

Barriers to the implementation of CALL in EFL courses: Iranian EFL teachers' attitudes and perspectives

Reza Dashtestani

University of Tehran, Iran
rdashtestani@ut.ac.ir

This study explored the attitudes of Iranian EFL teachers toward the use of CALL in EFL courses as well as their perceptions of possible barriers to the implementation of CALL. To achieve this aim, 212 EFL teachers participated in this study. Instrumentation included questionnaires, semi-structured interviews, and non-participant observations. The findings indicated that Iranian EFL teachers hold positive attitudes toward the use of CALL. It was also revealed that the participants perceived computers as beneficial tools to be included in EFL courses. The participants further reported several serious barriers to the application and inclusion of CALL in Iranian EFL courses. Strategies and measures to be adopted in order to incorporate CALL into Iranian EFL courses were investigated as well. Finally, it was illustrated that Iranian EFL teachers do not make use of CALL in their courses. This shows a discrepancy between teachers' attitudes and their actual use of computers in EFL courses. The findings promise implications for renewing EFL programs and teacher training/education courses.

1. Introduction

There has been increasing interest in the application of computers and technology in educational contexts (Albirini, 2006; Bartsch & Cobern, 2003; Connor & Wong, 2004; Lee, 2000; Timucin, 2006). Additionally, attempts have been made to include computers and technology in educational curricula (Atai & Dashtestani, 2011; Aydin, 2012; Karber, 2001; Madden, Ford, Miller, & Levy, 2005). As an important line of research in this regard, there are several studies which have explored the attitudes of

different educational stakeholders toward the application of computer-assisted learning in educational contexts (Duggan, Hess, Morgan, Kim, & Wilson, 2001; Durndell & Haag, 2002; Li & Kirkup, 2007; Liaw, 2002; Vekiri & Chronaki, 2008). The majority of studies conducted in **EFL** contexts have examined the attitudes of students toward the use of **CALL** (e.g. Ayres, 2002; Stepp-Greany, 2002; Thang & Bidmeshki, 2010; Timucin, 2006) while there is still limited research addressing the attitudes of **EFL** teachers toward the use of **CALL** (Aydin, 2012; Ismail, Almekhlafi, & Al-Mekhlafy, 2010).

On the application of technology in educational settings, Eugene (2006) asserts that there is a discrepancy between teachers' attitudes and beliefs and their actual use of technology in their classes. Atkins and Vasu (2000) also maintain that the attitudes and beliefs of teachers affect their future use of technology and computers. More importantly, teachers are expected to improve their computer competence with the advent of different technological developments (Cunningham, 2000; Johnson, 2002; Oh & French, 2007).

Previous research

Previous literature on the attitudes of **EFL** instructors has shown that **EFL** instructors have positive attitudes toward the use of **CALL** in teaching different language skills. To begin with, Park & Son (2009) conducted a study on the perceptions of Korean in-service **EFL** teachers of the use of **CALL**. Using interviews and questionnaires, the authors found that the teachers held positive attitudes toward the use of **CALL** in **EFL** courses. The **EFL** teachers believed that computers were very beneficial to provide adequate input as well as authentic materials and contexts for students. In another study on the perceptions of both teachers of Arabic and teachers of English about the use of technology in their classes in schools of the United Arab Emirates (**UAE**), Ismail, Almekhlafi and Al-Mekhlafy (2010), using questionnaires and interviews, found that the teachers were willing to integrate technology in their teaching practices. Teachers also perceived the role of technology in their teaching as unavoidable. Kim (2002) further reported on the positive attitudes of teachers toward the use of **CALL** and their great intrinsic motivation to use technology.

Positive perceptions of teachers about the use of technology in educational contexts have also been reported. Simonsson (2004) investigated the attitudes of 103 elementary teachers toward the use of technology in teaching cultural issues. The teachers participating in the study believed that technology was beneficial in teaching cultural issues. Albirini (2006) carried out a study on Syrian teachers' attitudes toward information and communication technology. It was revealed that the teachers had positive attitudes toward the application of **ICT** in education. Teachers' attitudes were influenced by cultural perceptions, computer competence, and computer attributes. Lau and Sim (2008) investigated the extent of **ICT** adoption among secondary school teachers in Malaysia. It was revealed that Malaysian teachers held positive attitudes toward the adoption of **ICT** in schools.

