EFL Teachers' Perception of ICT Integration in EFL Teaching and the Current Practice of ICT in EFL Teaching

Eryansyah Eryansyah[a,*], Erlina Erlina[b]

[a]eryansyah@unsri.ac.id, English Education Study Program, Faculty of Teacher Training and Education, Sriwijaya University, Indonesia
[b]erlina@fkip.unsri.ac.id, English Education Study Program, Faculty of Teacher Training and Education, Sriwijaya University, Indonesia
*Corresponding author, eryansyah@unsri.ac.id

ABSTRACT

This study aimed to investigate the perceptions of EFL teachers regarding the use of ICT and the extent to which they integrated it into their EFL classes. A survey was conducted with EFL teachers who were alumni of the English Education Study Program at a state-owned university in South Sumatra. Furthermore, the survey was administered online using Google Forms and distributed across all districts and major cities in South Sumatra Province, as well as several other Indonesian provinces, through the WhatsApp alumni community. The results showed that teachers exhibited a positive attitude toward ICT integration in EFL lessons and a highly positive attitude toward its effectiveness in facilitating student learning. It was also found that while most teachers incorporated ICT in their EFL teaching and learning activities, only 24% admitted to doing this daily. Teachers acknowledged that there were still some barriers limiting them from adopting ICT in their EFL lessons, notably the lack of facilities and resources.

Keywords: ICT integration, teachers' perception, digital literacy, EFL teaching

Introduction

The integration of digital technology in EFL teaching has become an indispensable aspect, leading to the digitalization of teaching materials. For instance, the use of an MP4 player to display a video with sound through an LCD projector for a speaking class and an MP3 player to play dialogues or songs for a listening class, exemplify the use of digital technology in an EFL classroom (Eryansyah et al., 2019). Furthermore, the use of power-point presentations, including texts, graphics, sounds, and animation by the teachers or students (as individual or group presentations), represents another application of digital technology. Therefore, digital technology has become an important element of EFL teaching and learning activities, exerting a significant effect on students' motivation and engagement in learning English (Alshahran, 2017).

The outbreak of Covid-19 necessitated a shift toward online teaching and learning activities, rendering classroom instruction possible offline, online, or both (hybrid). This condition requires EFL teachers, including those at the university level, to employ digital technologies in their instructional practices. Both teachers and students are now required to use PCs, laptops, mobile phones, tablets, digital cameras, or any digital devices for online, offline, or hybrid teaching and learning, hence, they need to be digitally literate (Hayati & Arini, 2021).

Some studies have explored EFL teachers' perception of ICT integration and its impact on students' achievements. The results consistently showed that teachers' positive perception of ICT integration in EFL classrooms had a positive impact on students' EFL learning (Alazemi et al., 2019; Azmi, 2017; Caldwell & Caldwell, 2020; Tran, 2020). Caldwell and Caldwell (2020) found that the use of ICT in language teaching improved students' language skills. According to Tran (2020), the use of ICT in EFL teaching can motivate and encourage students to learn the English language. Alazemi et al. (2019) concluded that the integration of ICT in EFL teaching improved students' writing performance, interaction, and participation. Azmi (2017) also claimed that proper practice of ICT in the classroom "promoted learning, enhanced interaction and communication, boosted autonomous learning, maximized targeted outcomes, motivated learners, and helped to improve their performance in the EFL classroom" (p. 117). In summary, these four studies demonstrated that using ICT in EFL classes had positive effects.

Several studies have also investigated EFL teachers' perceptions of the use of ICT in EFL teaching in the Indonesian context, and have indicated positive trends. Silviyanti and Yusuf (2015) found that teachers held positive perceptions of ICT usage in language teaching, considering it crucial, since it promotes fascinating, enjoyable, and effective learning. Muslem et al. (2018) also found EFL teachers' favorable opinions of how ICT was being used in ELT classes. ICT enabled them to quickly and readily access information and made lectures more engaging compared to traditional methods of teaching and discussion. Similarly, Mahdum et al. (2019) showed a positive perception of ICT integration in EFL teaching, highlighting its ability to improve learning outcomes, boost student motivation, encourage good learning attitudes in students, and make learning activities more engaging and fun.

EFL teachers' positive perceptions of ICT use in English teaching do not necessarily provide them with the maximum benefits as they are expected to have a good level of digital literacy as well. In other words, they should be "digitally savvy" (Pratolo & Solikhati, 2021, p. 98). The significance of their digital literacy is also driven by the fact that most students today are digitally literate, with digital gadgets widely available and relatively affordable. Digitally literate EFL instructors can utilize ICT to establish innovative ways of teaching and learning, both within and outside the classroom (Eryansyah et al., 2019).

Despite the fact that the majority of EFL teachers nowadays are accustomed to using technology, there is no assurance that they will see ICT integration favorably in their classrooms. Researchers such as Bingimlas (2009), Gebremedhin and Fenta (2015), Mathevula and Uwizeyimana (2014), and Gebremedhin and Fenta (2015) looked into the challenges teachers faced while using ICT into EFL teaching and learning. They identified three barriers that prevent ICT interaction in EFL teaching: teachers' poor ICT confidence, their lack of ICT abilities, and their lack of ICT

resources. All of these factors might have had an impact on how teachers perceived the use of ICT in their lessons. As claimed by Jimoyiannis and Komis (2007), personal factors and accessibility of ICT resources may have a significant impact on teachers' opinions and views on the use of ICT in education.

