FULL LENGTH ARTICLE

EFL Pre-service Teachers' Perceptions towards the Use of CALL in the English Language Classrooms

Nutthida Tachaiyaphum [a,*], Peter James Hoffman [b,*]

[a] Faculty of Education, Mahasarakham University, Mahasarakham, Thailand.
[b] Faculty of Education, Mahasarakham University, Nakhonsawan Road, Ta-Lad, Muang District, Mahasarakham, 44000 Thailand.
*Corresponding Author Email: nutthida.t@msu.ac.th

Abstract This study aimed to investigate English as a Foreign Language (EFL) pre-service teachers' perceptions towards the use of Computer Assisted Language Learning (CALL) in the English Language Classrooms concerning the teachers' computer competence and their perceptions of CALL after creating and using their own CALL in language teaching. The participants were EFL pre-service teachers studying in the faculty of education, Mahasarakham University, Thailand. Questionnaires were used to collect the data after teaching with CALL. The findings revealed that the overall computer competence of the participants was a moderate to a high level, yet the participants were not competent in accessing the different types of information and CALL materials online. Furthermore, the participants reported that the use of a computer made language learning interesting and encouraging. However, they demo nstrated that a computer training program was required due to the lack of competence in operating some computer programs as well as the inadequate knowledge of new technology for the language learning. It can be surmised that though the EFL pre-service teachers have learned about CALL, they still find the CALL knowledge gained from the teaching methodology courses insufficient for effective CALL integration and design. Therefore, the study suggests that in order to improve teacher preparation courses, the knowledge of CALL including what CALL is, various types of CALL, as well as CALL materials evaluation be provided. Additionally, the understanding of teaching approaches should also be improved along with the technological skills since the knowledge of CALL solely is inadequate to make effective teaching. The teachers need the capability of selecting the right CALL materials and teaching approaches which are appropriate to the lesson.

Key words:
Computer Assisted Language Learning, EFL, perceptions, pre-service teachers.

1. Introduction

Over the past decade, technology has been an important part of language teaching and learning of the majority of educational institutions at every level. Now that the development of new technologies, technological tools, especially computers have started to be used in the classroom, language educators try to find new techniques and materials to integrate technology into language classes to promote students' language skills (Özer, 2018). One of the technological tools widely utilized is

Computer-Assisted Language Learning (CALL) since it has come to include issues of materials design, technologies, and pedagogical theories (Beatty, 2010). CALL materials can be categorized as having two main types; purpose-made materials for language learning and adapted materials from existing multipurpose materials (Beatty, 2010). At the Faculty of Education, Mahasarakham University, with the goals to enhance the EFL pre-service teachers' competence in integrating technologies in the EFL classroom, CALL has also been introduced to the EFL pre-service teachers in teaching methodology courses. The EFL pre-service teachers are assigned to select their lesson plan to design a purpose-made CALL and apply the CALL created to peer teaching.

According to the peer teaching observation and evaluation of CALL created by the EFL pre-service teachers, most of the EFL pre-service teachers still lack understanding of CALL theory as well as lack the competence in using technological tools to create CALL. As a result, insufficient understanding of CALL theory can have a great impact on the effective application of CALL in the EFL classroom. Much of their knowledge about technology for language teaching comes from self-study, not from the classroom (Kessler, 2007). However, having knowledge of how to integrate technology in the classroom differs from having knowledge of how to teach with it (Mishra & Koehler, 2006). What the EFL pre-service teachers know and how they perceive CALL from self-study may reflect the CALL material design and how it is employed in the classroom. To promote the effective use of technology in the classroom, Mishra and Koehler (2006) suggest that training in how to teach with technology needs to be provided to the teachers. There are increasing numbers of studies that try to examine prospective teachers' perspectives on using computer

technology in their classes (Özer, 2018). However, only a few studies have been conducted to explore the teachers' point of views in the area of CALL teacher preparation (Kessler, 2007). Therefore, this study would like to investigate the EFL pre-service teachers' computer competence and their perceptions towards the use of CALL in the English language classroom. The purpose of the study is to get an insight into how the EFL pre-service teachers perceive CALL after designing and implementing it in the classroom. The findings of the study will be used to enhance the teaching and learning activities of teaching methodology courses so as to promote the EFL pre-service teachers competence in and understanding of CALL implementation in the English classroom. It can also be applicable to teaching and training to help enhance the EFL teachers' technological knowledge, pedagogical knowledge, and content knowledge. Effective teaching with technology requires the development of an understanding of how technology, content, and pedagogy are relevant, and integrating this understanding to develop suitable technological materials for a particular context (Mishra & Koehler, 2006).