The obstacles to implementing **CALL** and technology have been identified in the previous literature as well. In the study undertaken by Park & Son (2009), teachers perceived several external factors such as lack of time, lack of computer-based facilities, rigid textbooks and curricula, and lack of administrative support as important limitations of using technology. Internal factors, including lack of teachers' computer knowledge and their perceptions, were also other types of perceived limitations. Kim (2002) found some limitations such as lack of teachers' sufficient knowledge and computer competence, lack of experience, lack of time, computer anxiety and lack of confidence as the main barriers to the use of **CALL**.

Similarly, Shin and Son (2007) assessed Korean **EFL** teachers' perceptions and perspectives on Internet-assisted language teaching and found several limitations of using **CALL** including lack of time, lack of facilities and technical problems. In Atai and Dashtestani's (2011) study, several barriers to the use of the Internet in Iranian **EAP** courses including slow speed of the Internet, inadequate facilities at universities, and technical problems were found.

Some other studies have explored the attitudes of teachers toward some specific aspects of technology in **EFL** and educational contexts such as blogs, the Internet, and multimedia. These types of technology have frequently been researched in the previous literature. For instance, Sun (2010) reported on a study on challenges in including blogs in teacher education programs in higher education in Taiwan. It was depicted that pre-service teachers had positive attitudes toward the integration of blogs and found blogs useful tools. Timucin (2006) investigated the usefulness of multimedia and the impact of multimedia on teachers' attitudes. Employing questionnaires and interviews, the author found that teachers became involved in this type of technology and they became interested in the use of multimedia in their teaching. In a qualitative-quantitative survey, Atai and Dashtestani (2011) examined the attitudes of Iranian **EAP** stakeholders toward using the Internet in **EAP** courses. It was shown that **EAP** stakeholders, including **EAP** instructors, had positive attitudes toward the application of the Internet in Iranian **EAP** courses.

The issue of computer competence and literacy of teachers was the focus of some other studies (Oh & French, 2007; Park & Son, 2009; Rakes & Casey, 2000; Shin & Son, 2007; Son, Robb, & Charismiadji, 2011). The findings of these studies have shown that there is a close link between **EFL** teachers' attitudes, their confidence level and competence in using computers. For instance, Son, Robb and Charismiadji (2011) explored the perceptions of Indonesian **EFL** teachers of their computer literacy and factors that affect their use of computers. It was depicted that **EFL** teachers had positive attitudes toward the use of computers, though they did not use computers in their teaching practices. The participants were not competent enough to use computers in their courses. Kessler and Plakans (2008) examined the levels of confidence of **EFL** teachers in using technology in the **USA**. It was reported that the less competent teachers were less interested in using computers in their classrooms.

Daly (2003) argues that there are a lot of barriers to the implementation of **CALL** in developing countries including technophobia, lack of computer literacy skills, and resistance to switch from traditional approaches to teaching to **CALL** and technology-oriented approaches. As for the current state of the use of technology in Iranian educational courses, the limited research shows that technology is not commonly used by educational stakeholders (Atai & Dashtestani, 2011; Dashtestani & Sharifi, 2012; Mazdayasna & Tahririan, 2008; Mohagheghzadeh & Abdolahi, 2002; Taghva, 2001). Atai and Dashtestani (2011) argue that there are a lot of barriers to the use of technology in Iran. Furthermore, there is a need to conduct context-based and local studies on **EFL** teachers' attitudes toward using computers in **EFL** courses. Accordingly, there is a dearth of research on **EFL** teachers' attitudes toward **CALL** in Iran. Therefore, this study was conducted to investigate the attitudes of Iranian **EFL** teachers toward the use of **CALL** in their **EFL** courses. The main barriers to the inclusion of **CALL** in Iranian **EFL** courses were also explored. The current use of computers in Iranian **EFL** courses and strategies to include computers in **EFL** courses were further examined and discussed.

2. Research Questions

The following questions were addressed in this study:

1. What are the attitudes of Iranian **EFL** teachers toward the use of **CALL** in Iranian **EFL** courses?
2. What are the perceptions of Iranian **EFL** teachers concerning the main obstacles to the implementation of **CALL** in Iranian **EFL** courses?
3. What are the perceptions of Iranian **EFL** teachers of the strategies that should be adopted to include **CALL** in Iranian **EFL** courses?
4. What is the current state of the use of **CALL** in Iranian **EFL** courses? What types of **CALL** activities are currently practiced in Iranian **EFL** courses?