Considering the above explanation on EFL teachers' positive perceptions of ICT use in language teaching and the problems they encounter when integrating it into their classrooms, it is crucial to investigate whether the EFL teachers in South Sumatra Province, Indonesia also share similar perceptions and face similar problems. Investigating these problems is particularly important in preparing the teachers readiness for teaching in post Covid-19 era, where all teachers, including EFL teachers, are encouraged to conduct teaching and learning activities online, offline, and/or hybrid. This study aims to address the readiness of EFL teachers, specifically those teaching in South Sumatra Province, Indonesia. As emphasized by Ganicheva et al. (2019), the integration of ICT in English teaching was inevitable and demanded for the development of education and society in the 21st century.

The present study was conducted to investigate EFL teachers' perceptions of ICT integration in their EFL teaching and the practice of the integration. The research questions guiding this study are, "Do EFL teachers have positive perceptions of the integration of digital technology in their EFL classes?" and "To what extent have they integrated ICT technology in their EFL classes?" Based on these research questions, this study aims to identify EFL teachers' current perceptions of integrating ICT in EFL teaching and the actual practice of the integration.

Literature Review

Literacy in ICT

ICT, which stands for *Information and Communication Technology*, is a commonly used term referring to educational technology, computer-based technology, learning technology, or digital technology (Lee & Finger, 2010). It is one of the 21st-century skills under the Information, media, and technology skills. According to the Partnership for 21st Century Learning (2015), there are three types of skills that millennial generations need to acquire to survive in the twenty-first century, namely learning and innovation; information, media, and technology; as well as life and career skills. Having ICT skills is unquestionably vital since it has become a fundamental part of daily life.

Fortunately, the EFL teachers, in which most are digital natives, are already familiar with and accustomed to using ICT devices. They have generally shown a more favorable attitude toward the advantages and applications of mobile devices in teaching and learning (Howlett & Waemusa, 2018). On the other hand, some of the teachers, specifically those in their 50s, are digitally illiterate (Tampubolon, 2017). They often use digital devices, specifically smartphones only "as a medium for communication or information sharing" (Eryansyah et al., 2019, p. 444). When faced with the challenge of incorporating ICT into their classes as instructed in the curriculum, they feel inconvenienced. Bingimlas (2009) claimed that the inconvenience to incorporate ICT into EFL classes can be caused by three factors, namely less self-confidence, incompetence, and less access to ICT resources. Therefore, they should be introduced to ICT resources as well as provided with ICT professional development and technical support. By becoming digitally literate, they will be confident, competent, and familiar with ICT devices, which in the end, will facilitate them to integrate ICT into their EFL classes.

ICT Skills

ICT skills are considered crucial for EFL teachers, specifically given the fact that in this digital era, many EFL students are more experienced in the use of technology than their teachers (Hidalgo et al., 2020). Therefore, it is important they possess ICT skills that can be effectively

integrated into their classes (Çakici, 2016; Samuel & Zaitun, 2007). Samuel and Zaitun (2007) categorized ICT skills into basic and advanced levels. EFL teachers are deemed to have basic ICT skills when their abilities to use ICT are limited to "surfing the internet, using Microsoft PowerPoint for presentation, using Microsoft Word, utilizing spreadsheet (Microsoft Excel), sending and receiving e-mail, retrieving information from the internet, using CD-ROM, understanding basic computer commands, as well as operating printers" (Samuel & Zaitun, 2007, p. 7). On the other hand, advanced ICT skills are attained when they can employ ICT to communicate and collaborate with others, create educational websites, plan social databases, incorporate ICT devices in teaching and learning activities, chat with others through chatting applications, and participate in audio or video meetings (Samuel & Zaitun, 2007).

ICT Integration in EFL Classes

As EFL students today are already digitally literate, this presents an opportunity for the teachers with ICT skills to integrate ICT into their classes. Studies have shown that integrating ICT in EFL classes offers various benefits to students, namely increased motivation and engagement, independent learning, promotion of critical thinking, and development of language skills (Azmi, 2017; Çakici, 2016; Li & Walsh, 2010).

Nevertheless, this integration is not without challenge as it demands advanced ICT skills from the teachers. The current development of email, internet applications, multimedia materials, image and video applications, chatting applications, as well as audio and video conferences has influenced the way ICT is used in everyday teaching and learning activities. Therefore, EFL teachers with advanced ICT skills will gain an advantage. Some studies have shown that teachers with advanced ICT abilities typically use more frequently ICT in the classroom (Tezci, 2009). Conversely, those with basic ICT skills use fewer ICT tools in their teaching (Chen et al., 2019).

Factors Affecting Perceptions of Teachers on the Integration of ICT in EFL Classes

EFL teachers may have different perceptions about the integration of ICT in their classes. These perceptions can be either positive, leading to ICT use, or negative, limiting ICT use (Silviyanti & Yusuf, 2015). Some factors that can influence their perception toward ICT integration are as follows. Firstly, teachers who recognize the roles of ICT in helping EFL students improve their language skills tend to have positive perceptions toward ICT integration in their classes (Alshumaimeri, 2008; Mollaei & Riasati, 2013; Nguyen, 2021). Secondly, those who are digitally literate are more likely to integrate ICT (Ibieta et al., 2017; Lawrence & Tar, 2018). Thirdly, the availability of ICT at school also affects the teachers' perception of ICT integration in EFL classes (Makhlouf & Bensafi, 2021). Fourthly, age plays a role in the teachers' perception (Kollia et al., 2020), as those in their 50s, considered digital immigrants with a digital divide, tend to be reluctant to integrate ICT into their EFL classes (Schreurs et al., 2017). Finally, the number of ICT training that EFL teachers receive can affect their perception of ICT use in language teaching (Ihmeideh & Al-Maadadi, 2018). The more ICT training and skills they acquire, the more positive their perception of ICT in English teaching becomes (Salehi & Salehi, 2012).

