TEACHERS' COMPETENCIES AND STUDENTS' ATTITUDES TOWARD ICT AT AN EFL SECONDARY SCHOOL

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ABSTRACT

Teachers as educators should have adequate competency in using a variety of media and knowledge to deliver the information to their students in order to use information and communication technologies (ICT) effectively. This study explores teachers' competencies of ICT in their teaching and students' attitudes toward ICT in learning English. Three English teachers and their 90 students of eleven graders at one secondary school in one district in East Kalimantan participated in this study. The data were gathered from semi-structured interviews, observations, and questionnaires. Using a qualitative approach design concerning phenomenological perspective, the content analysis results have revealed that approximately 70% of the students had a positive attitude toward ICT, while the teachers' competencies were varied from mostly incorporating all the ICT tools to rarely using them in their classroom. The results suggest that English teachers need to have more professional development programs related to ICT in order to understand and be able to operate the ICT media and tools to teach English. EFL students should aware of their attitude toward ICT in this modern era and firmly use the advancement of ICT for educational purposes.

Keywords: EFL context, ICT, student attitude, teacher competence.

INTRODUCTION

The use of information and communication technologies (ICT) in the 21st century is undeniable that requires educators and students to use it actively and effectively. In order to use ICT effectively, teachers as educators should have adequate competency in using a variety of media and knowledge to deliver the information to their students. This ability or knowledge can facilitate them to make more creative ideas in teaching and enjoyment also the excitement of students in the class (Kereluik et al., 2011; Oliver & Short, 1996; Sundqvist et al., 2021).

With the rapid growth of the ICT, the term literacy in education that traditionally refers to an ability to write and read written language has been extended into ICT literacy. This extension is a broader concept of information literacy which represents the fundament for modern society development (Ivankovic et al.,

2013). ICT literacy as an individual concern to employ ICT devices in order to effectively take part in society with five components, namely access, manage, integrate, evaluate, and create (Ainley et al., 2007; James, 2001; Lindlof & Taylor, 2017; Panel, 2002; L. Simulwi & Musonda, 2020). Further, Educational Testing Service Panel (2002) has emphasized that "ICT literacy skills are becoming increasingly important not only for nations to maintain or improve their standard of living but for the well- being of individuals as well (p.17).

Hew and Brush (2007) explained that ICT use in general terms is any use of "computing devices such as desktop computers, laptops, handheld computers, software, or Internet in schools for instructional purposes" (p. 225). In a specific term, ICT can be defined as using technology by teachers for instructional planning, instruction, and technology as a learning resource for students (Chen et al., 2019; Inan & Lowther, 2010). EFL teachers use ICT tools for preparing teaching materials and activities to be used in teaching pronunciation (Yoshida, 2018), grammar (Al-Jarf, 2005), vocabulary (C. Lim et al., 2003), listening and speaking (Hochart, 1998), communication skills (Lee, 2002), reading (Akyel & Ercetin, 2009), and writing (Chikamatsu, 2003). They use technical instruments, such as PCs, laptops, or mobile devices in classrooms, for instructional delivery very effectively and regularly. Learning software prepared by teachers/students or commercially created ones, such as exercises, tutorials and computer-based activities, are used in classrooms to facilitate collective learning of English skills (Beatty & Nunan, 2004). In addition, EFL teachers use computer-mediated communication (CMC) or software as a resource for practical and substantive communication (Mahfouz & Ihmeideh, 2009). Across this way, technology will provide students with a variety of credible resources and activities that positively affect their learning to be more independent and autonomous.

Current ICT literacy education needs to promote skills that improve the adaptability of learners, information and skills transition to new contexts, and the ability to learn in a rapidly evolving environment (Ala-Mutka, 2011; Ferrari, 2013; Kim, 2020; J. E. Lawrence & Tar, 2018). To accomplish these criteria, teachers need to have adequate competencies and use teaching methods appropriate for evolving knowledge and societies in this digital era, as stated in the UNESCO ICT for Teachers 2013 (Midoro, 2013).