3. Method

3.1. Research design

The present study is designed on a qualitative-quantitative survey basis. Surveys are one of the most common methods of collecting data on attitudes and opinions from a large group of participants (Mackey & Gass, 2005, p. 92). The rationale for using questionnaires was that questionnaires allow researchers to gather information that participants are able to report about themselves, such as their beliefs and motivations (Mackey & Gass, 2005). Moreover, the interview phase of the study provided triangulated data to the data obtained from the questionnaire survey, administered to **EFL** teachers. Of all types of triangulation, methodological triangulation has been considered as the most frequent and the most important type of triangulation (Best & Kahn, 2006). The rationale for using interviews was that interviews provide researchers with information on factors which are not directly observable such as students' attitudes, perceptions, and opinions (Mackey & Gass, 2005). Non-participant observations were also used to obtain information about participants' behaviors and actions concerning the **EFL** context under study (Mackey & Gass, 2005).

3.2. Participants

A sample of 212 **EFL** teachers participated in the study and completed the questionnaire developed for the purpose of the study. Forty teachers also participated in the interview phase of the study. The sample included 114 females and 98 males with an age range of 20–43. The sample was selected from 13 different English language teaching institutes in the provinces of Tehran and Alborz in Iran. All of these participants had attended **EFL** training courses as a requirement of their employment. These teacher training programs are mostly held by institutes which are supposed to hire new teachers for their English language teaching departments. The participants' first language was Persian. A convenient sample was used for the purposes of this study. The **EFL** teachers were teachers of intermediate and advanced courses who taught **EFL** to male and female adults with different ages. The **EFL** students are mainly high school or university students who enroll in these **EFL** courses to improve their General English Proficiency (**GEP**) (see Table 1).

Table 1. Profile of the participants of the study

Gender	Male	98(46.23%)
	Female	114(53.77%)
Average Age	32.6 years old	
University degrees	No university degrees	8
	BA/BS holders	165
	MA/MS holders	39
	PhD holders	0
Average years of teaching experience	8.4 years	
Average years of computer experience	8.9 years	
Questionnaire participants	212	
Interview participants	40	
Observations	10 EFL classes	

3.3. Instrumentation

Triangulation of different research instruments has been stressed in language teaching and educational research methodology (Best & Kahn, 2006). Accordingly, three instruments i.e. questionnaires, semi-structured interviews, and non-participant observations were employed in this study.

3.3.1. Questionnaire. The first instrument used in this study was a questionnaire. First, the theoretical foundations of the study were established based on the current perspectives and trends in CALL teacher education and attitude-based studies (Albirini, 2006; Atai & Dashtestani, 2011; Aydin, 2012; Hubbard, 2008; Ismail, Almekhlafi, & Al-Mekhlafy, 2010; Jones, 2001; Kadel, 2005; Kassen, Lavine, Murphy-Judy, & Peters, 2007; Kessler, 2006; Kessler, 2007; Kessler & Plakans, 2008; Kim, 2002; Lee, 2000). After setting the theoretical framework of the study, preliminary observations and interviews were conducted with 10 EFL teachers in order to specify the layout and content of the questionnaire. Then, the questionnaire was drafted based on the theoretical perspectives and revised according to the comments received from a panel of 6 EFL experts concerning the relevance, format and clarity of the items to the intended respondents.

The questionnaire consisted of three sections with a sum of 56 items. At the end of each section, 3 open-ended items were included to explore the opinions of the participants on the problematic areas of each section. The first section of the questionnaire was designed to investigate EFL teachers' attitudes toward the application of CALL in EFL courses on a four-point Likert scale (from *do not agree* to *strongly agree*). The second section of the questionnaire examined the perceptions of EFL teachers concerning barriers to the implementation of CALL in Iranian EFL courses. This section was based on a four-point Likert scale ranging from *do not agree* to *strongly agree*. The third section of the questionnaire addressed the perceptions of EFL teachers concerning strategies to include technology in EFL courses on a four-point Likert scale from *not important* to *very important*.

The questionnaire employed in the study was piloted with representative samples of the correspondent group (EFL teachers). The Cronbach's Alpha analyses were conducted as

measures of consistency and a reasonably high range of reliability indices (0.84–0.91) was found. The content validity of the questionnaire was established by a panel of 6 EFL experts.

