



King Saud University
**Journal of King Saud University –
 Languages and Translation**

www.ksu.edu.sa
www.sciencedirect.com



ORIGINAL ARTICLE

EFL female faculty members' beliefs about CALL use and integration in EFL instruction: The case of Saudi higher education

Saad Ali Alkahtani

Department of Teacher Preparation, Arabic Language Institute, King Saud University, Saudi Arabia

Received 17 March 2010; accepted 17 May 2010

Available online 20 May 2011

KEYWORDS

Computer-assisted language learning;
 CALL;
 Beliefs and conceptualizations;
 Female faculty members;
 Higher education

Abstract The researcher investigated female English as a foreign language (EFL) faculty members' beliefs about computer-assisted language learning (CALL) use and integration in EFL instruction at four Saudi universities. The study also examined the EFL female faculty's perspectives of computer-assisted language learning usage and its implementation in language teaching and learning. The researcher used questionnaires and interviews to gather data. No significant differences among female EFL faculty members were found in terms of age, academic title, teaching experience, and computing proficiency level that may have affected their use of CALL in EFL instruction.

© 2011 King Saud University. Production and hosting by Elsevier B.V. All rights reserved.

1. Introduction

Computer-assisted language learning (CALL) has become an effective means of solving many problems that have existed in language instruction as a whole and EFL instruction in particular. Many scholars suggest the use of CALL as a tool with

which to treat canned knowledge. Bush (1997) explained why CALL is used and integrated into classrooms:

It is effective for delivering instruction; it has unique pedagogical value; it enables teachers to better address students' need for individualization; it will help students better relate to life in the information age; it can potentially inform the foreign language education profession about the nature of language and how it is learned. (p. 301)

With this in mind, the present study is an attempt to shed light on the female EFL faculty members' beliefs about CALL use and integration in EFL instruction in Saudi higher education at the following four Saudi universities:

1. King Saud University (KSU) in Riyadh,
2. Imam Mohammed Bin Saud Islamic University (IMIU) in Riyadh,
3. Umm Al-Qura University (UQU) in Mecca, and
4. King Khalid University (KKU) in Abha.

E-mail address: alkahtan@ksu.edu.sa

2210-8319 © 2011 King Saud University. Production and hosting by Elsevier B.V. All rights reserved.

Peer review under responsibility of King Saud University.

doi:10.1016/j.jksult.2011.04.004



Production and hosting by Elsevier

The study also examined the female EFL faculty's perspectives of CALL usage and its implementation in language teaching and learning. Moreover, the study explored the state of CALL in EFL programs at the four universities and the ways in which female faculty members perceive its applications in EFL instruction to promote their students' linguistic skills. It is the researcher's hope that this study contributes to the field of applied linguistics in general and to CALL use and integration in EFL instruction in particular.

This study addressed female perspectives in reference to the investigation of the amount of proficiency in using CALL within Saudi higher education programs. Today, teachers can choose among different types of technologies that help build learners' English linguistic skills. Technologies can be used to improve English reading and writing skills by including visual technology or images for better understanding. Though CALL may have negative aspects, such as the need to devote some classroom time to teaching computer skills to novice users, the researcher believes that CALL should be used by language teachers and English faculty members to assist in their teaching and facilitate their students' learning. Baek et al. (2008) mentioned many different reasons for teachers to use technology in language teaching: adapting to external requests and others' expectations; deriving attention; relieving physical fatigue; class preparation and management; and utilizing the enhanced functions of the technology. Because foreign language program coordinators have an obligation to integrate CALL into their departments and help faculty members to use technology, Scott (1998) insisted that technology has an important influence on faculty and curriculum and predicted a bright future for Internet technology, which will continue to expand language faculty resources to the extent that they will be obliged to redefine their goals and course contents accordingly.

This work is meant to help female EFL faculty members at these universities to better understand the benefits of CALL usage in their teaching and to provide administrators with baseline data about CALL to aid in their strategic planning of integrating CALL into their departments. It can be said that an appropriate use of CALL is a matter related to individual differences rather than a contextual setting. Beliefs, knowledge, background, and experiences play an important role in making teachers/learners differ from one another. In other words, after having access to CALL equipment, teachers and learners are the ones who decide whether to use it in language teaching and learning. There are teachers who are accustomed to traditional ways of teaching who may not be ready to use other means. Improving learning by providing these teachers with modern equipment is conducive to success.

The study aims to fulfill the following purposes:

1. To explore how available CALL resources can be best used by female faculty in English departments at the four selected Saudi universities.
2. To inform EFL female faculty beliefs about CALL use and integration in EFL in Saudi higher education.
3. To discuss how female EFL faculty members can use CALL in EFL instruction to develop their students' language skills.

Research questions:

1. What are female EFL faculty members' beliefs about CALL use and integration in EFL instruction?
2. How do female EFL faculty members' beliefs and conceptualizations about CALL affect their use of CALL in EFL instruction at the four universities?
3. What English linguistic skills can be supported by using available technologies and how can available technologies be used in teaching those skills?
4. Are there any significant statistical differences among female EFL faculty members at the four studied Saudi universities in terms of age, academic titles, teaching experience, and computer proficiency level which may affect their use of CALL?

2. Review of related literature

2.1. Integration of CALL

Integrating computers into classroom practice means using technology to help students achieve desired learning outcomes and to enhance students' learning experiences by providing them with resources, opportunities, and tools that would otherwise be unavailable. There are three levels of integration, according to the Information and Communications Technology for Language Teachers (ICT4LT) site: "Integration at institutional level, integration at departmental level, and integration at the individual teacher."

2.1.1. Integration at the institutional level

McCarthy (1999) integration is invaluable among the different levels and ways for an organization to be successful and be able to lead to successful learning. McCarthy used the case of a secondary school that had a school-wide policy regarding the use of ICT (information and communication technologies) to which all departments have contributed, which determines what hardware should be purchased, where it should be located, who should have access to it, and when and how frequently it may be used. Such a policy should also contain some technical support and network management. Without complete integration, a policy will not be successful.

2.1.2. Integration at the departmental level

Each institution needs a private statement policy. Once this policy is established, work can be accomplished smoothly. Departments will need to formulate their ICT policies according to their work planning for each year group or teaching group. Creating policy is the most important step for any classroom teacher because it can create a balance between providing ICT resources and their use by staff and students in teaching groups. These ICT resources should have specific usage definitions to present to specific year groups or individual classes.

