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Exploring ICT Professional Development of Experienced Female EFL Teachers



NUR LAILIYAH JAMIL^a 

SITI MUNIROH^{b*} 

SARI KARMINA^c 

^a*English Department, Faculty of Letters,
Universitas Negeri Malang, Malang,
65145, Indonesia
nur.lailiyah.2102218@students.um.ac.id*

^b*English Department, Faculty of Letters,
Universitas Negeri Malang, Malang,
65145, Indonesia
siti.muniroh.fs@um.ac.id*

^c*English Department, Faculty of Letters, Universitas Negeri Malang,
Malang, 65145, Indonesia
sari.karmina.fs@um.ac.id*

ABSTRACT

The integration of Information and Communications Technology (ICT) into language teaching and learning is mandated by the national policy in Indonesia. This study aims to describe 34 experienced female EFL teachers' experiences ICT professional development. This study reports on 1) encouraging and discouraging factors of ICT use for participants, 2) solutions of ICT integration for participants' professional development, and 3) peers' perception on participants' improvement of ICT competencies. To investigate the external and internal factors on the participants' ICT professional development experiences, a sequential explanatory design with mixed methods approach was used in the study. In the first phase, a questionnaire was used as the instrument to categorize participants into satisfactory ICT proficiency and less satisfactory ICT proficiency. The second phase was one-on-one interviews to find further information on the participants' experiences on ICT professional development. The questionnaire was analyzed using SPSS, while interviews were analyzed using deductive content analysis which employs four stages in its process. Results show that all teachers with proper ICT proficiency and those who are less proficient in ICT have positive perceptions of the use of technology in education. However, there are differences in how they solve internal and external problems, and how

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they perceive guidance from peers and support from the school environment. This study recommends universities and the government to develop programs of ICT professional development suitable for experienced female teachers.

Keywords: ICT, professional development, senior EFL teachers, experienced EFL teachers, female teachers.

INTRODUCTION

In this 21st century, teachers are often required to implement Information and Communication Technology (ICT) in their teaching. It is mentioned in Article 2, Paragraph 3, Sub-paragraph 4 of Government Regulation of the Republic of Indonesia No. 47 of 2008 on Teachers stipulates that “teachers are expected to have pedagogical competence in using technology to manage the students’ learning” (Kemdikbud, 2008). Reflecting to the policy, Indonesia’s 2013 curriculum framework demand that all subjects including English need to employ technology-based learning tools (Kemdikbud, 2014) to switch from instructivism, where students only rely on teachers’ knowledge without analyzing and stimulating it, to constructivism in which students construct their own knowledge based on their experiences so that students are more capable of critical thinking (Hidayati, 2016). In actuality, teachers at all levels of education are expected to employ ICT to assist students in developing more engaging and exciting learning experiences so that students easily comprehend learning content (Ammanni & Aparanjani, 2016; Hidayati, 2016; Saravanakumar, 2018). In other words, students often highly motivated and achieve better learning results, when a teacher optimizes technology usage in the classroom (Sharma & Srivastava, 2020; Torff & Tirota, 2010; Tsai, 2015). These imply that all teachers, including experienced ones, must possess ICT skills. An experienced EFL teacher here refers to a teacher who has been teaching for at least five years, can employ a comprehensive variety of knowledge and strategies for language teaching, solves various teaching problems based on experience, possesses classroom management skills, understands students’ characters, needs, and interests, as well as create more efficient and effective lesson plans (Razzak, 2015; Richards & Farrell, 2005; Rodríguez & McKay, 2010; Tsui, 2003). Nevertheless, it is not guaranteed that having years of teaching experience will lead to expertise; many experienced teachers do not concern on professional development, even though they can develop their practical knowledge for school’s academic teaching (Tsui, 2003).

Data from the Ministry of Communication and Information reported that Indonesia’s digital literacy index in 34 provinces in 2020 is still low, between 1.00 and 3.66 out of 5.00 (Kominform, 2020). In such a case, internal and external factors hinder experienced teachers from using computer technology (Tsai, 2015). Internal factors include lack of self-confidence, age, gender, experience, motivation, perception, and attitude, while external factors cover limited facilities at schools, time allocation, and limited access to the internet, technical problems, school environment, teachers’ training, peer influence and supervisor’s teaching style (Alharbi, 2021; Lan, 2001; Lubis, 2018; Tsai, 2015). Discussing internal factors, specifically gender. Several studies and documents have reported gender differences in ICT use that male teachers use ICT more frequently than female teachers which shapes them to be more superior and confident in using technology in their teaching and learning process, meanwhile, female teachers’ low levels of computer use were due to a lack of technology access, ICT experience, and skills (Kay, 2006; Wozney et al., 2006). On the other hand, women are likely more eager than men to engage in future life learning related to practical knowledge and ICT skills since women feel more liberated in group settings and want to learn something new for joy and self-realization (Narushima et al., 2013; Vacek & Rybenska, 2015; Williamson, 2000). Previous findings proved by female teachers who participated

in ICILS 2013 cross-nationally. The result in each country, a higher proportion of female teachers than male teachers reported integrating ICT into instruction, also stating they have confidence and optimism when utilizing ICT, they could set a robust role model for the young women in their class (Gebhardt et al., 2019). In this case, experienced female teachers require support and equal opportunities to expand their digital competence, such as establishing a teacher-learning community to increase confidence, courage, and willingness for their ICT professional development (Chang & Hsu, 2017).