3.3.2. Semi-structured interview. Semi-structured interview questions were also developed for EFL teachers. First of all, the content and layout of the interview questions were determined based on the relevant literature and drafted and revised according to the feedback received from the panel of EFL experts. The interview questions explored the same issues raised by the questionnaire.

Specifically, the interview questions investigated some issues including the benefits of using CALL in EFL courses; the limitations of using CALL in EFL courses; strategies to include CALL in EFL courses; and current CALL-based activities practiced in EFL courses. The main objectives of conducting interviews were to cross-check and triangulate the results of the questionnaires.

3.3.3. Non-participant observation. The third instrument used in this study was a non-participant observation checklist developed for exploring the current situation regarding the use of CALL in Iranian EFL courses. Ten EFL classes were selected from ten language institutes, from which the participants were selected. The checklist included some items such as “CALL facilities in EFL courses”, “CALL awareness-raising by EFL teachers for students”, any use of “electronic dictionaries”, “emails”, “computer mediated communication (CMC)”, “word processors”, “the Internet”, “pedagogical software”, “visual aids”, and “computer-based assessment”. The observation checklist was checked by the panel of six EFL experts, and modifications and revisions were made on its content and language. The observation checklist was also piloted with an EFL class prior to its implementation.

3.4. Data analysis and procedure

The study was conducted in the summer of 2011. First, observations were conducted. Then, the questionnaires were administered to the EFL teachers. Finally, semi-structured interviews were conducted with the EFL teachers. The results of the questionnaires were analyzed through descriptive statistics using SPSS version 16. Content analysis and descriptive analysis were also used to analyze the results of the interviews and open-ended items of the questionnaire. The reliability of the questionnaire was established using Cronbach's Alpha Coefficient.

4. Results

4.1. Attitudes toward the application of CALL in EFL courses

As Table 2 illustrates, the total mean of the first section of the questionnaire was equal to 3.31 which shows that the participants had positive attitudes toward the use of CALL in EFL courses in general. More specifically, the teachers perceived the use of CALL as beneficial for increasing students' motivation, autonomy, self-confidence, and learning multi-cultural competence. Also, CALL was perceived to be important, facilitative, interactive, and time-and-energy efficient in EFL teaching. The participants further perceived that CALL facilitates their accessibility to information, professional development, use of different pedagogical options, and EFL assessment. Finally, the EFL teachers agreed or strongly agreed on some

benefits of **CALL** including teachers' interest in using **CALL** and learning about it, compatibility of technology and **EFL**, introduction of new roles for **EFL** teachers, and inclusion of variety in **EFL** courses.

Table 2. Questionnaire results for EFL teachers' attitudes toward the application of CALL in EFL courses

Items	Do not agree (%)	Fairly agree (%)	Agree (%)	Strongly agree (%)	Mean	SD
1. Technology facilitates the process of language teaching	3.8	5.7	6.6	84	3.69	0.76
2. CALL enhances students' motivation	6.2	13.7	31.6	48.5	3.22	0.90
3. Computers should be important and available to students	10	11.3	22.6	56.1	3.25	1
4. Technology can be easily combined with language teaching	6.6	14.2	19.3	59.9	3.32	0.96
5. Computers save teachers' time and energy	5.7	19.8	30.6	43.9	3.12	0.93
6. I am willing to learn how to use computers in language teaching	11.8	10.4	22.6	55.2	3.21	1.04
7. EFL classes should be equipped with computers	5.7	9.9	17	67.4	3.44	0.91
8. CALL can be used to teach different language skills and activities	4.3	8.5	14.6	72.6	3.55	0.82
9. Technology brings variety to language teaching courses	0.6	5.2	10.8	83.4	3.79	0.51
10. Technology gives EFL teachers different pedagogical options in their teaching	6.6	12.3	28.3	52.8	3.27	0.93
11. Having technological knowledge is very important for language teachers	12.8	17	27.3	42.9	3	1.06
12. It is easy to learn how to work with computers for teachers	5.2	22.2	32.5	40.1	3.08	0.90
13. Teachers should be encouraged to use technology in their classes	6.6	17	25	51.4	3.2	0.96
14. Using computers in EFL courses enhances students' autonomy and self-confidence	8.5	16.5	38.2	36.8	3.01	0.95
15. Computers are very effective to improve students' multi-cultural competence	10.9	17.4	28.3	43.4	3.04	1.03
16. Computers help teachers to assess students and provide students with appropriate feedback forms	5.6	9	38.2	47.2	3.26	0.86
17. Using computers in EFL classes facilitates access to information	6.2	6.1	19.3	68.4	3.51	0.86
18. CALL programs improve interactivity in EFL courses	7.6	8	19.8	64.6	3.40	0.94
19. Practicing CALL promotes teachers' professional development	5.3	4.2	14.1	76.4	3.63	0.78
20. Computers define new roles for language teachers	10.4	11.8	23.6	54.2	3.22	1.01