Benefits should be clear in developing language learning skills. It is important for departments to realize when ICT resources are inappropriate for students to use. For example, according to the ICT4LT site, it cannot be sensible to allow students to spend an hour creating a poster using

a graphics package if 50 min of the hour are spent on layout and the location and importing of clipart, with 10 min dedicated to generating the text. Decisions should be made by individual teachers on how and when to use software in lessons.

2.1.3. Integration and the individual teacher

It is important to consult with an expert in CALL use when organizing a work scheme because his or her knowledge will help the job to go smoothly. Teachers must achieve a certain level of skill to effectively use CALL. They must then transfer these high-quality skills to students in order to raise students' learning capabilities and to smoothly integrate CALL into the class work. The ICT4LT site provides examples and suggestions for teachers:

- (a) Your students are adequately prepared linguistically and technically to use the package.
- (b) You have produced necessary files and/or documentation.
- (c) You have made arrangements necessary to gain access to the hardware that you require at a time which enables you to use the ICT at the correct point in your teaching sequence.
- (d) You follow up its use by recycling the language learned in new contexts in subsequent lessons, using whatever resources are appropriate.
- (e) You might also want to devise a short assessment task to check on the success or otherwise of the CALL session. (ICT4LT English Modules, 2008, para. 1).

A study on integration technology in the classroom by Alm (2008) found that integrating any kind of Internet technology in the classroom as an aid helped and motivated learners. In his study, Alm used video documents through blogs and wikis for foreign language instruction. This approach provided students with a cultural and linguistic context. The foreign language used within this study was German. The students showed wonderful results in acquiring the language. Alm created what he called a "German YouTube soap opera." The video was divided into two parts. The first part consisted of conventional comprehension and practice tasks, and the second part encouraged a learner-centered learning style. The latter is important because ignoring a learner's learning style is considered one of the obstacles facing education. To solve this predicament, basics need to be followed and technologies need to be adapted. CALL is a new technology, especially in Saudi Arabia, since it is relatively unavailable there. In Saudi Arabia, some universities still depend on traditional ways of learning. CALL has various directions that can be applied (Ducate and Arnold, 2006; Levy and Stockwell, 2006). Usually, the first obstacle facing teachers when considering the integration of CALL is design. CALL materials can become more financially or technically complex and demanding as time progresses. Also, with so many CALL programs to choose from, a teacher can become confused about which one is ideal for his or her situation. Concerning this case, Levy and Stockwell mentioned practical applications of CALL that can be used in teaching different language skills, such as listening, reading, writing, and speaking. They can also be used in areas such as building vocabulary, grammar exercises, and pronunciation practices. According to Chylinski (2005), "As the field of CALL grows and expands so does the number of ways that CALL can be

implemented. Methods of 'doing' CALL vary from place to place and depend upon many factors" (p. 1). Chylinski discussed what role in language instruction CALL can most affect. Zhao and Tella (2002) expressed the need to have extensive research studying the integration of CALL.

The kind of social and organizational arrangements that promote technology use by teachers is another area that needs further exploration. Some of the persistent issues include the following: Why do only few teachers in a particular school use technology? How can we help bring exemplary teacher's practices into the next-door classroom? What kind of professional development is more effective in promoting technology integration? Which institutional policies result in more rapid adoption of technology? (as cited in Chylinski, 2005, p. 10)

In the past two decades, linguists have been obsessed with the technological revolution and how to deal with it. Herron and Moos (1993) reiterated the aforementioned concerns by stating, "One of the major concerns facing the foreign language teaching and literature profession is how to integrate new technological advances into instruction" (p. 271).

Integration needs strategies and, in the case of CALL, it needs strategies and implementers. As technology advances, so do teaching techniques. Today, there is mobile-assisted language learning (MALL). Mobile devices are used for making a call or sending a text message, but not necessarily for learning. Mobile technology is undergoing rapid revolution. In the future, mobile devices will likely be depended upon for facilitating and motivating learning.

A study by Kukulska-Hulme and Shield (2008) showed good feasibility for the intentions of the coming generations using mobile technologies. They suggested that through mobile devices, a person can be connected synchronously and asynchronously. Mobile technology could be the only technological device that it is rapidly becoming integrated in every aspect of most people's lives.

CALL has several advantages. Flexibility of time (Ahmad et al. (1985)) and location independence (Yang, 1998) facilitate a learner's need in the learning process and provide more chances to study at any time and in any location. These are suitable conditions for distance language education (DLE). Through the Internet, students can attend the virtual classroom without physically being present in the classroom. They can enroll in any courses that they want without leaving their homes. Many universities offer online courses in numerous degree and certificate programs. The Internet goes beyond boundaries of place and time.

More notably, a computer increases students' interests in language and language learning (Ahmad et al., 1985; Larsen, 1983; Warschauer and Meskill, 2000). Computers act as tutors and tools (Ahmad et al., 1985; Levy, 1997; Philips, 1987; Taylor, 1980). The computer as a tutor means that a computer does the job of a teacher, checking, supervising, and testing students. This role would be ideal in a world in which students knew how to use computers naturally and without assistance from another person. But most need assistance, especially early on in the use of a computer.

The concept of a computer as a tool is feasible. The computer behaves as an assistant that helps the teacher deliver information to students. Also, it helps students to acquire language through the use of many multimedia programs. A tea-

cher or student can control the computer and determine what benefits he or she hopes to achieve. Computers are considered mirrors that reflect human beings' brains and great human resources and energy. Ahmad et al. (1985) commented on this thought.

Far from threatening the teacher's position, it (the computer) is totally dependent on the teacher in many ways: for example, it is unable to create educational materials without a human to direct it. All the linguistic material and instructions for its presentation must be specified by the teacher. It is the teacher, then, who can make the computer assume various roles. (p. 2)

Bull and Zakrzewski (1997) warned, "Learning technology is rarely effective unless it is properly and thoughtfully integrated into the curriculum" (p. 19). Bacon (1996) stated, "The integration strategy adopted by the lecturer is widely recognized within the learning technology community as being more critical in the success or failure of introducing a new resource into teaching than the quality of the resource" (p. 19).

