ADVANCING DISTANCE EDUCATION QUALITY: DOES INDONESIAN TEACHERS' ICT SELF-EFFICACY IMPACT STUDENTS' LEARNING ONLINE? (NEED TO BE UPDATED)

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Abstract

Self-efficacy of ICT in teaching is a key issue for advancing the quality of teaching practice. Thus, this paper aimed to explore Indonesian ELT self-efficacy of ICTs integration in teaching and learning during the COVID-19 outbreak, the impact of ICT on students learning online, and how the external influences affecting the teachers of the technology use. The data were collected by a survey completed by 183 ELT and eight teachers involved in a semi-structured interview. Results indicated that a high level of pedagogical belief of teachers' perceived efficacy in Indonesia and ICT use guided the students creating vital environments to prepare the students' skills to achieve the learning objectives. Further results of the study are discussed, and the recommendations for future research are put forward.

Keywords: self-efficacy, ICT integration, Online teaching.

INTRODUCTION

The use of Information Communication Technology (ICT) in education has received more attention for advancing the quality of education. With the introduction of ICT, the way of accessing, organizing, and sharing information and knowledge has conclusively changed (Arnseth & Hatlevik, 2010; Bandura, 2011). Thus, the use of technology in the classroom has become a method to expose learners with learning materials and the outside world (Dudeney & Hockly, 2007). In recent years, the use of ICT in education enabled various potentials to contribute in education practices. For example, ICT can contribute to improving access and equity in education, efficient administrative management, and teachers' professional development. One of the important roles and expectations of ICT integrated education is to improve the quality of learning and teaching (Bingimlas 2009; Cherry, 2014). To meet this challenge, EFL teachers should be aware of the importance of technology for instructional purposes and take this chance to integrate technology to improve their teaching.

Studies of (Nwangwu, Obi, & Ogwu, 2014; Kosoko-Oyedeko and Tella, 2010) reported that the use of ICT in teaching and learning is a relevant and functional way of providing education to learners in order to assist them in acquiring the required capacity for the world of work. However, not all educators are fully aware of the numerous benefits of ICT and how to take advantage of them in the classroom (Hew and Brush, 2007; Alkhawaldeh, 2010; Bingimlas, 2009). Some teachers may have positive attitudes toward integrating ICT in the classroom but refrain from doing so owing to low self-efficacy. Meanwhile, (Gunter & Reeves, 2016; Harrison, Hennessy, & Wamakote, 2010) further indicates that teachers are the most important component in the integration of ICT in teaching and learning, and the success of the implementation of ICT integration depends largely upon Teachers' Competence (TC) and their perceived Self Efficacy (SE) about ICT.

Prior research findings indicate that factors such as classroom management, teachers' knowledge, skills, belief, attitude, perception, opinion, and personality are related to teachers' technology integration

in teaching and learning. (Glassett, & Schrum, 2009; Cherry, 2014). Among these factors, "teachers" is one of the most important factors, because they are the ones who blend all the educational components to deliver environments for teaching and learning (Bandura, 1993; Harding, 2012). However, there is little examination of how teacher's competence plays a significant role in how they conceptualize and use ICTs in their teaching. This confirms that unless teachers see the connection between technology and the subject matter they teach, they are unlikely to promote a technology-supported pedagogy. Thus, with the aid of ICT, teachers can guide the students beyond their limits, set out their adequate participation in the teaching and learning process, and create vital environments to prepare the students' skills to achieve the learning objectives.

With the emergence of rapidly changing technologies, it must be borne in mind that it is not only learners who need to learn new skills and new knowledge practices (Karchmer et al., 2005) but also educators. Therefore, examining the relationship between knowledge about technology integration and self-efficacy beliefs can provide a unique connection between these two areas of research. As such, it was the focus of this study to explore the relationship between English teachers' perceived knowledge and self-efficacy regarding their ability to successfully use technology in the classroom. To this end, the purpose of this study is to explore Indonesian English language teachers' self-efficacy of ICTs integration in teaching and learning, the usefulness of ICT for students learning, and how the external influences affecting the teachers of the technology use.

