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The significance of in-service teacher's training for fully integrating CALL in the female public schools in Riyadh, Saudi Arabia.

by

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in the

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DECLARATION BY CANDIDATE

'I hereby declare that the dissertation submitted for the degree MA Applied Language Studies, at the University Of Pretoria, is my own original work and has not previously been submitted to any other institution of higher education. I further declare that all sources cited or quoted are indicated and acknowledged by means of a comprehensive list of references'.

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Aljawharah Mahdi Alajmi April 2013

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ABSTRACT

Developments in technology have influenced all areas of life, including education and in particular, language learning and teaching. The computer has become very advantageous in the teaching of foreign languages, especially with the augmentation of hardware, software and the World Wide Web. Computer-assisted language learning (CALL) is beneficial, since it helps teachers to enhance their teaching and gives students the opportunity to learn in an authentic and interesting environment. The impact of CALL has led many researchers to carry out studies to explore the significance of CALL and the factors that could enhance or reduce the integration of CALL into language learning and teaching.

Although CALL could be beneficial to the enhancement of English proficiency among Saudi Arabian students, the integration of CALL is still narrow in terms of quantity and quality among EFL teachers in public female secondary schools in Riyadh. So, this study aims to explore the current integration of CALL among these teachers. Furthermore, this study aims to explore some of the factors that contribute to the integration of CALL, those being computer literacy and the computer training that is available for both pre-service and in-service teachers. In addition, the study focuses on the kind of training that is vital to enhance teachers' use of CALL. Also, this study revolves around the teachers' roles when using CALL, their barriers to the integration of CALL, as well as their attitudes toward CALL.

The first step in this study is a background of the history of language teaching methods, starting with the traditional methods and ending with the integration of CALL. The literature review follows in order to substantiate this study with relevant studies that have been conducted in this area and to provide the theoretical background of the study. After that, the methods that are used to carry out the study are indicated; including the questionnaire, follow-up interviews and two focus groups. Lastly, an analysis of the results is done in order to come up with the findings.

The findings of the study suggest that the current levels of computer use and computer literacy among EFL teachers are still insufficient. The available computer training is

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inadequate for both pre-service and in-service teachers and there are no computer courses facilitated by the Ministry of Education. Moreover, in-service teachers still need ongoing computer training courses to keep them up to date with recent developments in educational technology. Recommendations to increase teachers' computer literacy and to enhance their use of CALL are considered as well as recommendations for further Saudi Arabian studies on CALL.

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KEY WORDS

- Computer assisted language learning
- Pre-service teachers
- In-service teachers
- Computer literacy
- Integration of CALL
- Riyadh
- Saudi Arabia

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LIST OF ACRONYMS

CALL: Computer assisted language learning

CMC: Computer-mediated communication

EFL: English as foreign language

FL: Foreign language

ICT: Information and Communication Technology

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GLOSSARY

- Computer assisted language learning(CALL) has a variety of technology based uses for language learning, including CD-ROMS containing interactive multimedia and other language exercises, electronic reference materials, such as online dictionaries and grammar checkers as well as electronic communication in the target language through e-mail, blogs, Wikis, etc'(Chapelle, 2010:66).
- Computer literacy(CL): the ability to be able to make computer systems function and have the knowledge of how to load information and to be able to operate a variety of computer software, as well as to have a general appreciation of the history of computers (Burke, 1986).
- Foreign language (FL): is a language that is not spoken by the native people of the country, for example Arabic is the official language in Saudi Arabia and English is a foreign language; while in the United States the official language is English and French is a foreign language. Therefore, the English language is a foreign language in Saudi Arabia but it is the official language in other countries.
- Mixed methods research: a research method that involves collecting, analysing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon (Leech & Onwuegbuzie (2009:265).
- Gender-segregated education in Saudi Arabia: this means that males and females are segregated and separated on all educational levels. There are girls' schools and universities, which means that the students, staff and administrators are females, while all are males in boys' schools and universities.
- English as foreign language (EFL) in Saudi Arabia: English is taught in Saudi Arabian schools as the foreign language, but it is not used as channel of communication among Saudi Arabian people.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Computer-assisted language learning (CALL) is a fairly recent development in second language teaching and learning. It emerged in the nineteen sixties - compare for instance Levy (1997) and Beatty (2003) - and is inextricably linked to the personal computer and the internet. Within second language teaching it is considered "one of the success stories of the end of the 20th century" (Cameron 1999).

CALL is characterised by the use of a variety of technological software in the language classroom, including CD-ROMS (which contain interactive multimedia and language exercises), electronic reference materials such as online dictionaries and grammar checkers as well as electronic communication in the target language through e-mail, blogs, Wikis, etc. (Chapelle 2009).

While CALL has steadily been gaining ground over the last few decades, there have also been developments in the methods and approaches to language teaching world wide.

There have been different methods of teaching languages throughout history. In Roman times for instance, young people were taught bilingually in Latin and Greek by private tutors, while in the Renaissance era people were sent to other countries to learn firsthand from native speakers of those languages (Van Els et al, 1984).

The Grammar Translation method was later used, from the 1850s until around 1950, to teach Latin and Greek. In the Grammar Translation method, the mother tongue was the medium used to teach foreign languages and the written text was given a higher status than the spoken language. The Direct Method or Natural Method started in the USA from the 1890s until now, and its focus was on speaking and listening.The Audio Lingual Method or the Structural Approach has been used since the 1960s and it is one of the current methods used to teach languages (Lowe, 2003).

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The Audio Lingual method has been criticised because it is not clearly based either on language theory or on the learning theory emerging from Chomsky's theory of TG grammar; thus, it is unable to prepare students of a second language to communicate with people outside the classroom. The Direct Method is also criticised for a number of different reasons; the first relates to the way this method focuses on the use of the second language (L2) without any reference to the first language, and the second reason relates to how this method could be used after the primary stage of language learning. Thirdly, the Direct Method requires that teachers of the native languages have native-like fluency in the foreign language and such teachers are rare (Liu & Shi, 2007).

In the 1970s, the aim of language learning shifted, so that it was no longer important to translate word for word or to read literary texts, but to communicate with people. The change in the aim of language learning led to the emergence of the communicative approach to develop the ability to communicate in the target language. Communicative language teaching began to gain an importance in the preparation of language teachers and because of the need to increase the number of new teachers as well as teacher trainers. In the twenty-first century, there has been a drive in language teaching to research the 'best practices' to fulfil the needs of an increasing population of language learners. Furthermore, in the past decade, there has been a growing focus on both undergraduate and graduate language teachers' education. Also, there is an interest in improving language teachers' education through different programmes and courses in second language acquisition theory and methods (Brown, 2006). In summing up we can say that language education has changed in order to meet the needs of an ever-changing society and ideology.

The recent rapid advancements in technology where students may have permanent access to the internet via their smart phones or tablets in the classroom necessitate a new approach to not only language teaching and learning but also to accommodating the twenty first century student.

This advance in technology has powerfully affected language education. The computer has a number of advantages for the teaching and learning of languages. Computer-assisted

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language learning (CALL) has various benefits for acquiring fluency in a second or foreign language. Computers are now widely used in foreign language teaching and learning.

Computers allow the learners to communicate with the native speakers of any language as well as learn about the culture of that language. Multimedia presentations and the web-based distribution of print media, radio and TV programmes are examples of the technology which is currently available and able to help learners to acquire communicative language use (Amaral, 2011).

With such developments in current technology, the integration of technology in a second and foreign language classroom is valuable and beneficial for learners as well as teachers. The integration of technology in a second and foreign language classroom should be at a professional level, as Garret (1991:74) argues that the integration of technology in the classroom and in the curriculum for teaching a second or foreign language should be done by professionals who follow certain approaches: 'Technology that can be taken for granted today is already light years ahead of the profession's ability to integrate a principled use of it into the classroom and into the curriculum'. Garret also argues that 'CALL' is not 'shorthand for the use of technology' but rather a mix of technology, theory and pedagogy (Garret, 2009: 719-720). Thus, it is clear that teachers of a second or foreign language should be computer literate enough to be able to integrate CALL into their teaching practices.

Although 'we have today, not only computers of almost incomprehensibly greater power and sophistication, but also a far greater range of consumer technologies that can be harnessed for language teaching and learning' (Garret, 2009: 740), there are some countries that still use traditional methods in foreign language (FL) education, Methods implemented today include: the Grammar Translation Method, the Direct Method and the Audio Lingual Method. In Saudi Arabia, the most widely used FL is English and it is the only FL that is taught in Saudi Arabian public schools. Teaching English in Saudi Arabia has been characterised by the use of the Grammar Translation Method and other methods, such as the Audio Lingual Method. This kind of FL teaching does not prepare the learners for communication with native speakers of English. Students in public schools in Saudi Arabia finish their secondary

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level without any real proficiency in English that would enable them to communicate in the international arena.

The development and augmentation of computer hardware and software technology provides a new opportunity for foreign language teaching (Shen, 2012).The expression of CALL has been defined in various ways by different researchers. For example, Chapelle (2010:66) defines CALL as 'a variety of technology uses for language learning, including CD-ROMS containing interactive multimedia and other language exercises, electronic reference materials, such as online dictionaries and grammar checkers as well as electronic communication in the target language through e-mail, blogs, Wikis, etc'. From a slightly different angle, 'CALL means the sets of instructions which need to be loaded into the computer for it to be able to work in the language classroom' (Gunduz, 2005: 193).

CALL has been used in classrooms since the 1950s. During the 1950s, 60s and 70s, CALL was based on the behaviourist theory of learning. At this stage, the computer was used as a 'tutor' to deliver instructional materials to the learners. Also, in this phase, repetitive language drills were dominant. The second phase of CALL was communicative computer-assisted language learning, which is based on the Communicative Approach of the 1980s. In this phase, the computer was used as 'tutor', as 'stimulus' and as a 'tool'. The third stage of CALL was integrative computer-assisted language learning in the 1990s. This phase was developed because of developments in multimedia and the Internet (Egorova, Jantassova & Churchill, 2007).

But even with the unrivalled development of CALL, the integration of CALL by EFL teachers is still limited. The Ministry of Education has integrated CALL into the English curriculum on a very limited scale and EFL Teachers use audio CDs as part of the English language curriculum to give Saudi Arabian learners the chance to listen to English that is spoken by its native speakers (Abu Seileek and Rabab'ah, 2007).

With the development of CALL, students are able not only to listen to native speakers but also to communicate with them. To give such a chance for communication and interactivity, Saudi Arabian EFL teachers should be qualified to integrate CALL technologies in their classrooms.

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Nowadays, most public schools in Saudi Arabia have computers but there is still no real integration of CALL in the English classroom. English teachers' lack of proficiency in information technology is one of the main problems that we encounter when considering the implementation of CALL in Saudi Arabian public schools. It is in this climate that the current study is undertaken, looking at the use of CALL in a country where teaching English as a foreign language is just emerging from the dominance of the Grammar-Translation method, where computers (in the broadest sense of the word) as yet do not occupy a central place in the language classroom and where in-service training of teachers is not yet considered to be essential.

1.2 The problem: Teaching English as a Foreign Language (EFL) in Saudi Arabia

The teaching of English in Arab countries has been characterised by the use of the Grammar Translation Method for many years. In addition, the available resources and information have been very limited, including such key resources as teachers, textbooks and blackboards. In recent years, there has been a wide and rapid advancement in CALL as a result of the evolution of computer technology. This advancement has strongly influenced the acquisition and application of English-language skills. At the same time, the status of the English language is growing in education as well as in business and other areas. Both the evolution of computer technology and the new status of English have changed the nature of EFL education in the Arab countries. The teaching of English is now changing from a translation-oriented process to a communicative process (Al-Mekhlafi, 2004).

Three decades ago, computers were first used by the Ministry of Education in Saudi Arabia to store and process information such as student records. Since the 1990s, the Ministry of Education has supported the secondary stage curriculum with computer literacy programs as a compulsory subject and most secondary schools have been provided with computer labs. More recently, the Ministry of Education has extended the use of computer labs to most primary schools (Al-Shumaimeri, 2008). At the same time, the teaching of English in Saudi Arabia was made compulsory in all Saudi Arabian public schools from the intermediate level but later English was taught as a compulsory subject from the sixth grade. There has been

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an enormous improvement in the English language curriculum by the Ministry of Education in Saudi Arabia. Despite all the efforts of the Ministry of Education to improve English teaching in Saudi Arabia, students still lack proficiency in the English language at the end of the secondary level. The reason behind this problem is that English is not the medium of communication in Saudi Arabia but is a foreign language that is taught for just three hours a week in the public schools. So, it is important to give students the chance to communicate with native English speakers and to learn their culture, to be able to communicate effectively in real-life settings in the future. So, we can say that students need to communicate and practise language in a real environment, not an artificial one. CALL is the most appropriate approach that can give students the chance to have an individualised and collaborative learning experience at the same time. Although the Saudi Arabian Ministry of Education has poured funds into supporting most schools with computers, there is no real integration of CALL in English classrooms. As teachers play a very significant role in the integration of CALL, the focus of this study is on teachers. There is a need to know more about the current levels of computer literacy among English teachers in public female secondary schools in Riyadh city, Saudi Arabia.

Most of the English teachers in Saudi Arabia still look at the English language as words, sentences and grammar rules. Those teachers still follow traditional methods such as drilling, vocabulary acquisition and the acquisition of grammar rules. The teachers who are computer literate rarely use computers in their English lessons. Most of the English teachers in Saudi Arabia lack adequate computer literacy that would enable them to use computers with confidence. So, as the teacher is the main facilitator in the process of education, it is necessary to support teachers with sufficient training so that they can improve their skills and competence levels. Finally, it could be said that English in Saudi Arabia is not yet at the level of international proficiency, especially in the public schools. Many factors contribute to this problem but this study sheds light on the current integration of CALL among English as foreign language teachers in public female secondary schools in Riyadh city, because teachers are an essential factor to make the integration of CALL useful and effective. The researcher chose EFL teachers in public female secondary schools as the target population in this study because education in Saudi Arabia is gender-segregated. All schools in Saudi Arabia whether public or private are divided into girls' schools and boys schools. Islam

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necessitates that females and males should be segregated in the work place to protect the chastity of both genders. So, as the teaching staff members and administrators in girls' schools are females, it was easier for the researcher, as an EFL female teacher, to collect the data from those schools directly, without having to rely on a secondary source. This strengthens the validity of the data. This study seeks the answers to the following questions:

1. To what extent is CALL used by EFL teachers in female public secondary schools in Riyadh?
2. What is the current level of computer literacy among EFL teachers in female public secondary schools in Riyadh?
3. What kind of computer training is available for both EFL pre-service and in-service teachers to make full integration of CALL possible?
4. What kind of training do EFL in-service teachers need to enhance their integration of CALL?

1.3 Motivation

This study aims to examine and discuss the current integration of CALL among EFL teachers in public female secondary schools in Riyadh. The researcher has chosen this topic because Saudi Arabian students need to communicate with native speakers to raise their English proficiency by using the different applications of CALL. But the interactional communication is still absent as a language learning tool in Saudi Arabian classrooms (Al-Ahmadi, 2011:393).