The concept of integration leads to another idea about factors that affect CALL. The researcher observed through reading about CALL integration that not only are materials and machines needed for CALL to function properly, but attention must be given to how those materials and machines are used by teachers and students. Attention must be given to the methodology in order for CALL to function properly. Based on that information, the researcher believed that it would be a place for a successful integration of CALL. As Bacon confirmed, "Teaching staff must understand what the software is designed to achieve and agree with the teaching strategy being used" (p. 40).

2.2. Faculty members' beliefs about CALL

There is increasing recognition that the beliefs that individuals hold are the best indicators of the decisions that they make during the course of everyday life (Bandura, 1986). A teachers' role in accepting or resisting CALL is important, since this is an area in which teachers differ. Some accept this new technology and others do not. It depends on their beliefs.

In a study by Anderson (1991) about computer technology and CALL, the author provided the following advice: "Technology is changing so quickly, it is our task as administrators or teachers to be aware of the waves, to look critically at them and judge how effective are these tools for teaching and learning" (p. 25). Using CALL is necessary with all these ongoing changes and issues related to the immobility of the classroom. This is a good reason to take a step forward in studying what makes EFL classrooms so uninteresting. Academic researchers need to look for the missing link.

Some teachers do not use CALL unless they benefit from its positive effects. Abdal-Haqq (1995) argued that teachers are not integrating new and advanced technologies into their syllabi, possibly because teacher education in computers often focuses on "older and simpler instructional applications of computer technology" rather than multimedia, problem-solving applications, and other newer tools. In short, teachers cannot implement what they do not know about.

In another study, Grau (1996) found that after a semester-long technology course, only 22% of the pre-service teachers rated their computer skills as being above average, and the

same percentage rated them below average. Twenty-five percent of his participants did not use computers at all in their first year of teaching. This explains teachers' different beliefs toward using CALL if they do not know about it or have never used it. The integration of computers into the classroom is a matter of teachers' perceptions. Also, various factors, such as professional background, might influence these beliefs and practices.

Kim (2008) investigated instructors' teaching beliefs. The study examined 10 ESL/EFL teachers who enrolled in both a teacher education program and an advanced program for a certificate of educational technology. The findings suggested that these teachers' perceptions and expectations of computers favored their use as instructional tools. In spite of the recommendations in the literature of CALL, ESL/EFL teachers' perceptions of the role of computers are limited to a supplemental and instructional tool in their language classrooms.

Steel (2006) applied her study to three participants known by the pseudonyms Kara, Jack, and Tulula. She examined the influence of teacher beliefs on Web-enhanced learning experiences for each participant separately. The following details Kara's beliefs about Web technologies:

My beliefs are that as a teacher you need to be pedagogically aware and obviously have good discipline knowledge. You need to be aware that technologies by themselves are not going to do the job for you. You, as a teacher, have to take the tool and combine that with your innate educational capabilities to create a learning environment. (p. 799)

Al-Shammari (2007) investigated Saudi EFL learners' attitudes toward CALL at the Institute of Public Administration (IPA) in Saudi Arabia. He found that EFL learners' attitudes were positive and the *t*-test findings showed that Saudi female EFL learners had more positive attitudes toward CALL than their male counterparts.

The teachers' roles, which are directed by their beliefs, should be multidimensional. Teachers should care for students' needs and potentials to promote language proficiency development in CALL classrooms. Bringing multimedia technology to schools can make a difference. This technology will pave the way for CALL to be easily and quickly integrated. Also, it would develop the skills of listening, speaking, reading, and writing, which are crucial skills in language learning. After all, multimedia tools included computer-generated sound, graphics, and animation, along with sound and visual forms (Forcier and Descy, 2002). Exploited purposefully, a computer-assisted learning environment can be enriched through interactive learning (Neo and Neo, 2002). Galligan (1995) asserted the teacher factor as being "critical to the effective use of computers for learning." At the end of the day, it is the teacher who "remains the primary director of learning" (Murray and Barnes, 1998, p. 251) (as cited in Ramanair and Sagat, 2007, Multimedia technology section, para. 3).

3. Research methodology

The researcher used two sources of data, questionnaires and interviews, to collect quantitative and qualitative data. Descriptive research is one of the most commonly used

methodologies in examining facts about people, their opinions, and their attitudes. In descriptive research, “the researcher does not manipulate variables or control the environment in which the study takes place. Its purpose is to systematically describe the facts and characteristics of a given phenomenon, population, or area of interest” (Merriam and Simpson, 1995, p. 61). In this study, the final version of the questionnaire was administered to all EFL female faculty members at the four Saudi universities. In addition, a semi-structured interview was used to gather information about teachers' opinions on CALL and technology.

4. Data analysis

4.1. Research question 1: What are female EFL faculty members' beliefs about CALL use and integration in EFL instruction?

In order to answer this question, the data was presented in descriptive statistics through frequency counts, percentages, means, and standard deviation for each separate phrase. The researcher followed the following criterion in answering this question:

To identify the length of the 5-point Likert-type scale (the minimum and the maximum), the range was calculated ($5 - 1 = 4$). The range was then divided by the greatest value to obtain the length of the cell ($4 \div 5 = 0.80$). After that, the least value in the scale was added (the scale began with number one) to identify the maximum of this cell. The length of the cells is shown in Table 1. This table shows the distribution of the cells' length according to the 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Table 2 shows the mean scores of female EFL faculty members' beliefs on positive statements about CALL use and integration. To determine the strength of the value of the mean, if the score of the mean was between 4.20 and 5, it indicated a

strongly agree degree from the participants' points of view. A mean score between 3.40 and < 4.20 indicated an *agree* degree from the participants' points of view. A mean score between 2.60 and < 3.40 indicated *neutral* agreement; between 1.80 and < 2.60 , *disagree*; and < 1.80 , *strongly disagree*. The following are the findings as shown in Table 2:

- (a) Statement 1, *CALL could help enhance the quality of language teaching and learning*, ranked first with a *strongly agree* degree ($M = 4.23$), suggesting that 84.6% of the female EFL faculty members at the four universities responded positively to that statement.
- (b) Statement 2, *Computers will help students relate better to life in the information age*, ranked second with an *agree* degree ($M = 4.04$), suggesting that 80.8% of the female EFL faculty members at the four schools responded positively to that statement.
- (c) Statement 3, *CALL will enable language teachers to address their students' individual needs in a better way*, ranked third with also an *agree* degree ($M = 3.86$), suggesting that 77.2% of the female EFL faculty members at the four schools responded positively to that statement.
- (d) Statement 4, *Computer will change the way teachers live and work in the future*, ranked fourth with an *agree* degree ($M = 3.81$), suggesting that 76.2% of the female EFL faculty members at the four schools responded positively to that statement.