Improving experienced teachers' ICT competencies will have great impact on the quality of education in Indonesia (Al-Munawwarah, 2014; Lam & Lawrence, 2002; Lubis, 2018; Saravanakumar, 2018). According to Park and Son (2015), language teachers who have a lot of experience with computers are more likely to be competent and confident in using CALL in the classroom. Unfortunately, little attention has been paid on experienced teachers, especially on EFL female teachers in relation to ICT professional development. Thus, this research focuses on the factors that influence experienced teachers with high and low ICT proficiency in developing the ability to integrate ICT in their classes. The research questions are formulated as follows:

- a) What are experienced female EFL teachers' encouraging and discouraging factors in using ICT tools in teaching and learning process?
- b) What are solutions to the factors that hinder the use of ICT in the classroom?
- c) How are experienced female EFL teachers' ICT competencies improved by their colleagues/peers for professional development?

The findings of this study can be used as consideration to develop high-quality professional development programs for experienced female EFL teachers. The results of this study may then be used by the government and universities to develop special programs that assist experienced teachers in enhancing their ICT competency to support their teaching.

Literature Review

Information and Communication Technology (ICT)

ICT is a technology that provides access to information through communications. It is similar to IT but with a focus on communication technologies which have become so important in language learning in which widely used in today's education space because they have contributed to the improvement of language acquisition (Floris, 2014; Fu, 2013). Incorporating ICT into English language teaching and learning assists students in achieving meaningful learning because it promotes learning autonomy that shifts the learning environment from teacher-centred to learner-centred, which has the potential to increase learner motivation, enrich basic skills, and improve teacher's technology competence and thus may assist teachers in successfully integrating the four language skills (Coleman et al., 2016; Hidayati, 2016; Lubis, 2018). Many studies show the positive effects of ICT on the motivation of students to learn and can support the teachers' administrative tasks in addition to helping them in the process of teaching the students (Adeya, 2002; Amin, 2013; Ammanni & Aparanjani, 2016; Floris, 2014; Hidayati, 2016; Lubis, 2018; Plomp et al., 2009; Wang & Woo, 2007). In this situation, teachers are expected to be able to thoroughly understand the environment, student needs, and school settings to determine the extent to which ICT plays a significant role in student language.

Factors Affecting EFL Teachers in Using ICT

Teacher cognition is an element that includes intrinsic and extrinsic factors that can affect senior and experienced female EFL teachers in integrating ICT into instruction (Taopan & Drahati, 2019).

This is also supported by several studies that internal and external factors could affect the integration of ICT in the classroom, but intrinsic factors are much more complicated to change (Badia et al., 2013). Overall, intrinsic factors related to teachers' age, gender, computer anxiety, lack of self-confidence, skill, experience, motivation, beliefs, and attitudes have proven to be prerequisites for the successful implementation and use of ICT in schools (Alharbi, 2021; Angers & Machtmes, 2005; Borg, 2005; Khalouf & Laabidi, 2017; Lan, 2001). Meanwhile, these external factors include technology availability, limited access to the internet, access to ICT equipment, technical problems, time to plan education, administrative support, school curricula, school climate and culture, school environment, school teaching load, peer influence, supervisor's teaching style, and teachers' training and reluctance to change with the current practice (Akram et al., 2022; Borg, 2005; Lin et al., 2010; Lubis, 2018; Sabiri, 2020; Tsai, 2015). Therefore, in the phenomena mentioned above, it can be concluded that it needs a positive attitude from both factors to strengthen teachers' professional competence in ICT.

Experienced Teachers' Willingness to Integrate ICT into Instruction

In tandem with the development of technology in current schooling, experienced teachers who have many years of teaching experience are generally unenthusiastic and uncooperative to use technology tools in their classes or schools due to some internal and external factors (Krumsvik et al., 2016). This lack of motivation to embrace technology may create negative classroom interaction between students and teachers (Tsai, 2015). Experienced teachers must not ignore the existence of technology. Instead, they are expected to catch up with technology and manage their techno-stress to build effective learning in schools. Techno-stress means direct or indirect negative effects that influence people's attitudes, thoughts, and behaviors toward technology (Tu et al., 2005). Some teachers believe technology can make the learning process easier, but they do not know how to implement it due to the lack of knowledge and training in ICT development (Khan et al., 2012; Prestridge, 2012). Thus, teachers need training such as seminars, workshops, and symposia to strengthen and maximize the use of effective technology for education to help them overcome their fear of ICT (Laabidi, 2016; Suherdi & Mian, 2017).