Although most of the teachers have positive perceptions, many still have problems or barriers in integrating ICT into EFL classes. Buabeng-Andoh (2012) explained three barriers that inhibit teachers from integrating ICT into their classes, namely lack of ICT skills, confidence, pedagogical training, appropriate educational programs, and access to ICT. Similarly, Salehi and Salehi (2012) and Hu and McGrath (2011) highlighted less pedagogical training as well as lack of ICT skills and access to ICT as barriers for teachers to integrate ICT in their classes.

This study aims to investigate the readiness of EFL teachers in Indonesia, specifically those in South Sumatra Province, to integrate ICT into their classes in the post-Covid-19 era, where teaching and learning activities are to be carried out offline, online, or hybrid. Therefore, it specifically focused on EFL teachers' perception of ICT in English teaching, their current ICT

practices, and the challenges faced in integrating ICT into their classes.

Methods

Research Design and Participants

This is a survey study involving EFL teachers, who graduated from English Education Study Program, Sriwijaya University, and spread in all districts and mayor cities in South Sumatra Province as well as some other provinces in Indonesia. It aimed to learn about the teachers' existing understanding of ICT, their perceptions, and challenges to incorporate it into English language instruction. The sampling technique used was voluntary response sampling, as the teachers voluntarily participated. They were selected as the target group because this study aimed to gather information on EFL students' readiness to integrate ICT into their classes. After the Covid-19 pandemic, the teachers were encouraged to apply blended or hybrid learning. Only teachers, including EFL teachers with a good level of digital literacy had the ability to perform these activities effectively. Therefore, undertaking this study was crucial to map out EFL teachers' present digital literacy abilities, perceptions of ICT integration in teaching, and current use of ICT in classrooms.

The participants in this study were EFL teachers who taught in junior and senior high schools in South Sumatra Province as well as neighboring regions. They were all invited to participate in an online survey through the association of English education study program alumni. The teachers were contacted to participate in the survey voluntarily through the alumni WhatsApp group.

Out of the 224 alumni registered in the WhatsApp group, 50 responded to the survey, with 12 males and 38 females. Their ages ranged from 25 to 55 years old (See Table 1). They were full-time English teachers, and the majority of them had more than ten years of teaching experience (See Table 2 below).

Table 1

Respondents' Ages

Age			
30<	30-35	36-45	46-55
10 (20%)	13 (26%)	19 (38%)	8 (16%)

Table 2

Respondents' Teaching Experiences

Teaching experience					
5<	5-10	11-15	16-20	21-25	26-30
9 (18%)	12 (24%)	11 (22%)	8 (16%)	9 (18%)	1 (2%)

School Locations

In terms of school locations, the respondents were spread in almost every district and mayor city in South Sumatra Province, as well as some cities in other provinces of Sumatra, Indonesia as shown in Table 3 below.

Table 3

School Locations

Provinces	Districts/Municipal Cities	Number (Percentages)
South Sumatra Province	Ogan Komering Ulu	3 (6%)
	Ogan Komering Ilir	2 (4%)
	Muara Enim	2 (4%)
	Musi Rawas	4 (8%)
	Musi Banyuasin	2 (4%)
	Banyuasin	4 (8%)
	Ogan Komering Ulu Timur	3 (6%)
	Ogan Ilir	2 (4%)
	Pali	2 (4%)
	Musi Rawas Utara	1 (2%)
	Palembang	13 (26%)
	Prabumulih	1 (2%)
	Pagar Alam	1 (2%)
	Lubuk Linggau	1 (2%)
Nearby Provinces	Other cities	9 (18%)

Data Collection and Analysis

The data for this study were collected through an online survey using Google Form. The survey included ready-made questionnaires adopted from Merillo and Domingo (2019) and 21st Century European Classroom (2016). It was divided into three sections as follows. The first section sought EFL instructors' opinions on ICT integration in EFL classes. The second sought opinions on the efficacy of ICT integration for student learning. Both sections utilized a Likert-type scale, with respondents choosing one of four alternatives to assess their degree of agreement or disagreement with the statements (1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree). The third section was designed to collect data on the use of ICT in EFL classrooms. This section consisted of four sub-sections, namely experience with ICT for teaching in the form of yes-no questions. The other three sub-sections (ICT-based activities for teaching, ICT-based learning materials, and obstacles to using ICT in EFL teaching) were in the form of multiple-choice questions. The collected data were subsequently analyzed using Google Form and presented in the form of charts.

Research Ethics

As the data were collected through an online survey, the study experts personally sought respondents' permission and willingness to participate in the survey by contacting them through emails and/or WhatsApp messengers. Participation in the survey was voluntary, and respondents had the right to decline should they choose not to participate. They were asked to write their pseudonyms instead of their real names in order to protect their personal data.