Table 3 shows the distribution of the cells' lengths according to the 5-point Likert scale from 1 (*strongly agree*) to 5 (*strongly disagree*). Table 4 shows the mean scores of female EFL faculty members' beliefs on negative statements about CALL use and integration in EFL instruction. To determine the strength of the value of the mean, if the score of the mean was between 4.20 and 5, it indicated a *strongly disagree* degree

Table 1 The range of agreement with the relevant value.

The range of the agreement	Value of the mean
Strongly disagree	< 1.80
Disagree	From 1.80 to < 2.60
Neutral	From 2.60 to < 3.40
Agree	From 3.40 to < 4.20
Strongly agree	From 4.20 to 5

Table 3 The range of disagreement with the relevant value.

The range of the disagreement	Value of the mean
Strongly disagree	From 4.20 to 5
Disagree	From 3.40 to < 4.20
Neutral	From 2.60 to < 3.40
Agree	From 1.80 to < 2.60
Strongly agree	< 1.80

Table 2 Findings of beliefs on positive statements of RQ 1.

Variables		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	S.D.	Rank order
CALL could help enhance the quality of language teaching and learning.	<i>F</i> 4	1	28	71	85		4.23	0.873	1
Computers will help students relate better to life in the information age	% 2.1	0.5	14.8	37.6	45.0				
CALL will enable language teachers to address their students' individual needs in a better way	<i>F</i> 2	7	36	81	63		4.04	0.877	2
Computers will change the way teachers live and work in the future	% 1.1	3.7	19.0	42.9	33.3				
CALL will enable language teachers to address their students' individual needs in a better way	<i>F</i> 3	4	55	81	46		3.86	0.864	3
Computers will change the way teachers live and work in the future	% 1.6	2.1	29.1	42.9	24.3				
CALL will enable language teachers to address their students' individual needs in a better way	<i>F</i> 6	8	39	98	38		3.81	0.912	4
Computers will change the way teachers live and work in the future	% 3.2	4.2	20.6	51.9	20.1				

Mean scores on female EFL faculty members' beliefs on positive statements about CALL use and integration.

Table 4 Findings of beliefs on negative statements of RQ1.

Variables		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	S.D.	Rank order
It is too late for me to learn about computers and their application in language teaching	<i>F</i> 113 % 59.8	43 22.8	26 13.8	2 1.1	5 2.6		4.36	0.944	1
Computers and their related technologies will replace language teachers in the future.	<i>F</i> 68 % 36.0	56 29.6	49 25.9	12 6.3	4 2.1		3.91	1.030	2
CALL is not better than any other traditional teaching method	<i>F</i> 60 % 31.7	55 29.1	44 23.3	24 12.7	6 3.2		3.74	1.132	3
Computers will shift the class time to be spent on learning computer skills rather than on language learning	<i>F</i> 16 % 8.5	61 32.3	74 39.2	33 17.5	5 2.6		3.26	0.936	4
Computers will allow students to access possible linguistically incorrect contents on the Internet	<i>F</i> 7 % 3.7	12 6.3	68 36	90 47.6	12 6.3		2.53	0.854	5

Mean scores on female EFL faculty members' beliefs on negative statements about CALL use and integration.

Table 5 Comparison between traditional and modern teaching methods.

Traditional teaching methods	Modern teaching methods
Textbooks	Computers
Pen, pencil	Mouse, keyboard
Blackboard	Smart board
Book references	Website references
Heavy books	CDs
Regular education	Distance education
Post communication	Network communication (e.g., LAN, MAN, and WAN)

from the participants' points of view. A mean score between 3.40 and <4.20 indicated a *disagree* degree from the participants' points of view. A mean score between 2.60 and <3.40 indicated *neutral* agreement; between 1.80 and <2.60, *agree*; and <1.80, *strongly agree*. The following are the findings as shown in Table 4:

- Statement 1, *It is too late for me to learn about computers and their application in language teaching*, ranked first with a *strongly disagree* degree ($M = 4.36$), suggesting that 87.2% of the female EFL faculty members at the four universities responded negatively to that statement.
- Statement 2, *Computers and their related technologies will replace language teachers in the future*, ranked second with a *disagree* degree ($M = 3.91$), suggesting that 78.2% of the female EFL faculty members at the four universities responded negatively to that statement.
- Statement 3, *CALL is not better than any other traditional teaching method*, ranked third with a *disagree* degree ($M = 3.74$), suggesting that 74.8% of the female EFL faculty members at the four universities responded negatively to that statement. Table 5 presents a comparison between traditional and modern teaching methods.
- Statement 4, *Computers will shift the class time to be spent on learning computer skills rather than on language learning*, ranked fourth with a *neutral* disagreement

($M = 3.26$), suggesting that 65.2% of the female EFL faculty members at the four schools responded neutrally to that statement.

- Statement 5, *Computers will allow students to access possible linguistically incorrect contents on the Internet*, ranked fifth with an *agree* ($M = 2.53$, suggesting that less than half of the female EFL faculty members at the four schools (50.6%) responded negatively to the statement. The rest of the female EFL faculty members (49.4%) responded positively, meaning that they agreed that computers may allow students to access possible linguistically incorrect contents on the Internet.

The findings of question 1 showed positive beliefs toward the use of CALL in EFL instruction. Most female EFL faculty members in the study believed that the use and integration of CALL could be an effective way of teaching EFL. Overall, female EFL faculty members' beliefs toward the use of CALL were positive, even though they had difficulties putting their beliefs about CALL into practice. The difficulties seem to be caused by deterring factors, such as lack of appropriate technical, financial, and training support.

4.2. Research question 2: How do female EFL faculty members' beliefs and conceptualizations about CALL affect their use of CALL in EFL instruction at the four universities?