Research on ICT has indicated some benefits as this will lead to equal access to education, educational equality, quality learning and teaching, professional development of teachers and more effective management, governance and administration of education (C. P. Lim et al., 2020), including in Indonesia (Djiwandono, 2019; Suherdi, 2019). Technology has the potential to provide opportunities for an effective teaching and learning environment (Hermans et al., 2008; Reyna et al., 2018), affect students' learning (Concannon et al., 2005; Sundqvist et al., 2021), improve learning motivation (Kjellsdotter, 2020; Mahdizadeh et al., 2008), and develop more critical thinking and autonomy (C. Lim et al., 2003; Wu et al., 2019). Although most research has identified the benefits of the technological use, research by Xiao and Sun (2022) yielded slightly different. Their investigation with 4,838 students from PISA 2018 data identified that 79.44% of students moderately used ICT for all purposes at home and at school. They managed to have well-balanced time arrangement for using ICT for academic purposes and non-academic purposes. Meanwhile, 20.56% of students revealed to have less excessive ICT use for entertainment at home.

The use of technology in learning is also related to motivation and technological anxiety. Magen-Nagar and Shonfeld (2018) investigated the impact of an online collaborative learning on students' attitude with 92 master students using intervention procedure. They found different results between the intervention and control group. In the intervention group, the students' intrinsic motivation affects the relationship between the collaboration and technological self-confidence and technological liking. Meanwhile, in the control group, motivation is not a mediator for technological anxiety. They underlined that although the students were unfamiliar with the advanced technology but eager to learn collaboratively, they would be able to decrease technological anxiety and to use advanced technology.

The use of technology for teachers could be respected as the teacher's competencies. According to Indonesian Law No 14, 2005 about Teachers and Lecturers (Regulation, 2005), teachers need to have four competencies; pedagogical, personal, social, and professional competency required through professional education. Pedagogical competence refers to the ability of the teachers to manage to learn, such as the ability to plan a teaching and learning program, the ability to communicate or control a learning process, and the ability

to make an evaluation using all forms of media and resources. Teachers' personal competency as educators is their good personal characteristics highly impact on the success of learners' development since their main task in teaching. Professional competence requires teachers to master the subject profoundly, involving experience in their areas of knowledge or mastery of the materials to be learned by the process, a sense of obligation and duty to other teaching colleagues. Social competence deals with the ability of the teachers to connect and engage efficiently and effectively with their students, fellow teachers, parents/guardians of students, and the wider community. This social knowledge requires social management skills and social responsibilities. Based on the definitions of the competencies, when the teachers apply technologies in their teaching and learning, they have fulfilled the required competencies.

Teachers' competency related to ICT means that teachers are both enthusiastic and confident in using ICT to support teaching and learning English in the class. Therefore, the competency level of ICT teachers is essential to support the delivery of material to their students in the teaching and learning process (Malinina, 2015). The competencies may range from the basic level of proficiency to the highest level of excellence (Agyei, 2021; Chen et al., 2019; Chisango et al., 2020; Simulwi & Musonda, 2020).

Research on teachers with ICT competence has revealed that teachers perceived positively the use of ICT in education. Sundqvist et al (2021) conducted a study with 161 teachers of secondary schools in Finland to investigate direct and indirect effects of teacher and school-level factors on using ICT in Home Economics (HE). Using SEM analysis, the study demonstrated that perception of usefulness, age, and digital competence are significant factors for teachers in the use of ICT. It was also found that the correlation between teachers' beliefs and ICT teaching practice, and the importance of supporting the teachers to become aware of the potential ICT to improve students' achievement.

Chisango et.al (2020) investigated teachers' perceptions of using ICTs in teaching and learning at some rural secondary schools in Eastern Cape, South Africa. Fifteen teachers from three schools participated in the investigation. Using thematic analysis, the findings showed that the teachers had a positive perception of the use of ICT in their teaching and learning and those who knew the benefits of using ICT were the ones who were ready to adopt technology in education. Further, it was found that some teachers still held traditional teaching methods and were resistant to the adoption of technology in their teaching as they have insufficient ICT knowledge and skill. Besides, lack of ICT training and ICT infrastructure hinders the schools from being exposed to technology.

Although teachers have positive perceptions toward the use of ICT, they encountered some challenges. Teachers still lack in ICT use because of limited spare time for ICT use and their perspective of unnecessary use of ICT. They only used ICT if the subject required to develop an imagination of the students by watching movie or listening an audio (Zanzali & Kassim, 2010). Teachers took time to learn and transfer ICT knowledge and skills to put into practice with their students (Agyei, 2021). They lacked confident to apply ICT in their teaching (L. Simulwi & Musonda, 2020) therefore they have limited integration of ICT into their teaching (Asik et al., 2020). They did not think that applying ICT to teaching was helpful although they had good competence to apply it. They had low motivation to use ICT to assist their teaching and only used ICT to assist teaching sometimes in few teaching contexts (Chen et al., 2019).