Social Cognitive Theory and Self-Efficacy

Albert Bandura incorporated the concept of self-efficacy into his social learning theory, which he authored in the 1960s which has progressed into the Social Cognitive Theory (Ashford & LeCroy, 2010; Lippke, 2017). Social Cognitive Theory explains that human functioning results from mutual determinates of personal factors such as cognition, affects, and biological events, behaviors, and environmental influence. More simply, self-efficacy is what an individual believes he or she can accomplish using his or her skills under certain circumstances. Beliefs on self-efficacy regulate human behavior through cognitive, motivational, affective, and decisional processes (Bandura, 2009; Benight & Bandura, 2009). It has a direct impact on someone's behavior since it helps determine what extent he or she wants to make efforts, persevere when confronting obstacles, and to be resilient when facing adverse situations (Schunk & Pajares, 2009). The perceived self-efficacy determine not only the level of effort but also its quality, i.e., how productively that effort is deployed. Therefore, higher perceived self-efficacy brings about various motivated efforts and it enables enhancement performances (Bandura, 1991, 1993; Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

Teachers' Self-Efficacy towards ICT Integrated Education

The need for ICT integration in education is crucial since it can greatly affect what teachers choose to do, how they do it, and whether they have the opportunity to succeed (Govender & Govender, 2009). However, merely encouraging teachers to use ICT in daily educational practices does not realize ICT integrated education. Several internal factors of teachers should be considered, such as knowledge and skills, self-efficacy, and belief in its pedagogical value (Ertmer & Ottenbreit-Leftwich, 2010). Ertmer and Ottenbreit-Leftwich (2010) stress that having knowledge and skills is not enough to change teachers' behavior unless they feel confident to facilitate student learning through those gained ICT knowledge and skills. Thus, self-efficacy plays a vital role in influencing teachers to use technologies in their daily teaching activities.

Besides setting up the teachers' efficacy in integrating technology, being skillful in using the technology is another qualification that has to be achieved. The teachers have to be frontiers for deploying technological innovations to the teaching

and learning activities (Goktas, et.al., 2009). Keep upgrading their knowledge about the deployment of ICT in the classroom is an essential factor of the teachers' success in the classrooms recently. Consequently, the students can have meaningful learning activities while the teacher can steadily improve teaching quality in the classroom. In this case, the teachers should be prepared to be more proficient in the integration of ICT during the teaching and learning processes. Furthermore, a conceptual framework called TPACK (Technological Pedagogical, Content Knowledge) is also required by the teachers to know how well they prepare themselves and measure the learning outcomes, (Chai, et. al., 2010; Kereluik, et.al., 2011). The knowledge will significantly influence the teachers' success in utilizing the technology in the classrooms. In short, the integration of ICT in teaching and learning activities bears great value towards students' learning experiences and achievements. Therefore, the teachers are expected to be skillful in deploying the technology tools in their classrooms which enhancing the quality of education practice.

METHODS

In this research, both quantitative and qualitative methodologies were used to collect and analyze the data obtained from all the respondents. To achieve the study objectives, semi-structured interviews were conducted to four selected teachers concerning provide a piece of in-depth information related to their perspectives on the integration of ICT into teaching and learning. The researcher also distributed the questionnaire to the 104 English teachers at different school levels.

RESULTS

The results of the study are presented according to the research questions, perceived self-efficacy in ICT integration, the usefulness of ICT integration for students learning, and the external influences of technology use for teachers. Table 1 presents the demographic data of the teachers involved in the survey.

A survey questionnaire with a total of 36 items adopted and modified from the original questionnaire designed by Gulbahar and Guven (2008) that is considered suitable for this research to assess English language teachers' self-efficacy towards technology integration. Moreover, the questionnaire's items had been tested for its validity and reliability. Each had five options written by using a Five-Likert scale, varying from "strongly disagree" (valued 1) to "strongly agree" (valued 5). The questionnaires were used to measure teachers' self-efficacy towards technology integration in terms of three categories: (1) Demographic background of the teachers consists of 8 items that include gender, teaching experience, type of school, school area, preference of teaching style, highest academic qualification and the ability to handle ICT in teaching. (2) 15 items cover the teachers' self-efficacy of ICT integration in teaching and learning processes, and (3) 13 items examine the usefulness of ICT integration for students in the learning process.