Gender Problems in Technology Usage

Multiple studies also provide contradictory findings about the influence of gender on the use of ICT in instructional teaching materials. Previous scholars indicated that male teachers have more positive attitudes toward using ICT and other technological tools, use ICT more actively, have higher ICT self-efficacy, and thus perform better than their female teacher counterparts considering women have less time to interact using ICT, which leads to women to feel anxious, have a negative attitude toward the use of ICT, and incompetence (Broos, 2005; Cooper, 2006; Geldof, 2011; Ho & Lee, 2001; Jackson et al., 2008; Manyilizu & Gilbert, 2015; Sáinz & López-Sáez, 2010; Schumacher & Morahan-Martin, 2001; Tsai & Tsai, 2010). Whereas in other findings, female teachers outperform male teachers in a variety of ICT instructional uses and their scores in learning related to computers were higher than men (Buabeng-Andoh, 2012; Danko et al., 2020; Gebhardt et al., 2019). Differences in the findings of various scholars also invite neutral outcomes for gender differences toward technology. According to several other studies, there were no gender differences in study-related computer attitudes or confidence in using computers for instructional purposes (Bebetso & Antoniou, 2009; Cai & Du, 2017; Qazi et al., 2022; Scherer & Siddiq, 2015; Siddiq & Scherer, 2019; Verma & Dahiya, 2016). This brief review shows that gender discrimination and stereotypes are important factors that contribute to women having less access to ICTs and fewer opportunities than men in terms of ICT-related knowledge and practices, which impacts future educational opportunities as well as career options and choices. Overall, it can be concluded that males and females have equal opportunities to enhance the knowledge and practice of ICT in teaching professional development (Hashemi et al., 2022; Islahi & Nasrin, 2019; Putri et al., 2021; Sang et al., 2010).

METHODOLOGY

Research Design

This study employed a variant of the mixed-methods approach called sequential explanatory design, which consists of two phases: quantitative and qualitative. The researchers first collected and analyzed quantitative (numerical) data from the questionnaire. Then, qualitative (textual) data are collected through one-on-one interviews. In the quantitative phase, researchers used closed-ended and open-ended questions in the questionnaire as primary data about experienced female EFL teachers' self-evaluation in ICT competence (Cohen et al., 2011). The goal of the first phase is to find out which experienced EFL female teachers belong to those having ICT competence or those having less competence in the integration of ICT (self-evaluation). Researchers formulated an interview protocol based on the results of the first phase which used the semi-structured one-on-one interview to seek further information about the participants' experience and ability, specifically about encouraging and discouraging factors, problems, and solutions during ICT integration, and contribution in the community development (Creswell, 2012). The interviews were recorded on audiotape so that data could be more accurately and consistently transcribed verbatim.

Purposeful sampling was employed to identify and select relevant participants, i.e., whether they have knowledge or experience with ICT and whether they were willing to participate in this study (Bernard, 2013; Creswell & Plano, 2011). The participants of this study were 34 experienced female English teachers in East Java, Indonesia. They have been teaching at the upper secondary education level (SMA, SMK, and MA) for 10–20 years or more and have been using ICT in their teaching for at least a year. Their age ranges from 36–60 years. Their latest education level was bachelor and master degrees. Most of them are teaching at public schools, and they have been participating at ICT development in education trainings (see Table 1).

Table 1 *Participants' Background Information of the Questionnaire*

Category	Sub-Category	(N 34)
Age	36–45 years old	20
	46–60 years old	14
Teaching Experience	10–20 years	23
	Above 20 years	11
ICT Experience	1–10 years	21
	Above 10 years	13
Degree	Bachelor	24
	Magister	10
Employment Status	Civil Servant	21
	Honorary	13
Education Institution	Public school	24
	Private School	10
ICT Development in Education	Workshop	25
	Seminar	17
	Conference	2
	Training	24

Participants in the qualitative phase were chosen based on their technology literacy competence, teaching experience, academic titles, and rich information provided in the questionnaires which were analyzed using statistics frequency to screen the participants and their availability to be interviewed. Thus, there were only 6 experienced female EFL teachers; 3 representatives of high ICT proficiency and 3 representatives of low ICT proficiency who agreed to be involved in the second phase.

Participants' education institution, employment status, age, years of teaching experience and ICT experience, academic titles as well as their ICT ability are presented in Table 2. To keep the participants' personal information confidential, their names are written in codes; EFTH1 for Experienced Female Teacher High 1, EFTL4 for Experienced Female Teacher Low 4, etc.

In the interview sessions, the participants have been teaching for about 16 up to 22 years with 10–12 years of ICT experience in private and public schools with employment status as honorary employee and civil servants. Their age ranges between 44 to 55 years old, with their latest education level bachelor and master degrees. Questionnaire results show that EFTH1, EFTH2 and EFTH3 belong to high ICT proficiency. Meanwhile, EFTL4, EFTL5, and EFTL6 belong to low ICT proficiency.

Instrument, Data Collection, and Data Analysis

Researchers employed data triangulation or the use of questionnaire and interviews during different periods of time, to ensure the credibility of the study's findings. The questionnaire consists of 20 close-ended and 8 open-ended questions (28 questions in total) about self-evaluation to determine experienced female EFL teachers' ability in ICT integration. The interview consisted of 27 questions about personal information, encouraging and discouraging factors in the use of ICT, the solution to overcome difficulties in using ICT, and the impact created by the peers who can integrate ICT. The instrument was validated by education experts to receive reviews and comments from academic practitioners who serve as expert advisors in respective disciplines. Three assessment criteria are included in the validation forms Likert scale questionnaire: forms, contents, and language. Their role include filling out the validators' identity, fully comprehending the instructions of the questionnaire, and offering a scale on the aspects of evaluations, general reviews, and improvement ideas. Finally, the instrument requires minor revision in accordance with the experts' recommendation. After revising the instrument, the researchers tried out to 15 experienced teachers before being distributed to the respondents.