In order to cross-check the attitudes of **EFL** teachers toward the application of **CALL** in **EFL** courses, semi-structured interviews were also conducted. In general, the results of the interviews confirmed the results of the questionnaires. Most of the **EFL** teachers asserted that **CALL** is a beneficial support both for teachers and learners. They also reported that **CALL**

improves both quality and quantity of interactions in **EFL** courses. The participants also stated that computers are very useful especially in the field of language assessment. **CALL** was reported to facilitate the process of teaching for teachers. The **EFL** teachers also stated that the use of technology, especially the Internet, would enhance and update students' world and linguistic knowledge.

4.2. Barriers to the implementation of **CALL** in **EFL** courses

As Table 3 illustrates, the **EFL** teachers strongly agreed or agreed on some pragmatic constraints of implementing **CALL** such as lack of technology-based facilities, low availability of computers in **EFL** courses, and lack of educational authorities' support to include **CALL**. Low levels of teachers' and students' computer literacy, lack of **EFL** teachers' **CALL** methodological knowledge, and teachers' lack of knowledge and intervention in producing **CALL** materials were further considered as other barriers to the implementation of **CALL** in Iranian **EFL** courses. Injustice in using computers, and cultural resistance were other types of constraints perceived by **EFL** teachers.

Table 3: Questionnaire results for **EFL** teachers' perceptions of the obstacles to the implementation of **CALL** in **EFL** courses

Items	Do not agree (%)	Fairly agree (%)	Agree (%)	Strongly agree (%)	Mean	SD
1. Computers are not available in every EFL course	6.6	9	17.9	66.5	3.43	0.92
2. EFL students and teachers might be technophobic and anxious to use technology	13.7	45.3	19.3	21.7	2.49	0.99
3. EFL teachers have less control over their classes when CALL is implemented	31.6	39.2	16	13.2	2.1	1
4. It is hard to implement CALL in EFL classes	16	42.9	18.9	22.2	2.47	1
5. Using computers in EFL courses is energy-and-time consuming	26	47.6	15.1	11.3	2.11	0.92
6. Computers are very limited and cannot be used for different language skills and activities	46.3	34.4	10.8	8.5	1.83	0.95
7. CALL may cause injustice in education since some students are more familiar with computers than the others	9.4	10.4	26.9	53.3	3.6	0.97
8. Cultural resistances of students and instructors to use computers are an important obstacle to implement CALL	5.1	12.3	32.1	50.5	3.29	0.87
9. There is a lack of CALL -based facilities in EFL courses	5.2	2.8	19.8	72.2	3.59	0.78
10. Computers are inefficient to handle unexpected situations	28.7	38.2	20.8	12.3	2.16	0.98
11. Technology might be a distractor than an aid for language learners	29.3	30.2	23.6	16.9	2.29	1.06
12. CALL reduces the quality of interactions in EFL courses	32.1	46.7	12.7	8.5	1.99	0.90
13. It is difficult to produce computer-based materials for EFL teachers	8.1	24.5	29.7	37.7	2.97	0.97
14. Teachers' computer literacy is too low to develop computer-based materials	9.9	16	40.6	33.5	2.98	0.95

Items	Do not agree (%)	Fairly agree (%)	Agree (%)	Strongly agree (%)	Mean	SD
15. Teachers' and students' levels of computer literacy are too low to implement CALL	5.3	9.4	23.1	62.2	3.43	0.86
16. Teachers lack knowledge about CALL methodology and implementation	11.3	6.1	15.1	67.5	3.40	1.01
17. There is a lack of CALL teacher training/ education in teacher training (education) programs	1.4	5.2	13.2	80.2	3.74	0.60
18. CALL software is inadequate to meet students' needs	27.8	34.9	16.5	20.8	2.30	1.09
19. There is a lack of attention of educational course designers and supervisors to include CALL in EFL courses	3.9	11.3	33.9	50.9	3.32	0.83