The data were collected within three weeks and some of the questionnaires were sent to respondents' email. The respondents were given 3-6 days to complete the questionnaires and send it back to the researcher for data analysis. After three weeks, all the complete filled-up questionnaires were gathered and collected to be analyzed using Statistical Package for the Social Sciences (SPSS) version 23. The analysis includes both descriptive and inferential analysis to analyze the frequency and percentage of the overall population to get the output and result for the study

Table 1. Data of the Teachers Involved in the Survey (N=104)

Factors	Frequency	Percentage (%)
Gender		
Female	71	68.3%
Male	33	31.7%

Teaching Experience		
<1 year	32	30.8%
1-5 years	42	40.4%
6-10 years	14	13.5%
>10 years	16	15.4%

School Level		
Primary School	32	30.8%
Junior Secondary School	31	29.8%
High School	23	22.1%
Vocational School	18	17.3%

School Area		
Urban	68	65.4%
Rural	36	34.6%

Teaching Style		
Conventional/ Traditional	19	18.3%
Modern/Contemporary (ICT-based)	85	81.7%

Academic Qualification		
Bachelor Degree	88	84.6%
Master Degree	16	15.4%

The Ability of Handling ICT in Teaching		
High	26	25%
Medium	66	64.4%
Low	11	10.6%

Preferred

From the overall population (n=104) according to gender, there are 71 female respondents with a percentage of 68.3% as compared to only 33 male respondents with 31.7%. From overall population based on teaching experience, most of the respondents have 1-5 years of teaching experience with 42 (40.4%) followed by less than 1-year experience with 32 (30.8%), then more than 10 years of teaching experience with 16 (15.4%) and 14 respondents with 6-10 years of teaching experience with percentage (13.5%). From the overall population concerning the school levels, there are 32 (30.8%) respondents who are teaching in primary school, 31 (29.8%) in junior secondary school, 23 (22.1%) in high school, and 18 (17.3%) in the vocational school. From the overall population based on the school area, more respondents are teaching in the city school area with 68 (65.4%) as compared to respondents who are teaching in rural school areas with 36 (34.6%). From the overall population according to the preference of teaching style, more respondents preferred modern/contemporary teaching style with 85 (81.7%) as compared to respondents who preferred conventional/traditional methods of teaching with 19(18.3%). From the overall population dealing with the highest academic qualification, most of the respondents come from bachelor's degree qualification with 88 (84.6%), followed by respondents with master qualification with 16 (15.4%). From the overall population concerning the ability to handle ICT in teaching, most of the respondents believe it that they possess medium ability with 67 (64.4%) followed by high ability in handling ICT with 26 (25%) and low ability with 11(10.6%).

Teachers' self-efficacy on Technology-based Teaching

Table 2 provided data concerning teachers' self-efficacy of technology-based teaching, it shows that the majority of teachers are enlightened by the use of technology-integrated in their teaching. The teachers conceived that the use of ICT improves the teaching quality(*M=4.04)* as it facilitates the acquisition of basic skills for the learners. Unquestionably, teaching resources and materials in the online platform are more updated *(M=4.26)*, thus it contributes to the interesting and engaging activities for students (*M=4.16)*.

Table 2. Teacher's perception of ICT integration in teaching

No	Items	SD	D	NS	A	SA	Mean	SD
		Frequency and Percentage (%)						
1.	I feel confident when learning new computer skills.	4 (3.8%)	6 (5.8%)	7 (6.7%)	54 (51.9%)	33 (31.7%)	4.019	.985
2.	I find it easier to teach by using ICT.	3 (2.9%)	6 (5.8%)	2 (1.9%)	61 (58.7%)	32 (30.8%)	4.086	.904
3.	I am aware of the great opportunities that ICT offered for effective teaching.	3 (2.9%)	2 (1.9%)	3 (2.9%)	58 (55.8%)	38 (36.5%)	4.211	.832
4.	ICT supported teaching makes learning more effective.	2 (1.9%)	5 (4.8%)	4 (3.8%)	56 (53.8%)	37 (35.6%)	4.163	.860
5.	The use of ICT helps me to improve teaching with more updated materials.	2 (1.9%)	7 (6.7%)	3 (2.9%)	41 (39.4%)	51 (49%)	4.269	.947
6.	The use of ICT improves the quality of teaching.	2 (1.9%)	6 (5.8%)	10 (9.6%)	53 (51%)	33 (31.7%)	4.048	.907
7.	The use of ICT helps me to prepare teaching resources and materials.	3 (2.9%)	5 (4.8%)	1 (1%)	43 (41.3%)	52 (50%)	4.307	.935
8.	The use of ICT enables the students' to be more active and engaging in the lesson.	2 (1.9%)	5 (4.8%)	4 (3.8%)	56 (53.8%)	37 (35.6%)	4.163	.860
9.	I have more time to cater to students' needs if ICT is used in teaching.	2 (1.9%)	5 (4.8%)	24 (23.1%)	51 (49%)	22 (21.2%)	3.826	.886
10.	I can still have effective teaching without the use of ICT.	0	4 (3.8%)	20 (19.2%)	56 (53.8%)	24 (23.1%)	3.961	.762
11.	The use of ICT is a waste of time.	23 (22.1%)	52 (50%)	20 (19.2%)	9 (8.7%)	0	3.855	.863
12.	I am confident that my students learn best without the help of ICT.	7 (6.7%)	44 (42.3%)	39 (37.5%)	12 (11.5%)	2 (1.9%)	3.403	.853

