EFL TEACHERS' PERCEPTIONS ON USING ICT IN THEIR TEACHING: TO USE OR TO REJECT?

by **Tengku Maya Silviyanti**

University of Syiah Kuala

Jalan Teuku Nyak Arief, Darussalam, Banda Aceh, 23111, Indonesia

tgk_maya @ yahoo.com

and **Yunisrina Qismullah Yusuf**

University of Syiah Kuala

Jalan Teuku Nyak Arief, Darussalam, Banda Aceh, 23111, Indonesia

yunisrina @ gmail.com

Abstract

This study focused on identifying EFL teachers' perceptions on the use of ICT in their teaching. A number of 42 EFL teachers from two state universities in Indonesia were involved. A closed-ended questionnaire based on the Technology Acceptance Model (TAM) (Davis, Bagozzi, and Warshaw, 1989) was distributed and interviews were conducted. The findings revealed that 31 teacher users were found to have high motivation to use ICT because they believe that it is important in ELT as it makes learning enjoyable, interesting, and effective, among other constructive outcomes. Meanwhile, even though the other 11 teacher non-users were aware that the use of ICT is becoming more essential nowadays, their motivation remains low. Their barriers were rooted from the lack of training and support, either financial or non-financial, from their work environment. Therefore, these barriers should become a priority for institutions to overcome, considering that ICT provides unlimited sources of information in ELT and teachers must be prepared to face new challenges in education and technology that are present today.

Keywords: ICT, EFL teachers' perceptions, ELT, motivation, barriers

1. Introduction

The role of technology has undergone a rapid development in many English language teaching (ELT) contexts worldwide. Information and Communication Technology (ICT) is popular in rich developed countries where the necessary infrastructure and facilities are available. Hence, teachers in poor and third world countries are also beginning to be better trained in using ICT in their teaching. Indonesia, as one of the third world countries, began ICT development quite slowly but is gradually changing in the past decade (see Yuhetty, 2002). More teachers and students now have access to the World Wide Web to gain vast amounts of information. However, in terms of educational institutions, only a few schools in

Indonesia have implemented ICT in language learning. These schools are mostly based in big cities or international schools, whereas in small cities such as in the Aceh province ICT use is still limited to teachers and educational institutions (Maulida & Lo, 2013).

The tsunami disaster that hit Aceh, Indonesia, in 2004 has caused many changes in the sphere of education (Yasin & Yusuf, 2014). Along with the infrastructure, a large number of facilities were damaged, which then caused delays in the teaching and learning process. Following the disaster, a number of national and international non-government organizations provided a lot of assistance to support the Indonesian government to rebuild Aceh. Furthermore, to support the development of technology, Banda Aceh, the capital city of Aceh, inaugurated the Municipalities Information Management System (MIMS) in 2009 (Maulida & Lo, 2013), which is an electronic-based management system for the government to improve the performance and quality of public services. For the education sector, trainings and technological provision such as the Internet, computers, projectors, video players and many more were provided to educational institutions (Darusman, 2012), basically those based in cities of the province such as Banda Aceh, Lhokseumawe, Meulaboh, Langsa, among others.

Nevertheless, based on our observations, technologies are not optimally used by EFL teachers in their ELT process because not all of them are willing to use ICT despite its possibilities of providing massive resources to their teaching practice. Some teachers still prefer the traditional ways in teaching (e.g. textbooks available as their main source of teaching) despite being quite familiar with the Internet. At times, ICT becomes handy to them only to supplement teaching materials, such as finding resources, printing them and bringing them to the classroom. Some teachers do involve students to do learning through the Internet such as communicating with students via e-mails or Yahoo Messenger (YM); however, this is not widespread. Therefore, there is a need to understand these teachers' perceptions, whether as a user or non-user, on the current use of ICT in their language teaching context. Accordingly, this research is conducted to answer the following research question: What are the EFL teachers' perceptions on the use of ICT in their ELT contexts?

