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EFL TEACHERS' TECHNOLOGY ACCEPTANCE: APPLYING THE TECHNOLOGY ACCEPTANCE MODEL IN SECONDARY LANGUAGE LEARNING IN INDONESIA

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Abstract
This study explores the technology acceptance among English as a Foreign Language (EFL) teachers in secondary schools in Cirebon using the Technology Acceptance Model (TAM) introduced by Davis in 1989. The research highlights the perceived usefulness and ease of use of technology in language learning, along with the factors influencing the adoption of technology among EFL teachers. Employing a qualitative research approach, data were collected through a questionnaire adapted from Cox, Preston, and Cox (1999), involving 25 EFL teachers. The findings indicate that positive perceptions of technology increase the likelihood of its use in teaching. However, significant differences were found in technology acceptance between novice and experienced teachers, with novice teachers showing higher levels of acceptance. This study underscores the importance of training and technical support in facilitating effective technology integration in language learning.
Keywords: EFL Teachers, Technology Acceptance Model, Secondary Language Learning Program, Novice teacher, Experienced teacher

INTRODUCTION

Technology has rapidly evolved in various contexts, including education. It offers numerous advantages for education. One such advantage, as suggested by Blake (2008), is that technology enables students to access subject material. The use of technology greatly assists in completing tasks and makes it easier to find scientific information. Gilakjani (2017) also noted that technology helps students to independently adjust their learning process and access a wealth of information that is not provided by their teachers.

The use of technology not only aids and supports students in their assignments but also boosts their interest and motivation, as noted by Gilakjani, Sabouri, and Zabihniaemran (2015). Additionally, technology transforms how teachers and students interact with information and with each other. Teachers are expected to be more interactive and innovative by incorporating technology into their teaching methods (Chen, Liao, Chen, & Lee, 2011). In other words, to create a more interactive and innovative learning process, teachers must be proficient in using technology before implementing it in the classroom.

However, not all teachers find it easy to integrate technology into their teaching. Ertmer and Ottenbreit-Leftwich (2010) agreed that some changes in teacher beliefs are necessary when they are asked to use technology to enhance learning. The literature also highlights several factors that influence teachers' use of technology in the learning process, including positive perceptions (factors that encourage use) and negative perceptions (factors that hinder use).

Regarding positive perceptions, individuals believe that using technology will yield better results (Farahat, 2012). Consequently, the more positively teachers view technology, the more likely they are to use it in the classroom (Domingo & Gargante, 2016). In other words, teachers incorporate technology into their teaching because they believe it aids in transferring knowledge. Additionally, teachers are more inclined to integrate technology into the classroom if they understand how to use and apply it effectively. Ghulam (2013) also noted that teachers are more confident in using technology if they have prior experience with computer technology from their time as students.

On the other hand, negative perceptions from teachers highlight the obstacles that hinder technology use. Several researchers, including Erdogan (2011) and Gordon (2011), have identified numerous challenges to integrating technology in schools. Imad (2015) points out that the lack of technological tools, insufficient information on how to use technology, and ineffective training are significant barriers to language learning and teacher development. Although teachers may wish to incorporate technology into their teaching, they often face inadequate school facilities or lack the training needed to utilize the available technology effectively (Mohamed, 2014, p. 3).

In a case study involving four schools in Ghana, Andam (2013) surveyed twelve pre-service teachers to explore their beliefs about using computers for teaching and learning. The study revealed that while three of the student teachers had constructivist beliefs, they struggled to integrate computers into their pedagogical practices due to several constraints, including limited planning time, inadequate technical support, and insufficient access to computers. This suggests that the successful implementation of technology in the classroom is highly dependent on teachers' beliefs and their ability to effectively adapt and utilize these tools (De, Uçar, & Demir, 2014).

Various studies have explored the connection between teachers' pedagogical beliefs and their attitudes towards integrating ICT into their teaching practices. The premise is that teachers' different values and beliefs about pedagogical methods can influence how they incorporate ICT into the classroom (Ottenbreit-Leftwich et al., 2010). Traditional teachers often use ICT as a supplementary tool—such as for explaining material, sending assignments, or conducting online research (Ertmer et al., 2012). In contrast, a constructivist approach views ICT as a cognitive tool that can enhance students' critical thinking, collaboration, communication, and problem-solving skills, helping them address real-world challenges (Ertmer et al., 2015).

Several studies have examined how teachers' pedagogical beliefs impact their views on ICT integration (Ottenbreit-Leftwich et al., 2010). However, discrepancies have been noted between these beliefs and the actual pedagogical practices involving ICT (Chen, 2008). Ertmer et al. (2015) identified several factors contributing to this inconsistency, such as the challenge of measuring intangible beliefs, varying degrees of importance placed on different beliefs by teachers, and diverse cultural backgrounds. Given these considerations, it is evident that while technology can be integrated into teaching, teachers hold different perceptions and have various reasons for embracing technology in education. Consequently,

the author aims to explore the acceptance of technology in the teaching practices of EFL teachers.