This study wishes to investigate the current level of computer literacy among EFL teachers in public female secondary schools in Riyadh and to what extent teachers use CALL in their classrooms. Also, this study aims to document the type of computer training that is currently available for EFL teachers. As an English teacher at a public female secondary school for ten years, the researcher can say that the integrating of CALL among EFL teachers is still insufficient in terms of quantity and quality. The lack of Saudi studies on the importance of the integration of CALL as well as the importance of teachers' computer literacy are the main reasons for undertaking this study – it fills a significant gap in the literature. Another reason to

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undertake this study is to explore the kind of computer training that is available for EFL pre-service and in-service teachers as well as to indicate the kind of training that EFL in-service teachers need to equip them to integrate CALL in their classrooms.

1.4 Objectives

This study has five main objectives:

1. To ascertain the current use of CALL by EFL teachers in public female secondary schools in Riyadh, Saudi Arabia.
2. To ascertain the current computer literacy among EFL teachers in public female secondary schools in Riyadh.
3. To ascertain the current computer training that is available for both EFL pre-service and in-service teachers to enhance their integration of CALL.
4. To ascertain the kind of computer training that EFL in-service teachers need to assist them in integrating CALL in their classrooms.
5. To make educators more aware of the integration of CALL among EFL teachers.

It aims to reach these objectives by:

- Using a mixed method design.
- Appropriate methodology (a questionnaire and semi-structured interviews to ascertain the current knowledge and use of CALL among the research group as well as to gain information about the pre-service and in-service training the respondents received.
- Having a focus group discussion with the emphasis on the current level of computer literacy among teachers and their attitudes towards CALL as well as the problem areas they encounter when integrating CALL in their classrooms.
- Disseminating the research in the form of a MA dissertation.

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1.5 Methodological framework

1.5.1 Literature Review

In the theoretical part of the study, an investigation into the historical development and the current state of the art regarding second language teaching and learning and the role of CALL in this field will be undertaken, giving an overview of the history, development and importance of CALL within second language acquisition and learning, situating it more particularly within the Communicative Approach to language teaching. Particular attention will be given to developments in teaching EFL and CALL in Saudi Arabia.

In the literature review attention will also be given to the importance of having innovative and knowledgeable teachers in the second language classroom. In this regard, the literature that deals with in-service training will be integrated in the theoretical chapter.

1.5.2 Empirical research

Taking into account the nature of the data that will be collected in this study, the research design can be characterised as a mixed-method design – a research design that is often used (Leedy & Ormrod, 2005: 97). Mixed-method research combines both quantitative and qualitative approaches, which provides different perspectives on the topic because of the advantages of each approach (Hammond, 2005). Also, a mixed-method approach provides a more complete picture of the phenomenon under study because of the outcomes that include both qualitative exploration and quantitative measurement of a phenomenon (Hashemi, 2012).

The research can be characterised as partly quantitative because use will be made of a survey to gather data about the background, training and current knowledge and use of CALL in the research group. “Survey research involves acquiring information about one or more groups of people (...) by asking them questions and tabulating their answers (Leedy & Ormrod 2005: 183).

It is also qualitative because the other two data collection methods will be semi-structured interviews and a focus group discussion - methodology that can be described as qualitative (Edley and Litosseliti 2010:155). Perry (2011:76) also states: “Any study that is done in a

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real-life setting, involving (...) data collection through observation at a close personal level (...) and which contains mostly verbal analysis, could be classified as a qualitative study".

In Chapter 3 a detailed outline of the methodology will be given .

1.6 Outline of chapters

This study is presented in the following seven chapters:

Chapter one gives the background to the problem. It presents the problem statement, motivation and objectives of the study, besides the main questions of the study and a summary of the methodology.

Chapter two provides the result of the literature review and outlines the theoretical background to the study.

Chapter three presents the research design, methodology and instruments used to collect the data. In addition, it provides information on the geographical area where the study was conducted. Descriptions of the sampling techniques used are included.

Chapter four is an analysis of the quantitative data (questionnaire).

Chapter five is an analysis of the data collected through qualitative methods (follow-up interviews and two focus group discussions).

Chapter six focuses on the findings of both the qualitative and quantitative data that was collected.

Chapter seven is the conclusion. It recommends ways to solve the problem and indicates the need for further studies.

1.7 Conclusion

English proficiency among Saudi Arabian students at the secondary level is still inadequate. They are unable to have real communication with English native speakers around the world. To enhance English proficiency among Saudi Arabian students, there is an urgent need to use CALL because it is advantageous to teach all language skills and to give students the

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chance to learn English in an authentic environment. The rapid development in educational technology has increased the importance and usefulness of CALL, but CALL cannot be beneficial if the teachers are not computer literate and if they do not use CALL continuously. Moreover, teachers need sufficient computer training to enable them to introduce CALL into their classrooms. So, it is necessary to explore computer literacy as well as the current use of CALL among EFL teachers in public female secondary schools. Information on the current pre-service and in-service computer training available to EFL teachers needs to be documented and, in addition, there is a need to highlight the importance of CALL as a means of improving English proficiency among Saudi Arabian students, especially in educational circles. Furthermore, this study sheds light on the kind of training that is necessary for EFL in-service teachers so that they are able to implement CALL successfully. Saudi Arabian studies about CALL are still limited and, hopefully, this study will be beneficial, because if educators become aware of the current level of computer literacy and computer use among EFL teachers, they will be able to assist teachers to integrate CALL by providing them with much- needed training in computer literacy.

The following chapter will discuss the implementation of computer aided language learning and as such it will be necessary to define the acronym CALL, and to understand its various components. This includes communicative CALL and integrative CALL. In addition, the history of CALL is important to understand its ongoing development. The advantages and disadvantages of CALL will also be investigated along with the various teacher roles. All this, along with the need for computer literacy and the barriers encountered by the teachers when integrating CALL will be discussed further in Chapter Two.

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CHAPTER TWO

COMPUTER ASSISTED LANGUAGE LEARNING - HISTORY AND IMPLICATIONS FOR FOREIGN LANGUAGE TEACHING

2.1 Introduction

Today, technology is widely used in language education. The rapid development of technology makes computer literacy very important for language teachers. Various studies have examined the importance of Computer-Assisted Language Learning (CALL) in second and foreign language teaching. For instance, Al-Asmari (2011) indicates the importance of the integration of technology in pre-service teacher training. Similarly, Hong (2009:30) argues that 'secondary school L2 teachers with more technology education experience are likely to use computer technology more frequently in the classroom'. Abu Nabah et al. (2009) investigate the importance of CALL in teaching English grammar at secondary level in Jordan and how this can increase the students' levels of achievement.

The use of the computer in second language education has been explored by researchers and educators over the last decade. Despite the challenges all teachers face in these difficult times, they are beset by incessant demands to teach students the basics and improve their literacy, while facing a technological, computer-dominated future (Goodwyn, 2000).

Warschauer and Meskill (2000:304) indicate that technology is useful since it supports students learning in an authentic environment and helps them to learn by themselves. They state that:

> Technologies that support a cognitive approach to language learning are those that allow learners maximum opportunity to be engaged with language in meaningful contexts and to construct their own understanding of the system.

Their conclusions and those of many previous studies show how CALL has become a key topic in international applied linguistics studies. However, Saudi Arabian studies regarding

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CALL are still limited. This literature review will feature a mix of both international and Saudi Arabian studies.

This chapter focuses on relevant studies regarding the general integration of CALL in foreign language classrooms, and in Saudi Arabian classrooms in particular. In order to do this, CALL is defined and its history is explored. The advantages of CALL for foreign language education, where skills and linguistic knowledge are regarded as important, as well as the disadvantages are discussed. Because this study focuses to a large extent on the available computer training for both pre-service and in-service teachers, the available literature on this topic is also dealt with. International studies are referred to as there is a lack of studies pertaining to Saudi Arabian public female secondary schools. The kind of training that EFL in-service teachers need is also considered. The importance of the role of teachers when integrating CALL, as well as their level of computer literacy and training, are considered. Factors and barriers that may influence the use of CALL in classrooms are also mentioned. Finally, to place this study in its context, an overview of the Saudi Arabian education system and the existing studies regarding the level of CALL integration in Saudi Arabian schools, especially in Riyadh, is given.

2.2 Defining CALL

The term CALL is defined by different researchers in different ways. For example, Basheer (2011:291) defines CALL as follows:

> One of a number of names to describe the way that computers are used to complement (although not necessarily to replace) classroom instruction. CALL is just one aspect of TELL, or Technology Enhanced Language Learning.

An alternative definition is:

> An approach to language teaching and learning in which the computer is used as a tool to the presentation, reinforcement and assessment of the material learned, usually including substantial interactive elements (Berankova, Cechova & Zerzanova, 2011:506).

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Okonkwo (2011:76-77) identifies Computer Assisted Language Learning (CALL) as 'a form of computer based learning which carries two important features: bidirectional learning and individualized learning'.

The specific term used in this study, CALL, has the advantage of being one of the earliest terms used and its use remains relevant today in the titles and components of books and journals. Moreover, the term CALL has achieved some stability over the last 20 years. While many other labels come and go CALL as a general label remains (Levy & Hubbard, 2005). The strength, stability as well as popularity of the term CALL is also to some extent attributable to the existence of the Internet which has become available to most people. (Sufeng, Liming & Runjuan, 2011).

Ghasemi, Hashemi and Bardine (2011) divide CALL into two types according to computer applications:

- Communicative CALL
  This provides skill practice and a non-drill format through language games. Students are encouraged to generate original utterances rather than just manipulate prefabricated language. Computers are used as a tool and the target language is used exclusively.
- Integrative CALL:
  It is based on multimedia computers and the Internet. These developments use elements of text, graphics, sound, animation and video to be accessed on a single, inexpensive computer. There are two types of integrative CALL, namely multimedia CALL using CD-ROMs and web-based CALL which uses the Internet.

2.3 The history of Call

CALL as a research field has received noticeable attention in recent years and different studies have been carried out to identify the characteristics and limitations of research taking place in the field (Stockwell, 2007). Early research on CALL was conducted to compare learning outcomes from a control (traditional classroom) group with the outcomes of the experimental (CALL) group.

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Eventually, dissatisfaction with experimental methods to evaluate CALL has motivated researchers to explore alternatives by using professional knowledge about language and language learning. Since then, critical perspectives have been broadly developed on language learning materials (Chapelle, 2010).

The first steps towards developing CALL took place in the 1960s at Stanford University where the first software was developed, following which software developed by German researchers was implemented at the University of New York in 1968. In the 1970s, further European CALL projects were developed (Bangs & Cantos, 2004).

Since 1960, CALL has passed through four stages which can be identified by the hardware that is available in each stage. In the 1970s, the available hardware was workstation-mainframes, the 1980s were the period of the micro-computer, the 1990s were the period of multimedia and the period since 2000 has been the period of the Internet (Colpaert, 2004). Today smart phones and tablets are increasingly becoming the way in which students gather information about almost everything.

Since the appearance of language laboratories, technology has been considered a solution for language teaching and learning, and lab administrators were convinced that such machines would 'revolutionize foreign language pedagogy and produce near-native speakers' (Bangs & Cantos, 2004:222). The early computer assisted instruction programs were delivered through central computer systems as programmed logic automatic teaching operations (Plato), and then the classification of the programs of the 70s and 80s encouraged researchers to look for another choice which appeared to be associated with computer assisted language learning (Salaberry, 2001).

Another way of identifying the time frames in the development of CALL relates to changes in pedagogical approaches over the years. Since the early 1960s, language teaching has witnessed dramatic changes; the focus of instruction has extended from the teaching of grammatical structures to the fostering of communicative ability (Al-Hammadi, 2011). Computers have been implemented in language teaching since the 1960s, and this period can be divided into three phases: behaviourist CALL, communicative CALL and integrative CALL (Warschauer & Healey, 1998). Behaviourist CALL was implemented in the 1960s and

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1970s, where the computer focused on repetitive language exercises. A cognitive approach emerged in the late 1980s and in this phase computers were used for skills practice but not in a drill format as in the behaviourist phase. In the 1980s and early 1990s the cognitive approach moved to a more socio-cognitive view of communicative teaching (Schmid, 2010).

The latest phase of computer-assisted language learning is integrative CALL, which allows learners of a language to communicate inexpensively with native speakers and also combines information processing, communication, use of authentic language and the autonomy of language learners, all of which are essential elements of current language theories (Lee, 2000). Yang (2010:909) defines integrative CALL as:

> A perspective which seeks both to integrate various skills (e.g. listening, speaking, reading and writing) and also integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools in an ongoing process of language learning and use, rather than visiting the computer lab on a once a week basis for isolated exercises.

The current approach is integrative CALL which is dependent upon multimedia computers and the Internet, and this technological progression has 'brought text, graphics, sound, animation and video to be accessed on a single, inexpensive computer' (Moras, 2001). CALL focuses on the use of the computer for language learning and contains all kinds of language learning activities that use the computer for assisted learning procedures. Thus, computers can be used as a tool to assist language teachers (Li and Qian, 2010).

Integrative CALL has experienced a rapid maturation in the last 20 years as a result of the evolution of the Internet which provides more opportunities for communication. Kern, Ware and Warschauer (2008:281) claim that:

> Over the past 20 years, computer networks have introduced unprecedented opportunities for language learners to access and publish text and multimedia materials and to communicate in new ways within and beyond the classroom.

In a contrasting view of the development of CALL, CALL has been divided into three approaches by Bax (2003). Bax (2003:20) indicates that is necessary to formulate

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an alternative vision of the history of CALL, one whose terminology is less confusing, and whose categories seem to fit better with the historical progression of CALL software, approach and practice.

Bax argues that the three phases of CALL proposed by Warschauer and Healey have a number of weaknesses and as a result, he has developed his own classification. Bax's three approaches are the following:

- Restricted CALL: dominated from the 1960s until about 1980.
- Open CALL: has lasted from the 1980s until today, with some Restricted CALL manifestations still observable and still valuable in their place (e.g. grammar revision and checking).
- Integrated CALL: exists in a few places and a few dimensions only, but is still not common.

Bax's three approaches can be summarised in Table 2.1.

Content	Type of task	Type of student activity	Type of feedback	Teacher roles	Teacher attitudes	Position in curriculum	Position in lesson	Physical position of computer
Restricted CALL Language system	Closed drills Quizzes	Text reconstruction Answering closed questions Minimal interaction with other students	Correct/incorrect	Monitor	Exaggerated fear and/or awe	Not integrated into syllabus—optional extra Technology precedes syllabus and learner needs	Whole CALL lesson	Separate computer lab
Open CALL System and skills	Simulations Games CMC	Interacting with the Computer Occasional interaction with other students	Focus of linguistic skills development Open, flexible	Monitor/ Facilitator	Exaggerated fear and/or awe	Toy Not integrated into syllabus—optional extra Technology precedes syllabus and learner needs	Whole CALL lesson	Separate lab—perhaps devoted to languages
Integrated CALL Integrated language	CMC WP e-mail	Frequent interaction with other students	Interpreting, evaluating, commenting, stimulating thought	Facilitator Manager	Normal part of teaching—normalized	Tool for learning Normalised integrated	Smaller part of every lesson	In every classroom, on every desk,

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skills work Mixed skills and system	Any, as appropriate to the immediate needs	Some interaction with computer through the lesson				into syllabus, adapted to learners' needs Analysis of needs and context precedes decisions about technology		in every bag

Source: Bax, 2003, 2

In a more detailed approach, Davies (2005) distinguishes eight periods of time to indicate the history and development of CALL in Europe in the last fifty years and these periods are the following:

- 1960s: CALL begins, but only on big mainframe computers. The International Association for Learning Labs was started in 1965 to focus on labs and is now known as the International Association for Language Learning Technology, which focuses on language leaning technology in general.
- 1976: CALL becomes more widely available.
- Late 1970s: the microcomputer was invented.
- 1980: CALL begins to reach the general population.
- 1980s: The professional associations CALLICO (1982) and EUROCALL (1986) are established.
- 1990s: The advent of the web, which becomes publicly available in 1993. EUROCALL becomes a professional association (1993) and the first World CALL conference is held in Melbourne, Australia (1998).
- 2000: Broadband becomes more available and there are new possibilities for delivering audio and video materials via the web and also blogs and podcasts appear.
- 2004: The web becomes established as a term describing major differences and changes in the way the web is used.