13.	Classroom management is out of control if ICT is used in teaching.	9 (8.7%)	64 (61.5%)	20 (19.2%)	8 (7.7%)	3 (2.9%)	3.653	.856
14.	Students pay less attention when ICT is used in teaching.	20 (19.2%)	60 (57.7%)	12 (11.5%)	11 (10.6%)	1 (1%)	3.836	.893
15.	Students make no effort for their lesson if ICT is used in teaching.	8 (7.7%)	64 (61.5%)	19 (18.3%)	12 (11.5%)	1 (1%)	3.634	.835

Besides, the great number of teachers accepted that the use of ICT provides lots of opportunities for effective teaching *(M=4.16)* as well as ICT supported teaching makes learning more effective *(M=4.21)*. This situation shows that teachers' view of the use of ICT in the teaching and learning process as something positive where ICT becomes aid needed to ensure the effectiveness of both the teaching and learning process. Next, from the data gathered, it also shows that teachers find it easier teaching with the aid of ICT, this proves that the majority of them are adaptable with the development of technology-supported pedagogy *(M=4.08)*.

Teacher's familiarity and competency in handling ICT show that most teachers feel confident learning new computer skills *(M=4.01)* and they can transform tools which beneficial for active learning environment in the classroom. In this context, it shows that teachers are open towards the use of ICT in teaching, not being resistant, and feels comfortable in learning new things. ICT also supported the teacher to cater the students' needs in teaching *(M=3.82).* Other than that, the teachers believe they play a significant role in the classroom process and place the technology as the supported tools, thus it makes them still having effective teaching without the use of ICT *(M=3.40).*

On the other hand, most teachers disagree ICT integration is a waste of time, they believe that the use of ICT benefits teaching and learning in various ways (*M=3.85)*. However, a smaller number of teachers agree with the negative part of ICT integration where the result shows that classroom management is out of control when ICT is used in teaching *(M=3.65)*, followed by students make no efforts for their lesson and learning process *(M=3.63)* and most teachers agreed that the use of ICT in teaching cause students' to pay less attention and not aware of the opportunity offered by ICT in the classroom environment *(M=3.83)*.

The usefulness of Technology-based Teaching and Learning for Students

The result attained from Table 3 examined the usefulness of ICT integration for students in the learning process. The result indicates that the use of ICT promoting active and engaging lessons for students' best learning experience *(M=3.95)*. The earlier section has explained most teachers agreed that the use of ICT enables the students to be more active and engaging in the lesson. This shows that both teachers and students approved that the use of ICT provides the chances for students to be active and take more parts or roles for their best learning experience.

ICT-based also contributes to broadening student's knowledge paradigm *(M=4.05)* where students are able to integrate their prior knowledge into the current learning systems as well as sharing and exchanging points of view with the teachers and classmates. ICT helps to provide the latest and current issues where students can obtain it very easily and integrate it into their learning process.

Table 3. The usefulness of Technology-based Teaching and Learning for Students

No	Items	SD	D	NS	A	SA	Mean	SD
		Frequency and Percentage (%)						
1.	ICT allows students to be more creative and imaginative.	1 (1%)	5 (4.8%)	8 (7.7%)	64 (61.5%)	26 (25%)	4.048	.780
2.	The use of ICT helps students to find related knowledge and information for learning.	1 (1%)	5 (4.8%)	2 (1.9%)	57 (54.8%)	39 (37.5%)	4.230	.791
3.	The use of ICT encourages students to be more communicative with their classmates.	1 (1%)	7 (6.7%)	24 (23.1 %)	53 (51%)	19 (18.3%)	3.788	.855
4.	The use of ICT increases students' confidence to participate actively in the class.	0	7 (6.7%)	25 (24%)	53 (51%)	19 (18.3%)	3.807	.813
5.	The students learn more effectively with the use of ICT.	0	9 (8.7%)	17 (16.3 %)	59 (56.7%)	19 (18.3%)	3.846	.821
6.	The use of ICT helps to broaden students' knowledge paradigm.	0	3 (2.9%)	15 (14.4 %)	59 (56.7%)	27 (26%)	4.057	.721
7.	The use of ICT helps me to improve students' listening ability.	0	4 (3.8%)	10 (9.6%)	53 (51%)	37 (35.6%)	4.182	.760
8.	The use of ICT helps me to improve students' speaking ability.	1 (1%)	6 (5.8%)	24 (23.1 %)	54 (51.9%)	19 (18.3%)	3.807	.836
9.	The use of ICT helps me to improve students' reading ability.	1 (1%)	6 (5.8%)	15 (14.4 %)	63 (60.6%)	19 (18.3%)	3.894	.799