The collected data from the questionnaires were analyzed by coding responses to numerical data in excel and then exported to SPSS 22. Meanwhile, data from interviews were analyzed using deductive

Table 2 *Overview of Participants' Information Background Interview*

RP	Education Institution	Employment Status	Age (years)	Teaching Experience (years)	ICT Experience (years)	Academic Degree	ICT Ability
ETH1	Public School	Civil Servant	47	22	12	Magister	High
ETH2	Public School	Honorary	47	19	10	Bachelor	High
ETH3	Public School	Civil Servant	44	16	12	Bachelor	High
ETL4	Public School	Civil Servant	46	18	10	Magister	Low
ETL5	Private School	Honorary	49	26	11	Bachelor	Low
ETL6	Private School	Honorary	55	22	10	Bachelor	Low

*RP: Research Participant.

content analysis with NVIVO 12. Bengtsson (2016) mentioned four stages that need to be followed by the researchers in the qualitative data analysis process. The first is decontextualization in which the researchers identify meaning units such as creating a coding system for a deductive approach that helps to secure the data analysis process. The second is recontextualization, in which the researchers include the important meaning and excludes unimportant information to answer the research problems. The third is categorization, in which the researchers try to find out the meaning unit concisely before creating categorization. In this stage, the theme and category are identified to see the result that is linked to the research objective. The researchers and the second rater reviewed and discussed any inconsistencies in coding or translation to examine the trustworthiness before finalizing the results. The last stage is compilation, in which the researchers draw a realistic conclusion by asking for respondent validation and an inquiry audit to check whether the result is reasonable or not. After completing the 4 stages of the qualitative data analysis process, the result will be presented qualitatively and categorized based on the research questions. Before finishing the four stages, the researchers determined themes in accordance with the research questions; ICT encouraging factors, ICT discouraging factors, solutions to ICT issues and community development.

RESULTS

Encouraging and Discouraging Factors in the Use of ICT

Questionnaire data revealed that experienced female EFL teachers (EFETs) are encouraged because they discover that ICT benefits both students and teachers (see Table 3).

Table 3 shows that EFETs frequently used ICT only for teaching purposes (100%) but not entirely of EFETs used it for additional activities, such as evaluating student work (73.5%) and monitoring students' academic progress (41.2%). 27 EFETs also considered that ICT will create an engaging atmosphere for learning [79.4%] and encourage students to think critically as well as creatively [76.5%] due to learning materials being more varied [76.5%], however, only 24 EFETs agreed that ICT could enhance students' learning performance [70.6%], and only 12 EFETs acknowledged that ICT can be helpful in the visualization of abstract concepts. Another interesting finding was discovered, despite being provided with a variety of learning materials, at most only 15 teachers were capable of

Table 3 *Experienced Female Teachers' Encouraging Factors in the Use of ICT*

Encouraging Factors Frequencies	Responses	
	N	Percent
Helping the process of learning and teaching	34	100,0%
Establishing more engaging learning environments	27	79.4%
Expanding the access of learning materials	26	76.5%
Promoting critical-thinking and creativity on students	26	76.5%
Evaluating students' work	25	73.5%
Improving Students' learning quality	24	70.6%
Serving global-learning environment	15	44.1%
Monitoring students' performance	14	41.2%
As a part of Indonesia education curriculum system	14	41.2%
Helping to visualize abstract ideas	12	35.3%

using ICT to expose students to various accents, dialects, and cultures from around the world [44.1%]. In addition, only a small percentage of EFETs used ICT because it is required by educational policy [41.2%], indicating that most EFETs utilize ICT because they realize many advantages when employing technology for learning. Thus, it can be inferred that even though there is no policy from the authorities to utilize ICT, the majority of EFETs will still be integrating ICT into instruction.

The data from the questionnaire also indicated that EFETs are hindered from using ICT for a range of reasons; both internal and external, but external factors are found to be more frequent in this case (See Table 4).

Table 4 shows that, in addition to encouraging factors, EFETs have hindering factors. External inhibiting factors are encountered more frequently than internal inhibiting factors. EFETs were discouraged from using ICT because of limited internet access [82.4%] and inadequate ICT facilities in school [35.3%]. In addition to technical issues, EFETs are not provided with effective ICT training that has an impact on teaching [26.5%]. In fact, 4 EFETs [11.8%] had never received any ICT training programs at school. The barrier of these external factors influences EFETs, which causes an occurrence of internal factors, such as 13 EFETs who lack digital literacy [38,2%] which hard for them to integrate ICT media with appropriate learning materials [26,5%]. Another internal factor is that only a few EFETs lack interest in the use of ICT [17,6%] and inexperience with the development of ICT [14,7%]. Based on several internal barriers, it is obvious that EFETs are self-confident about their ability to implement ICT in learning because only [8.8%] are nervous about using technology in learning. Aside from that, co-workers have a positive impact, such as assisting EFETs in developing ICT abilities [2.9%].