In the earlier days of CALL, the focus of the feedback was more on a grammatical or sentence level and it was limited to spell checkers, grammar checkers and keyword matching. When looking at the history of computers in language teaching and learning it is clear that much time was spent in trying to keep up with technological change from the early

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1980s to the 1990s. In the mid-1980s the desktop personal computer appeared on the scene. Since its appearance, the personal computer has become an important device to facilitate and utilize language teaching and learning, especially after the technological revolution (Hanson-Smith, 2003).

Chapelle (2001) indicates that the history of CALL in the USA goes back to the 1950s, but examples of CALL are not documented in the literature until the 1960s when many projects were developed to show how the computer could be used for foreign language teaching in higher education.

2.4 The advantages of CALL in foreign language education

The use of computers in classrooms as a tool to teach and learn either second or foreign languages is considered to be of great value and has rapidly become well known during the last three decades (Vivian, Mu-Shang & Pan-Ju, 2009). Computer Assisted Language Learning has been the subject of many studies in recent years as a result of the revolution of technology. The implementation of CALL in education has widely increased. Foreign language education is among the many different fields of education that has been influenced by technology. Today, computers play a pivotal role in the teaching and learning of a foreign language in many educational settings. Computer Assisted Language Learning is advantageous when considering the acquisition of foreign language skills. As an approach to teaching and learning foreign languages, CALL has been one of the main targets of a large number of studies.

In recent years there has been a rapid growth in CALL research in terms of quantity and quality (Blake, 2007). A large number of international studies have been carried out to investigate the importance of computers in the teaching of a foreign language. One such study was conducted by Premawardhena (2011). In this study, Premawardhena aimed to show the effect of incorporating interactive computer aided learning into teaching English as a second language. The participants in this study were 50 adults who were preparing for the International English Language Testing System (IELTS) examination. The candidates were

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divided into two groups of 25 participants each. All the participants had the same language competencies. Also, the length of the course and the materials used were the same in each group. The first group was taught using a face-to-face teaching method, while the second group was given the opportunity to practise computer aided language learning activities.

The findings of the study indicated that there was a salient augmentation in the second group's English language skills and the students in this group achieved a higher percentage in the IELTS examination. In addition, as Premawardhena pointed out, computers 'helped students to overcome several phonetic, phonological' morphological and syntactic errors that they made initially due to first language interference' (2011: 305).

Al-Kahtani (2007:6-7) indicates that integrative CALL using the Internet is significant for EFL teachers. According to him, the Internet is very beneficial for teachers in the following ways:

- Teachers will not be limited to school resources but can link to other locations on the Internet.
- Teachers can use Internet browsers to perform searches.
- Teachers can access online courses which help them to have a look at different teaching approaches and philosophies of teaching EFL courses.
- Moreover, teachers who use electronic mail can exchange ideas about teaching, methods of enhancing learning and seek their College's feedback.

Bloch (2009:73) argues that the 'Internet provides the opportunity to share teaching materials and ideas on teaching with other teachers all over the world without the restrictions and cost that publishing text books entail'.

Min, Yunxia and Zhuo (2010:404) carried out a study about the theoretical foundation of CALL and they found that

> CALL can provide a wealth and a variety of authentic and auditory input that no teacher could offer unaided. Access to a richly supportive technological environment with multiple resources built-in can provide the opportunity to individualize learning.

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Wanyi, Taogang, Fengwen and Sumin (2011) point out the importance of CALL application in foreign language education because the Internet provides the opportunity to update information without any effort and the application of CALL can enhance the teachers' effectiveness. Wanyi et al.(2011:2) argue that 'CALL helps the learner concentrate on his own foreign language learning'. Rath (2010:110-111) states that the use of computers in language teaching is very useful for learners in different ways:

- It helps learners develop and elaborate their increasingly specified cognitive representation for the second language.
- It allows learners to learn in a favourable and motivating environment.
- It allows learners to learn according to their own purpose and goals.
- It offers input to both the conscious and subconscious learning processes.
- It puts learners in touch with other learners.
- It promotes interactivity in learning and communication.
- It exposes the learners to appropriate contexts of learning.
- It expands the learner's zone of proximal development.
- It allows the learner to work at his/her own pace and then to reinforce that knowledge by frequent testing.
- It enhances the learner's knowledge of grammar with exercises and vocabulary games for English learners and word processing for writing.

Prathibha (2010:59-60) has implemented CALL in higher secondary classes and she found that CALL was advantageous to the students in the following ways:

- Students have more time to plan their utterances.
- Students' language proficiency was far better than in normal classroom communication.
- Students get meaningful reading practice.
- Students' anxiety and inhibitions about the second language (L2) decrease.
- Students' participation in the classroom activities becomes more equal.
- Participation of shy learners as well as slow learners increases.

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- Students' grammatical competence and all four skills (vocabulary, reading, writing, listening) increases.
- Students become more independent learners.
- Students' cross-cultural knowledge and understanding increases.
- Computers with CD-ROM drives provide input and a wide variety of registers and accents and this input can facilitate the formation of ideas.
- CALL helps to generate autonomous learners who will experience freedom of choice.
- Students can call up the programs held by computers whenever they want.
- Word processors, printers and graphics give young students the chance to create books and poems.

Shao (2012:202) indicates that the process of CALL has integrated multimedia which helps to increase vocabulary acquisition and thus:

> language learners can use multimedia software, access foreign language documents on the World Wide Web, and communicate with their teachers, fellow classmates and native speakers by electronic mail.

Ioannou-Georgiou (2006:7) notes that CALL is essential to help students to learn because 'CALL is essential for extra grammar practice, vocabulary learning, quizzes, writing practice, etc.'

Al-Jarf (2009) points to the significance of web-based CALL using electronic mail (email) to develop academic discourse, build knowledge and experience of the language, develop writing skills and encourage cross-cultural participation. Similarly, Chapelle (2008:586) argues that:

> Multimedia and Internet as forms of interactive CALL gives learners in different parts of the world the chance to practice their language and learn about their peers beyond their own classrooms.

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Chapelle also agrees that 'multimedia and other forms of interactive CALL provide focused input and interaction that can be selected to fit the learners' level and provide evaluation of learners' responses'(2008:586).

Al-Mekhlafi (2006:136) found that computer assisted language learning is useful for language learners because:

- The use of CALL inside and outside the classroom will help language teachers to meet individual differences in terms of learning styles because technology can satisfy all learners whether they are visual learners, auditory learners or audio-visual learners.
- CALL can give the language teacher some change in her / his roles as certain activities can be given to students to work on at home using CALL.

Sung and Yeh (2012:406) argue that:

> Computer technologies offer more flexibility and varieties and make online learning versatile and flexible as well. Internet technology also has great potential to positively affect students' learning outcomes in the language learning process. Furthermore, web-based learning is theoretically a suitable environment for students to take charge of their own learning.

Computer-based environments are very useful. Abu Seileek (2011) found, the computer-based learning environment helped and enabled the participants to reduce their fear and anxiety. Moreover, CALL programs stimulate students' autonomy (Tal and Yelenevskaya, 2012; Boulton, Chateau, Pereiro, and Azzam-Hannachi, 2008). Software is also beneficial because 'software is meeting different learner needs and there is a correlation between student usage of the software and improved performance in assessments' (Corder and Walter, 2005:1).

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2.5 The advantages of CALL in enhancing foreign language skills

2.5.1 Writing skills

Writing skills give students the chance to express their understanding of knowledge in different ways, by expressing their own feelings and using their own words (Cope, Kalantzis, McCarthey, Vojak & Kline, 2011). The significance of writing skills has been the subject of broad studies. Writing skills are not only necessary for educational outcomes but also for interaction with people all around the world as a result of the revolution in computer technology.

Many studies point to the vital role of computer-assisted writing to improve the quality of the writing process. Some of these studies focused on 'wikis' as one of the social networks that help learners to improve their writing skills. For example, Lee (2010) carried out a study of 35 students from one university. The aim of the study was to examine the importance of wikis to develop writing skills in their L2. All participants in the study had no previous experience with a wiki. The participants filled in a survey to indicate their linguistic knowledge and their experience with the Internet. These students had to use wiki pages for 14 weeks, and after they finished and completed the course, there was an improvement in the students' writing skills, and they produced more writing.

Another study that pointed to the vital role of web-based programs in foreign language writing skills is a study carried out by Sun and Chang (2012). The study examined the role of blogs to increase academic writing skills in foreign language classrooms. The findings of the study revealed unrivalled progress in the students' knowledge. Blogs helped students to interact with each other and to share their knowledge and experience. Blogs can also develop the social and pedagogical setting for students.

A further type of computer-mediated program that can improve writing skills is email. Email is very useful to help foreign language learners to communicate with people from different cultures and consequently foster their foreign language writing skills. Email is a beneficial tool that helps language learners to share their ideas and communicate with people all around the world:

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> Sending and receiving e-mails through the Internet can be regarded as one of the tools for re-learning if it is at the disposal of language learners. Since nowadays e-mail exchange is mostly done in place of sending traditional paper-and-pencil letters, it is not a new concept to EFL students, too. As a result it can be considered one of the more useful tools by which language learners are able to communicate their ideas (Behjat 2010:1-2).

Another study that pointed to the significance of email in improving writing skills was carried out by Mahfouz (2010). The study investigated the participants' beliefs and perceptions concerning the use of e-mail to improve their writing skills by exchanging e-mails with native English speakers. The participants in Mahfouz's investigation were 110 students in the University of Amman who answered a questionnaire. The results of the study revealed that students' email exchanges were beneficial to them. Their writing and language skills improved in various ways, including 'ranking structure and language functions first followed by vocabulary and phrases, style and content and organization of ideas' (2010: 404).

The augmentation in computer technologies can assist teachers and learners to resolve problems in EFL writing (Lee, Wong, Cheung & Lee 2009). Students can write their compositions and correct their mistakes easily by using a word processing program (Abu Seileek & Abu Sa'aleek, 2012). Also, more programs are available now to 'prompt the student writers to compose, revise, and offer suggestions for improvement' (Al-Jumah, 2012:102).

From these studies one can deduce that the integration of CALL in EFL classrooms should likewise improve writing skills among Saudi Arabian students. Computer-assisted language learning is, amongst other benefits that it has, more student-friendly towards mistakes, making students more confident and not as disappointed as they would be if they saw their mistakes corrected with a red pen (Behjat, 2011).

It is clear from the studies quoted above that CALL is advantageous to enhance writing skills among foreign language learners in different ways. We will now focus on the advantages of CALL in advancing readings skills.

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2.5.2 Reading skills

Reading is wildly regarded as the most important skill in any language:

> Reading is the basis of instruction in all aspects of language learning using textbooks for language courses, writing, revising, developing vocabulary, acquiring grammar, editing and using computer–assisted language learning programs. Reading instruction, therefore, is an essential component of every second language curriculum (Mikulecky 2009:10).

Fasting and Lyster (2005: 21) argue that:

> Reading and Writing are probably the most important skills learned at school. Success in reading and writing is of enormous importance to pupils' motivation at school, to their learning experience, and to their chances of succeeding academically and socially.

In their research, Fasting and Lyster (2005) carried out a study to evaluate the effect of computer technology in the literacy of struggling readers and spellers and to find out whether the computer would improve their literacy. They used a software programme called MultiFunk which is designed to support students who struggle with reading and spelling. The participants were 52 struggling readers and spellers and 114 students who read ordinarily. Pre-tests and post-tests were conducted to measure changes in their reading and spelling literacy. The 52 Norwegian readers and spellers were divided into an experimental group and a control group. The experimental group of 26 poor spellers and readers were taught using MultiFunk for seven weeks. The findings of Fasting and Lyster's study indicated that there was equal progress in the MultiFunk experimental group and the pupils who read normally. The control group on the other hand had low levels in the post-tests. The results revealed that computer assisted reading improved the basic literacy skills of struggling readers (Fasting & Lyster, 2005).

CALL is beneficial in teaching foreign language reading because the computer technology provides learners with authentic content. Also, CALL can provide foreign language learners with interpretation and comment. Abraham (2008) presented results from a meta-analysis of

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11 students on computer-mediated classes in second language reading comprehension and vocabulary. The findings of this meta-analysis revealed that computer-mediated classes had an overall medium effect on second language reading comprehension and a large effect on incidental vocabulary learning (Abraham, 2008).

Computer-assisted reading has great efficacy to improve the reading skills not only for students who struggle with reading but also for students who have learning disabilities. The computer can provide readers with the right pronunciation for any word and gives quick feedback without causing anxiety as face-to-face teaching might do. Different studies have pointed to the importance of computer systems in developing reading skills. For example, Lan, Sung, and Chang (2009) carried out a reading experiment for EFL early reading by using a system called a mobile-device-supported-computer-assisted-reciprocal early English reading (CAREER). The CAREER system consists of three components: a sight word module; a phonetic word module; and a peer assessment module. The participants in this study were 52 students at grade four level. The 52 students were divided into two classes. There were 26 students in each class and each class had 14 boys and 12 girls. Each class of 26 students was divided regarding the results of the reading skills tests (oral reading and re-tell fluency). On that account the experimental group had 61 learners with high-level, 11 with medium-level and 9 with low-level reading ability. The control group had seven learners with high-level, 10 with medium-level and 9 learners with poor reading ability. After the implementation of the CAREER system, post-tests were conducted to evaluate the development of the reading skills after 10 weeks. The results of the study indicated that the CAREER system increased the level of the reading skills in the experimental group. In contrast, the control group did not make any progress. The findings of the study revealed furthermore that the experiment could manage both individual and cooperative learning with the help of technology.

Another recent study that sheds light on computer-assisted reading was carried out by Maleki and Ahangari (2010). The aim of the study was to indicate the significance of computer assisted instruction for reading skills. The study also concentrated on the importance of students' attitudes regarding the use of computer-assisted reading. The participants in the study were 50 students from Islamic Azad University in Iran. They were divided into a control

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group and an experimental group. The control group participants were asked to read different texts and summarize their ideas. On the other hand, the experimental group was asked to use the computer to read and write their ideas. The findings of the study revealed that computer-assisted instruction had a vital effect on the reading skills and all EFL learners had a positive attitude regarding the use of CALL to foster their language skills.

Al-Kahtani (1999, n.p.) indicates that reading software has great benefits for ESL teachers and students:

> ESL reading software programs should not be restricted to only classroom use. Since teachers seek to help their students become independent learners, these programs are very useful for teacher as well as students to achieve that goal.

As indicated in the studies mentioned here, there seems to be no doubt that CALL is beneficial to enhance reading skills. It must, however be noted, that the results and findings of these studies cannot be generalized to all EFL classes because these studies were conducted on a limited number of participants. What seems to be clear, however, is that when EFL teachers are qualified to integrate CALL, and if classrooms are equipped with all necessary technological devices, CALL can be useful to enhance EFL language skills.