In order to cross-check the **EFL** teachers' perceptions of the barriers to the implementation of **CALL** in **EFL** courses, semi-structured interviews were also conducted. The majority of **EFL** teachers expressed their concerns over the cultural obstacles in the way of using **CALL** and computers in **EFL** courses. They asserted that most educational stakeholders do not use computers for educational or academic purposes and computers are usually used for leisure or fun. There is also a belief among teachers and students that computers do not have the potential to be used in **EFL** courses. Also, the participants mentioned that there are a plethora of facility-based problems and shortages. The types of software appropriate to be used in **EFL** courses are not easily available to **EFL** teachers. Moreover, **EFL** classes are not equipped with suitable technological tools. Most computers and other technological tools are old-fashioned or out of order. Most **CALL**-based facilities are too expensive to be bought by teachers themselves as well. Curricular limitations were also another type of obstacle. Due to some curricular limitations, the **EFL** teachers were not allowed to use some aspects of **CALL** in their courses. The **EFL** teachers stated that there were some time limitations in **EFL** courses which prevented them from implementing **CALL** in their classes. Most teachers mentioned that they did not have adequate knowledge regarding **CALL** and its implementation in **EFL** classes. They reported that their current knowledge of **CALL** is achieved through experience and not through teacher training courses. In fact, **CALL** was not perceived to be a part of **EFL** teacher training courses.

4.3. Strategies to include technology in EFL courses

The majority of participants perceived some measures such as "inclusion of **CALL** in teacher training programs", "provision of adequate **CALL** facilities", "provision of adequate time for teachers to implement **CALL**", "funding teachers to have access to **CALL** software", "holding workshops and conferences on **CALL** and its implementation", "awareness-raising programs", "inviting teachers to take part in **CALL** materials development", and "updating teachers' knowledge about new **CALL** software" as *important* or *very important* to take in order to include **CALL** in Iranian **EFL** courses. (see Table 4).

Table 4: Questionnaire results for EFL teachers' perceptions of the strategies to include technology in EFL courses

Items	Do not agree (%)	Fairly agree (%)	Agree (%)	Strongly agree (%)	Mean	SD
1. Including CALL in teacher training/education programs	2.3	3.8	8.5	85.4	3.77	0.62
2. Funding teachers to purchase the necessary software to be used in EFL courses	6.3	10.8	31.1	51.8	3.29	0.89
3. Having workshops and meetings on how to implement CALL in EFL courses	5.1	5.7	28.8	60.4	3.44	0.82
4. Awareness-raising programs and sessions on the uses and benefits of CALL	7.1	10.8	18.9	63.2	3.38	0.94
5. Providing EFL teachers with adequate facilities to implement CALL	1.4	4.7	9.9	84	3.77	0.58
6. Providing EFL teachers with enough class time to implement CALL	6.7	7.5	13.2	72.6	3.50	0.91
7. Inviting EFL teachers to cooperate in CALL materials production projects	9.9	9.4	24.1	56.6	3.28	0.99
8. Updating EFL teachers' knowledge about new CALL software periodically	9	15.1	23.1	52.8	3.20	1

In order to cross-check the **EFL** teachers' perceptions of the strategies needed to include technology in **EFL** courses, semi-structured interviews were also conducted. The **EFL** teachers believed that they first needed to know how to use **CALL** in **EFL** courses. The participants stressed the inclusion of **CALL** teacher training courses, workshops, and meetings for teachers to be acquainted with the principles of **CALL**. Some **EFL** teachers asserted that educational supervisors were negligent to include **CALL** in their **EFL** programs. The **EFL** teachers voiced a need to change the attitudes of educational supervisors about the use of technology in language teaching contexts. As it was reported in the questionnaires, the **EFL** teachers demanded an improvement of **CALL**-based facilities in **EFL** courses in interviews as well.

4.4. The current use of technology in EFL courses

To examine the current use of technology in Iranian **EFL** courses, semi-structured interviews were conducted. Most **EFL** teachers asserted that they do not use technology and **CALL** in their classes. Few participants stated that they assigned some Internet-based projects or homework activities to their students. These activities were mostly out-of-classroom activities over which **EFL** teachers did not have enough supervision and intervention. The **EFL** teachers' common use of **CALL** was limited to some audio tracks played by mp3 player devices or computers (if there were any). These audio activities were a part of textbook activities developed for improving students' levels of listening.