The data from the interview show that EFTH and EFTL ICT proficiency are inspired and motivated by students. Those encouraging aspects indicate extrinsic factors. In this case, all EFETs are expected to keep up with students' culture and current trends in which every activity cannot be separated from technology, EFTH1, EFTL4, and EFTL6 said, "I have to be familiar with their culture and current trends" (EFTH1), "I want my students to be happy in learning English" (EFTL4), and "Students are happier and enjoy when the learning recurses beyond textbooks" (EFTL6).

The teacher puts the needs of the students first when planning lessons such as creating fun activities by integrating ICT into instruction to help students learn all materials with ease.

Table 4 *Experienced Female Teachers' Discouraging Factors in the Use of ICT*

Discouraging Factors	Responses	
	N	Percent
Limited access of internet	28	82.4%
Lack of digital literacy	13	38.2%
Inadequate ICT facilities in the school	12	35.3%
Difficulties in adapting the appropriate learning material	9	26.5%
Ineffectiveness of ICT training and education	9	26.5%
Lack of interest toward the use of ICT for teaching	6	17.6%
Inexperienced of professional development in ICT	5	14.7%
There is no ICT training program in the school	4	11.8%
Anxiety in using ICT	3	8.8%
Low supports among work colleague	1	2.9%

Another aspect is that EFETs are inspired by their peers' ability in using ICT in the classroom, as EFTH2 and EFTL6 said, "In order to avoid falling behind to new teachers" (EFTH2), and "I feel challenged by my peers who are skilled in ICT tools and are able to use online interactive media in their teaching and learning process." (EFTL6)

EFETs are motivated to develop their ICT skills and incorporate them in the classroom because they are afraid of lagging and being outperformed by their friends who can use ICT.

The last aspect is that the use of ICT is one of the requirements and policies of the school. As a result, the teacher will now understand how crucial ICT proficiency is because it can support all the teacher's tasks at school. As EFTL3 and EFTL5 said, "ICT has various applications that help teachers to reduce the teaching workload." (EFTH3), and "I must upgrade my skill in teaching because certain tasks require me to use ICT" (EFTL5).

Teachers are aware that using ICT in the classroom is a requirement, and they also acknowledge that using a variety of learning applications will help teachers teach better in the classroom.

Regarding discouraging factors, both internal and external aspects that hinder EFETS in integrating ICT are revealed from the interview. In this case, it was found that the main aspects are the lack of internet connection and the readiness of schools to provide adequate ICT facilities for teaching and learning. As experienced by EFTH and EFTL ICT proficiency.

"Our school area has poor internet connection" (EFTH1), "Sometimes the school's ICT resources" (EFTH2), "The school has a poor internet connection and limited number of laptops" (EFTH3), "The school's Wi-Fi is unreliable" (EFTL4), "There is a poor internet connection at our school" (EFTL5), and "The laptops and the low internet connection at school" (EFTL6).

In this situation, the low internet connection and inadequate ICT facilities play a significance of role in preventing the use of ICT in the classroom, and solutions must be found.

The internal factors of EFTH and EFTL ICT proficiency are found to include different aspects that discourage the use of ICT like age, time readiness, ICT tool issues, teaching workload, and anxiety. As stated by EFTH1, the age factor has become one of the barriers, "Since I was not born digitally literate and I am an elderly woman, learning digital literacy is exceedingly difficult, and I must work harder than the young teachers" (EFTH1). Other factors such as time available to prepare learning materials that integrate ICT, makes EFTH3 need more time, readiness, and maturity before giving it to students in class "Preparing to teach using ICT always takes more effort than using the traditional teaching method" (EFTH3).

Another internal factor is the difficulty of finding solutions when ICT problems occur, as experienced by EFTL4, "I am unable to resolve issues when they emerge" (EFTL4). Other also experiences a sense of discomfort and anxiety when utilizing ICT in the classroom, as felt by EFTL5, "I felt a bit anxious to use ICT in the class since I didn't want to make a mistake in front of the students" (EFTL5). In another case, EFTL6 chooses traditional learning over ICT because she does not have time to practice her ICT skills and rarely uses it in the classroom, "I have difficulties with time management such as teaching workload, family responsibilities, and social activities make me tired and exhausted. Thus, I rarely update my ICT knowledge and frequently implement the traditional teaching method" (EFTL6). As a result, it can be concluded that the common obstacles encountered by all EFETs are related to ICT tools, adequate facilities, and internet connection issues as external factors, while age,

time management, skills to resolve ICT issues, computer anxiety, and a lack of motivation to integrate ICT are internal factors. To fully utilize ICT in the classroom, these difficulties must be properly resolved. Thus, it is necessary to discover how they resolve external and internal problems based on their qualifications as experienced teachers.

Solutions in the Use of ICT

EFETs discouraging factors require solutions to prevent and minimize potential issues. The steps taken by EFETs to avoid or address internal and external problems when using ICT are listed below.