Simulwi and Musonda (2020) examined compulsory computer studies (CS) on information and communication technology (ICT) literacy in secondary schools in Zambia. It focused on the availability of specialised ICT teachers and ICT equipment and infrastructure, and the impact of compulsory ICT. The findings revealed that there were insufficient specialised ICT teachers, some teachers had completed short courses in ICT that helped them to have general knowledge in the subject, and a well-organised training programme is necessary for teachers in any subject area. Furthermore, eight teachers perceived that their skills and competences in ICTs were "above average" (30%) and 18 were "average" (70%) and none indicated "below average".

Lawrence and Usman (2018) explored factors that impact on teachers use in the adoption and integration ICT in teaching and learning process with four teacher educators in Nigerian context. Using semi-structure interviews in a case design, the findings showed that all teachers have positive attitude towards the use of ICT. The use of ICT is strongly depended on three factors: teacher-level factors, technological, and institutional factors. Teacher -level factors include teachers' characteristics such as age, gender, educational

experience, knowledge of ICT, and attitude towards ICT. Technological factors consist of compatibility of ICT, benefits of using ICT, perceived usefulness of ICT and perceived ease of use of ICT in carrying out teaching and learning activities in the classroom. Institutional factors link with leadership support and resources. The study found that the barriers are teacher-level barriers and institutional-level barriers. The teacher-level barriers refer to insufficient ICT knowledge, lack of time, resistance to change and complexity of integrating ICT. The institutional-level barriers cover includes limited of infrastructure, lack of training, lack of access, and lack of technical support

The literature and previous studies have indicated the importance of the use of ICT in teaching and learning, therefore this study attempts to explore the teachers' competencies and the student's attitudes towards ICT. The following research questions are used to guide the study:

1. What are the teachers' competencies toward ICT for English teaching practices at secondary school?
2. What are the student's attitudes toward ICT in learning English at secondary school?

CONTEXT

It is crucial to present the English material to the students at senior high schools in innovative ways. The era that teachers face now in the 21st century is when the students are commonly familiar with many kinds of tools related to the ICT. Teachers in this era should follow the advancement of technology by integrating ICT media in the classroom in presenting English material to the students. The researchers' concern about the competency of English teachers and students' attitude toward ICT within their teaching-learning process in English subjects. One of the researchers had identified that many English teachers lack ICT competence is proven by one of the researchers when one of them joined the initial assessment from Cambridge University for the English Teachers in one district of East Kalimantan (well-known as East Borneo). There was a session where the teachers had to register via email and log in as a member to the official website of Cambridge. The researcher found that many English teachers did not have an email address and had difficulties accessing the Internet.

Related to the education field in this research context, especially at state senior secondary levels, the schools have adequate ICT facilities, while some private schools lack ICT resources. However, adequate ICT facilities do not guarantee that ICT use is optimized even though the schools are in the wealthiest regency. This condition is due to the teachers or students' lack of competencies and attitudes toward ICT due to infrequent use of the provided ICT media at schools. Therefore, the researchers would like to investigate the teachers' competencies and students' attitudes towards ICT in this context.

In this present study, the researchers were interested in exploring teachers' competencies at one of the secondary schools in one district in East Kalimantan claimed as a favorite school due to high discipline and excellent education system and owns adequate ICT facilities in the school like Wi-Fi, computer and language laboratory, projector tools, interactive whiteboard, and other ICT equipment's. This study was conducted prior Covid-19 pandemic; therefore, the context was still in the classroom setting.

METHOD

Design

This research used the qualitative approach concerning the phenomenological perspective. In the view of phenomenological, the researchers attempted to understand the meaning of events about people in certain situations (Hatch, 2002). The methodology and data collection methods are based on two important considerations; the nature of the research and available time to conduct the research. This research was interpretative and the qualitative approach was used to understand better the phenomenon under the study (Shank, 2006). Moreover, the data, which directly quoted or described, were gathered from a small number of people (Labuschagne, 2003).

Participants

The participants of this study were three English teachers; one male and two females, aged 30-45, over seven-year teaching experience; and their 90 students of eleven graders at one secondary school in one district in East Kalimantan. A purposive sampling strategy was used. This research focused on the teachers' competencies and the students' attitudes toward ICT in teaching and learning English. The data were gathered from semi-structured interviews, observations, and questionnaires.