Various theories have been proposed to explore and explain why individuals accept, reject, or continue using new technologies (Fishbein & Ajzen, 2010; Venkatesh, 2000). The Technology Acceptance Model (TAM), initially introduced by Davis (1989), was designed to predict the acceptance of information technology systems and to identify design issues before users engage with the system. TAM focuses on two key factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Perceived Usefulness refers to the extent to which individuals believe that using the technology will lead to improved outcomes (Farahat, 2012). In contrast, Perceived Ease of Use pertains to the degree to which users believe that the technology will be easy to use. According to TAM, higher levels of PU and PEU are associated with more positive attitudes toward the technology, which, in turn, predict the intention to use it (Davis, 1989).

Among various theories, the Technology Acceptance Model (TAM) has garnered significant attention in education and research over the past two decades (Al-Adwan & Smeldley, 2012; Al-Oteawi, 2012; Buabeng-Andoh, 2012; Teo, 2009). The model has been widely adopted and validated in numerous empirical studies, with its tools consistently demonstrating statistical reliability (Shroff, Deneen & Ng, 2011; Teo, 2009). However, TAM has not been extensively applied or tested outside the developed world, particularly in the context of African pre-service teacher education (Afari-Kuma & Achampong, 2010; Anamoah-Mensah, 2011; Farahat, 2012).

The author has noted that the adoption of the Technology Acceptance Model (TAM) has not been extensively applied within the context of education in Indonesia, particularly in studies involving pre-service teachers. Consequently, the author is interested in exploring technology acceptance among EFL teachers using TAM as the theoretical framework. The focus of this study is to investigate the acceptance of technology by EFL teachers in secondary schools in Sindanglaut, Cirebon, based on the TAM developed by Davis (1989). The model includes five key variables: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Towards Using (ATU), Behavioral Intention to Use (BIU), and Actual System Usage (AU). This study aims to examine EFL teachers' technology acceptance with a specific focus on Perceived Usefulness and Perceived Ease of Use, and to assess differences in technology acceptance between novice and experienced teachers.

METHOD

This study employs a qualitative research approach, as outlined by Heigham and Croker (2009), which focuses on collecting primarily textual data and using interpretive analysis to understand participants' experiences and interactions with a phenomenon. Qualitative research often involves theoretical perspectives or lenses to explore issues related to class, gender, race, or other marginalized groups, as noted by Cresswell (2013). In alignment with this approach, the study utilizes the Technology Acceptance Model (TAM) as its theoretical framework.

Qualitative research was chosen for this study because it prioritizes textual data over numerical data, involves a smaller number of participants, and aims to understand how participants experience and interact with a specific phenomenon. The research subjects comprised 25 EFL teachers from secondary schools in Cirebon, Indonesia. Data were collected using a questionnaire adapted from Cox, Preston, and Cox (1999), based on the TAM framework. The questionnaire included 16 closed-ended questions designed to

measure Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), with 8 questions dedicated to each construct. These questions aimed to assess the teachers' views on the use of technology in teaching.

Following data collection, the analysis was conducted using descriptive statistics. This method involved summarizing general trends and overall score distributions to draw conclusions (Dörnyei, 2011). The frequency of responses for each questionnaire item was tabulated and analyzed using MS Excel, and the results were interpreted to form conclusions.

RESULT AND DISCUSSION

The writer distributed the questionnaire directly to the EFL teacher. The questionnaire was conducted to determine their belief in the use of technology in teaching and learning. This is intended to answer both research questions. There are 16 items in this questionnaire which are classified into 2 TAM constructions. Those are 8 items at PEOU and 8 items at PU. The data from the closed-ended questionnaire were analyzed using frequency. After that, the frequency for each questionnaire item is explained descriptively. The writer also made a frequency table of all items from the questionnaire answer sheet and then explains it in detail.