When internal and external issues occur during the utilization of ICT, 27 EFETs are much more satisfied by asking questions and seeking guidance from co-workers [87.1], compared to asking for guidance and assistance from family at home [35.5%]. This is consistent with the previous table, where colleagues always offer encouragement to one another to use ICT in the classroom. Aside from that, EFETs learn independently about technical and cognitive abilities in using ICT [77.4%] and get accustomed to utilizing ICT in learning [45.2%] to avoid internal problems and participating in ICT seminars or programs that would assist them in strengthening their ICT professional fields [41.9%]. Some of them are aware that this problem requires external assistance, so they have the courage to express their thoughts to school stakeholders, particularly the principal, about the need for adequate ICT facilities at school [38.7%] and requesting relevant ICT training programs to improve their teaching quality [19.4%]. In this case, it can be concluded that the majority of EFETs act independently and are not heavily reliant on external factors to solve the problem.

The data from the interview inform that EFTH and EFTL ICT proficiency have different approaches to solving both internal and external issues. When there are external issues appear, like a poor Wi-Fi connection, EFTH ICT proficiency have prepared the downloaded materials related to interactive online media, and occasionally students use teacher phone tethering to do fun activities beyond the textbook. They also tend to push themselves more in the development of ICT training to contribute and participate in the *MGMPs/MGMP* forums that can reduce the occurrence of internal issues. In this manner, efforts are made to avoid using the traditional classroom approach. As mentioned by EFTH1 and EFTH3,

“I receive extensive ICT training during English teacher forums. When the school’s Wi-Fi is unstable, I have prepared the downloaded materials. Phone tethering is sometimes an option to do fun activities online.” (EFTH1), and “I participate in ICT training and join a webinar or seminar. I download all the materials at home. Sometimes, I use phone tethering as well.” (EFTH3)

Table 5 *Experienced Female EFL Teachers’ Solutions in the Use of ICT*

Solutions Frequencies	Responses	
	N	Percent
I ask questions and guidance from work colleague	27	87.1%
I learn independently about the knowledge and digital literacy	24	77.4%
I study and try to be more adapted in using ICT	14	45.2%
I try to join seminar and training program	13	41.9%
I propose to the school principal on having adequate ICT facilities	12	38.7%
I ask help and guidance from my family at home	11	35.5%
I suggest the headmaster to give ICT training program	6	19.4%

EFTH2 claims that she has no serious issues, but issues with school infrastructure hardly ever happen, “Actually, there is no issue; although once in a while there is an error” (EFTH2).

Whereas the solutions given by EFTL ICT proficiency tend to solve external problems only by asking the school infrastructure management, as EFTL4 and EFTL6 said, “We always inform the school infrastructure management of any concerns with the ICT facilities” (EFTL4), “School ICT teams have been trying to fix the poor internet connection” (EFTL6).

Even though poor Wi-Fi connections are a common issue, EFTL4’s and EFTL6’s solution focuses on dealing with issues that fall under someone else’s responsibility, like requesting assistance to the school facilities and infrastructures staff. However, EFTL5 still manage to download resources while at work, “When the internet is cut off, I use Wi-Fi on the first floor to download the materials. In this school, IT programs focused on IT teams only” (EFTL5). In fact, it was also discovered that ICT professional development was only targeted on school ICT teams with male members; consequently, school subject teachers must ask other people about learning applications.

The Impact of Female Colleagues/Peers in ICT Professional Development

In Table 6 regarding the impact obtained from experienced female colleagues in improving ICT professional development, it was found that all EFETs received support, inspiration, guidance, and collaboration from female peers. The total average score on the SD (strongly disagree) [0], D (disagree) [5.9], and N (neutral) [11.7] columns are lower than the A (agree) [50.00] and SA (strongly agree) [33.5] columns. In this case, it can be concluded that EFETs willingly encourage and support one another in their ICT professional development for the purpose of classroom teaching.

EFETs have a different experience of ICT professional development than their peers; for EFTH ICT proficiency, the impact given by their peers is very strong and positive in terms of support, guidance, and cooperation to help one another. This is felt by EFTH1, EFTH2, and EFTH3 who have programs at schools to increase the knowledge and skill in ICT learning in relation to language pedagogy, EFTH1 said, “We create an internal program called in-house training (small class inspiration) at school. English teacher forum is a strong community gathering that create positive environment for experienced teachers to exchange knowledge.” (EFTH1). The same view is shared by EFTH2, which realizes that

Table 6 *Impact of Female Colleagues/Peers in ICT Professional Development*

Community Development	Valid Percentage				
	SD	D	N	A	SA
I always get support from my experienced female colleagues in learning ICT	0	5.9	5.9	47.1	41.2
I receive guidance on ICT skills from my experienced female colleagues	0	5.9	8.8	58.8	26.5
I regularly discuss with my experienced female colleagues on the integration ICT in English class	0	8.8	23.5	47.1	20.6
I get inspired by the knowledge of my experienced female colleagues in integrating ICT	0	0	5.9	50.0	44.1
My experienced female colleagues and I work together on digital literacy and ICT practice	0	2.9	14.7	47.1	35.3
Total Average Score	0	5.9	11.7	50.0	33.5

the existence of English teacher forum enables people to gain support from one another when it comes to ICT competencies, “We discuss, exchange ideas, and practice in English teacher forum. We support one another when it comes to having ICT competency.” (EFTH2). EFTH3 feels the same way that there is a very positive effect when ICT development support comes from the school environment, such as internal training programs (in house training), and the outside school environment (English teacher forum), “A program at school is called in-house training to learn TPACK. I also participate in English teacher forum” (EFTH3).