Results and Discussion

Results

Teachers' Perception of ICT Integration in EFL Classes

Table 4

Teachers' Perception of ICT Integration in EFL Classes

No	Teachers' perception	Likert Scale			
		Strongly disagree	Disagree	Agree	Strongly Agree
1	I am confident in my ability to master new ICT skill.	0 (0%)	1 (2%)	22 (44%)	27 (54%)
2	I am aware that using ICT makes teaching easier for me.	0 (0%)	1 (2%)	29 (58%)	20 (40%)
3	I am aware of the numerous advantages that ICT provides for successful education.	0 (0%)	1 (2%)	26 (52%)	23 (46%)
4	I believe that ICT-assisted instruction improves learning effectiveness.	0 (0%)	2 (4%)	21 (42%)	27 (54%)
5	Teachers may utilize ICT to improve their teaching by using more up-to-date resources.	0 (0%)	0 (0%)	15 (30%)	35 (70%)
6	I believe that incorporating ICT into the classroom increases the quality of instruction.	0 (0%)	3 (6%)	19 (38%)	28 (56%)
7	I believe that using ICT to develop instructional tools and materials is beneficial.	0 (0%)	0 (0%)	15 (30%)	35 (70%)
8	Students can be more active and engaged in the classroom when ICT is used.	0 (0%)	5 (10%)	22 (44%)	23 (46%)
9	I have more time to cater for the needs of my pupils when ICT is employed in the classroom.	0 (0%)	7 (14%)	31 (62%)	12 (24%)
10	Without the use of ICT, I will not be able to teach effectively.	2 (4%)	17 (34%)	23 (46%)	8 (16%)
11	I believe that using ICT in the classroom is a waste of time.	30 (60%)	15 (30%)	2 (4%)	4 (6%)
12	I am certain that my kids will study more effectively without the use of technology.	14 (28%)	29 (58%)	3 (6%)	4 (8%)
13	Classroom management is out of control when ICT is utilized in the classroom.	14 (28%)	23 (46%)	8 (16%)	5 (10%)
14	Students pay less attention when ICT is utilized in the classroom.	23 (46%)	13 (26%)	9 (18%)	5 (10%)
15	Students make little effort for their lessons when ICT is utilized in the classroom.	20 (40%)	18 (36%)	9 (18%)	3 (6%)

Table 4 shows that the majority of teachers has a favorable opinion regarding ICT integration in language instruction. This conclusion is supported by their responses regarding the perception of integrating ICT in language teaching. Almost all of them, (44%) were confident in learning new ICT skills, with 54% being very confident. More than half of the teachers (58%) agreed and the rest (40%) strongly agreed that ICT eased their language teaching, offered effective language teaching (52%), and improved the quality of teaching (56%). The majority of them (70%) believed that ICT assisted in accessing updated teaching materials and eased them in preparing teaching resources and materials. Nearly half (46%) strongly agreed that ICT made students active and more engaged during learning, believed they could cater for students' needs (62%), and were confident their students learned best (58%) when ICT was used in learning.

Lastly, almost half of the teachers strongly agreed that their teaching was not effective without the use of ICT (46%) and the majority of them did not believe using ICT had led it going out of control (74%; 28% strongly disagreed and 46% disagreed), students' less attention (72%; 46% strongly disagreed and 26% disagreed), and students' less effort in learning (76%; 40% strongly disagreed and 36% disagreed).

Effectiveness of ICT integration for Students' Learning

Table 5

Effectiveness of ICT Integration for Students' Learning

No	Effectiveness of ICT integration	Likert Scale			
		Strongly disagree	Disagree	Agree	Strongly Agree
1	Students can use ICT to be more innovative, creative, and productive.	1 (2%)	1 (2%)	25 (50%)	23 (46%)
2	Students can utilize ICT to gain relevant knowledge and information for learning.	0 (0%)	1 (2%)	18 (36%)	31 (62%)
3	Students are more likely to communicate with their peers when they utilize ICT.	0 (0%)	5 (10%)	27 (54%)	18 (36%)
4	The usage of ICT boosts students' confidence in their ability to fully engage in class.	0 (0%)	10 (20%)	28 (56%)	12 (24%)
5	I believe that using ICT helps students study more efficiently.	0 (0%)	8 (16%)	26 (52%)	16 (32%)
6	I believe that the usage of ICT aids in the broadening of students' knowledge perspectives.	0 (0%)	2 (4%)	28 (56%)	20 (40%)
7	I believe that the usage of ICT aids in the improvement of pupils' abilities, particularly in reading and writing.	0 (0%)	5 (10%)	28 (56%)	17 (34%)
8	With the usage of ICT, students are more well-behaved and under control.	3 (6%)	14 (28%)	22 (44%)	11 (22%)
9	Students can better communicate their ideas and views when they use ICT.	1 (2%)	7 (14%)	29 (58%)	13 (26%)
10	For students to experience optimum learning, ICT is used to encourage active and interesting lessons.	0 (0%)	6 (12%)	26 (52%)	18 (36%)

The results in Table 5 demonstrate that incorporating ICT into language instruction has a favorable impact on students. This conclusion is based on the comments of EFL teachers regarding the efficacy of ICT integration for student learning. Nearly all the teachers (96%, with 50% agreed and 46% strongly agreed) believed that ICT enabled students to be more creative, imaginative, and productive. Similarly, majority (98 percent, with 36 percent agreed, and 62 percent strongly agreed) believed that ICT assisted students to find related knowledge and information for learning. A significant number (90%, with 54% agreed and 36% strongly agreed) considered that ICT encouraged students to communicate more with their classmates, while another substantial majority (80%, with 56% agreed and 26% strongly agreed) believed that it increased students' participation in class.

Well over three quarters (84%, with 52% agreed and 32% strongly agreed) believed that students learned more effectively with ICT. A large majority of students (96%, with 56% agreed, and 40% strongly agreed) indicated that the usage of ICT helped enhance their knowledge

paradigm. Another significant number (90%, with 56% agreed, and 34% strongly agreed) stated that using ICT helped students enhance their reading and writing abilities.

More than half of the teachers (66 percent, with 44 percent agreed, and 22 percent strongly agreed) believed that students exhibited better behavior and were more under control when ICT was utilized. Over three-quarters of students (84 percent, with 58 percent agreed, and 26 percent strongly agreed) stated that using ICT helped them communicate their ideas and views effectively. Over three-quarters of respondents (86 percent, with 52 percent agreed, and 36 percent strongly agreed) believed that using ICT fostered dynamic and engaging lessons, leading to an optimal learning experience for students.