In the context of this research, what remains to be done, is to ask to what extent EFL teachers in Saudi Arabia use computers to enhance reading skills. To answer such a question, there is a need for more studies about the current integration of CALL among Saudi EFL teachers and to what extent they use CALL to teach EFL skills.

2.5.3 Speaking skills

As indicated in different studies CALL is not only useful to improve reading skills but it is also beneficial in enhancing speaking skills.

Oral communication in a foreign language does not happen easily (Ko, 2012). Oral communication skills are difficult for many EFL learners because teachers have limited time to work on pronunciation and speaking, and also because students have limited opportunities to use the target language to communicate outside the classroom (Chen, 2011). Students in

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Saudi Arabian secondary public schools still need to increase their English oral proficiency which is vital in their communication with people all around the world. Today, speaking proficiently is very important and cannot be neglected, as Abbasi (2011: 316) argues: 'Presently, the importance of oral skill proficiency cannot be denied, since spoken proficiency is gaining stronger and faster recognition throughout the world.'

Margaret (2010: 224) points out that

> speaking is a very important part of language learning. In the teaching and learning of a second language the articulation of the corresponding speech sounds is very challenging, especially for adult learners who already have a sound knowledge of the first language which is their mother tongue.

Foreign language learners feel more comfortable speaking into a computer than when they speak in front of the whole class where they feel frustrated and embarrassed when they make mistakes (Butler, 2009). Chen and Lee (2011) indicate that the web-based environment helps language teachers to reduce the language-learning anxiety of individual learners.

Eskenazi (2009:839) found that spoken dialogue systems are beneficial in improving students' speech because they provide

> possible correct utterances for each point in the dialogue. As the speech from a student comes, it is matched to the list of utterances. The system then takes the closest correct utterance and sends it to the synthesizer with a mark indicating where it was different from the student's utterance.

Educational blogs are examples of computer-assisted language learning which helps learners to develop their speaking skills. Educational blogs have a personal and authentic nature which helps students 'to focus more on meaning expression, rather than accuracy' (Sun, 2012: 494).

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Bahrani (2011) states that implementation of technology in language classrooms promotes speaking fluency because technology allows learners to have exposure to authentic language input.

2.5.4 Listening skills

Listening skills are vital to acquire second and foreign languages. When learners listen to the native speech of the language they are learning, they will become more fluent speakers. Listening ability is defined as

> an active and complex process in which listeners must identify sounds and lexical items and make meaning of them through their grammatical structures, verbal and non-verbal cues and cultural context (O'Bryan & Hegelheimer, 2009: 11).

Different studies have recently pointed to the importance of computer technology to improve listening skills. For example, Verdugo and Belmonte (2007) point out that Internet-based stories can be very useful in developing learners' listening skills if these stories are used in an appropriate way. Similarly, Sun (2010: 125) indicates that videos as an example of CALL are very beneficial in language learning as they:

> Can provide high-quality authentic listening and viewing material for a range of teaching purposes. Much of CALL is technology-driven with improvements in computer power, speed, storage and software tools helping to direct pedagogy and research.

Computer-assisted language learning programs provide the user with many opportunities to hear the second language. Typical listening activities consist of song, rhymes, and stories that are read dialogues aloud. In addition, some of these programs have more than one speaker which allows learners to listen to different accents and rates of delivery, and at the same time gives the learners a more authentic learning experience. The World Wide Web helps learners of almost any language to find a wealth of authentic audio and video to listen to language culture, while there are also many forms of listening exercises, many of which

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are free. This gives learners the chance to connect directly with the culture of the language they are studying (Hubbard, 2009).

McBride (2011:131) indicates that CALL is helpful in raising the level of listening comprehension because CALL materials are 'pre-recorded, and learners work independently, without a teacher nearby adjusting the rate of speech according to learner needs'.

Thus, CALL programs make a positive contribution to the improvement of all language skills. An example of such CALL programs is podcasting. O'Bryan and Hegelheimer (2007:162) argue that podcasting ‘shows promise as a technology that may allow teachers to expand the confines of their classrooms, and is becoming increasingly popular in educational contexts’.

As was revealed in the above mentioned studies, CALL is unquestionably useful to strengthen the level of foreign language proficiency among foreign language learners. As will be seen in the next section, studies were also done to ascertain the importance of CALL in enhancing linguistic knowledge of a foreign language.

2.6 The importance of CALL in foreign language linguistic knowledge

2.6.1 Pronunciation

CALL applications including wikis, blogs, software, CD-ROMs, the Internet and computer-based conferences are examples of computer-assisted language learning which can improve the linguistic knowledge and language skills of foreign language learners. CALL integration is effective in achieving the right pronunciation and in improving the quality of articulation. CALL can raise the quality of speech and also gives the learner feedback as Jiang, Tang, Ge, Liu and Dong (2009:92) say:

> The computer-aided-language-learning (CALL) system can automatically score the quality of human speech and provide continuous feedback to learners without requiring the sole attention of the teacher. So, it facilitates self-study and encourages

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the interactive use of the language rather than rote learning. The chief component of CALL systems is pronunciation quality assessment.

Very few studies have been carried out to measure the effect of CALL in second and foreign language pronunciation as Macaro, Handley and Walter (2012:24) argue: 'Interestingly, it was in speaking and pronunciation studies that tentative evidence for the effectiveness of CALL was found, although the number of studies were very small'.

A few studies have been conducted about various types and applications of CALL which are beneficial to foster foreign language pronunciation. Some of these studies pointed to the importance of software to augment oral pronunciation. For example, Liu, Wen, Lu and Chen (2011) found that pronunciation training software can improve pronunciation ability. Neri, Mich, Gerosa and Giuliani (2008) investigated computer-assisted pronunciation training (CAPT) in English as a foreign language in Italy. The participants in the study were divided into two groups which were a control group and an experimental group. The control group was trained by an English teacher, while the experimental group was trained by computers, using the PARLING modular system that focuses on the quality of pronunciation skills. The pronunciation training lasted four weeks. Pre-tests and post-tests were carried out by the researchers in order to measure and find the probable development on the pronunciation rank. The findings of the study revealed that the students who were trained by PARLING had more improvement in the quality of their pronunciation skills than those who were trained by teacher-led-instruction. (Neri et al., 2008).

Regarding the use of pausing, stress and intonation, Tanner and Landon (2009: 62) found that computer-assisted pronunciation had a pivotal effect on 'perception of pausing, perception of word stress and controlled production of word stress'.

2.6.2 Vocabulary

To learn any foreign language, the first step is to learn the vocabulary of that language because it is the essential part of that language (Dai-Young et al., 2010).

With the almost universal use of computers among students, researchers are attracted to study the impact of computer-assisted language learning (CALL) on students' language

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development. However, studies about vocabulary learning strategies are still limited (Ling & Kai, 2011).

One of the techniques mentioned in the literature to improve vocabulary, is to memorize words with corresponding images or sounds and to repeat the memorization activities (Kaneko et al, 2008: 147). Computer-assisted language learning applications are effective to help foreign language learners to increase and memorize their vocabulary because CALL includes verbal information such as words and symbols as well as non-verbal information such as pictures or objects. So, when foreign language learners use both systems to encode information, they will learn better than if they use only one system (Xu, 2010: 312). Additionally, software is very useful to learn and teach foreign language vocabulary. For example, Nakata (2011) investigated the impact of computer-based flashcard software to learn vocabulary and found that this technique could encourage learners to study vocabulary. Wisenand and Dunphy (2010) pointed out that the use of computer-based crossword puzzles is useful to develop and maintain the second or foreign language vocabulary because they can introduce different learning styles and help students to differentiate between similar words and phrases.

Lin and Chiu (2009) also come to the conclusion that computer-assisted online applications are very effective in building up the vocabulary of foreign languages and to foster the lexical and listening abilities of the learners.

2.6.3 Grammar

Using computer technology to teach L2 grammar has been the subject of many studies. For example, Sauro (2009) indicates that computer-mediated corrective feedback alerts learners of a second language to their errors in L2 grammar. Mohamad (2009) found that the Internet can be useful in developing grammar competence and to improve writing skills in foreign language classrooms.

Multimedia as an application of computer-assisted language learning, can be used very effectively to teach the grammar of foreign languages because it makes the teaching of language more interesting and motivating by using graphic images, clear photos, sound and video (Tuan & Doan, 2010). With the coming of the Internet age, CALL started to strongly

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focus on group connectivity and computer-mediated communication which makes the older formats such as multiple-choice and filling in the blanks not enough to teach grammar. Grammar exercises need to be integrated, intelligent and innovative with real communicative goals (Godwin-Jones, 2009).

Many foreign language teachers agree with Godwin-Jones' view. The old methods of language teaching should be replaced by new methods that allow students to learn the grammar of a foreign language in an authentic environment. Teaching foreign language grammar using a traditional approach is not authentic and will not enable learners to communicate with confidence in an appropriate way as Pérez-Llantada (2009:41) contends: 'Under the traditional approach, learners were taught grammar items and patterns but were unable to use them accurately'. The significance of using computers for teaching English grammar is that computers enable each learner to work according to his own pace and at the same time the learner may move freely from one component to another as he wants and according to his needs (Abu Nabah, 2012).

There were also a number of studies that investigated possible disadvantages of CALL. This will be the topic of the next section.

2.7 Disadvantages of CALL in foreign language classrooms

As this study presents various studies on the advantages of CALL, it is essential to also shed light on studies showing the disadvantages of CALL. The identifying of both the advantages and disadvantages of CALL will assist in the effective integration of CALL.

Lai and Kritsonis (2006:3-4) indicate that computer technology has some disadvantages in second language acquisition:

- Expensive hardware and software has become obligatory for schools and parents.
- It becomes necessary for both teachers and learners to have basic technology knowledge skills before they can integrate CALL to assist second language teaching and learning.
- The software for CALL is still not perfect.

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- Computers cannot deal with unexpected situations and students' learning problems as teachers do.

Although educators have generally encouraged the integration of computers, they recognize these critical concerns and challenges (Wood, Specht, Willoughby and Mueller, 2008). Wang (2005:41-42) indicates the following disadvantages of technology integration in classrooms:

- A few common pitfalls of Internet use include objectionable materials, predators, copyright violations and plagiarism, viruses and hacking, netiquette behaviour and privacy issues. Teachers must be prepared and trained to deal with these issues to successfully integrate computers in their classrooms.
- The costs and funding of hardware, software, staffing and training are high.
- Technology may not be good for every language at all educational levels.
- Spending too much time on computers is considered harmful to a child's development of relationships and social skills

Warschauer and Meskill (2000:309) argue that the main disadvantage of using computers is that:

> There is no single predictable outcome for using computers, any more than there is for using books or libraries. Thus, teachers and institutions are expected to invest large amounts of time and money without any guarantee of achieving particular results.

The researcher does not agree with Warschauer and Meskill as this particular disadvantage would be applicable to any teaching methodology and while it is a valid argument in itself, it would not logically disqualify CALL as an effective teaching method.

2.8 The role of foreign language teachers when integrating CALL in the foreign language classroom

Without question, a foreign language teacher plays a pivotal role in the integration of CALL in the foreign language classroom. The foreign language teacher is critical in this process and

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many studies have focused on the role he or she plays in this regard. (Lipsitz, 1971; Grabe & Grabe, 2012).

Within an environment where CALL is part of the teaching and learning process, teachers should be aware of the ways in which the role they play in this process has changed.

In a CALL environment, teachers must guide the learners to take responsibility for their own learning and they should update their teaching ideas and pedagogy. To affect this change, the importance of in-service teachers' training, including computer training, is highlighted. Training can help teachers to renew or enhance their computer competency and literacy to help with the integration of CALL in their classrooms (Min,2011).

Zhang and Li (2010:563-564) state that the 'English teacher should (…) adjust himself (sic) to the new roles: an organizer, a designer, a guide, a facilitator, an assessor , a participant and a learner'. With the help of teachers, students will be able to gain the full potential of using computers and improving their skills as well as to collaborate with their basic knowledge (Tsai,2010).

The integration of the computer is not only changing teachers' roles in the classroom but it is also changing their methods of lesson preparation and the ways in which they deal with their students. Also, with the implementation of computers, teachers need to know how to design activities, how to manage learning in such an environment, how to develop their own software and how to manage their time (Xiao et al., 2005:1-10). Xiong and Ling (2010:261-262) carried out a study about teachers' role in computer based college English teaching. In their study, the researchers outlined seven roles for teachers when integrating computers in English teaching:

- Teachers should be designers and curriculum makers, as opposed to the traditional method of teaching where teachers designed obligatory curriculums.
- Teachers are suppliers of material and planners of specific teaching tasks. It is not the time for a book and blackboard. In the information age, teaching resources should be updated.
- Teachers have to be the managers who assist and encourage those who are not enthusiastic to be motivated.

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- Teachers are the active guiders who guide students to construct knowledge and make a great learning environment.
- Teachers should be partners in students' learning process.
- Teachers should be researchers. Teachers can use computers to do scientific research which will raise their competence and make them more qualified and knowledgeable in their fields.
- Teachers should be educators and guide students to make good use of networks to ensure computer-based teaching is effective.

With the inclusion of information technology and curriculum in the computer network era, teachers should realise that their roles must shift from 'teaching' to 'leading' which means that they should adopt the following roles (Jian-wen &Xin-li, 2011):

- They should help students to figure out the appropriate learning objectives.
- They should correctly help students to form good learning habits and direct them towards getting the desired information from the Internet.
- Teachers should help students to change their attitudes from 'you want me to learn' to 'I want to learn'.
- Teachers should support their students with all kinds of facilities to quickly get the information from the Internet and use the information to complete the learning tasks.

Having discussed the importance of teachers' roles, it is critical to also discuss teachers' attitudes towards the use of CALL in their classrooms. Teachers will not be able to realise their roles in the computer-assisted language learning classroom, unless they have positive attitudes towards computer use. If teachers have negative attitudes towards the systems or methods they use, the integration of computers will not succeed. As Carballo-Calero (2001:8) says:

> When we speak of the teacher's role we have to consider his attitudes as well, because the teacher's attitude is a basic element within the group of elements which integrate the teaching of language with multimedia.

Thus, teachers' computer training is of vital importance; it can change their attitudes to be more positive and increase their motivation to update their knowledge and integrate CALL

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with confidence. Only when teachers have adequate confidence and positive attitudes, will they function efficiently in their roles.

Hashemi and Aziznezhad (2011) indicate that English teachers and foreign teachers in general can be effective teachers when integrating CALL if they consider some factors. First of all, they should evaluate the computer skills of the learners, secondly, teachers should be able to evaluate the learners' language level, and thirdly, a few technical issues must be considered. Levy (2006:2) classifies three kinds of decisions that language teachers should make when designing a curriculum:

- The first group of decisions arise as a result of the teacher's belief about the nature of language and language learning. Decisions here lead to the aspects of language which the teachers choose to isolate and highlight for learners to attend to and learn, within the classroom and outside of it.
- Secondly, once the language and learning goals are clarified, the teacher must consider the pedagogical approach and methodology. In a task-based approach, appropriate tasks have to be formulated and then, through the design and implementation of the task, the learners need to be encouraged to attend to the language aspects in focus and to refine their understanding and skill in manipulating them.
- The third set of decisions concerns the choice of technologies to support the learning tasks. Different technologies have various strengths and limitations which instructors need to understand if CALL is to be used effectively.

Teachers play a vital role 'in bridging the gap between: (a) the potential of technology to support learning as indicated by research; and (b) teachers' own choices about pedagogy and the classroom practices' (Cviko, McKenney & Voogt, 2011:32).