2. Background to the study

2.1. Teachers and technology

E-readiness, or the readiness to use technology to achieve certain goals or work (Parasuraman, 2000) displays that teachers as human resources are technologically competent (Lawson & Comber, 1999). Teachers with e-readiness are able to use and adopt technology

into their classroom when they think that technology is a tool that can be used by both teachers and students to obtain more knowledge and share meaning (Vrasidas & McIsaac, 2001). However, literature also notes that there are some factors that impact teachers' use of technology in the learning process, which includes positive perceptions (factors that lead to its use) and negative perceptions (factors that limit its use).

In terms of positive perceptions, if teachers perceive training in ICT is worthwhile, they are inclined to use it in their teaching (Galanouli, Murphy & Gardner, 2004). Moreover, their openness toward the possible changes with technology is derived from their perception that technology can bring about innovation such as impact on higher thinking skill and on content acquisition for language learning (Baylor & Ritchie, 2002). Besides, Cope and Ward (2002) found that teachers' perceptions toward to technology include 'how' and 'what' effects technology can bring to students, for instance, whether students can manipulate language with specific software and interact directly with computers. Likewise, teachers can also identify the potential of technology to motivate students.

On the contrary, negative perceptions from teachers reveal barriers which limit the use of ICT. These generally include the lack of facilities, knowledge, time, support, materials and training (William et al., 2000; Leaks, 2001; Samuel & Bakar, 2003; Pelgrum, 2001). For example, lack of facilities such as insufficient numbers of computers was the most frequent problem found by Pelgrum (2001), who specifically identified perceptions of educational practitioners from schools in 26 countries. Teachers may have knowledge of using ICT for their teaching, but insufficient numbers of computers may prevent them from using it. Moreover, lack of facilities may also mean lack of access. The limited number of computers may always be booked and cause frustration to users to gain access to them (Samuel & Bakar, 2005).

Lack of ICT knowledge also prevents teachers from adopting technology. When there is no skill to use it, the equipment just becomes useless and availability does not bring benefits. Technical problems and effective operation of educational software are also among the concerns of teachers (Demetriadis et al., 2003). They can lead to lack of confidence because teachers see themselves as incapable of running technological applications. The incompetence to use technology caused teachers to be recognized as one of the limitations of information technology use in the classroom (Lawson & Comber, 1999).

Generally, the successful use of technology in education is very much determined by the teachers' personal beliefs and concerns (Angers & Machtmes, 2005) that pursue their probability to use technology (Russell et al., 2003). Moreover, the way that teachers view

their role will influence the way they teach with technology (Angers & Machtmes, 2005). Teachers' beliefs toward a particular practice will help them set their goals for technology use. Angers and Machtmes (1999) assert that those teachers who believe technology tools can be used to enhance lessons, motivate, and bring changes to their teaching and strategies will tend to adopt technology with confidence. In contrast, those who do not will tend to block the implementation of technology. Such external barriers as the belief on teaching, computers, established classroom practice, and unwillingness to change confront them with the current practice (Angers & Machtmes, 2005).

2.2. Teachers' acceptance of ICT

According to the Technology Acceptance Model (TAM) introduced by David, Bagozzi and Warshaw (1989), the intention of someone to use technology is derived from four factors, namely *perceived usefulness* (U), *perceived ease of use* (EoU), *attitude toward using* (A), and *behavioral intention to use* (B).

Perceived usefulness (U) determines that the users' acceptance toward using one specific item is believed to enhance their performances (Davis et al., 1989). The users know the benefits or advantages of the item that they use, either for themselves or for other users. When a user believes that using a kind of technological tool can enhance his performance, he tends to use it. In the teaching context, a teacher may feel that he can enhance his performance in teaching if he uses ICT. This arouses his motivation to accept using technology in teaching.

Perceived ease of use (EoU) determines the degree to which the users' expect the target system to be free of effort (Lederer et al., 2007). Literature notes that the difficulties to use a particular technology may derive from technical and non-technical things. Technical things that teachers probably find can be related to inadequate electrical support, low Internet access, unavailability of equipment or others. On the other hand, the fact that teachers may also feel reluctant to use ICT relates to their incapability to operate the system, manage the classroom, or feel that the pedagogical approach in teaching does not suit them. These conditions make teachers believe that using technology needs a lot of effort and thus decrease their motivation toward its implementation.