2. Research Questions

This study aims to investigate the EFL pre-service teachers' perceptions towards the use of CALL in their English classroom. The research questions are as follows:

1. What is the EFL pre-service teachers' computer competence?

2. What are EFL pre-service teachers' perceptions towards the use of CALL?

3. Literature Review

Computer-Assisted Language Learning (CALL) is an activity involving learners using a

computer to enhance their language (Beatty, 2003). It is also defined by Levy (1997) as the process to find and study computer programs or applications in language teaching and learning. CALL has been a vital part of language teaching and learning of the educational institutions worldwide as the use of CALL in language teaching provides many benefits, for example, improving the quality of language teaching and increasing learners' motivation (Özer, 2018). In addition, Beatty (2003) claims that CALL promotes learner autonomy since students can learn not only in the classroom but also outside the classroom. Although CALL is seen as a tool to help encourage language learning and make language learning easy for the learners (Beatty, 2003), many language teachers still avoid integrating CALL in their classroom. One of the factors is the teachers' insufficient skills in integrating technology in the classroom as Levy (1997) stated that the skill of the language teacher in integrating CALL into a lesson can have an impact on its successful utilization.

According to Beatty (2003), language teachers can decide whether to use the existing CALL materials or to create their own CALL materials. Many language teachers generally play the role as a CALL material creator because of inadequate existing materials. However, the language teachers who design CALL programs are usually proficient in computer programming, design or teaching methodology but few of them are competent in all of the three areas (Beatty, 2003). This has been an addressing issue for most of the language teachers. Many teaching programs have tried to promote a teacher's technological skills especially the skills in using computer software since, as Levy (1997) asserted, CALL materials have been created for computers merging with other media devices. What needs to be considered is that

nowadays technology is becomes obsolete quickly. As a result, the technological skills may vanish together with the computer programs or software when the skills are restricted to the knowledge of software operation (Torsani, 2015). Consistently, Kılıçkaya and Seferoğlu (2013) argue that knowing how to use a computer does not guarantee the capability of appropriate and effective CALL-based materials integration into the language classroom. Mishra and Koehler (2006) asserted that the most effective means of CALL implementation is building learning environments that encourage teachers and students to discover technologies related to subject matter in authentic situations. Moreover, good content needs to be established with the careful connection between three areas of knowledge including technology, pedagogy, and content. Similarly, Levy (2006) claims that there are three types of determination needed to be considered when integrating CALL namely the teacher's perceptions of the nature of language and language learning, teaching pedagogies and methodologies, and the selection of technologies to assist the learning activities. It can be concluded that in order to implement CALL in the classroom effectively, technological knowledge alone is not sufficient. Thus, teacher training in CALL is an integral first stage in linking theory to practice. The appropriate training will allow teachers to reduce their anxiety of using computers as a result of their deficient technological knowledge. It will also help the teachers to be capable of adapting to the constant shift of technologies for language teaching (Bancheri, 2006).

Training teachers in CALL and what is essential for teachers in order to integrate different types of CALL materials into the classroom have been widely discussed. The teachers need to understand that different

types of technologies need to have diverse strengths and constraints so as to be able to implement an appropriate approach to the different facets of language learning, students' needs and preferences, as well as the availability of resources and technologies (Levy, 2006). Since technology is considered the most vital part of the language learning, it is undeniable that knowledge and perceptions of technology can affect the effective use of technological materials namely CALL materials in the classroom. Mishra and Koehler (2006) argue that there is no suitable technology that can be used for every teacher, every program, and every aspect of instruction. The CALL material design and its implementation in the classroom can be dependent on the teachers' knowledge and perceptions of CALL and technology. Consequently, student and teacher perceptions and performance has been encompassed in a lot of recent research on CALL (Kessler, 2016) to gain an insight into CALL implementation in the classroom and to seek a way for effective CALL integration.