ICT practice in EFL classroom

1. Experience with ICT for EFL teaching

The data in Table 6 below show the teachers' experience when using computers and/or the internet for language teaching, with all (100%) utilizing it in the past 12 months, and almost all (96%) incorporating it both online and offline, during the same time period.

Table 6

Experience with ICT for EFL Teaching

No	Experience with ICT	Yes	No
1	Have you utilized computers and/or the internet to plan lessons in the previous 12 months?	50 (100%)	0 (0%)
2	Have you utilized computers and/or the internet to teach in front of/with students (online) in the previous 12 months?	48 (96%)	2 (4%)

2. ICT-based activities for EFL teaching

Based on Table 7 below, the EFL teachers had integrated ICT into their teaching activities. More than half (52%) had used the internet daily to browse and collect information when preparing their lessons. Less than half (40 percent) used the internet on a daily basis to gather learning materials/resources for students to use during lessons. A quarter (30%) of them regularly utilized programs to create presentations for lectures, exercises, and assignments for their students (3%). ICT was also employed by less than a quarter (20%) to offer feedback and/or assess students' learning. 22% utilized the school's website or a virtual learning environment/learning platform to download, upload, and explore materials. A small proportion (8%) uploaded student homework on the school website, assessed digital learning materials on the topic taught (10%), and 12% explored online professional development options in their subject area.

Table 7

ICT-based Activities for EFL Teaching

No	ICT-based activities	Frequency			
		Never or almost never	Several times in a month	At least once a week	Every day or almost every day
1	Surf the internet to get material for classes,	0 (0%)	10 (20%)	14 (28%)	26 (52%)
2	Search or browse the internet for learning materials or resources that students may	0 (0%)	14 (28%)	16 (32%)	20 (40%)

	utilize in class				
3	Lessons can be prepared using apps	2 (4%)	17 (34%)	16 (32%)	15 (30%)
4	Make your own student-friendly digital learning resources	9 (18%)	24 (48%)	11 (22%)	6 (12%)
5	Prepare assignments and exercises for pupils	0 (0%)	13 (26%)	20 (40%)	17 (34%)
6	Provide homework assignments for pupils on the school's website	17 (34%)	15 (30%)	14 (28%)	4 (8%)
7	Use ICT to offer feedback to pupils and/or to assess their progress	7 (14%)	19 (38%)	14 (28%)	10 (20%)
8	Assess digital learning materials for the subject you teach	4 (8%)	20 (40%)	21 (42%)	5 (10%)
9	Use the school's website or a virtual learning environment/learning platform to download, upload, or view materials.	2 (4%)	21 (42%)	16 (32%)	11 (22%)
10	Search for online professional development opportunities	4 (8%)	28 (56%)	12 (24%)	6 (12%)

3. Internet-based learning materials

In terms of internet-based learning materials, the data in Table 8 show that most of the teachers has used ICT-based materials obtained online. Nearly all of them (98%) acquired their teaching materials online, while the majority of them (94%) used existing online material from established educational sources. More than half of them (58%) used teaching material available on the school network or database, and less than half (48%) used offline material available on CDs.

Table 8

Internet-based Learning Materials

No	Internet-based learning materials	Yes	No
1	Material that you have looked up on the internet	49 (98%)	1 (2%)
2	Existing online material from established educational sources	47 (94%)	3 (6%)
3	Material accessible in the school's computer network or database	29 (58%)	21 (42%)
4	Electronic offline material (e.g., CD-ROM)	24 (48%)	26 (52%)

4. Obstacles to integrating ICT in EFL classes

The results of the survey as seen in Table 9 below revealed that only 7.9% of teachers admitted to having a lot of problems in using ICT for their teaching and learning activities, with an insufficient number of interactive whiteboards as a concern (16%), as well as 33.2% admitted to having a partial problem, with 48% reporting that the issue was related to inadequate internet bandwidth or speed. Furthermore, 38.9% had minor issues, with 48% stating that they lack interest. Lastly, 20% had no issues at all, with 46% stating that integrating ICT in EFL teaching was not a priority in their school.

Table 9

Obstacles to Integrating ICT in EFL Classes

No	Obstacles to using ICT	A lot	Partially	A little	Not at all
1	Insufficient number of internet-connected computers	6 (12%)	19 (38%)	20 (40%)	5 (10%)
2	Insufficient Internet bandwidth or speed	6 (12%)	24 (48%)	17 (34%)	3 (6%)
3	Insufficient number of interactive whiteboards	8 (16 %)	20 (40%)	15 (30%)	7 (14%)
4	School computers are old or need repair/replacement	7 (14%)	15 (30%)	14 (28%)	14 (28%)
5	Teachers' insufficient abilities	2 (4%)	19 (38%)	20 (40%)	9 (18%)
6	Insufficient technical support for teachers	5 (10%)	17 (34%)	21 (42%)	7 (14%)
7	Insufficient pedagogical support for teachers	6 (12%)	18 (36%)	20 (40%)	6 (12%)
8	There is a scarcity of appropriate content/material for teaching.	2 (4%)	16 (32%)	21 (42%)	11 (22%)
9	Integration of ICT into the curriculum is too challenging.	2 (4%)	13 (26%)	22 (44%)	13 (26%)
10	There are no pedagogical paradigms for using ICT for learning.	3 (6%)	16 (32%)	23 (4%)	8 (16%)
11	Students are under a lot of pressure to prepare for examinations and assessments.	2 (4%)	17 (34%)	22 (44%)	9 (18%)
12	The majority of instructors are opposed to the usage of ICT.	2 (4%)	20 (40%)	21 (41%))	7 (14%))
13	Teachers' lack of enthusiasm	3 (6%)	11 (22%)	24 (48%)	12(24%))
14	There is no hazy advantage to using ICT in the classroom	2 (4%))	10 (20%)	22 (44%)	16 (32%)
15	Using ICT in teaching is not a priority in our school.	3 (6%)	14 (28%)	10 (20%))	23 (46%)
	Average	(7.9%)	(33.2%)	(38.9)	(20%)