Research question 2 was qualitative in nature and served to reinforce the quantitative analysis in question 1. The researcher interviewed some female EFL faculty members in order to answer this question. The interviews were intended to further probe some issues that were not answered by the questionnaire data. The findings of the interviews brought forth an answer for research question 2. To specify the findings, interview question 2 was taken into consideration: *Do we really need to use CALL technology in EFL instruction? If yes, what benefits do CALL provide EFL instructors with that are not provided by other teaching means?*

Although the answers to the questions related to beliefs are undoubtedly complex, investigating teachers' beliefs is

important for the success of any language program. Fer-naández (2001) described teachers' beliefs:

If the teacher does not agree with the system he is using, with the method, with the quality of the software his students are using; if he believes that the software is not the appropriate one for his students to reach their objectives, and in sum, if there is a lack of motivation or an unfavorable attitude on the part of the teacher, this attitude will be directly transmitted to the student and the system will fail. (p. 8)

Teachers are the decision makers who lead the entire process of learning and teaching. Faculty members' views may differ according to personal experience, age, academic titles, teaching experience, and CALL proficiency level. Nearly all of the female EFL faculty members in this study agreed on the importance of using CALL technology in EFL instruction. Some considered it as interesting method that sought authentic resources for learning a language. A participant from UQU confirmed this point: "Sure, we need to use CALL technology to: make the class more interesting, make use of technology, expose students to more authentic language, and encourage them to use such technology to improve their language."

Another participant from IMIU saw CALL as a way of helping students to overcome their anxieties and acquire languages unconsciously:

CALL opens up doors for students to be able to learn by being engaged in using the computer and the Internet without the regular pressure of being dictated by a teacher. This way, the students learn as they go along without really being aware of it.

A second participant from IMIU added that CALL "also provides fresh resources in any field of language teaching."

In terms of CALL benefits, CALL can provide female EFL faculty members with benefits similar to those revealed by Mumtaz (2000): "making the lessons more interesting, easier, more fun for them and their pupils, more diverse, more motivating for the pupils and more enjoyable" (p. 5). This comment reflects what one of the participant from IMIU mentioned: "Moreover, I think that the use of CALL increases students' interest and involvement in the learning process and leads to more learner autonomy."

From KSU, a participant thought of computers as being a practical source of everything in academic life: "We need to use computers because many libraries, dictionaries, books, programs, and references can be easily accessible."

The fact that computers facilitate learning and teaching in general and English language learning and teaching in particular, was included in the answer of one participant from KKU: "computers facilitate language teaching/learning. Students receive more and more accurate information expressed by computers rather than that provided by traditional way of explaining lessons."

From the qualitative and quantitative responses to questions 5 and 6, it is clear that female EFL faculty members had positive feelings about the importance of CALL and the benefits that it provides for EFL instructors that cannot be provided by other traditional teaching means. However, current EFL female faculty teaching practices at the four universities do not reflect these positive beliefs. This implies that teachers' positive beliefs affect their use of technology in EFL

instruction only when other critical important issues are appropriately provided, such as the different types of support.

4.3. Research question 3: What English linguistic skills can be supported by using available technologies and how can available technologies be used in teaching those skills?

In order to answer this question, the first part of the question was presented in descriptive statistics through frequency counts, percentages, means, and standard deviation for each separate phrase. The second part of the question was answered through qualitative methods according to interviews that addressed IQ 1, 3, and 4.

The following are the findings for the Table 6.

- Using a computer for teaching/learning listening skills ranked first with a mean of (0.81) within the mean range of maximum (1) and minimum (0). This suggested that 81.5% of the participants thought that listening skill can be supported by CALL technologies.
- Using computers for teaching/learning English pronunciation ranked second with a mean of (0.75). This suggested that 75.1% of the participants thought that teaching/learning English pronunciation can be supported by CALL technologies.
- Using computers for teaching/learning vocabulary ranked third with a mean of (0.71), suggesting that 70.9% of the participants believed that teaching/learning vocabulary can be supported by CALL technologies.
- Using computers for teaching/learning English writing, and speaking skills ranked fourth with a mean of (0.70). This suggested that 69.8% of the participants think that teaching/learning English writing and speaking skills can be supported by CALL technologies.
- Using computers for teaching/learning reading ranked fifth with a mean of (0.69), suggesting that 69.1% of the participants thought that teaching/learning reading can be supported by CALL technologies.
- Using computers for teaching/learning grammar ranked sixth with a mean of (0.62), suggesting that 62.4% of the participants believed that teaching/learning grammar can be supported by CALL technologies.

Table 6 Mean scores on English linguistic skills.

Variables		Yes	No	Mean	S.D.	Rank order
Reading	<i>F</i>	130	58	0.69	0.463	5
	%	69.1	30.9			
Writing	<i>F</i>	132	57	0.70	0.460	4
	%	69.8	30.2			
Listening	<i>F</i>	154	35	0.81	0.389	1
	%	81.5	18.5			
Speaking	<i>F</i>	132	57	0.70	0.460	4
	%	69.8	30.2			
Grammar	<i>F</i>	118	71	0.62	0.486	6
	%	62.4	37.6			
Vocabulary	<i>F</i>	134	55	0.71	0.455	3
	%	70.9	29.1			
Pronunciation	<i>F</i>	142	47	0.75	0.433	2
	%	75.1	24.9			
Spelling	<i>F</i>	111	78	0.59	0.494	7
	%	58.7	41.3			

7. Using computers for teaching/learning spelling ranked last with a mean of (0.59), suggesting that 58.7% of the participants believed that teaching/learning spelling can be supported by CALL technologies.

As for the findings of computer applications, Table 7 shows the following responses:

1. Using a computer for informative applications ranked first with a mean of (0.78) within mean range of maximum (1) and minimum (0). This suggested that 78.3% of the participants thought that informative applications can be supported by CALL technologies.
2. Using a computer for expressive applications ranked fifth with a mean of (0.70), suggesting that (70.4%) of the participants thought that expressive applications can be supported by CALL technologies.
3. Using a computer for evaluative applications ranked third with a mean of (0.67), suggesting that 66.7% of the participants believed that evaluative applications can be supported by CALL technologies.

In addition, interview questions (IQs) 1, 3, and 4 were developed to answer the second part of the question.