Non-participant observations were also conducted to explore the current use of **CALL** in **EFL** courses. The results depicted that the **EFL** teachers did not use technology in their classes in general. There was no use of **CALL** activities including electronic dictionaries, e-mails, computer mediated communication (**CMC**), word processors, the Internet, pedagogical software, visual aids, and computer-based assessment. Moreover, there were not adequate **CALL** facilities in classes. Some classes were not equipped with computers, and

if they were, the computers were out-of-date and out of order. There was not any kind of awareness-raising on the use of **CALL** and computers for **EFL** students by the **EFL** teachers. Computers were mostly used for playing audio tracks of listening activities from textbooks.

The results of non-participant observations also showed that printed textbooks were the main teaching materials used by **EFL** teachers and students. There was no access to the Internet in **EFL** classrooms. The classes were not equipped with video projectors or interactive whiteboards. Traditional whiteboards were the main tool used in the classrooms. No type of Internet-based or computer-based homework was assigned for **EFL** students either.

5. Discussion

The findings suggested that Iranian **EFL** teachers had positive perceptions about the use of computers in **EFL** courses. The participants reflected their positive perceptions about **CALL** both in questionnaires and interviews. The positive attitudes of Iranian **EFL** teachers are a key factor in the implementation of **CALL** in Iran since Jones (2001) argues that **CALL** cannot be applied in **EFL** courses when the attitudes of teachers and students are not positive toward it. Considering the pivotal role of **EFL** teachers in language teaching contexts, **EFL** teachers who take positive attitudes toward technology can encourage their students to use technology in their learning practices accordingly. Some similar merits of using **CALL**, including efficiency in time and energy, easy access, and interactivity were also identified by Atai & Dashtestani (2011) regarding using technology in Iranian **EAP** courses. Parts of the findings are consistent with Ismail, Almekhlafi, & Al-Mekhlafy (2010) who identify similar benefits of **CALL** including increase in students' motivation and autonomy, improvement of different language skills and activities, interactivity, and possibility of using computers in language learning assessment. Educational authorities are recommended to take these positive attitudes of **EFL** teachers into consideration and make attempts to design future **EFL** courses based on what teachers and students perceive and need.

As for the perceptions of **EFL** teachers concerning barriers to the implementation of **CALL** in Iranian **EFL** courses, it was depicted that there were several obstacles to implementing **CALL** in Iranian **EFL** courses. The results of the present study are commensurate with the previous literature which points to external limiting factors to the inclusion of technology, including time constraints, lack of computer-based facilities, lack of financial and technical support, inadequate teacher training programs, and rigid curricula (Atai & Dashtestani, 2011; Lam, 2000; Shin & Son, 2007; Smerdon, Cronen, Lanahan, Anderson, Iannotti, & Angeles, 2000; Toprakci, 2002). The results of this study were also consistent with prior research which identified the internal factors which limit the use of **CALL** including teachers' lack of knowledge and resources, lack of experience and access to **CALL**-based materials (Atai & Dashtestani, 2011; Kim, 2002; Lam, 2000; Son, Robb, & Charismiadjji, 2011). It is important that both internal and external factors which affect the use of technology in **EFL** courses be identified and eliminated. The findings depicted that both internal and external factors, which limit the use of technology in **EFL** courses, exist in Iranian **EFL** contexts. These obstacles might be the major factor which discourages **EFL** teachers from using computers in **EFL** courses. A serious obstacle which was reported in questionnaires, interviews, and observations, was the lack of technological facilities. This lack might be caused by educational authorities' disinterest in including technology, lack of financial resources, or belief in sticking to traditional approaches to **EFL**.

Regarding the perceptions of **EFL** teachers of strategies to be adopted to include **CALL** in

Iranian EFL courses, the participants mentioned different strategies and measures to facilitate the inclusion of CALL into EFL curricula. One important strategy which has also been echoed in the previous literature (Hubbard, 2008; Kassen, Lavine, Murphy-Judy, & Peters, 2007; Son, Robb, & Charismiadj, 2011) is the need to include teacher preparation programs for EFL teachers on how to use technology in EFL courses. EFL educational authorities are invited to take heed of the strategies suggested by EFL teachers in this study and identify appropriate ways to integrate technology into Iranian EFL courses.