Furthermore, *attitude toward using* (A) is explained as the user's evaluation of the desirability of employing a particular information systems application. This relates to users' feelings toward a particular technology use. When a teacher feels positive about ICT in teaching, he may use it. When a teacher feels negative toward ICT, he may avoid using it.

Lastly, *behavioral intention to use* (B) emphasizes the likelihood of a person to employ a technology application (Lederer et al., 2000). When a user feels positive about the implementation of ICT, he is likely to use it in the future and vice versa.

Venkatesh, Speier and Morris (2002) investigated TAM together with a motivational model which studies the effect of pre-training mood on user acceptance of new technology. The result showed a resilient positive effect on intention to use information technology, however, training intervention did not influence perceived usefulness. They also found that the effect of the tested users' acceptance was fully mediated by intrinsic motivation, perceived ease of use (EoU), and perceived usefulness (U). Even though there was no proof that intrinsic motivation has a direct influence on usage intention, their study provided an essential means for both perceived ease of use (EoU) and perceived usefulness (U).

3. The context of the study

From the four factors that influence someone to use technology from the TAM theory (David, Bagozzi & Warshaw, 1989), this study is concerned with only two factors, namely perceived usefulness (U) and perceived ease of use (EoU). This is because those two factors are the main factors that will lead teachers to adopt or reject using ICT. Therefore, a questionnaire based on the TAM theory was used to collect data for this research. It was constructed and modified from the questionnaire used by Cox, Preston and Cox (1999), with 16 closed questions provided to measure the perceived usefulness and perceived ease of use. From these questions, 8 questions were related to perceived usefulness and another set of 8 questions was related to perceived ease of use. These questions investigated the teachers' computer use, ICT use in teaching and their perceptions of using ICT in teaching. It was formatted by using the Likert Scale of (1) strongly agree (SA), (2) agree (A), (3) neutral (N), (4) disagree (D), and (5) strongly disagree (SD) (see McLeod, 2008).

The questionnaire was sent to 52 EFL teachers in two state universities located in Banda Aceh. However, only 42 respondents returned them, making the total sample of 42 teachers. The data from the questionnaire was analyzed statistically with SPSS. The respondents were divided into two groups based on their answers on the questionnaire: users (those who use ICT in teaching at a regular basis or not) and non-users (those who never use ICT in teaching at all).

To gain more detailed answers, we conducted an informal semi-structured interview with one user and one non-user. They were chosen based on their availability and consent. The main questions inquired their beliefs on the use of ICT in ELT and barriers that restrict

teachers from adopting ICT in ELT. Each interview with the respondent lasted for 30 minutes and was held on SKYPE.

4. Findings

The findings of this study are reported in two sections, containing the results from the questionnaire and the results from the interview.

4.1. Questionnaire

The results from the questionnaire are categorized into three issues: computer use, ICT use in teaching and perceptions of using ICT in language teaching.

In terms of computer use, the results showed that 59.5% of respondents used computers everyday, while 40.5% accessed the Internet every day. About 28.6% of respondents used computers several times a week and 31.0% accessed the Internet several times a week. Only 4.8% of respondents never accessed computers or the Internet in a week. This indicates that most EFL teachers were quite familiar with computers and Internet use.

For ICT use in language teaching, the results revealed that 21.42% of respondents used the word processor less than once a week. This was followed by once a week (19.04%), while 38.09% of teachers rarely or never used word processors in teaching. A similar trend was also found for presentation software, 16.66% of respondents used it less than once a month, while 61.90% rarely or never used it. In terms of spreadsheets, however, 11.90% of respondents used them several times a week and another 11.90% also used them less than once a month. About 61.90% of respondents rarely or never used ICT in teaching. This large percentage indicates that more than half of the EFL teachers did not use ICT applications in their teaching.

To identify users and non-users, the respondents' answers were grouped into 2 categories. Those who answered that they used ICT 'once a week, several times a week, once a month and less than once a month' were put in the group of users (US) with 31 respondents identified. This indicates that they implemented ICT in their teaching even though some of them did not use it on a regular basis. Those who answered 'rarely or never' were put in the group of non-users (NU) with 11 respondents identified.

a. Perceived usefulness (U)

Table 1 shows the users' perceived usefulness towards the use of ICT in teaching.

Table 1. Users' perceived usefulness.