4.3.1. EFL female participants' answers to IQ1

Do you use CALL in your language teaching? If yes, what language skills do you use CALL for?

A participant from KSU ascertained that she uses CALL in teaching English language skills: "Yes, I tried to use CALL in all skills especially in reading, writing, and speaking skills." A second participant from KSU added: "I use an authorware program (PowerPoint) in which I planned my lessons and presented them in slides using the various features provided by the program." A third participant from the same university added:

I use the Internet to access my Web site and my blog. These two tools were incorporated to support students' leaning after school hours. Students log into my blog and post their answers on given activities. Skills include: grammar, listening, and reading.

A participant from IMIU described how she used the Internet to support reading skills: "This semester, I am using chat rooms and online links in reading skills. The links provide activities on reading comprehension."

Another participant from the same school complained about the shortages of computing facilities that caused her not to use CALL in her teaching: "No. I don't. There are only 2-3 labs (small and unequipped) in comparison to the huge number of students."

To bridge the gap between EFL and ESL learning contexts, a participant from KKKU mentioned the importance of using computers to narrow the gap between the two situations for

learning skills, such as listening, speaking, and writing: "It makes them totally free to use any means of computer to listen to native speakers (via head phones), speak with them (using microphones) or to develop their writing skills in a collaborative way."

4.3.2. EFL female participants' answers to IQ3

How can CALL help EFL students develop their language skills?

The first participant from KSU responded to this question with the following:

I use CALL in all my courses. . . In grammar, I refer students to certain Web sites where they can do online exercises which they do and get feedback for. In writing, I refer students to certain Web sites that provide sample essays. For all the courses, I often ask my students to check my personal KSU Web site where they find assignments to download, new information, extra studying material, sample exam questions, exam dates, video clips related to our lessons (e.g., on punctuation for writing, etc.).

A second participant from IMIU explained how CALL helped her students to develop their language skills:

I use CALL to teach Syntax at the moment. They learn to use correct language by checking their spelling and sentence structure. They do that by uploading their chapter revisions on this site (www.oengate.com/vb) where it could be there for other classmates to access and use those revisions as activity sheets before the test.

On the same issue, a third participant from UQU pointed out an online forum for e-classes: "I use CALL to enhance my students' writing and reading skills (and sometimes only, the listening skill). This happens through the different online forums I open for supporting my e-classes."

4.3.3. EFL female participants' answers to IQ4

In your view, what language skills would benefit more from using CALL in EFL instruction?

The first participant from KSU stated that "receptive skills (reading and listening) as well as sub-skills (grammar and vocabulary)" would most benefit from using CALL. A second participant from IMIU thought that listening, writing, and speaking are the skills that CALL would most enhance:

- (a) [In case of teaching listening] students will get a clear and accurate pronunciation of words and phrases.
- (b) [In case of teaching writing] it is easier for them to pinpoint their errors in writing when underlined or highlighted. It is also easier to type than to write manually. There are programs in which students can practice chatting with the computer itself; it helps them to put their stock of words in use.

Table 7 Mean scores on computer applications.

Expressive (e.g., word processing, on-line journal)	<i>F</i>	133	56	0.70	0.458	2
	%	70.4	29.6			
Evaluative (e.g., assignments, portfolio, testing)	<i>F</i>	126	63	0.67	0.473	3
	%	66.7	33.3			
Informative (e.g., Internet, CD-ROM, DVD)	<i>F</i>	148	41	0.78	0.413	1
	%	78.3	21.7			

Table 8 Summary of age data analysis across the four universities.

		Universities				Total
		IMIU	KKU	KSU	UQU	
20–29	Count	29	11	28	11	79
	% within University	48.3	39.3	34.6	55.0	41.8
30–39	Count	16	10	25	5	56
	% within University	26.7	35.7	30.9	25.0	29.6
40–49	Count	11	6	15	2	34
	% within University	18.3	21.4	18.5	10.0	18.0
50–59	Count	4	1	11	1	17
	% within University	6.7	3.6	13.6	5.0	9.0
60–69	Count	0	0	2	1	3
	% within University	0.0	0.0	2.5	5.0	1.6
Total	Count	60	28	81	20	189
	% within University	100.0	100.0	100.0	100.0	100.0

Table 9 Findings of one-way ANOVA test on participants' age.

Source of variance	SS	d.f.	MS	F Value	Sig.	Significance	
Age	Between groups	75.679	4	18.920	0.972	0.424	Not significant
	Within squares	3580.966	184	19.462			
	Total	3656.646	188				

SS: Sum of squares.

d.f.: degrees of freedom.

MS: Mean square.

F value: Measurement of distance between individual distributions.

Sig.: Statistical significance.

Table 10 Summary of academic title data analysis across the four Saudi universities.

		Universities				Total
		IMIU	KKU	KSU	UQU	
Teaching Assistant	Count	7	7	16	6	36
	% within University	11.7	25.0	19.8	30.0	19.0
Instructor	Count	9	4	11	7	31
	% within University	15.0	14.3	13.6	35.0	16.4
Lecturer	Count	36	11	34	5	86
	% within University	60.0	39.3	42.0	25.0	45.5
Assistant Professor	Count	6	4	14	1	25
	% within University	10.0	14.3	17.3	5.0	13.2
Associate Professor	Count	2	0	2	1	5
	% within University	3.3	0.0	2.5	5.0	2.6
Professor	Count	0	2	4	0	6
	% within University	0.0	7.1	4.9	0.0	3.2
Total	Count	60	28	81	20	189
	% within University	100.0	100.0	100.0	100.0	100.0

- (c) [In case of speaking] students might benefit from online conversation classes, which force them to practice their English with native speakers.

A third participant from KKU suggested that English language skills would benefit more from using CALL in EFL instruction: "I think all language skills and sub-skills would benefit from using CALL. Digging deep in programs available, the teacher would find one that suits her students' language needs."

The majority of respondents at the four universities seemed to believe that the use of technology is important for all English language skills. However, some participants provided general or abstract statements that made it difficult for the researcher to obtain deeper insights into specific CALL use for EFL instruction. Listening, pronunciation, reading, writing, and vocabulary were among skills that were most noted by female EFL faculty members to be enhanced by using CALL technology.

Table 11 Findings of one-way ANOVA test on participants' academic title.