Once permission from the Head of Education Department, the principal and the school's teachers were approached. They were informed about this study, their involvement during the study, and the confidentiality of the study. The need for students' participation to respond the questionnaires were also explained. Next, participation and consent forms for the teachers and their students were also distributed. The forms were gathered a week after the distribution. Further, time for teachers' participation in the interviews was scheduled, including the schedule for questionnaire distribution for the students.

Instruments

Research instruments used to gather the data were interviews and observations for teachers and questionnaires for students. A semi-structured interview was employed in this study. Hatch (Hatch, 2002) explains that the researchers come to the interview with guiding questions in the semi-structured interview. During the interview process, notes were taken. The researchers used guidance questions and probed to follow up on comments made by the participants or get clarifications about responses to get more detailed information from the interviewees (Hatch, 2002). The interview focused on components of ICT competencies and criteria from ICT competency standards for teachers from UNESCO (Midoro, 2013). The interview questions were related to technological pedagogical content knowledge (TPACK) competence and confidence of Australian teachers (Albion et al., 2010) to measure their competence using ICT software and hardware and the ones adopted from previous research (Zanzali & Kassim, 2010) by considering competencies in ICT.

The observations were used to support the data from the teachers. The observations were conducted when the teachers taught in the classrooms focusing on their competency through the media, they used in their teaching English. The researchers used the observation guideline and took some notes while observing to gain more in-depth data.

The questionnaires were distributed to students to investigate students' attitudes. The questionnaires were adapted from Fisher (2000) about computer attitude. Since this questionnaire was already validated and had been used for many studies, hence the researchers adapted this questionnaire into this study by changing the subject from only computer to the ICT. There were 25 items in the questionnaire including positive and negative statements of students' attitudes toward ICT (Fisher, 2000). The positive statements were scored 4 for strongly agree, 3 for agree, 2 for disagree and 1 for strongly disagree; meanwhile, negative statements were scored the other way around. Table 1 shows the distribution items for positive and negative statements:

Table 1. The distribution of positive and negative statements in the questionnaire

Statement	Number of Items
Positive	1, 2, 3, 4, 5, 6, 7, 8, 9, 14, 15, 16, and 18
Negative	10, 11, 12, 13, 17, 19, 20, 21, 22, 23, 24, and 25

The questionnaire statements were then translated into the Indonesian language to avoid misunderstanding. The translation was tried out to other ten students who were excluded from the participants involved in this study. One of the researchers conducted the try-out by accompanying the students while doing the try-out. Any vague statements were clarified and corrected.

Data Analysis

In this research to analyze the data the researchers used content analysis (Fraenkel et al., 2012) following the flow diagram by Miles and Huberman (1994). The flow models include three concurrent flows of activity, namely: data reduction, data display and conclusion drawing/verification. The researchers needed to familiarize with the data. The interview data were transcribed. The transcription was then returned to the teachers to ensure that the information in the transcription was the one they would like to inform. Following this, the researchers needed to go through the transcribed interview data, started making notes and began to make some marks of initial codes. Next was making initial codes. In this stage, the researchers started to generate initial codes the teachers' competencies towards ICT focusing on the five competencies. After all the initial codes were generated, then looking at all the codes and making them into the list were conducted. Similar codes which were similar to particular teacher's competency were then compiled, leading to a theme. The generated themes were read and reread to ensure that the themes covered the codes had been made. Finally, defined the themes was completed.

The observation data as the supporting data of the interviews followed similar stages of interview analysis. The field notes were collected and read and reread. Making preliminary notes and marks of initial codes were completed. All the codes were listed, and similar codes were assembled into a theme.

The questionnaires of student's attitudes towards ICT were analyzed using simple statistical analysis of percentage. They were classified into extremely positive (81-100), positive (66 – 80), ambivalent attitude (56 – 65), negative attitude (41 – 55) and extremely negative attitude (25 – 40) (Kaur, 2011).

FINDINGS

Generally, it was found that students have a positive attitude towards ICT. The average positive responses were about 90%. They indicated they could find new things in studying English with ICT (96%) and feel ICT allows them to do more exciting and imaginative English learning (90%). The positive responses mainly were given to the statements that the students could do many things about English by using ICT (99%), and they are confident about solving the problem of ICT with one and another way (94%). Then the students expressed that ICT could help them organize their English project or assessment (97%).