Discussion

      This study aimed to investigate EFL teachers' perspectives on the integration of digital technology in the classroom, and the extent of their usage in the classes. The respondents of this survey were predominantly aged between 30 – 36 years old, with 38% falling into the 36-45 years old category. Less than a quarter (24%) had teaching experience between 5-10 years, and more than a quarter (26%) taught in schools located in Palembang. The results showed that those who used ICT in their regular EFL classes were more likely to be young city dwellers with 10 to 15 years of teaching experience. This indicated that most of the EFL teachers were dominated by digital natives and were familiar with digital technologies, therefore had positive perceptions of the use of ICT in English teaching.

      The results of the questionnaire revealed that, in response to the first research question, "Do EFL teachers have positive perceptions of the integration of digital technology in EFL classes?", the teachers seemed to have positive perceptions of ICT integration in language teaching. This was because ICT helped them improve teaching with more updated materials and prepared teaching resources. The teachers seemed to have a very positive view of the efficacy of ICT incorporation for student learning, as it helped the students access related knowledge and information for learning, encouraged them to be more innovative, inventive, and productive, as well as facilitated their creativity and imagination. In addition, ICT helped the students to be productive as well as broadened their knowledge and paradigm. These results are in line with previous studies,

indicating that EFL teachers had a positive perception of the integration of digital technology in EFL classes (Alshumaimeri, 2008; Fitri & Putro, 2020; Mollaei & Riasati, 2013).

The results also corroborated earlier studies, indicating that EFL teachers' perception regarding the use of ICT in classroom activities had a key influence in determining the value of ICT integration in EFL teaching and learning. Those with a favorable attitude were more likely to encourage integration, whereas those with a negative attitude would discourage integration. In this study, 70% of teachers expressed that using ICT helped enhance their teaching by providing more up-to-date materials and preparing teaching tools and resources. Meanwhile, 56% agreed that it improved their teaching efficiency. In other words, teachers agreed that incorporating ICT into their EFL classes benefited them greatly.

Teachers had accepted that incorporating new technology into EFL classrooms improved student learning. Specifically, 62% of teachers agreed that using ICT helped students find related information for learning, 46% agreed it enabled them to be more innovative, inventive, and efficient, while 40% agreed it helped expand their knowledge and paradigm. These results were in line with Alazemi et al. (2019), who found that using digital technology in EFL classes enhanced students' writing success, engagement, and participation. Similarly, McDermott and Gormley (2016). found that incorporating technology into reading classes increased students' reading skills and motivation Azmi (2017) reported that using ICT in the classroom "promoted learning, improved interaction and communication, boosted autonomous learning, maximized targeted results, motivated learners, and helped increase their performance in the EFL classroom". This indicated that the teachers believed using ICT had aided students in learning more effectively.

The second research question addressed in this study is, "To what extent have EFL teachers integrated ICT technology into their classes?" In terms of using ICT in language classes, the majority of teachers (98 percent) claimed they had used it in their teaching and learning activities. However, in terms of ICT-based practices for EFL teaching, the survey results revealed that only 24% used ICT in their regular classes, with 30.8% using it at least once a week, 36.2% using it many times a month, and 9% never or almost never integrated ICT in their EFL teaching activities. The low percentage (less than a quarter) of teachers using ICT was an indication that the majority had problems integrating it into their regular teaching and learning activities. These results corresponded with Bingimlas (2009), Champa et al. (2019), and Gebremedhin and Fenta (2015), who identified some problems inhibiting EFL teachers from integrating ICT technologies properly in their EFL classes. The results of the survey highlighted the specific problems faced by the majority of the EFL teachers in integrating ICT. 33.2% admitted to having a partial problem and another 38.9% admitted to having a minor problem. The identified problems included insufficient number of interactive whiteboards, outdated or malfunctioning school computers, limited number of internet-connected computers, inadequate internet capacity or speed, as well as insufficient pedagogical support for the teachers.

In terms of the usage of internet-based resources, the survey revealed that most of the teachers used internet-based learning materials in their teaching and had sourced them from recognized institutions. They reported browsing for learning materials almost every day over the past 12 months. These results showed that the teachers were already familiar with the use of ICT to prepare and adapt learning materials obtained online. This indicated that the teachers were predominantly digital natives, familiar and accustomed to using ICT for language teaching. Therefore, they consistently responded more positively toward the ICT devices in EFL teaching/learning (Howlett & Waemusa, 2018).

The problems faced by the teachers in integrating ICT into their English classes, although not significant, included the availability of good internet connection speed, access to ICT devices at school, insufficient pedagogical training of ICT, and limited technical support for the teachers. These results were in accordance with a study done by Buabeng-Andoh (2012), which identified three barriers faced by EFL teachers in integrating ICT into their classes, namely lack of ICT skills, confidence, pedagogical training, appropriate educational programs, and access to ICT. These seem to be the common problems faced by EFL teachers in integrating ICT into their classes.

Conclusion and Pedagogical Implications

This study focused on teachers' perceptions of ICT integration in EFL classrooms and the extent to which the integration had been applied. The results showed that the teachers had a positive perception and a highly positive attitude concerning the efficiency of ICT in aiding students to learn more efficiently. It was also found that while the majority of teachers utilized ICT in their teaching and learning activities, only 24% acknowledged using it in their regular EFL courses on a daily basis. Teachers acknowledged that certain factors, such as fewer ICT facilities and resources for teachers, were still preventing them from using ICT in their EFL classes.

