–12. <https://doi.org/10.29333/ejmste/11183>
- Chubakumzuk J., & Moameren, P. (2021). The role of information and communication technologies in improving teaching and learning processes in higher education: Bridging the gaps. *Research Review Journal*, 6(4). <https://doi.org/10.31305/rrijm.2021.v06.i04.008>.
- Davis, B., & Ellison, L. (2003). The new strategic direction and development of the school. Key frameworks for school improvement planning. 2nd edition. London: Routledge. <https://doi.org/10.4324/9780203428184>
- Davies, G., Walker, R., Rendall, H., & Hewer, S. (2011). Introduction to Computer Assisted Language Learning (CALL). Module 1.4
- Day, A., Paquet, S., Scott, N., & Hambley, L. (2012). Perceived information and communication technology (ICT) demands on employee outcomes: The moderating effect of organizational ICT support. *Journal of Occupational Health Psychology*, 17(4), 473–491. <https://doi.org/10.1037/a0029837>
- Febrianto, A. R. (2021). Optimizing the use of google classroom as an integrated learning management system in teaching writing. *English Language and Education Spectrum*, 1(2), 52–66. <https://doi.org/10.53416/electrum.v1i2.27>
- Fu, J. (2013). Complexity of ICT in education: A critical literature review and its implications. *International Journal of education and Development using ICT*, 9(1), 112-125
- Gary Ka-Wai Wong & Min Yang, 2017. Using ICT to Facilitate Instant and Asynchronous Feedback for Students' Learning Engagement and Improvements. DOI:10.1007/978-981-10-3344-5_18. *Education, Computer Science Journal*.
- Gough, D., Oliver, S. & Thomas, J. (2017). Introducing systematic reviews. In D. Gough, S. Oliver & J. Thomas (Eds.), *An introduction to systematic reviews* (2nd edition, pp. 1–18). Sage. <https://doi.org/10.53841/bpsptr.2017.23.2.95>
- Gulzhana Kuzembayeva, Aru M. Taganova, Diana Spulber, Zhumagul Maydangalieva. 2022. Vol 13. No.3. *Journal of Social Studies Education Research*.
- Idayani, A., & Sailun, B. (2017). Roles of Integrating Information Communication Technology (ICT) in Teaching Speaking at the First Semester of English Students of FKIP UIR. <https://journal.uir.ac.id/index.php/jshmic/article/view/603/380>
- Iftakhar, Shampa. (2016). Google Classrooms: What Works and How. *Journal of Education and Social Science*, Vol. 3
- Insead: The Business School for the world. (2012) *The Global Information Technology Report 2012* Viewed November 21, 2012. <http://www3.weforum.org/docs/Global.IT.Report.2012.pdf>
- Karlina, I., Nina Kurniah, & Mona Ardina. (2018). Media Berbasis Information and Communication Technology (Ict) Dalam Pembelajaran Sains Pada Anak Usia Dini. *Jurnal Ilmiah Potensia*, 3(2), 24
- Kossybayeva, U., Shaldykova, B., Akhmanova, D., & Kulanina, S. (2022). Improving teaching in different disciplines of natural science and mathematics with innovative technologies. *Education and Information Technologies*, 27(6), 7869-7891. <https://doi.org/10.1007/s10639-022-10955-3>
- Le Thi Mai, Ba Ria. 2020. Benefits and Challenges to Integrate ICT in EFL Teaching and Learning Activities.

- IOSR Journal of Research & Method in Education (IOSR-JRME). DOI: 10.9790/7388-1003044650
www.iosrjournals.org. Volume 10, Issue 3 Ser. IV PP 46-50. e-ISSN: 2320–1959, p- ISSN: 2320–1940
- Mai, L.T. (2020). Benefits and Challenges to Integrate ICT in EFL Teaching and Learning Activities.
- Manako, A. F., & Voronkin, A. S. (2014). ICT in education: evolution, convergence and innovations. *Educational Technologies and Society*, 1, 487–521
- Mwendawa, N. K 2017. Perception of teachers and principals on ICT integration in the primary school in Kitui Country, Kenya. *European Journal of Education Studies*, 3(7), 408-430.