Many students expected to use ICT (87%) regularly (70%) and could do anything with it (83%) while received the English lesson in the classroom. They believed ICT could enhance their achievement (89%) so that they could be justified to put an extra effort into learning English. The students gave positive answers that they would be happy to use ICT and subjects from the internet (75%) to explore more information of ICT sources as a self-learning (78%). Only one negative answer of all positive statements given by students that most of them still need the assistance of using ICT means that they have less confidence in their ability, proven by 63% of the students do not agree with item number 18.

The questionnaire results from negative items were varied from 50% to 80%. The students did not expect to have network problems (69%) and errors in finding credible resources (53%) while using ICT for English study. The students disagreed if they would face outdated hardware/software (59%) and insufficient resources (55%). Most of them believed that they were in complete control when using ICT in the study (65%), but they still needed experienced friends nearby while using ICT (66%). Unexpectedly, the rest of the negative statements received positive answers, they did not feel apprehensive about using ICT in the classroom (77%), and they needed ICT to do great work (74%). 61% of students seemed to be not hesitant to use ICT without considering making a mistake that they could not fix. They disagreed if using ICT media and tools only if they were told to study English (80%), they would not avoid learning English even though they knew that it would be involved ICT (81%), and they would not avoid contact with ICT in study English (89%).

From the questionnaire results, the researchers finally gave scores for each of their answers toward the statement reflected their attitude in using ICT to study English. According to the rating score, the classification is presented in the following diagram, Figure 1.

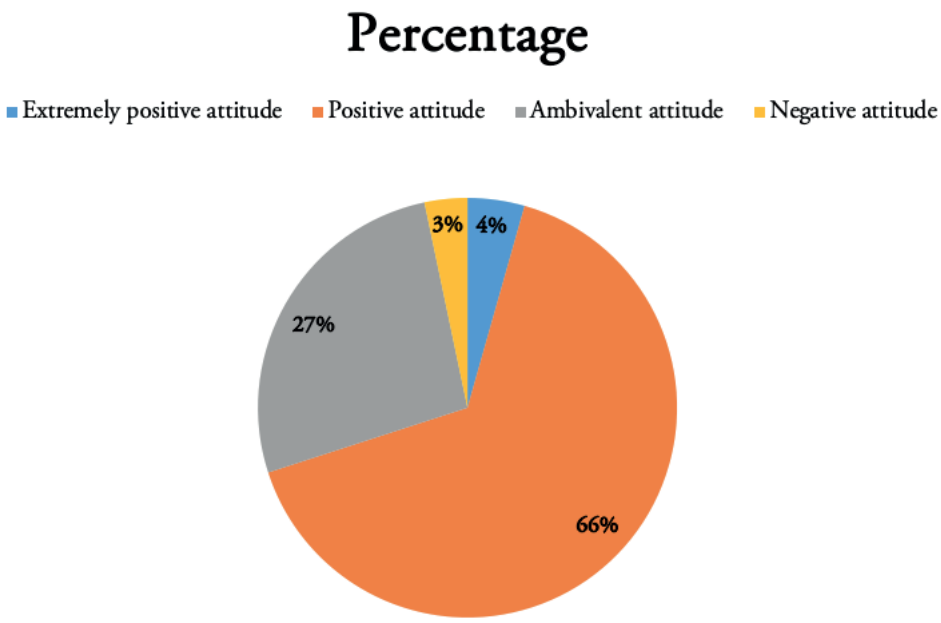

Figure 1. Percentage of the students' attitude toward ICT

The diagram above found that 66% of students have a positive attitude in using ICT for English learning, and 27% of the students have a moderate attitude. Meanwhile, 4% of students have extremely positive attitudes, and the rest, 3%, are negative attitudes toward ICT in learning English.

Teachers' Competencies

The theme that emerged from the interview findings can be classified into five competencies: competencies in accessing ICT, managing ICT, evaluating ICT, creating ICT products, competencies of using the ICT.

Competencies in accessing of ICT

Knowing Typical ICT

In general, all the three teachers' responses indicated that they know about typical of ICT, as one of them reported:

> *I do know some of them like computer, laptop, Internet, LCD projector, software in computer and others. Then the function what I know is crucial like projector I like to use it to deliver material, watch education video in English so it really helps me (T2).*

The statement shows that T2 has known about typical ICT media and tools that are often used in the classroom to teach then knowing about its general function as a media or facilitator in conveying the English to the students. Further, others gave the following response:

> *Yes, I do know such as laptop, projector, Internet and so on. It helps us as a teacher to deliver our material. Like PowerPoint and internet especially when we couldn't find it in the textbook (T1).*

From this excerpt, T1 mentioned some of the typical ICT's commonly used in the teaching-learning process. The teachers continued by mentioning ICT usage, such as the Internet, helping the teacher find the additional material he wanted to teach in the classroom.