Whereas the EFTL ICT proficiency are very different, EFTL4 and EFTL5 reported that they frequently share information about ICT with younger peers but very infrequently with their female peers who are older or the same age, “At school, I rarely discuss with my peers of the same age. Thus, I discuss with teachers who are younger than me” (EFTL4). Apart from having discussions with younger friends, EFTL5 also discussed ICT difficulties with male friends who belong to the ICT team at school, “When I find obstacles, I ask my male peers in the ICT team, or teachers who are younger than me” (EFTL5). It is also found that EFTL6 presence in teachers’ forum gathering is not intensive and only when she has free time, “Whenever there is a chance, I gather in English Teacher Forum (*MGMP and MGMPs*)” (EFTL6).

DISCUSSION

The Encouraging Factors of Experienced Teachers in using ICT Tools

EFETs frequently use ICT for teaching because they believe it benefits experienced teachers (ETs) and students. These findings are in relation to many scholars as mentioned by Amin (2013) and Ammanni and Aparanjani (2016) that ICT integration is the ideal approach to delivering communicative learning skills in the twenty-first century because they have access to the global world. On the other hand, technology has become a new culture and trend for students, so EFETs aim to create an engaging learning environment that attracts the students’ interest and more varied learning materials to ensure students enjoy learning languages in class and think critically, and creatively. As mentioned by Sharma and Srivastava (2020) and Torff and Tirotta (2010) when teachers utilize technology in the classroom, students are highly motivated and confident to learn. However, this does not encourage factors such as monitoring and evaluating student work, implying that EFETs are still manually evaluating and monitoring students rather than actively using the school’s learning management system (LMS). In other cases, the demands of the Indonesian education curriculum system are not a major factor in the implementation of ICT use, but they do contribute to ICT use because several administrative tasks require ETs to use certain online applications. This accustoms ETs to using technology outside the classroom so that exposure to the use of ICT can increase teachers’ positive attitudes toward the many applications of ICT that are not only for teaching, but also help ETs support administrative processes, monitor student academic progress, and evaluate student assignments and behavior. As a result, schools must continue to encourage ETs to gain as much ICT experience as possible. As the Indonesian education government commands that teachers are expected to be pedagogically competence in the use of technology (Kemdikbud, 2008). EFETs are also enthusiastic about continuing to use ICT for fear of lagging behind their colleagues. This factor indicates that EFETs have a sense of advancement and a desire to learn to keep up with their colleagues’ professional development. In accordance with these findings, Chen and Jang (2014) mentioned that experienced teachers are curious to learn about new technological tools, and how to use them to enhance their classroom instruction, and in turn, these affect the student’s learning performance. Thus, it can be concluded that ETs’ attentiveness and development in educational pursuits can be influenced by their friends and the environment, therefore, it is expected that ETs will be able to find the right acquaintances to perform as role models and a positive environment to have an impact on self-development.

The Discouraging Factors of Experienced Teachers in Using ICT Tools

Regarding the internal and external issues that prevent EFETs from using technology in the learning and teaching process, a lack of access to the internet, a bad internet connection, and inadequate ICT equipment are indications of external issues, whereas internal issues experienced by EFETs include age, time management, the ability to handle ICT-related problems, computer anxiety, and a lack of motivation as previously discovered by Badia et al., (2013), Khalouf and Laabidi (2017), Lin et al., (2010) and Sabiri (2020). External factors are experienced by all teachers due to the school's limited ICT facilities compared to the number of students and teachers, school stakeholders have been working to improve facilities on an annual basis, but it takes an extended of time to accomplish. The internal factor affecting EFTH ICT proficiency is age, which requires them to put in more effort and spend extra time to prepare for learning implementation. In the meantime, EFTL ICT proficiency is caused by their lack of familiarity and experience with ICT exposure, therefore, they lack motivation to use ICT and solve problems on their own when external issues emerge. The internal issues that encountered by all EFETs are connected to prior studies by Krumsvik et al., (2016), Tsai (2015), and Venkatesh et al., (2003) that experienced teachers with many years of teaching experience usually stick to traditional teaching techniques despite schools having adequate hardware and software due to challenges in understanding technology and a lack of age-related physical restrictions that affect how they utilize it. Additionally, the absence of guidance regarding ICT professional development programs, which makes teachers anxious about utilizing technology in the classroom, is another factor supporting this (Teye & Duah, 2022). Therefore, school stakeholders are expected to provide senior teachers with ICT trainings to maximize the use of technology for education (Laabidi, 2016; Suherdi & Mian, 2017). It can be concluded that external and internal factors are interrelated because sufficient ICT infrastructure requires skilled human resources for ICT equipment to be properly maintained and used as a teaching tool at all times.