Source of variance		SS	d.f.	MS	F value	Sig.	Significance
Academic Title	Between groups	25.797	5	5.159	0.260	0.934	Not significant
	Within squares	3630.848	183	19.841			
	Total	3656.646	188				

Table 12 Summary of years of teaching experience data analysis across the four universities.

		Universities				Total
		IMIU	KKU	KSU	UQU	
< 5 years	Count	26	10	29	11	76
	% within University	43.3	35.7	35.8	55.0	40.2
6–10 years	Count	13	8	15	4	40
	% within University	21.7	28.6	18.5	20.0	21.2
11–15 years	Count	15	6	12	3	36
	% within University	25.0	21.4	14.8	15.0	19.0
16–20 years	Count	4	2	10	0	16
	% within University	6.7	7.1	12.3	0.0	8.5
More than 20 years	Count	2	2	15	2	21
	% within University	3.3	7.1	18.5	10.0	11.1
Total	Count	60	28	81	20	189
	% within University	100.0	100.0	100.0	100.0	100.0

Table 13 Findings of one-way ANOVA test on participants' teaching experience.

Source of variance		SS	d.f.	MS	F value	Sig.	Significance
Teaching experience	Between groups	14.458	4	3.615	0.183	0.947	Not significant
	Within squares	3642.187	184	19.794			
	Total	3656.646	188				

4.4. Research question 4: Are there any significant statistical differences among female EFL faculty members at the four studied Saudi universities in terms of age, academic title, teaching experience, and computer proficiency level which may affect their use of CALL?

In order to answer this question, the researcher used a one-way ANOVA (ANalysis Of VARIance). This is a powerful set of techniques with which to test differences among means of 2 or more samples. One-way ANOVA allows researchers to test whether several means (for different conditions or groups) are equal across one variable. In this case, age, academic title, teaching experience, and computer proficiency level represented different conditions and using CALL was the variable that was influenced by these conditions. The researcher used this measure to determine whether there were any significant statistical differences among female EFL faculty members at the four Saudi universities in terms of age, academic title, teaching experience, and computer proficiency level that may affect their use of CALL.

4.4.1. Differences in terms of age

Table 9 indicates that age had no significant impact on female EFL faculty members at the four studied Saudi universities that may affect their use of CALL. The *F*-value compares the variability between groups to a supposedly independent

estimate of what that variability would be if there were no group effects (Table 8). If *F* is much greater than 1, it suggests that there probably is a group effect. Here the independent variable is the age of the female EFL faculty members and it is shown from Table 9 that *F*-value is slightly less than 1. However, the significance value is 0.424, which is higher than 0.05 and suggests no significance. As a result, the age variable had no impact on the female EFL faculty members' decisions to use CALL in EFL instruction.

4.4.2. Differences in terms of academic title

Table 11 indicates that academic title had no significant impact on female EFL faculty members' decisions to use CALL in EFL instruction (Table 10).

4.4.3. Differences in terms of teaching experience

Table 13 shows no statistical significance that may indicate differences among female EFL faculty members at the four studied Saudi universities in terms of teaching experience (Table 12).

4.4.4. Differences in terms of computer proficiency level

According to Table 15, the *F* value is slightly greater than 1, which may suggest some impact. But the significant value was greater than 0.05, which indicates no major differences among female EFL faculty members at the four studied Saudi

Table 14 Summary of computer proficiency level data analysis across the four Saudi universities.

			Universities				Total
			IMIU	KKU	KSU	UQU	
Computer proficiency level	Unfamiliar	Count	1	0	0	1	2
		% within University	1.7	0.00	0.00	5.0	1.1
	Beginner	Count	6	6	12	4	32
		% within University	10.0	21.4	14.8	20.0	16.9
	Moderate	Count	41	17	52	9	119
		% within University	68.3	60.7	64.2	45.0	63.0
Expert	Count	8	5	17	6	36	
	% within University	13.3	17.9	21.0	30.0	19.0	
Total	Count	60	28	81	20	189	
	% within University	100.0	100.0	100.0	100.0	100.0	

Table 15 Findings of one-way ANOVA test on participants' computer proficiency level.

Source of variance		SS	d.f.	MS	F value	Sig.	Significance
Computer proficiency level	Between groups	94.109	3	31.370	1.629	0.184	Slightly significant
	Within squares	3562.537	185	19.257			
	Total	3656.646	188				

universities in terms of computing proficiency level variable (Table 14).

It is clear that the findings of research question 4 indicate no significant differences among EFL faculty members at the four studied Saudi universities in terms of age, academic title, teaching experience, and computer proficiency level that may affect their use of CALL in EFL instruction. The one exception was the variables of computer proficiency level, which showed a slight group effect on the reading of the *F*-value, but not on the significant value.

5. Conclusion

The findings indicate positive beliefs toward the use of CALL in EFL instruction. Most female EFL faculty members in the study believed that the use and integration of CALL could be an effective way of teaching English as a foreign language. Overall, female EFL faculty members' beliefs toward the use of CALL were positive. However, they expressed difficulties in putting their beliefs about CALL into practice. The difficulties seemed to be caused by deterring factors, such as a lack of appropriate technical, financial, and training supports.

Female EFL faculty members had generally positive feelings about the importance of CALL and the benefits that it provides for EFL instructors that cannot be provided by other traditional teaching methods. However, current female EFL faculty teaching practices at the four universities did not reflect those positive beliefs. This observation implies that teachers' positive beliefs affect their use of technology in EFL instruction only when other critical issues, such as various types of support, are appropriately provided. The majority of respondents at the four universities seemed to believe that the use of technology is important for all the English language skills. However, some participants provided general or abstract statements that made it difficult for the researcher to make deeper insights into specific CALL use for EFL instruction. Listening, pronunciation, reading, writing, and vocabulary were among

the skills to be enhanced by using CALL technology that were most noted by female EFL faculty members.

In summary, this study investigated the key factors that affect the adoption of technology for EFL teaching, an emerging form of CALL that appears to have far-reaching effects on English-learning skills. The findings could provide valuable information for EFL departments, program administrators, and EFL teachers at Saudi universities, helping them to better understand issues that affect CALL use and integration in EFL instruction.