It could be said all English teachers knew the ICT literacy component of accessing the part of *"knowing about"*. The ultimate usage of the ICT described by all teachers is to ease the teacher in delivering English material.

Knowing How

Whether the teachers know how to use the typical ICT, they had different answers such as T1 responded, "*Sure, I used PowerPoint, video, audio speaker and internet in the class to teach*" (T1). He used various ICT's media and tools in teaching English showing that he has competencies in using and operating these devices. T2 described how she used the media in the class in the following response "*Yes, I do use ICT in teaching such as PowerPoint, then I also shared a video with my students they can learn some are speaking through video*" (T2). She used PowerPoint and video to help her students providing additional information and improving students' English skills. This showed that T1 and T2 have been known about accessing components in the "*knowing about*" of using ICT media and tools. This is in line with the standard ICT competency that teachers should be able to support their instruction by using presentation software and digital resources. However, T3 was slightly less competent in "*knowing about*" using ICT, as he reported:

> *I am not too familiar with ICT, so sometimes you can say that I am "gaptek" (lack of technical ability)" I never use the projector in the class. I can study about it, but I don't know I feel reluctant to do it, but yes I do sometimes use audio in the class but just the basic (T3).*

T3 was unfamiliar with most ICT media and tools, however, she could learn more about how to use these media. She felt less confidence in using ICT causing her to hardly use the ICT in the classroom.

Based on the descriptions above, it could be concluded the teachers had known various kinds of ICT media or tools and the function for optimizing the English class; therefore, they used ICT as their media aid in teaching English.

Competencies in Managing ICT- Retrieve Information from the Internet for Teaching

ICT management deals with applying an existing organizational or classification scheme for information. This could be seen in the statements of how the teachers get information from ICT's media and tools:

> *I got from internet, there are many sources, and I took it as my material to teach like pictures, video or songs in English for sure (T1).*

He conducted the fragmented of accessed information through cyber media. Further, he applied to his students in the form of usable and structural information which was similar to what the T2 did:

> *Usually, I use internet to find certain material, I browse from many kind websites or even a blog, after that I used to make a PowerPoint from it (T2).*

Therefore, both teachers managed the information from the ICT for retrieval to the next presentation by themselves. However, this did not happen to Teacher 3 (T3), as she responded:

> *Yeah, from Internet, sometimes I found it by myself or sometimes I asked my students to find the related material from internet and then present it in front of the class (T3).*

She could not fully manage the accessed information by herself and sometime delegated the students to manage by themselves.

Competencies in Integrating ICT

Evaluating ICT literacy deals with making judgments about the quality, relevance, usefulness or efficiency of information. T1 and T2 responses were comparable as they reported:

> *I believe the ICT does improve students' achievement, like when any material that not included in the book, they can find it through internet, and it is influencing their score to be better (T1).*

The internet and PowerPoint became the main sources for T1 in collecting and retrieved his material. He interpreted and represented information from multiple media sources through summarizing and collecting then gathered in the information into his own presentation. Similar to T1, T2 also used Internet and PowerPoint in representing and integrating the information from various sources into important points in presentation software. In contrast for T3, she had her own way in integrating the information into English class:

> *Because I am not using LCD projector into teaching, so I just rewrite the information to the whiteboard and along with the explanation. I don't want to bother myself to make a slide or others because I couldn't use LCD projector and not competence in making presentation by PowerPoint (T3).*

T3 conveyed the information that she got from Internet to the students. She did not want to distress herself with all the activities that involving projector and PowerPoint. Therefore, the teachers used ICT media especially Internet and PowerPoint to integrate the information by interpreting and representing the information that they found from multiple sources and delivered it to the students in the process of teaching learning English.