Items No	Score					Mean
	Users (n=31)					
	SA	A	N	D	SD	
Q1. ICT is important in language teaching.	19	10	2			4.5484
Q2. ICT increases students' motivation.	10	17	4			4.1935
Q3. ICT makes learning more enjoyable.	10	16	5			4.1613
Q4. ICT makes learning more fun.	11	15	5			4.1935
Q5. ICT makes learning more interesting.	12	14	5			4.2258
Q6. ICT makes learning more effective.	10	10	11			3.9677
Q7. ICT makes learning more diverse.	7	19	5			4.0645
Q8. ICT enhances my teaching performance.	11	13	7			4.1290

As evidenced in Table 1, all of the 31 respondents of users felt positive about the use of ICT in language learning. No one disagrees with any of the items. Above 80% of users agree and strongly agree with all. The most popular item for perceived usefulness is *Q1 'ICT is important in English language teaching'* (M=4.5484). The last item with the lowest mean was *Q6 'ICT makes learning more effective'* (M=3.9677). Therefore, the importance of ICT and its effectiveness in increasing students' interest motivation were among the principal perceptions for the users to implement ICT in the classroom. This positivity is in line with Cox, Preston and Cox (1999) and Cope and Ward, 2002), who also claim that technology can improve the presentation of materials and make the lesson more interesting for students as well.

Table 2 shows the non-users' perceived usefulness towards the use of ICT in teaching.

Table 2. Non-users' perceived usefulness.

Items No	Score					Mean
	Users (n=11)					
	SA	A	N	D	SD	
Q1. ICT is important in language teaching.	4	7				4.3636
Q2. ICT increases students' motivation.	4	5	2			4.1818
Q3. ICT makes learning more enjoyable.	5	5	1			4.3636
Q4. ICT makes learning more fun.	6	4	1			4.4545
Q5. ICT makes learning more interesting.	5	4	2			4.2727
Q6. ICT makes learning more effective.	3	4	4			3.9091

Q7. ICT makes learning more diverse.	3	6	2	4.0909
Q8. ICT enhances my teaching performance.	4	6	1	4.2727

Table 2 demonstrates that the 11 respondents who were non-users also found that ICT implementation to be positive in teaching; none of these non-users chose disagree or strongly disagree and most chose either agree or strongly agree. The item which was most popular for non-users was *Q4 'ICT makes learning more fun'* (M=4.4545), and the least perceived item was Q6 *'ICT makes learning more effective'* (M=3.9091). Hence, it can be concluded that the participants view ICT to be an important aspect to create a fun and enjoyable teaching and learning environment.

Overall, even though non-users did not use ICT in teaching, their positive perceptions towards the importance of ICT were presumably derived from their personal experience of using the Internet for their personal use. In the post tsunami era, the Internet has become widely spread in Banda Aceh. Public places and spaces such as coffee shops, cafes and restaurants, offices, government or non-government campuses, etc., provide hot spot areas for people to use. Besides, the development of mobile phone equipped with specific operating system enables people to connect to the Internet everywhere and any time. Their feasibility to easily browse information leads the Acehnese people to see ICT as important in their life. In conclusion, despite non-users did not use ICT in their teaching, it did not meant that they also rejected its usefulness in teaching.

b. Perceived ease of use (EoU)

Table 3 shows the teachers' perceptions on ICT ease of use.

Table 3. Users' perceived ease of use.

Items No	Score					
	Users (n=11)					Mean
	SA	A	N	D	SD	
Q9. It is easy to use ICT when teaching.	4	14	8	4		3.4839
Q10. I know how to teach using ICT.	3	19	7	2		3.7419
Q11. I have easy access to technology I would like to use.	5	10	5	10	1	3.2581
Q12. I have resources teaching using ICT.	4	10	10	4	3	3.2581
Q13. I don't have time to access ICT.	3	8	10	8	2	3.0645
Q14. I need training in how to use ICT in	10	13	6	2		4.0000

teaching.						
Q15. I need support when I encounter technical problems.	13	16	2			4.3548
Q16. It is easy to control the class.	5	11	12	2	1	3.5484

Table 3 demonstrates that in terms of ICT ease of use 31 respondents chose item Q15 *'I need support when I encounter technical problems'* (M= 4.3548) to be the most favorable one. Consequently, Demetriadis et al. (2003) also claim that teachers do worry about technical problems and effective handling of software they use. Then, Q17 *'It is cheap using ICT in teaching'* (M=2.6129) was the least chosen by the users. From these findings, it can be said that the users found technical problems, the need for training and the ways to teach with ICT were among the leading difficulties they encounter in relation to its ease of use.