References

- Abdal-Haqq, I., 1995. Infusing Technology into Pre-service Teacher Education. < http://www.ed.gov/databases/ERIC_Digests/ed389699.html > (retrieved 26.03.08).
- Ahmad, K., Corbett, G., Rogers, M., Sussex, R., 1985. Computers, Language Learning, and Language Teaching. Cambridge University, Cambridge.
- Alm, A., 2008. Integrating emerging technologies in the foreign language classroom: a case study. *International Journal of Pedagogies and Learning* 4 (4), 44–60 (retrieved from APACALL database).
- Al-Shammari, M. 2007. Saudi English as a Foreign Language: Learners' Attitudes Toward Computer-Assisted Language Learning. Doctoral dissertation, West Virginia University, United States.
- Anderson, J., 1991. Computer-based technologies: Effective tools for teaching and learning. In: Lê, T., McCausland, M. (Eds.), *Language education: Interaction and development*. Proceedings of the International Conference on Language Education: Interaction and Development. University of Tasmania.
- Bacon, R., 1996. The effective use of computers in teaching physics. *Active Learning* 4, 37–41.
- Baek, Y., Jung, J., Kim, B., 2008. What makes teachers use technology in the classroom? Exploring the factors affecting facilitation of technology with a Korean sample. *Computers & Education* 50, 224–234.
- Bandura, A., 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall, Englewood Cliffs, NJ.

- Bull, J., Zakrzewski, S., 1997. Implementing learning technologies: a university-wide approach. *Active Learning* 6, 15–19.
- Bush, M.D., 1997. Implementing technology for language learning. In: Bush, M.D., Terry, R.M. (Eds.), *Technology Enhanced Language Learning*. National Textbook Company, Lincolnwood, pp. 287–349.
- Chylinski, R., 2005. Creating organizational environments supporting CALL teachers: a one-point perspective. *PacCALL Journal* 1 (1), 9–28 (retrieved from PacCALL database).
- Ducate, L., Arnold, N. (Eds.), 2006. *Calling on CALL: From theory and research to new directions in foreign language teaching*. CALICO, San Marcos, TX.
- Fernaández, M.V., 2001. The EFL teacher and the introduction of multimedia in the classroom. *Computer Assisted Language Learning* 14 (1), 3–14.
- Forcier, R.C., Descy, D.E., 2002. *The Computer as an Educational Tool: Productivity and Problem Solving*. Pearson, London.
- Galligan, J., 1995. *Computers and Pedagogy*. Paper presented to the Australian Computers in Education Conference, Perth, Western Australia. <<http://www.educationau.edu.au/archives/CP/REFS/galligan.htm>> (retrieved 21.0.09).
- Grau, I. 1996. *Teacher Development in Technology Instruction: Does Computer Coursework Transfer into Actual Teaching Practice?* Paper presented at the Annual Meeting of the Southwest Educational Research Association, Dallas, TX (ERIC Document Reproduction Service No. ED394949).
- Herron, C., Moos, M., 1993. Electronics media in the foreign language and literature classroom: a fusion between science and the humanities. *Foreign Language Annals* 26 (4), 478–490 (retrieved January 12, 2009).
- Information and Communications Technology for Language Teachers, ICT4LT. ICT4LT Module 2.1 CALL methodology: Integrating CALL into Study Programmes. <<http://www.ict4lt.org/en/index.htm>> .
- Kim, H., 2008. Beyond motivation: ESL/EFL teachers' perceptions of the role of computers [Electronic version]. *CALICO Journal* 25 (2).
- Kukulka-Hulme, A., Shield, L., 2008. An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL* 20, 271–289. doi:10.1017/S0958344008000335.
- Larsen, M.D., 1983. Persistent problems of computer-assisted instruction. *CALICO Journal* 1 (5), 31–34.
- Levy, M., 1997. *Computer Assisted Language Learning: Context and Conceptualization*. Clarendon Press, Oxford.
- Levy, M., Stockwell, G., 2006. *CALL Dimensions: Options and Issues in Computer-Assisted Language Learning*. Lawrence Erlbaum Associates, Inc., Mahwah, New Jersey.
- McCarthy, B., 1999. Integration: the sine qua non of CALL. *CALL-EJ Online* 1 (2), <<http://www.ict4lt.org/en/McCarthy.htm>> (retrieved 16.01.09).
- Merriam, S., Simpson, E., 1995. *A Guide to Research for Educators and Trainers of Adults*, second ed. Krieger Publishing Company, Malabar, FL.
- Mumtaz, S., 2000. Factors affecting teachers' use of information and communications technology: a review of the literature. *Journal of Information Technology for Teacher Education* 9 (3), 319–342.
- Murray, L., Barnes, A., 1998. Beyond the "wow" factor-evaluating multimedia language learning software from a pedagogical viewpoint. *System* 26, 249–299.
- Neo, M., Neo, K.T.K., 2002. Building a constructivist learning environment using a multimedia design project? A Malaysian experience. *Journal of Educational Multimedia and Hypermedia* 11 (2), 141–153.
- Philips, M., 1987. Potential paradigms and possible problems for CALL. *System* 15 (3), 275–287.
- Ramanair, J., Sagat, U.G., 2007. Multimedia technology: teachers' knowledge and attitudes. *CALL-EJ Online* 8 (2).
- Scott, V.M., 1998. Exploring the link between teaching and technology: an approach to TA development. In: Muyskens, J.A. (Ed.), *New Ways of Learning and Teaching: Focus on Technology and Foreign Language Education*. Heinle & Heinle Publishers, Boston, pp. 3–17.
- Steel, C., 2006. Influence of teaching beliefs on Web-enhanced learning experiences: Learners and teachers. In: *Proceedings of the 23rd Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education: Who's Learning? The University of Queensland*.
- Taylor, R.P. (Ed.), 1980. *The Computer in the School: Tutor, Tool, Tutee*. Teachers College Press, New York.
- Warschauer, M., Meskill, C., 2000. Technology and second language learning. In: Rosenthal, J. (Ed.), *Handbook of Undergraduate Second Language Education*. Lawrence Erlbaum, Mahwah, New Jersey, pp. 303–318.
- Yang, P.J., 1998. Networked multimedia and foreign language education. *CALICO Journal* 15 (1–3), 75–88.
- Zhao, Y., Tella, S., 2002. From the special issue editors. *Language Learning and Technology* 3 (6), 2–5.