Competencies in Evaluating ICT

Evaluating ICT literacy deals with making judgments about the quality, relevance, usefulness or efficiency of information. T1 and T2 responded were comparable as they reported:

> *I believe the ICT does improve students' achievement, like when any material that not included in the book, they can find it through internet, and it is influencing their score to be better (T1).*

From this extract, T1 assumes that ICT improves students' achievement through their exploration by Internet about English materials that are not available in the book. T2 also gave the same positive answer about the influences of ICT on students' achievement in the following response:

> *Yes, I think so, I think it would be more given them explanation such as not only gave them long explanation but also could give them some examples through ICT that we used (T2).*

T2 presumed students could get detailed information from ICT, improving their English achievement because they got a more straightforward explanation. The other judgment is from T3 that uttered the usefulness of ICT in boosting up students' mood that improves their English performances; T3 applied music to make the students felt refresh while studying English, as the following response indicates:

> *Yes sure. Yap. That brings many influences to the students. They are more interested than only study as usual for example listening to music. I do a missing lyric when the students bored then they will be listening to music, and it makes them refresh. And I also believe that study by using ICT will improve their ability (T3).*

Relevance of ICT to Teaching English

The teachers were also asked about the relevance of ICT toward their English teaching, as one of them responded:

> *The process of my teaching became easier by the help of the ICT tools and media. For example, the material that I found the clearer explanation of the material about English that I couldn't find in the book. The students seemed to be more relaxing and paying attention to us when we use such as projector or played the video in front of the class. So… it really helps me (T1).*

According to the above response, T1 admitted that ICT had simplified his job as a teacher. The teacher could find any information on the Internet; here, the teacher utilized ICT to browse the material by only typing the keyword and then finding the answers. Similar to T1, T2 gave the following response about how ICT helps her teaching as she reported:

> *ICT helps me in preparing material to teach. So…I am not only using material from the book, but I get additional material to enrich my explanation by browsing it through Internet (T2).*

These responses indicated that ICT helps the teachers provide more comprehensive information needed to teach, so a more precise explanation would be given to the students about the material that could not be found in the textbook. Meanwhile, the response from T3 regarding her teaching using ICT was slightly different:

> *Although I am not often using ICT in my class, I can say, if we optimize the usefulness of ICT into our class, the process of teaching will be more effective and efficient (T3).*

According to the above extract, T3 admitted that she did not commonly use ICT in the classroom; however, she believed the efficiency of the ICT into the teaching process of English would make them more effective outcome from teaching-learning in the part of the improvement to the students' achievement.

Following the statements above, the teachers were able to judge and evaluate ICT usage and efficiency to improve students' achievement and their teaching performance for English. They knew and believed that using ICT media and tools in teaching and learning English was beneficial for both teachers and students.

Competencies in Creating ICT Product

Creating an ICT product is generating information by adapting, applying, designing, inventing, or authoring information. Teachers used social media and made a video for their teaching as T1 informed as follows:

> *Yes, yes, I have social media. I don't have a blog yet but I am planning to and I have video that I made with students and I always show it as an example when I teach the material about drama (T1).*

T1 created and designed a video to describe an event and support his teaching material. T2 and T3 mentioned that they had only social media and used it for sharing material to the students, in the following excerpt:

> *Actually, I don't have any blog, but I usually share my material with my students by using Line because most of my students is using Line, not only material but also assessments. It really helps me especially when I was not attending the class (T2).*

Although T2 only had social media as her ICT product, she made her social media a medium for her and her students to communicate and interact regarding the English problem. In addition, T3 only had social media of Facebook; the following is the response of T3 about ICT product:

Yes, I have only social media like Facebook but no other media. I have one FB group that used to my English students in other schools to discuss our meeting and other about English also it is a place for them to ask and answer new vocabulary, idioms, new terms or phrases (T3).

From this response, T3 maximized the group from Facebook to discuss and consult the students' problems about English.

Furthermore, the observation results have revealed that teacher 1 (T1) did and have all 15 aspects from five components of ICT literacy. All aspects could be seen during the class when the T1 used a Media player, laptop, and audio to present the students' practice assessment. T1 maximized the provided ICT in the school to teach his material, and T1 seemed confident in using and presenting ICT media and tools. Meanwhile, teacher 2 (T2) showed 12 aspects of four components during the class. T2 used a laptop and mobile phone to teach speaking. She used the ICT but did not fully integrate and adopt the material from ICT media and tools into her teaching. Then, teacher 3 (T3) used limited ICT facilities in her teaching. She used a textbook, worksheet copier, whiteboard, and marker. Also, she evaluated the students' assessments manually. Therefore, it could be said that T1 was more competent rather than T2 and T3 in using ICT's media and tools in teaching and learning English. These findings supported the data from the interviews.