This study had some limitations, including small sample size, voluntary response sampling, time constraints, lack of variety in testing instruments (absence of open-ended questions), and generalizability of the results. Nonetheless, the results offered some useful information about ICT integration in EFL classrooms. Further studies are needed to have a clearer understanding of teachers' perceptions of ICT usage in EFL classrooms, which will require a larger sample size, a variety of research instruments, and more time to perform the analysis. As a result, more detailed data will be collected, and data generalization will be possible, allowing for a greater understanding of the state of the teachers' perceptions.

Despite the fact that this study was performed on a small scale, the results offered useful insight into how teachers view the use of ICT in EFL classrooms. They supported the prior claim that teachers' attitudes toward ICT significantly influence ICT integration in EFL teaching and learning. These results will undoubtedly contribute to the body of knowledge regarding current teachers' perspectives on how ICT has been used in EFL teaching and learning in Indonesia. Moreover, they will raise awareness about the importance of incorporating ICT into EFL classes and providing more ICT facilities in schools for better teaching and learning.

Acknowledgments

About the Authors

Eryansyah Eryansyah: An associate professor in the English Education Study Program, Sriwijaya University, Indonesia. He earned Ph.D. in EFL teaching from the Arts and Language Department, University of Waikato, New Zealand in 2017. His studies primarily focus on the use of digital technology in EFL teaching. Some of his recent studies investigated EFL students' needs for digital literacy to meet the demands of 21st century skills, pre-service EFL teachers' digital literacy, and factors affecting digital literacy development, Indonesian and the Philippine preparation for In-service teacher training in the era of 4.0 industry revolution, as well as Master degree students' problems in writing articles for publication. His Orchid is 0000-0001-7766-580X.

Erlina Erlina: A lecturer in the English Education Study Program, Sriwijaya University, Indonesia. She earned M.Ed. in Language Education from School of Education, Flinders University, Australia in 2009. Her study interests are in the area of EFL teaching methodology, literacy education, and the use of digital technology in EFL teaching and learning. Her recent studies investigated EFL students' needs for digital literacy to meet the demands of 21st century skills, Pre-service EFL teachers' digital literacy, and factors affecting digital literacy development.

References

21st Century European Classroom. (2016). *Teacher questionnaire on the use of Information and Communication Technology (ICT).* Retrieved January 2, 2021 from

http://www.21digitalclass.com/uploads/4/7/2/9/47298253/teachers_-_questionnaire_on_the_use_of_ict.pdf

Alazemi, A., Sa'di, I. T., & Al-Jamal, D. A. (2019). Effects of Digital Citizenship on EFL Students' Success in Writing. *International Journal of Learning, Teaching Educational researcher*, *18*(4), 120-140.

Alshahran, T. (2017). Using Digital Technologies as a Learning Tool in the TESOL Classroom. RSEP International Conferences on Social Issues and Economic Studies, Vienna, Austria.

Alshumaimeri, Y. A. (2008). Perceptions and attitudes toward using CALL in English classrooms among Saudi secondary EFL teachers. *The JALT Call Journal*, *4*(2), 29-46.

Azmi, N. (2017). The benefits of using ICT in the EFL classroom: From perceived utility to potential challenges. *Journal of Educational and Social Research*, *7*(1), 111-118.

Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science & Technology Education*, *5*(3), 235-245.

Buabeng-Andoh, C. (2012). Factors influencing teachersâ adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education and Development using ICT*, *8*(1), 136-155.

Çakici, D. (2016). The use of ICT in teaching English as a foreign language. *Participatory Educational Research*, *4*, 73-77.

Caldwell, M., & Caldwell, M. (2020). An investigation into the perceptions of Japanese university educators on the use of ICT in an EFL tertiary setting. *Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, *21*(2), 1-16.

Champa, R. A., Rochsantiningsih, D., & Kristiana, D. (2019). Teachers' challenges to integrate ICT in EFL teaching and learning activities. English Language and Literature International Conference (ELLiC) Proceedings,

Chen, M., Zhou, C., Meng, C., & Wu, D. (2019). How to promote Chinese primary and secondary school teachers to use ICT to develop high-quality teaching activities. *Educational Technology Research and Development*, *67*(6), 1593-1611.

Eryansyah, E., Erlina, E., Fiftinova, F., & Nurweni, A. (2019). EFL students' needs of digital literacy to meet the demands of 21st century skills. *Indonesian Research Journal in Education*, *3*(2), 442-460.

Fitri, Y., & Putro, N. H. P. S. (2020). EFL Teachers' Perception of the Effectiveness of ICT-ELT Integration During the COVID-19 Pandemic. International Conference on Educational Sciences and Teacher Profession (ICETeP 2020),

Ganicheva, Y. S., Golubev, O. B., Testov, V. A., & Khabibulin, A. G. (2019). Digital literacy is a necessary factor of modern education. *Proceedings of the International Scientific-Practical Conference "Business Cooperation as a Resource of Sustainable Economic Development and Investment Attraction" (ISPCBC 2019)*. https://doi.org/10.2991/ispcbc-19.2019.73

Gebremedhin, M. A., & Fenta, A. A. (2015). Assessing Teachers' Perception on Integrating ICT in Teaching-Learning Process: The Case of Adwa College *Journal of Education and Practice*, *6*(4), 114-124.