10.	The use of ICT helps me to improve students' writing ability.	0	9 (8.7%)	33 (31.7%)	51 (49%)	11 (10.6%)	3.615	.792
11.	The students are more behaved and under control with the use of ICT.	0	15 (14.4%)	37 (35.6%)	43 (41.3%)	9 (8.7%)	3.442	.845
12.	The use of ICT enables students to express their ideas and thoughts better.	0	7 (6.7%)	18 (17.3%)	63 (60.6%)	16 (15.4%)	3.846	.760
13.	The use of ICT promotes active and engaging lessons for students' best learning experience.	0	8 (7.7%)	10 (9.6%)	65 (62.5%)	21 (20.2%)	3.951	.780

Besides, ICT helps students to learn more effectively as well as it helps students to find related knowledge and information for learning *(M=4.23).* The technology always acts as a medium for students to find related knowledge and information for their learning. It is best when the students are able to gather information, relate it with what they have learned, and had a discussion on the information with teachers and their classmates so that they can see the new insight to catch up for effective learning.

Other than that, there a lot of educational videos provided for students online which helps to improve student's ability in language learning skills such as reading, writing, listening, and speaking *(M=3.21)*. The use of ICT effectively equips the students to exercise and develop digital literacies, as a result, it can increase classroom interaction, support them to be more autonomous language learners. The use of ICT also allows students to be more creative and imaginative *(M=4.08)* followed by their ability to express their ideas and thoughts better *(M=3.84)*. This shows that the use of ICT creates the communicative classroom environment and it enhances students' critical thinking as it goes beyond passive learning process.

The result shows that the effectiveness of ICT for students in learning is it encourages students to communicate more with their classmates as well as it increases the student's confidence to participate actively in the class *(M=3.80).* It is effective in the sense that students are occupied with adequate knowledge that enables them to be more confident in sharing and exchanging their opinion with their classmates. Lastly, it shows that students are more behaved and under control with the use of ICT in learning but it is also considered as fewer acceptances by teachers *(M=3.44).* This might give the ideas to teachers that students are a little bit out of control when ICT is used in teaching as teachers are not the main focus of the learning process.

Indonesian EFL Teachers' Use of Technology in English Language Teaching

Four English teachers were selected purposively to be the sample in this study corresponding to their willingness to participate. The data obtained from the interview disclosed the four English language teachers' self-efficacy in four

aspects such as efficacy in instructional strategies, efficacy in classroom management and student engagement, and teachers' self-efficacy towards external influences of technology use. The demographic data of the four teachers involved in the interview are shown in Table 4.

Table 4. Data of the Teachers Involved in the Interview (N = 4)

Factors	Teacher 1	Teacher 2	Teacher 3	Teacher 4
Gender				
Female	√	-	√	-
Male	-	√	-	√
Teaching Experience				
<1 year	-	-	-	-
1-5 years	√	-	-	-
6-10 years	-	√	-	-
>10 years	-	-	√	√
School Level				
Primary School	-	-	-	-
Junior Secondary School	-	√	-	-
High School	√	-	√	-
Vocational School	-	-	-	√
School Area				
Urban	√	√	-	-
Rural	-	-	√	√
Academic Qualification				
Bachelor Degree	-	√	√	√
Master Degree	√	-	-	-

As indicated in Table 4, Teacher 1 is a female high school teacher in an urban area who has approximately 1-5 years of teaching experience. She had a graduate educational background in English education. Teacher 2 is a male junior secondary school teacher graduated from a bachelor's degree. He has about 6-10 years of teaching experience in the urban area. Teacher 3 who had undergraduate education is a female and she has more than 10 years of teaching experience in a rural high school. Additionally, Teacher 4 is a male teacher who holds a bachelor's degree. His teaching experience in rural vocational school is more than 10 years.