DISCUSSIONS AND CONCLUSION

To begin with, the researchers present the students' attitudes gathered from the questionnaires followed by the description of the teacher competencies toward ICT in teaching English. The findings have showed that the 11th graders had a positive attitude toward ICT while learning English in the classroom. It was found that 70 % of the students have a positive attitude in using ICT for English learning, as 66% have a positive and 4% have an extremely positive attitude. They could learn new things, were more confident, help them to complete their projects or assignments in English. The findings were relevant to support previous research which concluded that ICT was beneficial for learning (Gubbels et al., 2020; Kjellsdotter, 2020; Reyna et al., 2018; Sundqvist et al., 2021). The students also indicated that they were relatively confident in using ICT although they still required friend's assistance nearby. This relatively links to Magen-Nagar and Shonfeld study (2018) that although students were unfamiliar with the technology, technological anxiety could be lessened with collaborative learning.

Through the interview and observation findings, it was found that the competency of English teachers was various. T1 had good competence by considering several aspects as he T1 knew the type of ICT and its function. He used the provided ICT in teaching and assessing the students, created, and used the products from ICT. He also evaluated the influence of ICT on students' achievement in English and had very good ability in operating ICT media and tools (Asik et al., 2020). He believed that by using ICT it could improve students' achievement in English. Having adequate provided ICT media and tools in the school was beneficial for teachers in applying their material to optimize the delivery of subjects (Agyei, 2021). They are more likely to incorporate ICT use in their classroom if they see it is relevant to their instruction and are convinced that the design of educational software is compatible with educational goals and the individual learning needs of students (Williams & Kingsley, 2004). This support previous research by Chisango (2019) that the teachers had a positive perception of the used of ICTin their teaching and learning and those who knew the benefits of using ICT were the ones who were ready to adopt technology in education.

T2 has average competence as she knew typical of ICT and its function. She used the provided ICT in teaching and assessing the students, created the ICT products but not mainly for educational purposes. She was able to evaluate the influence of ICT on students' achievement in English and knew an average ability in operating ICT media and tools. She was able to operate almost all the ICT media and tools. She was confident using ICT for her teaching in front of the class (Chisango et al., 2020). The students looked positive and excited if the teacher used ICT in teaching English (Gubbels et al., 2020). A better understanding of motivational aspects of using ICT from the teacher can make it more effective and increase the potential for ICT to be more widely used in language teaching and learning worldwide (Hafifah & Sulistyo, 2020; Patil, 2014).

Next, T3 has shown that she had a poor level of ICT competence. She lacked of confidence to use ICT in teaching English while the school provided ICT media and tools that could be freely used to support the teaching-learning process. The four English skills could be effectively taught to students using ICT media and tools. Although she knew about the types and essential functions of ICT, she did not apply it in the class. Related to media and tools, she did not have competency almost for all the items. This might occur due to complicated usage of ICT, which the teachers have difficulties to master, and are less motivation and confidence to understand more about how to use ICT (Chen et al., 2019; Zanzali & Kassim, 2010). This is relevant to Lawrence and Usman investigation (2018) of factors that influence teachers use of ICT in their teaching at teacher-level factor such as age, gender, educational experiences, knowledge of ICT, and attitude toward ICT. It is assumed that T3 might have a negative attitude toward ICT; meanwhile, teachers' attitude toward the use of ICT for educational purposes is one of the crucial factors for the success of the ICT utilization in schools (Al-Zaidiyeen et al., 2010). Literature on teachers' ICT competencies has indicated that foreign languages teachers have above basic, intermediate or poor knowledge of ICT applications in the teaching-learning process (Malinina, 2015; Rahimi & Yadollahi, 2011).

The findings have indicated that teachers' competencies toward ICT were varied and regarded as good, average and poor competency. This implies that teachers are required to master a number of new ICT devices and programs for the education environment. Maximizing the use of technology allows the teaching and learning process become more enjoyable for the students. Thus, providing teachers with professional development program related to ICT would be beneficial for both the teachers and their students.

The case qualitative study design with small sample of three secondary English teachers is not representative of all the secondary teachers in Indonesia, therefore generalization of the findings cannot be made. However, the results of this empirical study are very significant in understanding the teachers' ICT competencies to teaching. Future research might investigate similar interest with more numbers of participants to enrich our understanding of teachers' ICT competencies.

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