With the rapid development of educational technologies teachers need to be careful when considering the kind of technology they will use in their classrooms. Teachers need to have the ability to choose technology that suits their students' needs. Besides, part of a teacher's role when integrating technology is to be able to choose carefully the kind of technology that they want students to participate in and which suit their needs:

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> Teachers need to think carefully about the kinds of technology-based activities in which they want students to participate (a) in the everyday 'smart' classroom, (b) in a computer lab during class time, and (c) outside class hours in other settings or with their own technologies (Garret 2009:721).

Scrimshaw (1997: 111) points out that the teacher's role when integrating the computer is:

> To assist learners to find out how to collaborate with and learn from others. This requires the explicit teaching and learning of ways of organising co-operative activities involving computers, whether in face-to-face groups round a single machine or through co-operation at a distance via a conferencing or e-mail system.

Al-Shehri & Gitsaki (2010) note that part of teachers' role when integrating CALL is to be aware of instructional design that accommodate their students and meet their needs.

From the review of literature on this topic, it is clear that the teacher's role when integrating CALL is critical to make technology more active and to enhance students' knowledge Teachers' computer literacy is also vital and this is indicated in various studies which will be discussed in the next section.

2.9 The importance of computer literacy for foreign language teachers

Since the commencement of the 20thcentury, the traditional meaning of literacy has broadly changed and another meaning of literacy has developed and literacy does not mean only the ability to read and write. The development of computer technology has expanded the meaning of the word 'literacy' and brought up new literacies such as 'computer literacy', 'electronic literacy', and 'information literacy' (Son, Charismaidji, &Robb, 2011: 26).Computer literacy has become vital in all sectors, not least in education. Teachers have to shift traditional teaching aids and realise that technology is advancing. Teachers need to develop their computer competence and it is imperative that they be computer literate.

Compton (2009, 83) indicates that technological skills are divided into three levels which are:

> Novice, proficient and expert. The emphasis at the novice level is for the teacher to become a proficient user of technology. Familiarity with a range of technology can

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then help to increase, the teacher's confidence in using the technology for teaching for teaching purposes. At the proficient level, the emphasis is on being an effective judge of different technologies so the teacher can choose the best technology given a certain set of conditions.

Winke and Goertler (2008:497) argue that computer literacy for language teachers should be more than general computer literacy. It should include 'access to, and being familiar with, tools for foreign language CMC and written and oral skills development via the computer'.

2.10 The significance of computer training for foreign language teachers

One of the pivotal components in the effective integration of CALL in the foreign language classroom is teacher training. Learners of a foreign language cannot get the potential benefit of CALL without computer literate teachers. To build that literacy, teachers need both pre-service and in-service training. Pre-service teacher training is the foundation for the teacher to start with confidence, while in-service is critical to keep his or her computer competency up to date. One of the hindrances that teachers encounter when integrating CALL is irrelevant or inadequate computer training. As technology advances, computer training for teachers should also advance. Computer training is an ongoing process. So, pre-service training alone is insufficient in making teachers computer literate. Language teachers especially should constantly update their skills to be able to deal with educational technologies and to be able to integrate such technologies in their classrooms.

Since computer training is essential in equipping foreign language teachers with the necessary skills to integrate CALL, it has been the topic of a substantial body of literature. Recent studies have explored the importance of pre-service and in-service computer training for teachers.

In 1999, Scheffler and Logan highlighted the importance of computer competencies for teachers. In their study, Scheffler and Logan used a Delphi panel survey of 67 computer competencies. The aim of the study was to rate the participants' computer competencies. The participants consisted of people who had some computer proficiency, like teachers, educators and directors. The results of the study indicated that there is a:

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> Growing need for teachers to learn more about how to use and manage this resource to enhance instruction. This change can only come about with teacher confidence and teacher competence in the use of computer technology (1999:319).

Scheffler and Logan found that teachers need to know how to use technology as a learning aid in their classrooms more than how to teach their students about computers:

> The most important competencies for teachers appear to be the knowledge and skills to make computers a seamless part of the school curriculum. Teachers, in general, have less need to teach about computers and greater need to use technology as a learning tool that is integrated routinely into classroom instruction (1999:319).

In 2000, Yildirim examined the importance of computer training for pre-service and in-service teachers. The findings of the study revealed that such courses are critical for the pre-service and in-service training of teachers and that these courses assisted the development of positive attitudes towards computer use in teachers with pre-service training.

In 2009, Puerto and Gamboa, a study by a web-based questionnaire was completed by 166 language teachers. The aim of the questionnaire was to gain information about the foreign language teachers' use and need for information and communication technologies (ICTs). The findings of the study indicated that although teachers consider social communication to be a vital factor in foreign language acquisition, they do not use computers for co-operation and 'interaction'. The findings further revealed that the use of computers by language teachers in their classrooms is not as advanced when compared to their personal use of computers. Puerto and Gamboa have explored two important facts; the first being that teachers were more competent when they used computers for their own personal use than when using them in the classroom. The second fact is that teachers were more competent with the use of CALL as learners than as teachers. With this regard, Puerto and Gamboa state:

> It is necessary to emphasise the importance of teachers' training so that they are prepared to integrate new technology in language instruction and are able to manage the new relationships established in language classrooms (2009:149).

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Some studies pointed to the skills that foreign language teachers should have to effectively use CALL. For example, Al-Hashash (2007:18) suggested the following skills for 'English teachers to prepare themselves for the digital age':

- Get access to computers with an Internet connection
- Learn how to search for information on the World Wide Web
- Learn how to send and receive e-mails
- Learn how to join and participate in news groups, and find colleagues with similar interests
- Learn how to attach documents and other files to e-mails
- Learn how to create, publish and update a home page
- Learn how to type with both hands without looking at the keyboard

Bringing technology into classrooms does not mean that teachers should only have the technical skills to integrate CALL. Integrating technology into classrooms has its implications for the academic practice of teachers as well (Mahmud & Ismail, 2010:6). The teacher is the main figure in the classroom who can decide whether to utilize computer technology or not and therefore teachers need to be trained and well prepared to be aware of or have a basic understanding of how the technology can be integrated and effectively used in the classroom (Hardly, 1998: 119).

Teachers need to be well trained to develop their technological skills as well as their pedagogical knowledge and they also need training in how to choose, apply, and integrate CALL in their classrooms. So, the integration of language technology requires a mixed knowledge of foreign language pedagogy, teaching experience and computer literacy (Bangs & Cantos, 2004:221-239).

Ioannou-Georgiou (2006:383-384) found that CALL training is one of the main factors that influence teachers' use of technology in their classrooms. The factors identified by Ioannou-Georgiou (2006:383-384) include the following:

- Teacher training as regards technological literacy: Teachers should be trained so that they are confident users of technology

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- Teacher training as regards to CALL implementation/pedagogy: Teachers should be trained how to implement CALL in the classroom without sacrificing learning pedagogy.
- Involvement of training staff in decisions about technology: This is important in that it involves the teachers in the process of CALL implementation and promotes the feeling of ownership, which teachers should have for technology.

It is essential to prepare teachers because online environments are different from face-to-face interaction. Language teachers' training courses are not just about teaching teachers what technology is, but involve 'evaluating its potential benefits in language teaching and learning, locating high quality instructional materials, researching current language educational uses, and sharing findings with language educators' (Sophocleous, 2012:175).

Egorova et al (2007) discussed the integration of the Information and Communication Technologies in Foreign Language Teaching and Learning which was a training course for pre-service English language teachers in the Buketov Karganda University in Kazakhstan. The main aim of the pre-service course was to increase language teachers' competencies to be able to fully integrate technology in the language classroom. The findings of the study indicated that the course:

> Not only developed some useful skills to use technology with their own students, but also developed an understanding that information technology is a necessary tool in contemporary second language education (2007:255).

Another recent study that examined a university course in providing pre-service training for teachers was conducted by Marks (2009). This study investigated one course that trained teachers who had:

> Limited technology skills to use cutting edge technologies along with engaging and challenging pedagogy in integrated lessons designed to meet curriculum standards as well as promote creativity, problem solving skills, co-operative relationships, and critical thinking skills(2009:363).

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In this study, the data was obtained through surveys and course evaluations. Marks' research results indicated that pre-service teachers' anxiety when using technology in their classroom decreased as their competencies advanced. After the course, the participants were more confident and happy to integrate technology in their classrooms.

Kilickaya (2009) reports on the effectiveness of a course presented by the Department of Foreign Language Education at Middle East Technical University. The course set out to establish the effect of an undergraduate-level computer-assisted language learning (CALL) course on pre-service English teachers' practice teaching.

The technologies presented in the course ranged from discussion boards, internet telephony and conferencing to online tools. The course also had a theoretical side which involved the reading of various articles pertaining to the use of technology in language classrooms. After the course, the participants revealed that they gained profitable information from what had been presented in the course, whether theoretical or practical. The participants stated that they felt ready to integrate CALL tools in their classrooms, although they did express concerns relating to a lack of equipment, support and modelling. Kilickaya's study shows the importance of both theoretical and practical teacher training. Hands-on practical training gives teachers the necessary confidence to use CALL in their language classrooms.

It is necessary that in-service training is scientifically designed and the latest technology should be made available to schools (Bala, Phil & Bamba, 2012:294). To benefit from technological enhancement, CALL teachers' preparation should focus on both pedagogical practices as well as technology skills (Kessler, 2010: 387).

Teachers need to upgrade and develop their technological skills to integrate technology as indicated by Saleh and Pretorius (2006: 112) that 'teachers need guidance in group dynamic practices and communication skills, and have to work as team members to embrace change'. Park and Son (2009) indicate that in-service teachers' training is useful especially if they trained in their schools to line between their text books and their skills for CALL which they use in their teaching. Park and Son also found that school-based teacher training is advantageous because teachers can learn how to use CALL by observing and discussing

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problems or ideas with the teachers. This gives teachers the chance to learn in a friendly environment where they can help and support each other.

Sardessai and Kamat (2011) found that in-service teachers' computer training is essential because of the rapid development of technology and even if some challenges are encountered in this computer training a mixed approach can be utilised to resolve them. According to them a mixed approach is advantageous because it 'combines face-to-face teaching with web-based support for dissemination of content and online discussion, and has a great deal of potential' (2011:266).

Rahimi and Yadollahi (2011) are of the opinion that in-service teachers' computer training should help them to overcome difficulties including their basic attitudes towards computers and anxiety.

Since the nineties, computer technology has become of great significance in human lives and occupational and personal successes have become more positively correlated with both knowledge and skills of computers, so, teachers need to be well prepared and trained as teachers act as the key to the effective implementation of computer technology in their classrooms (Abidin, Issa & Mustafa, 2012:62). It is important that in-service teachers' computer training programs are closely correlated to their teaching practice and teachers are trained by teachers using the same methods that they will apply in their classes later on (Tuparova & Tuparov, 2011:289).

Egbert, Paulus and Nakamichi, (2002:113) suggest that one course of computer training is not sufficient to change teachers' practices and teachers' training 'can change teacher's attitudes toward and confidence with technology and can also provide them with skills that they did not previously have'.

Puerto and Gamboa (2009:148) found that language teachers most often use the computer applications which do not need a long time to prepare or implement and they rarely use the more complex applications such as forums, wikis, interactive whiteboards, text chat, audio chat and video chat. This indicates that teachers are still not really sufficiently qualified in all computer applications. So, in-service teachers' computer training is essential to prepare

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teachers to be competent to implement any computer applications whether a complex or easy one, as Puerto and Gamboa argue:

> It is necessary to emphasize the importance of teachers' training so that they are prepared to integrate new technology in language instruction and are able to manage the new relationships established in language classrooms (2009:148).

All the studies mentioned above emphases the significance of computer training to enhance integration of CALL among foreign language teachers.

2.11. Barriers to the integration of technology in the classroom

The barriers to integrate CALL have been the subject of literature as indicated in the following overview of research conducted. Al-Kahtani and Al-Haider (2010:164) pointed out the following factors that might stand in the way of integrating CALL in the instruction of EFL:

- Insufficient number of computers for EFL teachers.
- Limited number of software programs.
- Lack of staff to supervise students.
- Management of CALL integration into the academic schedule.
- Inadequate training knowledge.
- Unwillingness to use CALL for EFL instruction.
- Inadequate computer resources.

Furthermore, Dashtestani (2012:67), argues that the 'lack of computer based facilities is a serious problem'. Similarly, Mahdi (2013:195) argues 'Lack of teachers' technical support and inadequate budgets are also important problems that face the integration of CALL'. Moreover, Mahdi highlights five main issues that should be considered when integrating CALL into the classroom:

- Personal issues: There are three factors that influence individuals' use of CALL. The first one is external (e.g. ICT knowledge, lack of support from administrator and training). The second is internal (e.g. teachers' beliefs and attitudes). The last one is instructional (e.g. problem with assessment and teaching experience).

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- Technical issues: such as ICT location, classroom organization, inadequate CALL resources and the quality of hardware and software.
- Pedagogical issues: There is need for new technologies to fully integrate CALL and the textbook should be designed to suit the learners' need and encourage CALL to be implemented. Most of the textbooks used for EFL teaching contain some aspects that learners cannot cope with. And these books need to be taught in a limited time which reduce the chance to use CALL.
- Socio-cultural issues: The integration of CALL is influenced by learners' and teachers' perceptions. For example, some teachers may not be interested in CALL because they are afraid that their students may be influenced by some other foreign culture.
- Institutional issues: The level of administrative support to language teachers plays a major role in the success of CALL. Financial incentives or any other form of rewards to the teachers are important factor to keep the dynamic of teachers in implementing CALL. The success of CALL integration also depends on the types and objectives that the institution will invest.

Vi (2005:63) points to the following barriers in the way of integrating computer network technology. These barriers are 'the cost of setting up a network', 'the use of the internet in language teaching and learning requires some technological knowledge and computer skills from both teachers and learners' and 'searching for materials on-line can be time consuming and frustrating'.

Wood et al. (2008) indicate that computer training, funding for computers, upgrading and software are all barriers for educators as well as language teachers to fully integrate CALL. Another barrier that language teachers encounter when integrating CALL is ‘to shape some of their computer-using experiences into language learning experiences’ (Chapelle, 2001:2). Sung and Yeh consider technical limitations, the design of computer-based materials and students’ attitudes as very important factors that could affect the integration of technology as

> Technical limitations cause many learning environments to resemble the early days of computer-based learning in that materials are static and interactivity is limited. The material designers need to possess fundamental knowledge about the content area so

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as to design an effective learning environment. Considering these aspects, in depth understanding of students' learning attitudes and how they respond to the latest educational technology is very important in successful foreign language processes (Sung and Yeh 2012:406).

Ahmed and Khurshid (2012:141) found that administrative issues and lack of professional training as well as teacher's personal commitments and time limitations were all major issues encountered by teachers when using computer assisted instruction.