The findings in many studies in relation to CALL integration revealed the identical perspectives in both positive and negative aspects. Özer (2018) explored prospective English Language Teachers (ELT) attitudes on computer technologies implementation in language teaching. It was found that the prospective ELT teachers showed positive viewpoints in relation to computer technology implementation to language instruction. The study pointed out that the use of computers by the participants is limited. Most of the participants use computers to search for materials and prepare a presentation. It was also found that complicated computer programs are not used by the participants. It can be interpreted that the language teachers have an ability to operate basic computer programs but they may not be competent

enough to use advanced software in classroom activities. Consistently, Kılıçkaya and Seferoğlu (2013) investigated the impact of CALL training on pre-service EFL teachers' use of CALL in their classroom. The data collected at the beginning of the study showed that participants considered themselves incompetent in planning and designing the learning environment and learning activities. Nonetheless, after training, the participants tried to use various materials introduced during training. They expressed that CALL materials helped improve their students' listening and writing skills. Moreover, the participants confirmed that CALL materials helped promote students' engagement and motivation in the learning activities. The findings are in line with Rafiee and Purfallah (2014) who examined the perceptions of junior high school teachers working in different cities of Azerbaijan who were using computers in their lessons. The study showed that many of the participants preferred to implement the use of computers in their classroom. They agreed that CALL is beneficial to language teaching and learning, for example, making the subject interesting and enjoyable, helping students to improve their English skills, and motivating students to study more. Similarly, Başöz and Çubukçu, (2014) reported in their study on pre-service EFL teachers' attitudes towards Computer Assisted Language Learning that CALL was believed to have improved listening skills and vocabulary. A majority of the participants reported that CALL gave enjoyment and flexibility to language learning. They also accepted that language learning with the support from CALL helped to enhance their intelligence.

Although it is found in many studies that teachers have positive perceptions towards the use of CALL in their classroom, constraints and difficulties affecting CALL

implementation are also reported. A study by Başöz & Çubukçu (2014), for example, demonstrated that writing skills are not improved by the use of CALL. The teachers argue that language learning supported by a computer is not as good as spoken practice. Furthermore, Tatiana Dina & Ciornei (2013) indicated that one of the problems in relation to CALL is that students may be less motivated to learn and teachers may reject the use of technology in the classroom because of the lack of student and teachers Information and Communication Technology (ICT) competencies. They also reported that although computers are useful for language learning and teaching, the teacher role cannot be replaced. Kiliçkaya & Seferoğlu (2013) also pointed out that teachers should take into account that technology should be utilized in order to support meaningful learning activities not to be an option to classroom teaching. The cause of the problems in CALL integration can be due to, as Kessler (2007) claims, a lack of CALL training in teacher preparation programs. Also, there is no specific technology that can be appropriately used for every educator, every program, or every aspect of teaching (Mishra & Koehler, 2006). Therefore, Oz, Demirezen and Pourfeiz (2015) suggested in their study that teachers and students be sufficiently trained in CALL. Consistently, Kiliçkaya and Seferoğlu (2013) stressed that it is vital for teachers to obtain training in technology integration. They should be prepared for technological materials and they should be able to evaluate technology for language learning effectively (Bancheri, 2006 in Donaldson & Haggstorm). However, it was found that teacher training programs generally overlook training in the use of technology in the classroom. Consequently, new teachers are less competent in technology than their students. To solve this problem, teachers need to learn new skills, new teaching approaches and new technological tools so as to integrate CALL into the classroom to support language learning and teaching (Kiliçkaya & Seferoğlu, 2013). So far, we have ascertained that it is undeniable that technology has an influence on the domain of language teaching and learning (Kessler, 2016) and a lot of studies have investigated the teachers' perceptions towards the use of technology and CALL in the classroom. Yet, most of the studies have emphasized the teachers as a CALL user, not a CALL designer.