Table 4.1 Demographic

Demographics	N f	25 %
Gender		
Male	7	28
Female	18	72
Age (years)		
20-25	5	20
26-30	1	4
31-35	2	8
36-40	1	4
41+	16	64
Experience (years)		
1-5	5	20
6-10	2	8
11-15	1	4
16-20	13	52
21+	4	16

Table 4.2 Statistic Descriptive

Participants	**ITEMS**		**Amount**
	PEOU	**PU**	
Participant 1	23	29	52
Participant 2	32	33	65
Participant 3	26	30	56
Participant 4	31	40	71
Participant 5	24	35	59
Participant 6	30	32	62

Participant 7	31	40	71
Participant 8	28	32	60
Participant 9	23	24	47
Participant 10	29	31	60
Participant 11	30	33	63
Participant 12	21	25	46
Participant 13	34	32	66
Participant 14	29	37	66
Participant 15	23	40	63
Participant 16	26	39	65
Participant 17	26	32	58
Participant 18	29	36	65
Participant 19	26	32	58
Participant 20	27	38	65
Participant 21	21	28	49
Participant 22	25	30	55
Participant 23	32	33	65
Participant 24	27	32	59
Participant 25	37	32	69
Mean	**60.6**		
Median	**62**		
Mode	**65**		
Standard Deviation	**6.873863542**		

Perceived Ease of Use

There are eight statements in this construct that is about the ease of use of technology and access to technology in teaching.

Table 4.3

The Result of TAM Questionnaire (PEOU)

Items	**Total Answer**				
	SA	**A**	**N**	**D**	**SD**
Q1. It is easy to Use ICT when teaching	8	11	6	-	-
Q2. I know how to teach using ICT	6	17	2	-	-
Q3. I have easy access to technology I would like to use	4	15	5	2	-
Q4. I have resource teaching using ICT	5	11	7	2	-
Q5. I don't have time to access ICT	-	2	8	13	2
Q6. I need training in how to use ICT in teaching	8	8	8	1	-

Q7. I need support when I encounter technical problems	8	11	3	3	-
Q8. It is easy to control the class	9	8	7	1	-
Amount	48	83	46	22	2
Percentage	600%	1037,5%	575%	275%	25%

Table 4.3 shows the positive responses of 25 EFL teachers to the PEOU construct, with 1037,5% agreeing answer. Some responses on the agreed scale were chosen by more than half the participants in the PEOU construct. This shows a high number of their trust in the ease of use of technology. However, even though they agree with Q1, Q2, Q3, and Q4, they still need training and support when they encounter technical problems (Q6 & Q7). Then, there are a number of items with a neutral response scale which means there are doubts in the questions (Q1, Q4, Q5, Q6, and Q8). There are also a large number of responses on a disagree scale. This is only found in item Q5. It means that they have time to access ICT.

Perceived Usefulness

There are eight statements in this construct that are about the usefulness of technology in learning.

Table 4.4

The Result of TAM Questionnaire (PU)

Items	**Total answer**				
	SA	**A**	**N**	**D**	**SD**
Q9. ICT is important in language teaching	9	12	4	-	-
Q10. ICT increases students' motivation	5	17	3	-	-
Q11. ICT makes learning more enjoyable	5	15	5	-	-
Q12. ICT make learning more fun	8	15	2	-	-
Q13. ICT make learning more interesting	8	14	3	-	-
Q14. ICT make learning more effective	9	9	7	-	-
Q15. ICT make learning more diverse	8	15	2	-	-
Q16. ICT enhances teaching performance	6	11	8	-	-
Amount	58	108	32	-	-
Percentage	725%	1350%	400%	-	-

Table 4.4 shows the positive responses of 25 EFL teachers to the construct of PU, with 1350% agreeing answer. Some responses on the agreed scale were chosen by more than half the participants in this construct. This shows a high number of their trust in usefulness of the technology. However, there are two neutral scales which mean doubts about the questions

(Q14 & Q16). Meanwhile, other items have a lower number of neutral responses. And also, there is no scale response to disagree on this construct.

Teaching Experience

Table 4.5

TAM based on Teaching Experience

Teachers' categories	N	PEOU		PU	
		f	%	f	%
Novice Teacher	**5**	158	3.2	182	3.6
Experienced Teacher	**20**	537	2.7	643	3.2

Based on the table above shows the differences EFL teacher's technology acceptance based on teaching experience between novice teacher and experience. As shown in the table, there are two categories of teacher teaching experiences, namely novice teacher with 5 participants and experienced teachers with 20 participants. From the result of the PEOU item questionnaire answers, a novice teacher had a higher score of 3.2%, while experienced teachers had a lower score of 2.7%. Then in the PU item questionnaire answers, novice teachers also had a higher score of 3.6%, while experienced teachers only had a score of 3.2%. This means technology acceptance in novice teachers is higher than experienced teachers. And the result shows that there are differences in acceptance of EFL teachers' technology based on teaching experience.