2.12 Barriers encountered by foreign language teachers when integrating CALL

As the focus of this study is on teachers, it is important to mention the barriers that prevent them when using CALL. Barriers that impact teachers' implementation of CALL are divided into external and internal barriers. External barriers include limited time, inadequate computer facilities at school, lack of flexibility in the curriculum, lack of support from administration or government as well as stress from society. On the other hand, internal barriers include teachers' limited computer knowledge and teachers' beliefs and attitudes toward CALL (Park & Son, 2009).In addition, teachers' inadequate computer training and their limited understanding of how to use the latest technology also hinder them from integrating technology in their classrooms (Vi, 2005:63). Mahdi (2013:196-198) listed five barriers that could prevent individuals from using CALL:

- ICT knowledge. Teachers should have some essential ICT skills to be able to integrate CALL in their classrooms.
- Training. Another fundamental barrier to integrate CALL is teachers' training which is not enough and needs more development.
- Technical support. Inadequate technical support is a hindrance for teachers who wish to use CALL. Teachers' who lack technical skills and ICT knowledge should be encouraged to master these skills and consequently they should be given the training they need.
- Time. To fully integrate CALL, teachers need enough time.
- Beliefs. To have a sufficient integration of CALL, teachers need to have positive attitudes to CALL.

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Regarding the barriers encountered by teachers when integrating technology, Garret (2009) notes that teachers have the problem of uncertainty when they want to select interacting materials for their students from the many different texts, video, images and audio which are available.

Kopcha (2012:) indicates that teachers' access to technology, their beliefs, time and training are all barriers to be overcome before technology can be integrated in their classrooms.

Some teachers are reluctant to change their traditional ways of teaching not because they reject the need for change but because they believe that they lack the necessary education and training to use the new technologies (Bingimlas, 2009: 239).

2.13 Education In Saudi Arabia

Figure 2.1: Map of the Kingdom of Saudi Arabia

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The Kingdom of Saudi Arabia is a monarchy which is governed by the royal family (Al Saud) and council of ministries. Saudi Arabia has adopted the Quran and the Prophet's Hadith as its basic law of government (Baki, 2004: 1-2). All Saudi Arabians are Muslims and Sharia is the law and constitution of the country, while the Sunna which is the tradition of the Prophet Mohammad, regulates daily life (Pharaon, 2004: 349–350).

The Kingdom of Saudi Arabia is to some extent a young state which was founded in its present form by King Abdulaziz bin Abdulrahman Al-Faysal Al Saud in 1932. It is one of the largest countries in the Middle East and in the Arab world (Twal, 2009: 14-22). Saudi Arabia has a critical position in the Middle East, because it is the guardian of the two Holy Mosques in Mecca and Madinah (Hamdan, 2005: 56).

The capital of Saudi Arabia is Riyadh city and the official name of the country is the Kingdom of Saudi Arabia. The monarchy is governed by King Abdullah bin Abdulaziz. Saudi Arabia is about one fourth the size of the United States, is spread over 2,150,000 square kilometres, and is surrounded by the Red Sea in the West, by Yemen and Oman in the South, the Arabian Gulf, the United Arab Emirates and Qatar in the East, and Jordan, Iraq and Kuwait in the North (www.mep.gov.sa). The official language in Saudi Arabia is the Arabic language which is the language of the Holy Quran.

The first modern educational system in Saudi Arabia was developed in 1924 when the Directorate of Education was established to spread and direct the development of learning and knowledge. From 1924 to 1953 a number of educational goals were achieved by this directorate, and one of these achievements was the establishment of an industrial school in 1948 with Egyptian staff and curriculum. In 1954 the national educational system was reformed and the previous Directorate of Education was replaced by a Ministry of Education which was given the specific task of developing the national school system to give it a modern basis (Al-Sadan, 2000: 145).

Today, the education system in Saudi Arabia is divided into three types: general education, technical education and vocational education, and higher education. Under the administration of the Ministry of Education, general education is divided into elementary school which consists of six years, three years of intermediate school and three years of secondary school

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(Al-Asmari, 2005:30). After the first year of secondary school students choose to specialize for the remaining two years either in science or literature. Higher education in Saudi Arabia falls under the Ministry of Higher Education while vocational education falls under the supervision of the General Organization for Technical Education and Vocational Training,

Education in the Kingdom of Saudi Arabia is strongly affected by the Islamic religion and educational issues cannot be interpreted without referring to religious beliefs and the Islamic code of conduct. Thus, religion and education in Saudi Arabia cannot be separated and they are seen as indivisible. As a result, education is strictly gender segregated at all levels of education in terms of students, school buildings as well as teaching staff (Oyaid, 2009: 16). Education in Saudi Arabia has strongly increased as a result of the increase in the oil revenue of Saudi Arabia, and in the last decade the Saudi Arabian government has increased spending on education which reflects the emphasis of the Saudi Arabian government to improve education in the country (Khatib, 2011: 76).

New trends in Saudi Arabian education have started to raise the standard of skills among Saudi Arabian students to prepare them to meet the needs of the modern world and these trends have the following implications(Rugh, 2002: 44):

- The pressure on educational institutions to enrol more students has led to an increase in the number of schools and the demands of the economy now emphasize scientific and technological subjects more than before.
- Government-owned companies such as the Saudi Arabia Co and Saudi Arabian Airlines have extended their training facilities in order to meet their needs for skilled workers, while private centres for training skilled workers and skills such as computer literacy have become widespread all over the Kingdom of Saudi Arabia.
- Some Saudi Arabian Colleges have started to adopt the American credit hour and semester system and the use of English as the medium of instruction has increased.
- In 2002, the Minister of Education decided to introduce the English subject in all boys' schools from age 9 rather than 12.
- New private educational institutions have appeared.

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Al-Mansour (2006) states that the Saudi Arabian government is continuing to update all educational systems in the kingdom. The interest in developing the education system in Saudi Arabia is the main concern of the Ministry of Education as well as the Ministry of Higher Education and the General Organization of Technical Education and Vocational Training. The Ministry of Education has a plan for the following ten years and this plan (2005–2015) has different projects including the development of kindergartens which are considered to be an independent stage in both buildings and curricula. The projects also aim to assess and develop study plans and curricula in all public schools, to establish learning resource centres and to prepare training programs in different fields as well as the training of educational supervisors, teachers and school principals. The Ministry has also focused on the implementation of education technology and computers and introduced English language teaching and computer skills at an elementary stage. The Ministry of Higher Education takes care of the quality of higher education by establishing the national centre for assessment and by expanding scientific fields which the country needs. Finally, the General Organization of Technical Education and Vocational Training is continuing to expand technical colleges as well as vocational training centres(Al-Mansour, 2006).

The quality of education is an important issue in the Kingdom of Saudi Arabia. The ninth development plan of the kingdom of Saudi Arabia which covers the period 2010–2014 has a chapter titled ‘Development of Human Resources’ which addresses the future plans, objectives and targets for education systems in Saudi Arabia. Raising the quality of education is one of the most important objectives of the Ninth Development Plan. Raising the quality of education and improving the educational system is intended to achieve scientific progress by reassessing curricula, updating and renewing knowledge, experience and skills, and equipping students with self-learning capabilities (mep.gov.sa, 2010: 394). Moreover, competent and qualified teachers are essential to raise the quality of education and there is a need to re-qualify teachers, upgrade their efficiency, and develop their teaching and leadership capabilities, through continuous interactive training.

In addition, there is a need to provide teachers with ICT skills and expertise to enable them to employ these in teaching, as well as to develop their positive qualities and foster their spirit of belonging and their loyalty to the country and the teaching profession (mep.gov.sa, 2010:

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394). Although the Kingdom of Saudi Arabia has a significant interest in education, English is still poor among Saudi Arabian students, even those who graduate from college and university. Much research has indicated that the standard of the English language is mostly poor in the Kingdom of Saudi Arabia and Saudi Arabian students still cannot compete with students from Arab or Asian countries (Javid, Farooq & Gulzar 2012:58).

Rapid changes are occurring in the modern Arab Gulf societies and one of the fields that is really affected by these changes is education, and mandating the use of English as the medium of instruction is one of the challenges that is facing education in the Arab Gulf countries (Ahmed, 2010:1). English is an important language to learn because it is the language of communication all over the world and, as Saudi Arabia is a major oil producing and exporting country to a lot of countries and English is essential in international trade, Saudi Arabia understands the importance of English as a source of professional growth (Al-Seweed, 2009:10).

The English language is the most favoured language of business in most countries but many in developed and developing countries still have difficulty in mastering this language (Vishranthi, 2012: 598). Teaching of English in Saudi Arabia started in 1929 with four hours per week and in 1958, the aural-oral approach was adopted, then the communicative approach was adopted, but there was no real shift to the communicative approach and teachers continued their use of traditional methods because they were not qualified(AL-Twairish, 2009: 58). Today, students in Saudi Arabia start studying English in the 6th grade in public schools but the English proficiency level is still poor and does not qualify students for high schools to continue their studies in programs which use English as a medium of instruction (AL-Murabit, 2012: 232).

Various studies have been conducted to research the real level of English proficiency among Saudi Arabian students and to find ways to increase the English levels among them. For example, Al-Ma'shy (2011) found that secondary school students are weak in the skill of speaking English and they are not satisfied with their English speaking abilities. Also, AL-Ma'shy found that students at secondary schools lack English accuracy and fluency and this weakness is due to factors such as the textbooks, the context, the students, and the English

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teachers. Moreover, Javid, Farooq and Gulzar (2012:65) found that there is a necessity to follow certain steps at university and school level to develop and raise the standard of English language teaching. Gawi (2012: 127) found that English proficiency can be raised among Saudi Arabian students if they start learning English at an earlier age, as he argues: 'age affects EFL learning because early exposure to language instructions constantly results in better performance'. Javid, Faroq and Gulzar (2012:65) conducted a study to find the causes of ineffective ELT in Saudi Arabian universities and they found that the main causes are:

- The lack of English proficiency of the students who apply to the English departments of Saudi Arabian universities.
- The curriculum of English departments focuses on literature and that is why it is recommended to give the students some language courses to raise their English proficiency to study the content of the subject in a better way.
- Most of the students have an exam-centred attitude; therefore, it is recommended that both the mid-term final examinations are set in a way which test students' proficiency in all English language skills.
- The use of the Arabic language by some of the lecturers and faculty members as well as students is another cause of ineffective ELT and it is important that students are forced to use the target language inside and outside the classroom.

2.14 English language teaching in Saudi Arabia

English as a foreign language is taught in Saudi Arabian schools because the English language is very important today and is widely used all around the world in 'international trade, diplomacy, economy and contracts, international aviation, higher studies, research, peace talks, affairs of international cooperation across the globe as well as shared language of peoples throughout the world' (Liton, 2012: 130) but Saudi Arabia is still behind in English learning. To learn foreign languages is vital for the Kingdom of Saudi Arabia (KSA) to be able to participate on an international level and to continue to grow and develop in the 21st century (Al-Samaani, 2012: 32).

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Although the curriculum of English has been sequentially revised in Saudi Arabia, these revisions were gradual and inhibited the real change needed. This is emphasised by Al-Seghayer (2005:132) who argues:

> Although the curriculum has been continually revised over the years, this process has not been fast enough. Ever changing developments in the field of second-language acquisition require prompt modification of the EFL curriculum. Overall, the English proficiency level in Saudi Arabia is expected to remain at its current level unless all relevant factors are taken into consideration.

This emphasises the need for the Ministry of Education to 'revise their curriculum, making English subjects to be compulsory at primary level. In addition educators need to encourage thinking and problem solving by guiding the students to be creative thinkers in all subjects' (Baqutayan, 2011: 170). All the previous studies investigate a variety of relevant factors that might explain the low English proficiency among Saudi Arabian students.

In order to raise English proficiency among Saudi Arabian students, there is a need to discuss and focus on all problems and difficulties that could cause the lack of English proficiency. Lui (2009:515) indicates that promoting English learning in non-English speaking countries includes difficulties with the low frequency of English learning and English teaching that is connected with real life. As an English teacher in a Saudi Arabian public female secondary school, the researcher believes that the difficulties mentioned by Lui are also found in Saudi Arabia. To raise the level of English among Saudi Arabian students, it is necessary to raise the frequency of English teaching and connect students to an authentic environment of language learning by means of the integration of CALL.

2.15 Integration of CALL in English teaching in Saudi Arabia

Very few Saudi Arabian studies have been conducted relating to the importance of CALL integration in teaching and learning foreign language skills. One of these studies was carried out by Al-Kahtani (2011). He argued that CALL is an effective tool that can solve the problems in language instruction in general and specifically in EFL instruction. In his study, he examined the female faculty's beliefs, their perspectives on CALL usage and its integration in language education. In this study, Al-Kahtani aimed to show how CALL

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resources can be used by the female faculty at four Saudi Arabian universities by finding out from the EFL female faculty some benefits and beliefs about CALL. The findings of the study revealed that the majority of the female faculty found that the use of CALL to teach EFL is useful and beneficial.

Another recent Saudi Arabian study about the importance and effectiveness of CALL in foreign language instruction was carried out by Al-Shorman and Al-Mansour (2009). The aim of this study was to investigate the effect of computer-assisted language learning as a tool of instruction with Saudi Arabian learners of English at the University of King Saud in Riyadh. The two researchers used a sample of 60 students who were divided into two groups. Each group had 30 students. The first group was taught using computers and the traditional method of education. The second group was taught using only the traditional method. Both groups took a pre-test before the study and a post-test after completion of the study. The findings of the study showed that the first group that used CALL instruction performed better than the group that was taught by using only the traditional method. Also, the results revealed that the performance of the first group appeared better than the second group in all English language skills.

The Saudi Arabian education system is confronting a massive change marked by an interest in integrating new technology and educational strategies to augment teaching and learning. Saudi Arabia has integrated technology in education and such efforts started with the implementation of computer studies in 1986 in secondary schools (Al-Maini, 2010). Al-Maini found that ‘the introduction of computer assisted co-operative learning in English supported by appropriate training, could benefit both students and teachers’(2010:n.p). Recently, there has been interest from Saudi Arabian educators to integrate new technology in EFL teaching and learning.

Al-Abbad (2010) and Arishi (2012) found that Saudi Arabian studies about the current state of CALL in Saudi Arabia are still not sufficient. Moreover, there is a need for more Saudi Arabian studies about:

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> The hidden reasons behind the absence of CALL in the English language programs, not only in Saudi Arabia, but in neighbouring countries such as Kuwait, Bahrain, Qatar, Oman and the United Arab Emirates'(Arishi, 2012:49).

Al-Kahtani (2007) agreed that making computers available to EFL teachers is insufficient to encourage them to use CALL. There are other factors which are also essential to integrate CALL. These factors are:

> The type of access to technology, resistance to change, lack of time, lack of suitable software, lack of technical support, lack of information sharing among users, and most of all, lack of training.

Similarly, Al-Hazmi (2003:341) agreed that EFL teacher training programs in Saudi Arabia are still limited and 'non-systematic'.

2.16 Conclusion

This chapter starts with a brief introduction about the rapid augmentation of technology and how it became indispensable in many fields. The use of computers in foreign language education has been studied by a large number of researchers over the last decade. As some researchers indicate, CALL is a name to describe how computers can be used to teach and learn language in the classroom. CALL is advantageous for foreign language teachers as it helps teachers to enhance their productivity. In addition, CALL is valuable to students as it expands their language proficiency. With the unrivalled development of computer applications, CALL is advantageous in foreign language classrooms to teach and learn all language skills and linguistic knowledge. CALL is beneficial in improving the level of linguistic knowledge as it helps learners to listen to the correct pronunciation of the words, providing them with an extensive vocabulary and accurate grammar.

Although CALL is salutary for both teachers and learners of foreign languages, it has disadvantages as it requires teachers and students to be equipped with technical knowledge. In addition, the progressive increase in prices of hardware and software is also a cause of concern.