Efficacy in instructional strategies involved the teachers' beliefs in their capabilities to use appropriate teaching strategies by using technology in their teaching. Teacher 1 who teaches in urban school mentioned that she used a projector and smartboard as tools to help her students learn in a meaningful way. She played conversation audio from YouTube as a model before she asked the students to answer the questions. She also shows the videos and sometimes movies that all are accompanied by interactive features and active learning tools for students such as multimedia flashcards. She asked the students to notice any interesting vocabulary or an unusual one to be discussed later in the class. Another activity such as picture sequence is also interesting. After the students listening to the stories from the audio, they have to put events from jumbled stories in sequence. Teacher 1 emphasized on activities related to listening and vocabulary focus. Teacher 2 described his experience in using an Online platform for enhancing the students' reading comprehension and grammar focus. The School provided access so that the students could access the authentic reading materials provided and then they discussed the materials with their classmates. He also shared about the teaching strategy he selected to teach his students a topic by using technology. For example, he used a song to teach grammar. He distributed a worksheet containing the lyrics of the song with incorrect verbs. After giving a chance for her students to listen to the song, she asked the students to discuss in small groups and write the correct form of verbs based on what they had listened to. This also affected in increasing student engagement and learning. The collaborative activities facilitate meaningful experience to language as it is genuinely used, motivate learners, and enable them to enrich positive attitudes towards the learning of a language.

On the contrary, Teacher 3 is an experienced teacher who is not skilled in technology adaptation in the classroom. She assumed that lack of enough knowledge of using ICT and inadequate preparation to use technology are the major challenges in the implementation of technology-integrated in the classroom. Teachers need training on how to use and integrate technology, which must prepare teachers to use technology effectively in their teaching. consequently, she used a conventional teaching method in the learning processes. She used English textbooks as the only resource to teach English. As a result, the teaching and learning process is more teacher-centered rather than giving the students opportunity to engage and involve in the learning process. Moreover, Teacher 4 stated that his school is located in a rural area in which it is difficult to accommodate the electrical installation and internet connection in some other classes. Besides, a large number of students in the classroom is also ineffective to use ICT-based teaching and learning, it makes his students are not under control as they pay less attention to the materials being taught. The heads of school showed little support in ICT uses in school; additionally, the cost to afford the technology education stuff, for example, screen projectors and computer sets are beyond the capacity of the school. Those are proved as the external factors that come up as consequences of technology adaptation in the classroom.

Efficacy in classroom management dealt with the teachers' beliefs in their capabilities to manage their classroom and at the same time to use technology for teaching, the teachers were found to have a good confidence level in managing their classroom activities while teaching with technology. Teacher 1 stated that technology helped her create a good classroom learning environment. The students got more excitement in learning. They could use their creativity to do the tasks. Similarly, Teacher 2 also specified that the integration of technology in his teaching made his classroom learning environment more effective for learning and promote learner-centered learning activities. His students became more engaged. Both of the teachers managed their classroom activities in such a way that her students could be involved in learning although the class was not equipped with several personal computers for each student. She applied collaborative learning in which students worked in groups to do the tasks. Efficacy in student engagement constitutes the teachers' beliefs in their capabilities to engage students in the learning process by using technology. However, a great number of problems limit teacher 3 and 4 in using ICT in the classroom gave an impact to teachers to use conventional way in teaching and learning processes.

The result of the interview confirmed that the two teachers had a good level of confidence in terms of engaging students in the learning process by using technology. Teacher 1 used technology to create engaging activities and help the students learn in a meaningful way. Teacher 2 highlighted the increase in students' motivation and learning achievement as indicators of their engagement in the learning process. To cope with the slow learners in his classroom, he provided scaffolded instruction and guide them with extra assistance until they could learn independently. In line with Teacher 2's view on students' motivation, Teacher 1 stated that teaching with technology had made her students more interested in learning English than before she used technology. She observed that her students' learning motivation improved as she used videos in teaching conversation in her classroom. Nonetheless, Teacher 3 said inadequate preparation to use technology is one of the reasons that teachers do not systematically use computers in their classes. Teachers need training on how to use and integrate technology, which must prepare teachers to use technology effectively in their teaching. Teacher 4 said those whose schools located in the rural area could not maximize the use of ICT due to several environments or external factors (i.e., electricity and internet connection) towards the implementation of technology in teaching and learning processes. In other words, teachers' self-

efficacy of ICT-integrated is not only influenced by teachers' cognitive factors but also their external factors.