Therefore, this study aims to investigate the pre-service teachers' perceptions towards CALL to gain a deep understanding of how they, as a CALL user and a CALL designer, perceive CALL after designing and implementing it in the classroom. The findings of the study will be used to enhance the teaching and learning activities of teaching methodology courses so as to promote the EFL pre-service teachers competence in and understand of CALL implementation in the English classroom.

4. Research Methodology
4.1 Participants

The participants of the study were 81 EFL pre-service teachers who were studying in the Faculty of Education, Mahasarakham University, Thailand in the second semester of the academic year 2016. All of them had taken teaching methodology courses which included CALL lessons. Therefore, the participants had experience in designing and implementing a CALL program into an EFL classroom before responding to the questionnaires.

4.2 Instruments

In order to obtain the answers to the research questions, questionnaires were used

as an instrument of data collection. The questionnaires which were adapted from Vandewaetere & Desmet (2009) consisted of three main parts. The first part consisted of three items asking the participants' personal information about computer ownership, internet access with their computers, and the frequency of computer use for a lesson taught. The second part consisted of ten items regarding the participants' computer competence. The level of competence ranged from no competence to high competence. The last part was the participants' perceptions of CALL containing 17 items. A Likert scale was used, ranging from strongly agree to strongly disagree (scoring from five to one).

4.3 Data Collection and Data Analysis

To investigate the English pre-service teachers' perceptions of CALL, the researchers introduced a CALL to the participants as a part of a teaching methodology course. After the introduction of CALL, the participants were assigned to choose one of their lesson plans and design a CALL program for the lesson plan selected.

Then, they were required to use the CALL program designed in a peer teaching. The questionnaires were administered afterward. The data obtained from the questionnaires were analyzed for Percentage, Mean and Standard deviation. The data analyzed was categorized and presented based on the research questions. The first part of the questionnaire tried to find out the participants' personal information in relation to the use of a computer and the internet, the second part consisting of ten items investigated the participants' computer competence, and the third part of 17 items sought to examine the perceptions of the participants towards CALL.

5. Findings

The findings were divided into three sections; the EFL pre-service teachers' personal information, the EFL pre-service teachers' computer competence, and the EFL pre-service teachers' perceptions towards CALL.

Table 1 EFL Pre-service teachers' personal information

Personal Information		No.	Percentage (%)
Computer availability	Yes	81	100
	No	-	-
Internet access of your computer	Yes	81	100
	No	-	-
The frequency of computer use for a lesson taught	Always	63	77.8
	Sometimes	18	22.2
	Seldom	-	-
	Never	-	-

Table 2 EFL pre-service teachers' computer competence

Statement	Level of Competence					
	No (%)	Low (%)	Moderate (%)	High (%)	Mean	SD
1. I can install new software on a computer.	1.23	16.05	60.49	22.22	3.04	0.66
2. I can use a printer.	0	1.23	22.22	76.54	3.75	0.46
3. I can use a computer keyboard.	0	3.70	38.27	58.02	3.54	0.57
4. I can operate a word processing program (e.g. Word).	0	3.70	34.57	61.73	3.58	0.57
5. I can operate a presentation program (e.g. Power point).	0	0.00	11.11	88.89	3.89	0.32
6. I can use the internet for communication (e.g. email, social media)	0	9.88	40.74	49.38	3.40	0.66
7. I can access different types of information and CALL materials via www.	0	27.16	51.85	20.99	2.94	0.70
8. I can solve basic problems in operating computers.	0	24.69	60.49	14.81	2.90	0.62
9. I can appropriately select and evaluate educational software.	0	9.88	60.49	39.51	3.30	0.64
10. I can teach my students with the available CALL materials.	0	14.81	54.32	30.86	3.16	0.66

Table 1 presents the EFL pre-service teachers' personal information including computer availability, the internet access, and the frequency of computer use for the lesson. The results show that all of the participants (100%) have their own computers and the internet access. Most of the participants (77.8%) always use a computer as a teaching aid for their lesson while 22.2% of them sometimes use a computer in their classroom.