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The teacher's role when integrating CALL is essential. Teachers need to be aware of their role and they should realize the shift in their role with the augmentation of educational technology. Pre-service and in-service computer training are imperative to make teachers eligible to implement CALL in their classrooms. Limited training is one obstacle that foreign teachers encounter. In addition, teachers may have other barriers when integrating CALL which have been classified into two main categories; internal barriers such as teachers' attitudes towards CALL and external barriers such as limited equipment and technical problems. Besides, teachers' inadequate computer literacy hinder the integration of CALL. It has been argued that computer literacy is the ability to make the use of computers effective in the classroom and to be able to operate multiple computer applications. Thus, it can be said that computer literacy is an essential requirement for the successful integration of CALL in order to make computers more functional and to enhance students' language proficiency.

From the available literature on CALL as it pertains to this researcher's study, it is clear that while research and studies on CALL are extensive, there is little supporting research for the implementation of CALL in Saudi Arabian public female secondary schools. The teachers in these schools lack the necessary training and skills to properly implement CALL and use it to its full potential. As the research in this literature review shows, CALL is more than word processing alone. There is a range of specifically geared software for EFL instruction and the Internet in the form of blogs, e-mail and wikis has vast possibilities for keeping the instruction of foreign language applicable and dynamic as opposed to more traditional methods which involve textbooks alone. Like textbooks and chalkboards, CALL remains a tool for instruction. It does not negate the need for a teacher. With this in mind, it is important for these educators to be as fully trained in as many aspects of CALL as possible.

In fact, it is time to equip and provide English teachers with all requirements regarding the integration of CALL in public female secondary schools in Riyadh. This would enhance students' English proficiency within the schools and within the society in general.

Supported by the available literature on CALL, the researcher intends to identify the level of computer literacy and training received by EFL teachers in Saudi Arabian public female

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secondary schools, their attitudes towards the use of CALL in their classrooms and ways to supplement their training to properly use CALL.

In order to accomplish this it will be necessary to outline the research design and methodology in the next chapter.

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CHAPTER THREE

METHODOLOGY

3.1 Introduction

The aim of this chapter is to illustrate the research design and methodology that the researcher used. A mixed methods design was chosen for this research consisting of quantitative (a questionnaire) and qualitative methods (follow-up interviews and focus groups) to answer the research questions:

1. To what extent is CALL used by EFL teachers in female public secondary schools in Riyadh?
2. What is the current level of computer literacy among EFL teachers in female public secondary schools in Riyadh?
3. What kind of pre-service and in-service computer training is available for teachers at female public secondary schools?
4. What kind of computer training is necessary for EFL in-service teachers to fully integrate CALL and to keep up to date with the developments in computer technologies?

3.2 Research design

A research design is the plan that helps a researcher to achieve the research objectives and to find answers to the research questions. Creswell (2009) states that research designs are plans and procedures that extend the decision from wide assumptions to elaborated methods of data collections and analysis. In addition, this plan surveys different possibilities and ends with the final decision as to which design must be used to study an issue or a topic.

Research designs are divided into three types; (a) quantitative design; (b) qualitative design; and (c) mixed methods design (Johnson, Onwuegbuzie and Turner, 2007; Tashakkori and Creswell, 2007; Creswell, 2009; Wiggins, 2011).

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This study used a mixed methods design. Before researchers conduct a mixed methods study, 'they need to know something about its history, how it has evolved, and the current interest in mixed methods' (Creswell and Plano Clark, 2011:20). This chapter therefore includes some information on the history of mixed methods design. Leech and Onwuegbuzie (2009:265) define mixed methods research as:

> research that involves collecting, analysing, and interpreting quantitative and qualitative data in a single study or in a series that investigate the same underlying phenomenon.

The aim of mixed methods research is not to fill the place of qualitative research or quantitative research, but to draw from the advantages and minimize the disadvantages of both qualitative and quantitative designs (Johnson and Onwuegbuzie, 2004).

Furthermore, Onwuegbuzie and Johnson (2006) believe that a mixed methods design strengthens the research when quantitative or qualitative approaches are combined in one method. It does not replace either of them, i.e. quantitative or qualitative methods.

Creswell and Plano Clark (2011:25-30) divide the history of mixed methods research in five stages:

- Formative period: from the 1950s until the 1980s; during this period multiple quantitative methods were introduced.
- Paradigm debate period: in this period there was development in mixed methods during the 1970s and 1980s which involved scholars arguing about whether qualitative and quantitative data could be combined.
- Procedural development period: during the 1980s, writers started to focus on methods of data collection, data analysis, research designs, and the aims of conducting a mixed methods study.
- Advocacy and expansion period: in recent years, many authors have conducted mixed methods research as a separate approach and the focus on the mixed methods approach has increased in different countries.

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- Reflective period: recently, the mixed methods approach has entered a new period which is characterized by the assessment of the field as well as a look into the future and constructive criticisms challenging the appearance of mixed methods.

Different factors which contributed to the development of mixed methods design have been discussed by some researchers. For example, Hesse-Biber (2010) points out that some factors prompt the growth of mixed methods research. These factors include the increase of mixed methods publications, support of government and private funding agencies as well as the development of technologies to join a variety of new mixed method design and analytical research. On the other hand, Creswell and Plano Clark (2011) believe that some factors which helped the advancement of mixed methods are the complexity of research problems which cannot be answered by simple numbers in quantitative research and simple words in qualitative research as well as the need to have multiple interpretations of documents and information regarding the research problems.

Creswell and Plano Clark (2011:12-13) mention five advantages of using mixed methods research:

1. Mixed method research provides strengths that minimize the weaknesses of both qualitative and quantitative research.
2. Mixed method research gives more evidence for studying research problems than quantitative or qualitative research alone.
3. Mixed method research helps to answer some questions, which cannot be answered by quantitative or qualitative research alone.
4. Mixed method research helps to stop the adversarial division between quantitative and qualitative researchers
5. Mixed method research gives the researcher the freedom to use all methods possible to address a research problem.

Creswell and Plano Clark (2011:13) furthermore point out some challenges in using mixed methods. Such challenges are:(a) researchers should be skilled with qualitative and quantitative data collection and analysis techniques; (b) researchers should be familiar with common methods of collecting qualitative and quantitative data such as using measurement

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instruments and closed-ended attitudinal scales; (c) researchers need to know the logic of hypothesis testing and have the ability to use and interpret statistical data. Finally, researchers following a mixed methods approach need to be skilled in issues including reliability, validity, experimental control, and generalization.

This study used a mixed methodology design as the researcher believes that this design helps to provide an in-depth understanding of the issues of the research and it also increases the validity and reliability of the study. Also, a mixed method design helped the researcher to get data from different resources which helped to answer the research questions.

3.3 Population of the study

The population of the study comprises EFL teachers in 142 public female secondary schools in Riyadh in Saudi Arabia. Riyadh City is the largest city in Riyadh province and this city has the high rates of population growth because it is the urban centre of the central region. It is also the capital of Saudi Arabia.

3.4 Sample

This study is limited to the female EFL teachers in public female secondary schools because as Al-Kahtani and Al-Haider (2010) and Jamjoom (2010) indicate, Saudi Arabian society has a conservative nature and it is not easy for a female to interact with a male or be interviewed by a male. Moreover, Saudi Arabian studies regarding the perception of female teachers toward integration of CALL are very limited.

All schools in Saudi Arabia whether public or private are divided into girls' schools and boys schools. Islam necessitates that females and males should be segregated in the work place to protect the chastity of both genders. So, as the teaching staff members and administrators in girls' schools are females, it was easier for the researcher as a female EFL teacher to collect the data from those schools directly, instead of having to rely on secondary information. This will support the trustworthiness of the collected information.

The researcher chose public female secondary schools teachers as the target population in this study. According to the statistics of the Ministry of Education (2012), there are 487 EFL teachers in public female secondary schools in Riyadh city.

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The researcher used a multistage purposeful random sampling. Collins, Onwuegbuzie and Jiao (2007:272) define multistage purposeful random sampling as:

> Choosing setting, groups, and/or individuals representing a sample in two or more stages. The first stage is random selection and the following stages are purposive selection of participants.

The researcher first used random sampling to select schools randomly, which means that all EFL teachers in all public female secondary school in Riyadh had the same chance to participate in this study. The schools were chosen randomly from different areas in Riyadh city. By choosing schools from different areas (North, South, East, West), the researcher aimed to increase the representativeness of the sample as well as the validity of this study. The table below shows how many schools and teachers were chosen from each area.

Table 3.1: Numbers of selected schools and teachers in each area

Area	**Number of Schools in each**	**Number of Teachers in each area**
North	8	16
East	10	22
West	9	19
South	8	17
Total	**35**	**74**

The population in this study is homogeneous which assured that the participants in this study here representative of the target population. Homogeneity among the target population increases representativeness. Nieuwenhuis (2007:90) advises to:

> select group members who represent the target population, keeping in mind factors such as homogeneity / heterogeneity, age and gender, race and class, lay vs. professional, socio-economic status, literacy level income and demographics.

The population in this study are from public female secondary schools in Riyadh. In addition, the target population is homogenous in terms of gender and professional status and they all teach the same syllabus. Similarly, the use of two qualitative methods (follow up interviews

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and focus group) increase the representativeness even with a small size as Vanderstoep and Johnston (2009:179) indicate that:

> A qualitative report might acknowledge a small group size but attempt to prove that the sample is representative of similar people within the population from which it was drawn.

The second stage of sampling was to target EFL teachers to participate in the questionnaire. One hundred questionnaires were distributed by the researcher to the English teachers in the selected schools. Seventy four (74) teachers responded giving a return rate of 74%. When looking at the sample as a percentage of the total number of female EFL teachers, the respondents constitute about 15% of the total number of EFL teachers in Riyadh city. As a result of the sampling technique, the participants in this study are representative of all English teachers in public female secondary schools in Riyadh at a confidence level of 95% and a 10.5% confidence interval. When determining sample size for probability sample one should consider not only the population size but also the confidence level and confidence interval (Cohen, Manion & Morrison, 2007). According to Cohen et al., (2007:103) the confidence level means 'an index of how sure we can be (95 per cent of the time or 99 per cent of the time)' while the confidence interval 'is that degree of variation or variation range that one wishes to ensure'. The researcher used a sample-size-calculator tool, available at (http://www.surveysystem.com/sscalc.htm) to indicate the confidence deviation of the sample size.

The third stage of sampling was purposive, and aimed to select EFL teachers to participate in the follow-up interviews as well as the focus group interviews in order to gain more in-depth information about the study topic. The purpose of selecting these teachers in the second and third stage of the sampling was to obtain more in-depth information about their computer literacy, current computer use in the classroom, the computer training they had, the computer training that is available to them and the kind of training they need.

The researcher used two qualitative methods (follow-up interviews and two focus groups) to get in-depth information from different groups. It should be noted that the participants in the two focus groups were not the same teachers who participated in the follow-up interviews.

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This helped the researcher to obtain a variety of answers from a new group of teachers who related to the topic in different ways.

3.5 Data collection

Three instruments were used in this study to collect the data: a questionnaire, follow-up interviews and focus group interviews. These three instruments will be discussed in more detail below.

3.5.1 Questionnaire

Oates (2006:219) defines a questionnaire as a:

> pre-defined set of questions (sometimes called items), assembled in a pre-determined order. Respondents are asked to answer the questions, thus providing the researcher with data that can be analysed and interpreted.

For the purpose of this study, a questionnaire was designed by the researcher after considering the literature. The questionnaire consists of 5 sections and includes 24 questions or items. (The questionnaire is included in Appendix A).

The aim of the questionnaire was to investigate the current use of the computer and the current computer literacy rates among EFL teachers in public female secondary schools in Riyadh city. In addition, the last section of the questionnaire included six yes/no questions about computer training. The questionnaire used in this study was a self-administrated questionnaire. The questionnaire was carefully designed to help the researcher to generate, analyse and interpret the data.

3.5.2 Ethical Clearance

The questionnaire was attached to a letter of informed consent as required by the University of Pretoria to provide the subjects with sufficient information before they participated in this study. The letter of informed consent included the title and information on the objectives of the research. The language of the letter was in simple English which could be understood easily by the participants. Furthermore, in the letter, the participants were informed that their participation was voluntary and that they could choose not to participate in part of or all of the

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project. The participants were also informed that their answers would be kept anonymous and confidential and they were thanked for their participation.

3.5.3 The questionnaire design

- The questionnaire consisted of five sections, which were the following:
  - Section A: biographical details
  - Section B: general computer skills
  - Section C: knowledge of CALL
  - Section D: use of CALL in the classroom
  - Section E pre-service and in-service training

- The details of each section can be seen in the following description:

  - Section A: question 1 to question 3: The biographical information about the subjects consists of three questions about (1) age; (2) the number of years of teaching; and (3) the highest qualification that the teacher holds.

  - Section B: question 4 to question 13: This section is divided into two parts. In the first part, participants were asked to answer yes/no to six questions about their computer skills. Such questions asked if they have a personal computer; are able to operate their computer without help; if they have an internet connection; if they have an e-mail account and if they use it; and whether they feel they lack some computer skills or not. The second part of this section was about rating their skills, through four questions. The four questions that the research asked the participants were about their word processing skills; their use of multimedia applications (video/audio); web searching skills; and their ability to search and download information from the internet. In this part, the researcher used numerical rating scales (with a range of poor; adequate; good; and excellent). The numerical rating scale is popular because this kind of rating can refer to a wide range of adjectives or adverbs and can easily be turned into semantic differential scales and vice versa (Dornyei, 2007).

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- Section C: question 14 to question 15: This section consists of two questions. The first question was an open-ended question about what CALL stands for. The aim of such a question is to 'leave the respondent to decide what answer to give – you just leave a blank space for them to fill in as they see fit' (Oates, 2006:222). The second question was a yes/no question that asked the participants whether they have heard of CALL before or not.

- Section D: question 16 to question 18: This section contained three questions. The first question used a numerical rating scale which required the participants to place a check (√) in the box to indicate if they never; rarely; regularly; or always use a computer in the classroom. The second and third questions were related to each other. The first of these two questions was a yes/no question to indicate if the participants integrate software packages in their classrooms. The third question depends on the second one and the participants who indicated that they use software packages were also asked to state the packages they use.

- Section E: question 19 to question 24: This section consisted of six yes/no questions about teacher pre-service and in-service computer training. The first questions of this section asked the participants if they had gone on a computer training course before they started teaching; the second question asked the participants if they believe that CALL can improve their English teaching. The third question asked the participants if they received computer training during their service. The fourth question asked those participants who received computer training during their service if that training helped them to improve their teaching. Questions five and six asked the participants if they feel they need more training and if they believe that CALL must be included in teacher training programs.

3.6 Pilot study

The researcher carried out a pilot study to test the design of the questionnaire. The researcher distributed the first draft of the questionnaire to a group of EFL teachers who were not involved in filling in the main questionnaire. They were, however, similar to the target

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population of the study. The way the researcher piloted the questionnaire follows Oates's (2006: 226) recommendation that:

> It is also a good idea to pilot your questionnaire where a group of people complete it as if they were your target respondents. If you have the time and resources, you could pilot it with a group of people very similar to your intended respondents.

The second and the main draft of the questionnaire were completed after all comments made by the pilot group were evaluated but no serious changes were made to the questionnaire although some of the suggestions and ideas were taken into consideration by the researcher.

3.7 Follow-up interview

The second instrument in this study is the follow-up interviews. The researcher used this qualitative instrument to increase the validity of the collected data and to get more in-depth information about the participants' computer literacy, their current computer use to teach language skills as well as the kind of computer training they needed to fully integrate CALL in their classrooms.