DISCUSSION

The purpose of this study aims at exploring Indonesian English language teachers' self-efficacy of ICTs integration in teaching and learning, the usefulness of ICT for students learning, and the external influences of technology use for the teachers. The result from statistical analysis showed that technology-based teaching and learning is more effective and give benefits for both teachers and students compare to the traditional classroom. Technology-integrated in the 21st-century education should be specifically facilitated students' interaction, encourage collaborative activities, and enhance critical thinking and creativity (Goktas, et.al., 2009; Zhang, 2013). A student-centered classroom allows the students to connect the new information with the knowledge they already have and apply it to solving the problem at hand. The teacher would act as a facilitator and collaborator for the students. Instead of passively receiving information, the students would gather information on their own, under the guidance of their teacher. Thus, the role of technology-integrated in education supports the teachers to prepare students to become active, successful, and responsible for their own learning.

Unexpectedly, the result from the interview revealed that a reduced variety of tasks and technology was identified. Generally, the activities implemented were oriented toward drilling exercises of grammar and vocabulary and listening and reading tasks. it can also be said that teachers favor the development of the receptive skills as they mostly implement classes devoted to reading, listening, and grammar, but not for writing and speaking skills. However, in practice, these four language skills are interchangeable according to the teacher's decision seeing the dynamic of classroom circumstances (McDonough and Shaw, 2003; McDonough et.al., 2013). It is important to note that teachers consider that designing listening and reading tasks is considered less difficult than creating speaking or writing ones. One of the characteristics of communicative materials is that they usually have a good balance of the four language skills (Hardwood, 2010; Moteram, 2011). With the four language skills explored in the materials, it is expected that it would provide overall competence in the foreign language where the students can learn comprehensively from receptive and productive skills.

The results also indicate that there is a high level of the teacher's beliefs to integrate ICT into their pedagogical practices. If teachers' attitudes are positive towards the use of technology then they can easily provide useful insight about the adoption and integration of ICT (Hew & Brush, 2007). Teachers' attitude is supported by Huang and Liaw (2005) that found teachers' attitudes towards technology influence their acceptance of the usefulness of technology and its integration into teaching. Choi and Lee (2016) noted that efficacy beliefs and English proficiency are "interdependent, magnifying each other's impact on the teaching behavior". These studies emphasize the importance of preparing EFL teachers, who need to be competent in both linguistic and pedagogical capabilities. However, the use of technology is only happened in developing the teaching and learning materials for the students. The teachers, either in rural and urban school areas still have limited knowledge of how to use technology in their learning assessment or administrative keeping records such as *e-kinerja.* It must be noted that we do not refer to a course in ICT integration for teacher education programs, but rather the entire programs to be integrated with ICT, which means alignment of curriculum, pedagogy, and assessment to the use of ICT. Therefore, teachers must be allowed to experience ICT integration in their practicum years (Bandura, 2009).

The use of technology integration in the classroom is also effective to maintain student engagement. This study proved that students learn more effectively as

instructional activities designs are more engaging and interesting. Accordingly, teachers believe that integrating ICT can foster students' learning. Previous studies indicated that the implementation of technology in the classroom practices influence the levels of students' engagement and affected to their educational outcomes such as learning and course performance (Ghavifekr and Rosdy, 2015; Giallo and little, 2003; Hatlevik, 2016). **Thus, it is important to acknowledge that students are already interested and engaged in using technology, this creates many amazing opportunities for schools and teachers to benefit from integrating some forms of technology in the classroom and to make teaching and learning more effective and constructive.** Students can practice collaboration skills by getting involved in different online activities. For instance, working on different projects by collaborating with others on forums or by sharing documents on their virtual learning platform. Technology can encourage collaboration with students and not only passively takes not while the teacher lectures in the class.

Besides ICT-based is effective to maintain the student engagement, the finding of this study showed that teachers with high self-efficacy reported that their beliefs in their capabilities to integrate technology in their actual teaching appeared in three aspects of teachers' self-efficacy which are efficacy in instructional strategies, and efficacy in classroom management. In research aimed at addressing these issues it has been found that teachers' self-efficacy has a considerable impact on student proficiency (Yilmaz, 2011), on teachers' adoption of instructional innovation (Ghaith & Yaghi, 1997; Guskey, 1988), on teachers' classroom management (Woolfolk & Hoy, 1990), It implies that their levels of self-efficacy towards technology were related to their actual teaching practices. As stated by Tscahnnen-Moran and Hoy (2001), teachers' self-efficacy has proven to be robustly related to many meaningful educational outcomes such as teachers' perseverance, enthusiasm, commitment, and instructional behaviors, as well as student learning outcomes. It matches the condition mentioned by Bandura (1997) who states that higher self- efficacy will result in a higher effort. The stronger the sense of self-efficacy the greater the perseverance and the higher the possibility that the taken activity will be accomplished.