Hayati, N., & Arini, F. D. (2021). Strengthening Digital Literacy During and Post Pandemic Covid-19. *Digital Press Social Sciences and Humanities*, *7*, 00013. https://doi.org/10.29037/digitalpress.47403

Hidalgo, J. P., Parra, E. G., & Abril, C. A. H. (2020). Digital and Media Competences: Key Competences for EFL Teachers. *Teaching English with Technology*, *20*(1), 43-59.

Howlett, G., & Waemusa, Z. (2018). Digital native/digital immigrant divide: EFL teachers' mobile device experiences and practice. *Contemporary Educational Technology*, *9*(4), 374-389. https://doi.org/https://doi.org/10.30935/cet.471007

Hu, Z., & McGrath, I. (2011). Innovation in higher education in China: Are teachers ready to integrate ICT in English language teaching? *Technology, Pedagogy and Education*, *20*(1), 41-59.

Ibieta, A., Hinostroza, J. E., Labbé, C., & Claro, M. (2017). The role of the Internet in teachers' professional practice: Activities and factors associated with teacher use of ICT inside and outside the classroom. *Technology, Pedagogy and Education*, *26*(4), 425-438.

Ihmeideh, F., & Al-Maadadi, F. (2018). Towards improving kindergarten teachers' practices regarding the integration of ICT into early years settings. *The Asia-Pacific Education Researcher*, *27*(1), 65-78.

Jimoyiannis, A., & Komis, V. (2007). Examining teachers' beliefs about ICT in education: Implications of a teacher preparation programme. *Teacher development*, *11*(2), 149-173.

Kollia, A., Saprikis, V., & Antoniadis, I. (2020). ICT in the Educational Process: Teachers' Perceptions based on their Age and Years of Service. Proceedings of the 7th International Conference in New Ideas in Management Economics and Accounting. Rome,

Lawrence, J. E., & Tar, U. A. (2018). Factors that influence teachers' adoption and integration of ICT in teaching/learning process. *Educational Media International*, *55*(1), 79-105. https://doi.org/10.1080/09523987.2018.1439712

Lee, M., & Finger, G. (2010). The challenge: Developing a networked mode of schooling. In M. Lee & G. Finger (Eds.), *Developing a networked school community* (pp. 3-14). Acer Press.

Li, L., & Walsh, S. (2010). Technology uptake in Chinese EFL classes. *Language Teaching Research*, *15*(1), 99-125. https://doi.org/10.1177/1362168810383347

Mahdum, M., Hadriana, H., & Safriyanti, M. (2019). Exploring teacher perceptions and motivations to ict use in learning activities in Indonesia. *Journal of Information Technology Education: Research*, *18*, 293-317. https://doi.org/https://doi.org/10.28945/4366

Makhlouf, K., & Bensafi, Z. (2021). An Exploration of Factors Influencing Teachers' Attitudes toward the Use of Information and Communication Technology (ICT) in Classroom Practice A Case Study of Secondary School EFL Teachers in the Western District of Chlef, Algeria. *Advances in Language and Literary Studies*, *12*(2), 37-49.

McDermott, P. C., & Gormley, K. A. (2016). Teachers' Use of Technology in Elementary Reading Lessons. *Reading Psychology*, *37*, 121 - 146.

Merillo, J., & Domingo, P. (2019). *Technology in Pedagogy: Teachers' Perception Towards the Effectiveness of ICT Integration in Language Teaching.* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3442432

Mollaei, F., & Riasati, M. J. (2013). Teachers' perceptions of using technology in teaching EFL. *International Journal of Applied Linguistics and English Literature*, *2*(1), 13-22.

Muslem, A., Yusuf, Y. Q., & Juliana, R. (2018). Perceptions and barriers to ICT use among English teachers in Indonesia. *The Journal of Teaching English with Technology*, *18*(1), 3-23.

Nguyen, L. T. H. (2021). Teachers' Perception of ICT Integration in English Language Teaching at Vietnamese Tertiary Level. *European Journal of Contemporary Education*, *10*(3), 697-710.

Partnership for 21st Century Learning. (2015). *Partnership for 21st century skills: Core content integration.* Ohio Department of Education.

Pratolo, B. W., & Solikhati, H. A. (2021). Investigating teachers' attitude toward digital literacy in EFL classroom. *Journal of Education and Learning (EduLearn)*, *15*(1), 97-103.

Salehi, H., & Salehi, Z. (2012). Integration of ICT in language teaching: Challenges and barriers. Proceedings of the 3rd International Conference on e-Education, e-Business, e-Management and e-Learning (IC4E, 2012), IPEDR,

Samuel, R. J., & Zaitun, A. (2007). Do teachers have adequate ICT resources and the right ICT skills in integrating ICT tools in the teaching and learning of english language in malaysian schools? *The Electronic Journal of Information Systems in Developing Countries*, *29*(1), 1-15.

Schreurs, K., Quan-Haase, A., & Martin, K. (2017). Problematizing the digital literacy paradox in the context of older adults' ICT use: Aging, media discourse, and self-determination. *Canadian Journal of Communication*, *42*(2), 359-377.

Silviyanti, T. M., & Yusuf, Y. Q. (2015). EFL Teachers' Perceptions on Using ICT in Their Teaching: To Use or to Reject? *Teaching English with Technology*, *15*(4), 29-43.

Tampubolon, H. D. (2017). Digital literacy for all. *The Jakarta Post*. https://www.thejakartapost.com/life/2017/01/31/digital-literacy-for-all.html

Tezci, E. (2009). Teachers' effect on ICT use in education: The Turkey sample. *Procedia-Social and Behavioral Sciences*, *1*(1), 1285-1294.

Tran, T. L. N. (2020). Perspectives and attitudes towards self-directed mall and strategies to facilitate learning for different learner groups. *Call-Ej*, *21*(3), 41-59.