The results of interviews and non-participant observations concerning the current use of technology in Iranian EFL courses suggest that the EFL teachers did not make use of CALL activities and technology in their classes. There were just some limited textbook-based audio activities. Also, the facilities were not adequate to implement CALL. The results are in line with the previous studies in which there was a discrepancy between teachers' attitudes and beliefs and the actual use of computers and technology in their classes (Atai & Dashtestani, 2011; Eugene, 2006). Even though the EFL teachers had positive attitudes toward the use of technology in this study, they did not make use of technology in their courses. This paradox might exist because of the barriers and limitations that were discussed earlier. EFL teachers' positive attitudes toward CALL will not guarantee that they will use CALL in their courses. Obviously, EFL teachers should be supported and encouraged to use technology.

6. Limitations

The first limitation of this study was that there were a few double-barreled items in the questionnaire. These items were developed to curtail the length of the questionnaire and reduce the number of items, however they might have caused some inaccuracies in the responses of the participants. Another limitation was that only one specific group of EFL teachers were selected to participate in the study. Other groups of EFL teachers, including university teachers and school teachers, could have provided useful data for the purposes of this study.

7. Conclusion

The general results illustrated that the EFL teachers who participated in the study have positive attitudes toward the use of CALL in their EFL courses. They also pointed to several rationales for using CALL in their classes both in interviews and questionnaires. The findings of the study might be a database for EFL course designers and authorities in Iran to set their goals and objectives based on realistic needs and perceptions of EFL teachers and students. As teachers play an important role in EFL curricula, their perceptions and positive reactions should be acknowledged and implemented in future course designing and curriculum planning practices. Although this study depicted positive attitudes of Iranian EFL teachers toward CALL, more specific studies are required to investigate the perceptions of Iranian EFL teachers about more specific types and uses of technology in EFL courses. What is important is that we need positive attitudes of EFL teachers toward computers to implement CALL in EFL courses.

Furthermore, it can be concluded that there are serious limitations and obstacles to the use of CALL in Iranian EFL courses. If EFL authorities and course designers do not eliminate these limitations and barriers, the positive attitudes of EFL teachers toward CALL may be

changed or affected in future. The study gave support to the fact that there is an obvious discrepancy between Iranian **EFL** teachers' perceptions of technology and the actual implementation of technology in their courses. One justification for this discrepancy of perceptions and the actual use of technology might be the existence of different types of limitations and barriers to the use of **CALL** in Iranian **EFL** courses. The gap between Iranian **EFL** teachers' perceptions and actual use of technology should be identified and removed in future course designing activities. Thus, **EFL** educational supervisors should strive to match what is actual with what is desired in Iranian **EFL** courses. More specifically, **EFL** teachers should be motivated and encouraged to make use of various types of technology in their courses. Educational authorities and course developers are invited to detect and overcome these barriers if they deem that technology should be included in Iranian **EFL** courses.

As the findings suggested, lack of computer-based facilities is a serious problem which was confirmed in questionnaires, interviews, and observations. **EFL** teachers should be equipped with appropriate pedagogical software types and computer-based facilities if they are supposed to use technology in their courses. This calls for the attention of **EFL** educational authorities and supervisors who are responsible for providing **EFL** teachers with adequate and sufficient facility-based supports.

It was further concluded that several strategies and measures might be taken to facilitate the implementation of **CALL** in Iranian **EFL** courses. Most of these strategies should be actualized by educational authorities in order to include **CALL** in **EFL** courses. Some of these strategies can be incorporated into teacher education courses. As it has been pointed out in several studies too, **CALL** teacher training courses might improve teachers' computer competence and their confidence levels concerning the use of technology in **EFL** courses. If **EFL** instruction is supposed to reach maximum efficiency, it should remain accountable to attitudes and perceptions of **EFL** teachers. In addition, more studies are required to explore specific strategies and measures that **EFL** stakeholders recommend for including technology in Iranian **EFL** courses.

It is equally important to include specific teacher education/training courses to improve **EFL** teachers' computer literacy. Alternatively, training on computer literacy skills necessary for **EFL** teaching should be incorporated in **EFL** teacher education/training programs. We need more research and insights into types of computer literacy skills which are relevant to **EFL** teaching in different contexts and cultures.

Finally, it is not technology or computers which improve **EFL** teaching but the way **EFL** teachers make use of technology for their teaching purposes. Future research should focus on identifying the most appropriate uses and applications of technology in different **EFL** contexts. We certainly need more context-embedded and situation-based research to improve the status quo concerning the use of technology in **EFL** contexts.

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