Discussion

Based on the analysis of the data above, this study revealed the acceptance of EFL teachers' technology based on the main variable TAM (Perceived ease of use and Perceived Usefulness) and the difference in acceptance of EFL teachers' technology based on teaching experience between novice teacher and experienced teacher using the TAM questionnaire.

a. EFL teachers' technology acceptance based on PEOU and PU

The results of the first questionnaire analysis showed that there is a positive response in EFL teachers regarding the use of ICT. This study parallels the results of Teeroovengadum, Heeraman, & Jugurnath (2017) examined the determinants of ICT use by educators in the teaching process in Mauritius, using the acceptance technology model. They reported that the results showed that the main TAM variables, perceived usefulness (PU) and perceived ease of use (PEOU) had a significant positive effect on the integration of ICT. This is parallel with the results of the factors that contributed to PU and PEU in this study which had a positive response to the use of ICT.

This study also parallels the result of Mena, Parreño, & Manzano (2017) analyzed the factors that influence teacher behavior intention to use educational video games (EVGs) in their teaching using the Technology Acceptance Model (TAM) approach. They reported that the result showed that perceived usefulness (PU) positively influenced the teacher's intention to use educational video games. Then, perceived ease of use (PEOU) also indirectly affects intentions through perceived usefulness (PU).

But this study contrasts with the previous study of Dizon (2017) measured perceptions of IBT (Internet-Based Technology) among Japanese English students using TAM. In the findings added the BI construct, so that the results showed that the relationships between PU, PEOU, and BI were positively and highly correlated. Whereas in this study only used two main constructs: PEOU and PU.

b. EFL teachers' technology acceptance based on Teaching experience; Novice teachers and Experienced teacher

The results of the second questionnaire analysis, the writer found differences in technology acceptance based on teacher teaching experience between novice teacher and experienced teacher. Teaching experience of a teacher is also one of the determining factors for teachers to use technology. As literature proves that teacher experience can influence the use of technology positively and can also inhibit technology integration when usage is not used to guide teacher experiences for positive outcomes (Baek et al., 2008, Blackwell et al., 2014, Coklar & Yurdakul 2017; Hur et al., 2016; Sahin et al, 2016).

Teaching experience of a teacher can be seen from how many years they taught. In this study, the writer divides 2 categories of teachers' teaching experiences, namely novice teachers and experienced teachers. As said by Blunt (2013) novice teachers are teachers who have just started the profession and they have less than three years of teaching experience. Then, As Gatbonton (1999) cited in Rodríguez & McKay (2010), said that experienced teachers are those who have classroom experience of about 5 years or more.

Technology acceptance based on teaching experience in this study is significantly different between novice teachers and experienced teachers. Novice teachers are more positive about the use of technology than experienced teachers. Then, the acceptance of novice teachers' technology is higher than that of experienced teachers. That is because novice teachers have been provided with knowledge during their education on how to use technology media in teaching, so they understand and can apply it to their teaching, compared to teachers who have years of experience teaching who prefer to use traditional methods because they do not have experience using technology and lack of understanding about how to use modern technology, so they have confidence that technology is a difficult thing. Except, if their school institutions require to use technology in teaching, automatically they inevitably have to adapt to technology.

This is in line with previous research. In their research, Atashak & Mahzadeh (2010), Karimi et al. (2011), Soleimanpour, Rezaei, & Bakhtiari (2013) found that teaching experience was one of the effective factors in the use of computer technology for teachers in Iran. Then, Aghajani & Zamani (2012) also stated that age is one of the important factors that can justify that Iranian teachers who have more teaching experience, tend to be low in using technology. Meanwhile, younger teachers have sufficient knowledge and skills in technology and they are more open to technological progress. In other studies, they also argue that the longer a teacher is in their career, the less likely they are to engage with technology or integrate it into their teaching (Baek et al, 2008, Ritzhaupt et al, 2012, Sahin et al, 2016). That is because the difficulty of learning new technology in the classroom causes them to reduce the use of technology in the classroom. Other evidence showed that with years of experience, motivation to use technology in the classroom can change, most of them motivated by external demand (Baek et al., 2008). But this contrasts with Sahin et al. (2016) who confirm their findings which show that the level of teacher experience does not correlate with the comfort of using technology in the classroom and which shows the lack of desire to integrate technology is the longer the teacher is in the classroom.

Therefore, every school institution that does require the educators to integrate ICT in the interests of classroom management, at least they organize training on integrating ICT in the classroom so that not only beginners can apply ICT in teaching, but experienced teachers can use and feel the benefits of using ICT in their teaching.

CONCLUSION

The study revealed that most EFL teachers had a positive view of technology, finding it easy to use and integrating it well into their teaching. However, some still need additional training and technical support. Novice teachers generally had a more favorable attitude towards technology and higher acceptance compared to experienced teachers, who often had neutral or lower acceptance and relied more on traditional methods. Overall, technology positively supports EFL teaching, though further training and support are needed for some teachers.

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