Table 4 presents the non-users perceived ease of use.

Table 4. Non-users' answers of perceived ease of use.

Items No	Score					
	Users (n=11)					Mean
	SA	A	N	D	SD	
Q9. It is easy to use ICT when teaching.	1	3	7			3.4545
Q10. I know how to teach using ICT.	2	2	6	1		3.4545
Q11. I have easy access to technology I would like to use.	1	1	3	6		2.7273
Q12. I have resources teaching using ICT.	1	1	5	4		2.9091
Q13. I don't have time to access ICT.		4	4	3		3.0909
Q14. I need training in how to use ICT in teaching.	4	3	4			4.000
Q15. I need support when I encounter technical problems.	5	4	2			4.2727
Q16. It is easy to control the class.	2	4	4	1		3.6364

Table 4 shows that Q15 *'I need support when I encounter technical problems'* (M=4.2727) received the highest response from the non-users in terms of ICT ease of use in teaching, whilst Q11 'I have easy access to technology I would like to use' (M=2.727) was the least often mentioned. From these findings, it can be concluded that non-users find technical problems and the need for training were the problems that prevented from using ICT in teaching. These were also the motives for setback that the users perceived, but it did not prevent them from using ICT in teaching.

4.2. Interview

The questionnaire responses suggested that both regular US and NU believed that using ICT was important in language teaching. They believed that ICT will bring positive impacts on the teaching and learning process. This is as stated by NU below:

(1) *ICT makes it easier in teaching. One reason for this is that we know that some students are better to learn via visual or audio, and they can get this via technology.* [NU]

NU claimed the importance of ICT in two respects: teachers will be easier to perform materials, and students will have chances to learn better. Meanwhile, US claimed that:

(2) *It helps us perform our teaching better, also makes us easy to prepare materials. We just need like power point, it is more interesting, and we can use it over and over again.* [US]

The questionnaire also revealed that a majority of the EFL teachers of users and non-users believed that ICT will enhance their teaching performance. This is explained by both interviewees as below:

(3) *Yes. I mean I can present materials better to my students. For example, by having a projector, students can learn more and remember more because it is more interesting. It is better compared to just providing copies of the materials.* [US]

(4) *From my point of view, it (ICT) helps lecturers teach more confidently, and lecturers can gain easier access to get materials.* [NU]

However, in terms of effectiveness, non-users are not sure about it. As explained by NU,

(5) *I am not sure about this. Talking about the effectiveness of ICT depends on the situation and students themselves. I think it depends on many factors. Such as, if there are two different classes, and both use ICT, the result of two classes may not be the same in terms of its effectiveness. It may be effective for one class but maybe not for the other.* [NU]

In contrast, US had a better perception towards the effectiveness of ICT. As explained in (6),

(6) *In some occasions, students can learn more autonomous or student centered. If we have facilities like intranet, what we need is just to give them tasks to do, and they will try to find via internet. We just facilitate them. They*

can browse themselves. They will enjoy learning more by surfing from the internet. [US]

As regards the perceived ease of use, there were several factors which prevented the EFL teachers from using ICT, such as cost and competence. Even regular users still found these problems as barriers to use ICT in teaching. As explained by US,

(7) *In terms of easy access, ehm...not really. The numbers of computers are limited in our campus because they cost a lot of money. So we do not have easy access. It is still limited on campus. I hope there are more facilities in the future*. [US]

A similar response was also provided by NU, stating that

(8) *I have very limited access to technology.* [NU]

Next, both users and non-users think that they needed proper training on how to use ICT. Otherwise, it makes them difficult to teach using ICT.