The findings also demonstrate the external factors influencing teachers for ICT integration showed many teachers have no access to technological tools such as smart whiteboards and projectors which can be used in visual illustrations in the classroom. This is supported by Yildrim's (2007) study which found access to technological resources is one of the effective ways to teachers' pedagogical use of ICT in teaching. Moreover, lack of training and inadequate preparation or school training in integrating technology both for course content and assessment become the challenges faced by the teachers. Several studies have revealed that ICT-related training programs develop teachers' competences in computer use (Bauer & Kenton, 2005; Franklin, 2007), influence teachers' attitudes towards computers (Hew & Brush, 2007) as well as assisting teachers to reorganize the task of technology and how new technology tools are significant in student learning. The lack of access to expertise and support for the use and integration of ICT is a problem that is prevalent in many classes in developing countries. According to Warwick and Kershner (2008), the significance and advantages of ICT should be known by teachers in order to conduct a meaningful lesson with the use of ICT. Indeed, teachers should be sent to attend training courses to learn about integration ICT in the teaching and learning process. Nonetheless, many school schools used peer-tutoring systems. A more skillful teacher in ICT would assist and guide another teacher who has less experience with ICT along with the preparation work for the teaching and learning process. As has been discussed, there are many factors to enable the use of ICT in classroom teaching and learning.

CONCLUSION & SUGGESTIONS

The results of the present study examined the issues related to the relationship between teacher's self-efficacy and technology integration, the usefulness of technology-based in the learning process for students, and the external factors that contributed to the teacher's self-efficacy in technology integration. First, the result shows that the teachers are skillful in deploying the technology tools in their classrooms which enhancing the quality of education practice. Teachers realized for upgrading their knowledge about the deployment of ICT in the classroom is an essential factor of the teachers' success in the classrooms recently. It shows that self-efficacy was a behavioral and psychological factor that can be related to the teacher's intention when they integrated technology in teaching and learning (Alenezi, Abdul Karim, & Veloo, 2010). However, the majority uses technology only to reinforce grammar structures and receptive skills. This implies that for teachers, a plan for helping them create interactive activities where several productive language skills are needed.

Second, the teacher's self-efficacy beliefs technology can be used to achieve students' language learning outcomes more effectively. The use of ICT in the classroom can guide the students beyond their limits and create vital environments to prepare the students' skills to achieve the learning objectives. It is particularly useful as it facilitated understanding the material equally well for students with little exposure and those with previous knowledge. Technology is not everything and will not replace the teachers, but in the 21st century, teachers who are not adaptable to the rapid growth of technologies will be replaced. Wenglinsky (2001) stated that technology itself does not make a significant effect on learners' achievement without paying attention to the teachers' role in its integration.

Meanwhile, the external factors that contributed to teacher's self-efficacy were variable such as lack of institutional support, lack of technical support, lack of training, limitation of school facilities. Basically, self-efficacy has been recognized as an element that facilitates and provides impact when it comes to teachers to integrate technology in teaching and learning even though it needs to improve all the factors relating to self-efficacy. Teachers can manage their self-efficacy as the factors have been recognized. All the recognized factors should be taken care of by teachers as they are the ones that will integrate technology into classrooms. Therefore, to make teaching and learning more to excite with technology, it should be started by a teacher's high self-efficacy and teacher's self-efficacy should be known deeply.

Lastly, it might be too common for issues on ICT integration to be discussed but an in-depth study of ICT integration in core subjects in schools is least discussed. We have done the study investigating external factors affecting Indonesian teachers in adopting ICT in the classroom. Therefore, it is needed to clarify the affective factors between self-efficacy and technology integration. Additionally, it is highly recommended for comparison studies about ICT integration in teaching and learning can be made between different schools which may involve the public and private school in Indonesia. The researcher also further recommends that classroom observation should accompany the studies related to teacher's self-efficacy since we found the teacher's actual practices cannot be predicted from a teacher's expressed belief about learning and teaching.

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