<https://doi.org/10.5281/zenodo.824829>
- Nazarov, R. (2023). Using of ICT In Teaching English. *Journal of Foreign Languages and Linguistics*, 5(5). retrieved from <https://phystech.jdpu.uz/index.php/fll/article/view/7976>
- Newman, M., & Gough, D. (2020). Systematic reviews in educational research: Methodology, perspectives and application. In O., Zawacki-Richter, et al. (Eds), *Systematic reviews in educational research: Methodology, perspectives and application*. Springer Nature. https://doi.org/10.1007/978-3-658-27602-7_1
- Pasaribu, G. R, Sholihatul Hamidah Daulay and Zainuddin Saragih. 2023. The implementation of ICT in teaching English by the teacher of MTS Swasta Al-Amin. *ELECTRUM JOURNAL* Doi: <https://doi.org/10.53416/electrum.v3i2.146>. Vol. 3 No. 2 (2023)
- Shao M, Fan J, Huang Z, Chen M. 2022. The Impact of Information and Communication Technologies (ICTs) on Health Outcomes: A Mediating Effect Analysis Based on Cross-National Panel Data. *J Environ Public Health*. doi: 10.1155/2022/2225723. *Environ Public Health Journal*.
- Soltovets, E., Chigisheva, O., & Dmitrova, A. (2020). The role of mentoring in digital literacy development of doctoral students at British universities. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(4), em1839. <https://doi.org/10.29333/ejmste/117782>
- Spulber, D., (2021) E-learning box. In R. S. Feldmann, G. Amoretti, M. R. Cicceri (Eds.), *Psicologia generale quarta edizione*. New York: McGraw-Hill Education
- Taufik, Rahmat. (2023). ANALYSIS OF THE IMPACT OF TECHNOLOGY IN DIGITAL ENTREPRENEURSHIP DEVELOPMENT. *Jurnal Scientia*, 12(04), 327-333. Retrieved from <http://infor.seaninstitute.org/index.php/pendidikan/article/view/1968>
- Taylor, L. M., & Fratto, J. M. (2012). *Transforming learning through 21st century skills*. Upper Saddle River, NJ: Pearson
- Tsai, C.C & Chai, S (2012), 'The Third order barrier for technology integration instruction: implications for teachers education' Viewed November 21, 2012. <'http:// digilib.umm.ac.id/files/disk1/308/iptummp-p.pdf
- Wang, T., & Cheng, E.C. (2021). An investigation of barriers to Hong Kong K-12 schools incorporating Artificial Intelligence in education. *Comput. Educ. Artif. Intell.*, 2, 100031
- Wang, Q., & Woo, H. L. (2007). Systematic planning for ICT integration in topic learning. *Journal of Educational Technology & Society*, 10(1), 148-156
- Wong, G.KW., Yang, M. (2017). Using ICT to Facilitate Instant and Asynchronous Feedback for Students' Learning Engagement and Improvements. *Emerging Practices in Scholarship of Learning and Teaching in a Digital Era*. Springer, Singapore. https://doi.org/10.1007/978-981-10-3344-5_18
- Wu, Di & Yang, Xiao & Lu, Chun & Li, Miaoyun & Wang, Meiqian & Yang, Wei, 2023. "Relationship between internet attitude and internet self-efficacy: ICT competence and network interaction as mediators," *Children and Youth Services Review*, Elsevier, vol. 149(C).
- Wungguli, D., & Yahya, L. (2020). Pengaruh Penggunaan Media Berbasis Information and Communication Technology (ICT) terhadap Hasil Belajar Siswa pada Materi Dimensi Tiga. *Jambura Journal of*

-
- Mathematics Education, 1(1), 41–47.<https://doi.org/10.34312/jmathedu.v1i1.5376>
- Yamaletdinova, A. M. (2016). Modern information and communication technologies in the educational process. Bulletin of Bashkir University, 4, 1134–1141
- Yamamoto, Yukiko and Yamaguchi, Shinobu. 2016. A study on teacher's self-efficacy for promoting ICT integrated education in primary schools in Mongolia. Journal of International Cooperation 18(2):1-15.