According to the findings shown in Table 2, most of the participants showed a high level of competence in operating a presentation program (88.89%), using a printer (76.54%), and operating a word processing program (61.73%). Moreover, 60.49% of the participants indicated that they had a moderate level of competence in installing new software on a computer, solving basic problems in operating computers, and appropriately selecting and evaluating educational software while 51.85% of them showed a moderate competence in accessing different types of information and CALL materials via World Wide Web (www).

Although most of the participants had moderate to high level of computer competence, it was found that 27.16% and

24.69% of them identified a low level of competence in accessing different types of information and CALL materials via www and solving basic problems in operating computers respectively.

Table 3 EFL pre-service teachers' perceptions towards CALL

Statement	Strongly agree (%)	Agree (%)	No idea (%)	Disagree (%)	Strongly disagree (%)	Mean	SD
1. My language learning will proceed more when this is assisted by a computer.	25.93	66.67	6.17	1.23	0.00	4.17	0.59
2. Learning a foreign language assisted by computer is not as good as learning it by oral practice.	6.17	18.52	33.33	34.57	7.41	2.81	1.03
3. Computer-based language tests can never be as good as paper - pencil tests.	1.23	12.35	17.28	56.79	12.35	2.35	0.90
4. CALL is less adequate than the traditional language learning.	2.47	17.28	24.69	43.21	12.35	2.54	1.00
5. People who learn a language by CALL are less proficient than traditional language learners.	4.94	12.35	18.52	43.21	20.99	2.37	1.10
6. CALL is a valuable extension of the classical learning methods.	20.99	62.96	13.58	2.47	0.00	4.02	0.67
7. CALL gives more flexibility to language learning.	35.80	48.15	7.41	6.17	2.47	4.09	0.95
8. CALL is as valuable as traditional language learning.	17.28	40.74	19.75	18.52	3.70	3.49	1.10
9. CALL can stand alone.	9.88	23.46	28.40	28.40	9.88	2.93	1.15
10. Learning a foreign language by computer constitutes a more relaxed and stress-free atmosphere.	33.33	41.98	17.28	7.41	0.00	4.01	0.90
11. Teacher's attitude towards CALL largely defines my attitude towards the use of computers in language learning.	18.52	58.02	13.58	7.41	2.47	3.83	0.91
12. Teacher's enthusiasm towards CALL largely defines my motivation for using computers in language learning.	30.86	55.56	6.17	7.41	0.00	4.10	0.82

13. Teacher's proficiency in using computers in language learning largely defines my attitude towards computer use in language learning.	37.04	46.91	11.11	4.94	0.00	4.16	0.81
14. I have faith in computer-based language exercises.	9.88	58.02	25.93	6.17	0.00	3.72	0.73
15. I feel less inhibited when communicating in the foreign language via computer (chat) than in a face-to-face situation.	19.75	34.57	24.69	18.52	2.47	3.51	1.09
16. In a face-to-face learning situation (classroom) I often experience anxiety when speaking in the foreign language.	27.16	40.74	7.41	20.99	3.70	3.67	1.19
17. For me, the use of a computer can help improve students' communication skills.	38.27	45.68	11.11	4.94	0.00	4.17	0.82
18. Using a computer makes language lessons more interesting to students.	71.60	19.75	7.41	1.23	0.00	4.62	0.68

Table 3 shows EFL pre-service teachers' perceptions towards CALL. According to the results, a majority of the participants (71.60%) strongly agree that using a computer makes language lessons more interesting to the students. 56.79% of the participants strongly agree that a computer training program should be provided to EFL teachers while 54.32% of them strongly agree that students are more active in a computer-aided language lesson. In addition, the participants agree that their language learning will proceed more when assisting by a computer (66.67%) and CALL is a valuable extension of classical learning methods (62.96%). They also agree that teachers' attitudes towards CALL largely define students' attitudes towards the use of the computer in language learning (58.02%).

However, half of the participants (56.79%) disagree that computer-based language tests can never be as good as paper-pencil tests. Furthermore, the percentage of the participants who disagree that *"CALL is less adequate than the traditional language learning"* and *"people who learn a language by CALL are less proficient than traditional language learners"* are the same (43.21%).