(9) *I don't have enough capability to use ICT, and I need training on how to use the tools or something like that.* [NU]

(10) *I am still not really competence on how to use it. I just know very basic software like using word processor…that is what I am familiar with. We received some training on that basic thing. We are good at that. But actually, like other software, we still need training. We should get more training for a better use for our teaching.* [US]

Some software was considered not important to the EFL teachers, such as database programming. Therefore, besides the ability to use which became of their setback in using ICT, their perceived usefulness in which they think that using certain software is not useful for language teaching was also a barrier.

(11) *For my teaching context, I do not think it (database programming) is very necessary, it is just like collecting database for students. I do not think it is very useful if I use it for my teaching.* [US]

 (12) *I don't understand about that (software). I don't even know what kind of software it is.* [NU]

Furthermore, another factor preventing ICT use was insufficient support from their work environment and the government. They claimed that there was not enough support in term of technology tools. As confirmed by both informants,

(13) *At the moment, it is still expensive. But if the government helps to facilitate facilities, and train all staff, it will be helpful. We need financial support from the central government for this.* [US]

(14) *It is quite expensive. We need support from campus on the availability of tools, training on how to use ICT and support for materials.* [NU]

(15) *I hope I can join longer specific trainings from the very basic to everything about internet.* [US]

The interviews prove that cost was one of the utmost barriers for teachers to adopt ICT. Although a teacher user may have ICT equipment (e.g. laptops, computers, projectors) that can be used in teaching, the cost of maintaining ICT resources is a problem. The universities do provide Wi-Fi that allows teachers and students to connect to the Internet or communicate with one another wirelessly within the campus area; however, it was common that the connection can be slow at times (Silviyanti & Yusuf, 2014). We further find that blackouts that are still common in Indonesia (Phagta, 2014), which is also one of the obstacles preventing the teachers from using ICT in the classroom. In the campus area in Banda Aceh blackouts for a couple of hours still occur a few times a week. Therefore, it was also common for the teachers to use hot spots from their cellphone devices to assist their teaching in the classroom. However, the occasional use of this, sooner or later, becomes weighty on their finances since the institutions do not pay teachers for their prepaid usage.

5. Discussion and conclusion

Teachers' acceptance or rejection of ICTs has pedagogical implications. It is known that ICTs make the learning process more enjoyable since students becomes more involved to learn through wide range of topics, materials and tools. It also offers benefit to the teachers to enhance his/her performances. From the study by Cox, Preston and Cox (1999), it revealed that ICTs improved presentation of materials, are enjoyable to be used in the classroom, made the lesson more interesting for students and lessen the teachers' difficulty in controlling the class. These findings are also similar to the present study, in which the Acehnese EFL teachers' believed that ICT is important to be implemented as it can increase students' motivation, make learning more enjoyable and fun, interesting, effective and diverse.

Nonetheless, the teachers interviewed also revealed that cost, their lack or insufficient competency in using ICT and inadequate support from the government (either local or central) were still unsatisfactory. Despite trainings have been given to some teachers, they were still insufficient and even scarce for teachers in the rural areas. If the local government

of Banda Aceh supports the development of technology, every teacher employed and working in either public or private schools and universities in the city should be given adequate preparation to teach with ICT. The teachers' capability to use ICT should be prioritized because their perception of ICT use in the classroom is found to receive positive responses from both users and non-users in this study. As the development of technology proceeds rapidly with the wireless Internet available not just in educational institutions, but also outside of these institutions (such as coffee shops, stores, restaurants, and personal mobile phones network), students for sure are receiving, sharing and circulating massive information on wide range of topics and issues. Therefore, it is essential for the teachers to be well prepared to face new challenges in education and technology that are present today.

In conclusion, this study has revealed that the teacher users are motivated to use ICT in language learning despite facing some problems when implementing technology in the classroom activities (technical problems and cost), however, they did not inhibit their implementation. Thus, the non-user teachers believe that implementing ICT needed much effort. They also find themselves not capable of doing it since they need more support and training. Even though they believe that ICTs offer positive outcomes in the teaching and learning process, such barriers as cost and insufficient knowledge or skill prevented them from using it.

This study, however, is limited to small samples and cannot be generalized to other teachers in various universities. Therefore, a further in-depth approach such as the interview on teachers' perceptions, needs and challenges are needed from more respondents to obtain broader knowledge about ICT implementation, especially in third world countries.

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