Experienced Teachers' Solutions for ICT Integration

Different approaches have been taken to avoid and reduce issues that might prevent EFETs from using ICT. However, it was discovered that for EFETs to maintain their enthusiasm for using ICT in learning, co-workers' assistance, encouragement, and support were an utmost importance EFETs also actively communicate, discuss, and provide input to stakeholders in the school to decrease external barriers, they also learn independently and actively participate in teachers' professional development to avoid internal issues. In contrast with the finding of Krumsvik et al., (2016) that senior teachers who have been teaching for a long time are typically less supportive and have negative attitudes about using ICT in their classrooms. It is found that it depends on the perceptions and beliefs in the use of technology. The use of technology in the classroom is typically greatly influenced by teachers' personal beliefs and concerns, as well as by their perspectives on their roles (Silviyanti & Yusuf, 2015). Additionally, it was discovered that EFTH and EFTL ICT proficiency differ in their problem-solving strategies for both internal and external issues. Avoiding internal barriers can be achieved through engaging in activities like training, seminars, and active participation in English teacher forums and when external issues arise, creating multiple lesson plans to avoid using traditional teaching methods becomes the solution for EFTH ICT proficiency. EFTL ICT proficiency is still waiting for assistance from others when external issues arise rather than trying to find a solution on their own due to the school's offer for the ICT team to attend ICT professional development. This attitude shapes EFTL ICT proficiency to rely on those who have specialized knowledge of ICT whenever there are ICT problems so they switch to the traditional learning approach until these problems can be resolved. While internal issues that prevent EFTL ICT proficiency using technological tools, such as the ability to resolve ICT issues, computer anxiety, and lack of motivation for the integration of ICT remain unsolved. In this situation, schools must assist every teacher in acquiring independent ICT

knowledge, and it is the duty of every teacher to increase digital literacy through active participation in the community both inside and outside of the school, which can minimize internal and external barriers. As mentioned by Buabeng-Andoh (2012), Danko et al., (2020), Gebhardt et al., (2019), Tondeur et al., (2017) that women have the same ICT ability as men, in whom they have high values in computer learning, letting them be role models for their female classmates when learning in class. In this case, there were no gender differences in the attitudes or confidence related to using computers for educational purposes, thus men and women have the same opportunity to learn the practical of learning technology (Bebetsos & Antoniou, 2009; Cai & Du, 2017; Qazi et al., 2022; Scherer & Siddiq, 2015; Siddiq & Scherer, 2019; Verma & Dahiya, 2016).

Improvement of ICT Competence by Colleagues for Professional Development

EFETs report that they always receive support from peers in addition to advice, discussion, and practice when they need assistance with ICT for use in their professional teaching. Thus, scholars discovered that middle-aged women are committed to participating in further learning to become better individuals that benefit their surroundings (Chen & Jang, 2014; Narushima et al., 2013; Vacek & Rybenska, 2015). EFTH and EFTL ICT proficiency possess distinct experiences regarding assistance from peers and active participation in English teacher forums inside and outside of school. EFTH ICT proficiency devotes all their time to their professional work. As can be seen from the fact that they always find time to participate in opportunities related to teacher training, seminars, and conferences that inspire them to become professional teachers. In addition, they try to develop an internal program (in-house training) to assist as a forum for discussion, sharing experiences, and offering one another solutions to optimize the process of imparting the lessons. As mentioned by Chang and Hsu (2017) and Harfitt (2018), community learning contributes real impact to expanding knowledge, boosting courage, confidence, and willingness to embrace digital literacy for the benefit of teachers' professional development.

In this situation, EFTL frequently talks with ICT school teams and younger teachers when they have issues to discuss because they find it difficult to find peers who have greater ICT proficiency than they do. Additionally, they consider that since it is not a top priority, their participation in the English teacher forum is inconsequential. EFTL ICT proficiency has few opportunities to support their ICT professional development, as can be seen from the attitude of school stakeholders prioritizing school ICT teams to participate in ICT teachers' training activities, workshops, and seminars. As mentioned by Khan et al., (2012) and Prestridge (2012) secondary school teachers assumed that technology was challenging to use due to the lack of knowledge and skills in applying ICT caused by insufficient ICT development training. This impropriety can trigger experienced teachers unprofessional in their field, particularly in terms of technological pedagogical content knowledge.

CONCLUSION

In conclusion, all EFETs can see ICT as an aid which can be useful to create an engaging learning environment in the processes of teaching and learning, administration affairs, monitoring and evaluating student performance, and many others. In this instance, EFETs can see how ICT serves as a tool in the classroom. As a result, they are aware of the importance of integrating technology into learning to be proficient as teachers in the twenty-first century. Despite all the positive attitudes toward the ICT integration, this study also identified the internal and external barriers to the use of ICT. These include lack of internet connection, inadequate ICT facilities, age, time readiness, lack of knowledge and skills in ICT, and unavailability ICT programs at school. In this instance, it was also discovered that EFETs took earlier initiatives than several other teachers. Specifically, they tried to actively participate in English teacher forums and developed several programs in schools to support teaching performance that put an emphasis on knowledge sharing, group discussions, and cooperative practice activities

related to ICT. According to these findings, TPACK skill development for experienced teachers requires an encouraging school climate, supportive friends who promote PD, and active community learning.

This research is only limited to senior female English teachers in East Java Indonesia, which can still be said to be conducted on a small scale since it seeks to deeply comprehend the phenomenon. Therefore, the findings may not be applicable to all senior teachers in Indonesia and for global context. As a result, it is expected that further researchers build on this study by for example, enrolling more participants and using an R&D approach to develop ICT programs for senior teachers.

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