6. Discussions and Conclusion

The study investigated the EFL pre-service teachers' computer competence and their perceptions towards the use of CALL in the English language classroom. The study showed that all of the EFL pre-service teachers had their own computers and internet access and a majority of the teachers always used a computer to support their learning activities. The overall computer competence of the teachers was moderate to high. It was found that the teachers could best operate the presentation program, namely PowerPoint because all of them were required to use the presentation program to present a

language lesson and materials, for example, lead-in videos, vocabulary with audio and pictures, games, and activity instructions. It is in line with Oz, Demirezen and Pourfeiz (2015) in which their study reported that a majority of the participants owned a laptop and it was the most used device for the language classroom. Although most of the teachers showed high competence in operating the basic computer software, the data indicated that the teachers thought that they were not competent enough when it came to accessing the different types of information and CALL materials online. What is interesting is that in daily life, the teachers can use technological devices, such as mobile phones, computers, and tablets to access a variety of information but they are not capable of accessing the information in educational contexts. To improve the teachers' ability to access various types of information and CALL materials, the knowledge of types of information and CALL materials as well as how to evaluate that information and materials need to be provided. Kessler (2016) suggests that technology for language education has continually changed so the language educators are required to be knowledgeable about what CALL is. In line with Tatiana Dina and Ciornei (2013), teaching teachers to accurately select correct and the most reliable information on the Internet is important. Concurrently, Bancheri (2006) also claims that it is essential to train the teachers how to effectively evaluate language technologies since the capability of accessing and evaluating information and CALL materials online is an integral first step to successful CALL integration to the language classroom.

In addition to computer competence, the positive perceptions of the use of CALL were demonstrated. According to the findings, the teachers viewed that the use of computers

made language lessons interesting and encourage students to be active in the lesson. They believed that their attitudes towards CALL can affect the students' attitudes toward computer integration into the language classroom. Rafiee and Purfallah (2014) illustrated the identical results that all of the participants preferred to use a computer in an English lesson. They agreed that integrating computers made the lesson enjoyable and interesting. Moreover, computers helped students to improve their English language skills. Similarly, Kiliçkaya and Seferoğlu (2013) noted that integrating technology into the classroom helped create engaging learning activities. However, the EFL pre-service teachers agreed that a computer training program was needed. It was due to the lack of competence in operating some computer programs as well as the inadequate knowledge of new technology for the language learning. Kiliçkaya and Seferoğlu (2013) also reported in their study that teachers needed training in technology integration. They needed to know how to select and use the materials which were appropriate to their students and their educational contexts. Nevertheless, it was found that there is a lack of technology training in teacher preparation programs. As a consequence, when comparing to their students' technological knowledge and skills, the teachers are less knowledgeable than their students. It can be explained by the fact that students nowadays are digital natives, in other words, they were born using technological devices in their daily life. As a consequence the teachers need to keep updating their knowledge of the trends in educational technology and language teaching in order to be able to keep abreast with technology integration successfully. Consistent with Kiliçkaya and Seferoğlu (2013), Oz, Demirezen and Pourfeiz (2015) recommended that teachers required

sufficient training provided that they want to be capable of utilizing CALL effectively.

It can be seen that as a CALL creator and a user, the EFL pre-service teachers found CALL beneficial to integrate as a support to their language learning and teaching. They seemed to be positive that integrating CALL into the classroom could help improve language teaching and learning effectively. However, their skills in using different types of CALL materials and computer programs are deficient. Additionally, they lack understanding of what CALL really is and lack knowledge of how to select and evaluate information and CALL materials online. It can be assumed that these factors hinder the EFL pre-service teachers' successful CALL design and effective CALL integration. Therefore, in teacher preparation courses, the knowledge of CALL including what CALL is, various types of CALL, as well as CALL materials evaluation, should be provided. Apart from knowledge of CALL, the understanding of teaching approaches should also be improved along with the technological skills since the knowledge of CALL solely is not enough to make effective teaching with technology support. The teachers need the capability of selecting the appropriate CALL materials and teaching approaches to the lesson. Mishra and Koehler (2006) suggested that teachers need a deep understanding of effective teaching with technology integration so as to predict and infer about the suitable materials and teaching approaches in different contexts that promote effective teaching and learning.

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