While distributing the questionnaires, the researcher asked for the contact information of the participants who were willing to participate in the follow-up interviews and the focus groups – the selection of this sample was thus voluntary. The researcher used semi-structured questions to obtain deeper information relating to the research questions. The researcher distributed the questions using email because it was difficult to visit the chosen schools again to conduct the interviews as the participants were from different schools which were far from each other. Also, the use of email helped to save the time of the researcher and the teachers, especially as the interviews took place during the weeks of final exams.

The follow-up interviews were conducted after the researcher had collected all the completed questionnaires. The aim of the follow-up interviews was to get more comprehensive information and to strengthen the data collected with the questionnaire. So, the researcher used the follow-up interview to remedy the weaknesses of the questionnaire as Dornyei (2007:171) indicates:

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adding a subsequent qualitative component to the study can remedy this weakness. In a follow-up interview (either in an individual or group format) we can ask the respondents to explain or illustrate the obtained patterns, thereby adding flesh to the bones.

The follow-up interview in this study was in an individual format which mean that the researcher asked the same questions of each teacher. Twenty teachers were randomly selected from the volunteers for the purposes of the follow-up interview. The researcher interviewed all the volunteers via email. The participants in the follow-up interview were from different schools. The follow-up interview consisted of the following four semi-structured questions:

- What is your definition of computer literacy?
- Do you know what your role is when you use the computer in your classroom, or do you feel you are still not confident enough? Please explain.
- Do you use computer to teach all language skills (listening, speaking, writing, and reading) to improve your students' English proficiency? Please explain your answer.
- How do you think teachers can improve their computer literacy to fully integrate the computer in their classrooms?

The interviews elicited some problems. For example, the researcher had to wait to receive the answers via email, and some of the participants' answers were very short which forced the researcher to send the email out once again to obtain more details. In addition, the researcher found difficulties in setting up face-to-face interviews as the selected schools are in different areas in Riyadh and far from each other. So, the researcher found interviewing via email easier and the participants could take their time to express their ideas.

3.8 Focus group interviews

The third instrument to collect the data was focus group interviews. Wibeck, Dahlgren and Öberg (2007:249) define focus groups as:

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> A research methodology in which a small group of participants gather to discuss a specified issue under the guidance of a moderator. The discussions are tape-recorded, transcribed and analysed.

The focus group format aims to collect participants 'thinking together, inspiring and challenging each other, and reacting to the integrating issues and points' (Dornyei, 2007:144). Although focus group interviewing can be used as a stand-alone method of inquiry, they are often used in mixed methods research (Dornyei 2007:146). Focus groups have been used as a useful method, to collect qualitative data, to study a wide range of topics with varied populations and to capture information about different issues (Linhorst, 2002:208).

Vanderstoep and Johnston (2009, 236-237) indicate that a focus group should include the following techniques:

- Introduction: the researcher should clarify the purpose of the focus group clearly and the participants should be introduced and their roles defined. Also, the researcher should create a comfortable climate for the discussion.
- Discussion: during the discussion, it is better to focus on one or a few issues and not to try to discuss a number of different issues in a focus group. The discussion should be characterised by spontaneous response rather than talking in turn. The discussion becomes more interesting when the moderator varies the questions and response styles.
- Activities: focus groups sometimes include activities, such as role-plays, group interaction games and drawing. So, the researcher can ask the participants to respond to different activities.
- Moderating: the role of moderator in the focus group is to facilitate group discussion, monitor the time and progression of the questions under discussion in the focus group, and to bring the discussion to a close.

Different researchers indicate that a focus group as a research method has its strengths and weakness. For example, Neuman (2007:300) is of the opinion that focus group discussions

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have advantages and disadvantages. Neuman listed six strengths and six weakness of the focus group:

- Advantages:
  - The setting of the focus group allows the participant to indicate their feelings, opinions and their ideas directly without constraint.
  - Free expression among the members encourages the marginalized social group to talk and participate.
  - People feel empowered, especially in action-oriented research projects.
  - Survey researchers are given a window into how people talk about the topics in a survey.
  - The interpretation of quantitative survey results is facilitated.
  - Participants may ask one another and explain their answers to each other.
- Disadvantages:
  - Attitudes become more extreme after group discussion.
  - Only one or a few topics can be discussed in a focus group discussion.
  - A moderator may unwittingly limit open, free expression of the subjects in a focus group.
  - Participants in a focus group introduced fewer ideas than in individual interviews,
  - Focus groups studies rarely report all the details of the procedure.
  - Researchers cannot harmonize the differences that arise between individual-only and focus groups context responses.

Creswell (2012:218-219) points out that a focus group is advantageous when the communication among the participants is likely to produce profitable information and when the interviewees cooperate with each other. However, a focus group can be challenging for the interviewer who lacks the ability to control and manage the discussion. At times the researcher may have difficulty taking notes because so much is happening at the discussion. This can pose a problem.

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The aim of the focus group in this study is to get deeper information about the quality of computer training that is available to EFL teachers in public female secondary schools in Riyadh city. In addition, the two focus groups were formed to explore the barriers teachers face when integrating CALL as well as to gain a clear understanding of their beliefs and attitudes to CALL integration in secondary schools.

The participants in this part of the study were nine teachers who had already filled in the questionnaire and who volunteered to be participants in the focus group. All nine teachers signed the letter of informed consent for this part of the study.

The researcher conducted two focus group interviews in two different schools and on different days. The first group consisted of two teachers from the same school. Four teachers filled in the consent form but two of them were absent on the date selected and the researcher thus conducted the focus group interview with the remaining two. The second focus group interview was in another school and there were seven English teachers in this group who filled in the consent forms. So, a total of nine teachers participated in the two focus groups. In both focus groups the researcher followed the same plan.

The researcher thanked the teachers for volunteering to participate in this study and reminded them of the aims of the focus group interviews. As the discussion was conducted, the researcher started to record with a digital voice recorder (Olympus - WS-750M) and at the same time wrote down some notes during the discussion. Both focus group interviews consisted of three main parts; the first part was a discussion to answer the following five questions:

1. What is CALL?
2. Do you think CALL is currently used by EFL teachers at secondary public schools? Explain.
3. Do you think computer literacy level among ELF teachers at secondary schools is adequate? What are the reasons for your answer?
4. Did you receive any kind of computer training before you started your career? What kind of training did you receive?
5. Do you think that your training was helpful in your teaching career?

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The second part of the focus group interview was a discussion regarding the software that the interviewer demonstrated to them. In the two focus groups, the researcher used a software program called 'TELL ME MORE ENGLISH' as an example of CALL applications. The aim of using software was to assess the teachers' attitudes towards the use of CALL and their ideas and beliefs about computer training as well as the kind of computer training that is available for them and the computer training they need. The researcher used a laptop to introduce the software. The researcher introduced the software and explained to the participants that there are three levels in this software which are the beginner, intermediate and advanced level. As the researcher operated the software, the participants started to practise different language skills and different exercises in pronunciation, spelling and reading. After participating in this discussion, the researcher discussed the following eight questions with participants in each of the two focus groups:

6. Do you think CALL is useful to teach English? Explain please.
7. Do you feel equipped to integrate CALL in your classroom? If not, what would you need to equip yourself further?
8. How do you feel about using CALL in your classroom?
9. What barriers do you encounter when using CALL in your classrooms?
10. Do you think training can make these difficulties easier?
11. Do you think computer assisted language learning can improve the quality of teaching?
12. Do you think CALL positively contributes to English learning among Saudi Arabian students?
13. Do you think CALL should be compulsory in schools?

Each focus group lasted for about 80 minutes and both focus groups were conducted in the English language. After each focus group, the researcher made a transcript and wrote down all additional information from notes made during the sessions. The transcript is attached as APPENDIX B.

To sum up: in this study the researcher used the strategy of triangulation of methods by using qualitative (follow-up interviews, focus group interviews) and quantitative methods

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(questionnaire) to collect the data, which increases the validity of the study. The aim of using such a strategy is to augment the accuracy of the findings. In other words, information collected come from different data sources. Creswell (2012: 259) defines triangulation as:

> the process of corroborating evidence from different individuals (e.g., a principal and a student), types of data (e.g., observational field notes and interviews), or methods of data collection (e.g., documents and interviews) in descriptions and themes in qualitative research.

The kind of triangulation used in this study is method triangulation which is defined by Oates (2006:36) as 'the use of more than one data generation method to corroborate findings and enhance their validity is called method triangulation'.

In addition, Seale, Gobo, Gabrium and Silverman (2004:314) have defined triangulation as:

> where one type of data (usually qualitative) is used to corroborate another type of data (typically quantitative), as other theoretical insights are derived from one type of data which are also put to test on another data set.

The use of the mixed methods design in this study offered more comprehensive validity than either qualitative or quantitative methods would have been able to offer on their own, by combining the validity evidence offered by the qualitative and quantitative components as Dornyei (2007) also pointed out.

3.9 Validity and reliability

Eisenhart and Howe (1992:644) define validity as 'the trustworthiness of inferences drawn from data', while Ayodele (2012:391) defines the term as 'the extent to which meaningful and appropriate inferences or decisions are made on the basis of scores derived from the instrument used in a research'. On the other hand, Ayodele (2012:395) indicates that in order to make research reliable 'it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context, similar results would be obtained'. In other words, Dornyei (2007:50) defines reliability as 'the extent to which our measurement instruments and procedures produce consistent results in a given population in different circumstances'.

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Validity in mixed-methods research means including strategies that address possible issues in data collection, data analysis and interpretation that emerge from the merging or joining of the quantitative and qualitative strands of the study (Creswell, and Plano Clark, 2011:417).

The researcher considered the following ways to improve validity and reliability in this study:

- The questionnaire was a self-administered questionnaire which means that the researcher was the only one who administered the questionnaires and handed out all the questionnaires to all participants. This helped to reduce bias.
- The language of the questionnaire was simple and plain which helped the participants to easily understand all items on the questionnaire. All questions on the questionnaire, the follow-up interviews and the focus groups were related to the main topic under review, the research questions and the goals and objectives of the study as well.
- This study follows a mixed methods research design which means that the researcher combined both qualitative and quantitative approaches. This triangulation of methods helped to maximize the validity of the study as Dornyei (2007:43) indicates that:

> Methodological triangulation can help to reduce the inherent weaknesses of individual methods by offsetting them by the strength of another, thereby maximizing both the internal and external validity of research.

Moreover, Scott and Morrison (2006,157) argues that:

> Indeed, increasingly, funders and sponsors of educational research openly advocate and require such mixing, in their terms, to enhance the validity of research findings.

- During the two focus groups, the researcher observed the discussion and wrote down notes to add to the transcribed data to give a comprehensive comment and extensive analysis to strength the validity and reliability of the study.
- The researcher used a pilot study to evaluate the design of the research and to see if there was any ambiguity in the questions which helped to increase the validity of the data gather by questionnaire.

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3.10 Data analysis

Mixed methods data analysis include analytic techniques used in both quantitative and qualitative research. Data analysis in mixed methods research can occur at one point or at multiple points (Creswell and PlanoClark, 2011).

The researcher used parallel mixed analysis which means that the collected data was not mixed or integrated until the data interpretation stage of the mixed methods study. To conduct such analysis, three conditions should occur separately which are (a) both data analysis (qualitative and quantitative) should take place separately; (b) neither type of analysis builds on the other one during the state of data analysis; and (c) the results of each type are neither compared nor joined until both types of analysis have been completed (Onwuegbuzie & Leech, 2004:779).

3.10.1 Questionnaire analysis

The collected data were analysed using the Statistical Package for the Social Sciences which is known as SPSS software. Furthermore, the data was analysed by STATOMED, the Bureau for Statistical and Survey Methodology. The collected data were then represented in a series of graphs and tables to clarify the collected data in relation to the research questions. For all tables and graphs, Microsoft Excel (2010) was used.

Descriptive statistics were used to indicate percentages and frequencies. More details of the questionnaire analysis are presented in Chapter Four of this study.

3.10.2 Follow up interview analysis

The second technique used in this study was to gather data by means of follow-up interviews. The follow-up interviews were with 20 English teachers in public female secondary schools. These interviews took place after all questionnaires were collected. The participants in this part were chosen randomly with the purpose of obtaining in-depth information about teachers' current computer literacy levels as well as their current use of computers. There were four semi-structured questions in each follow-up interview. All the participants sent their answers via email and after that the researcher analysed the gathered

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data. The research used descriptive and interpretive qualitative analysis to analyse the four semi-structured questions. To analyse the collected data, the researcher wrote down all the participants' perceptions and then they were categorized. The researcher arranged the main perceptions in the light of the respondents' answers and these perceptions were formulated into four main categories which were coded to be tabulated. After that the researcher tabulated all categories to be able to give the percentages in each category. Tabulation is defined by (Kothari, 2004:18) as 'a part of a part of the technical procedure wherein the classified data are put in the form of tables'.

Tabulation was used in this study to analyse the qualitative data as Kothari (2004:127) indicates that tabulation is essential for the following reasons:

1. It conserves space and reduces explanatory and descriptive statements to a minimum.
2. It facilitates the process of comparison.
3. It facilitates the summation of items and the detection of errors and omissions.
4. It provides a basis for various statistical computations.

3.10.3 Focus group analysis

The third technique used in this study is focus group interviews, which is a qualitative method. The respondents in the focus group were nine (9) teachers who had already completed the questionnaire. They were not from the group who participated in the follow up interviews. In both groups, the researcher told all the participants that there would be a voice recording during the discussion and all the participants agreed to this. The two recordings were transcribed. Using a digital voice recorder (Olympus - WS-750M) helped the researcher to listen to the discussion several times to write down all information. Also, some notes were written down during the discussion which helped to develop more understanding regarding teachers' current integration of CALL. The transcribed data were analysed using descriptive and interpretive analysis by arranging words and meaning. The researcher arranged all notes and themes in order to gain a greater understanding about the current level of CALL integration among English teachers in public female secondary school in Riyadh. Also, the written notes and topics helped to categorize the perceptions into six main categories. The

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categorization was discussed in a panel to share different ideas regarding these categories. The researcher used coding to analyse the data collected in the two focus groups.

3.11 Limitations of the study

Because the research groups consisted of female teachers only, it will not be possible to reach general conclusions about all EFL teachers. However, it is hoped that valuable information was gathered and that the objectives of this study were reached.

3.12 Conclusion

This chapter presented the methodology used in the study. The researcher indicated the value of the use of mixed methods and triangulation to achieve the research objectives as well as to answer the research questions. The researcher pointed to some scholars' definitions of mixed methods and triangulation in the research design. Moreover, the reason for choosing such a design model was explained. In addition the research methodology was outlined. The sample frame of the study was identified as well as the sampling strategy. The design of the questionnaire was outlined. It included the number of sections, the items to be discussed and the aim of each section. In addition, both qualitative methods (follow up interview and focus group) were explained to clarify their roles in answering the researcher's questions.

In the following chapter the data analysis of the quantitative data obtained from the questionnaire is presented.

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CHAPTER FOUR

QUANTITATIVE DATA ANALYSIS

4.1 Introduction

The aim of this chapter is to analyse the data collected by using the quantitative method (questionnaire) to answer the research questions and consequently use the findings to make the recommendations in Chapter Seven concerning English teachers' current integration of CALL, the level of their current computer literacy, the kind of training that is available to them and the training they need to fully integrate CALL in public female secondary schools in Riyadh city.

Kruger, Mitchell and Welman (2005) argue that quantitative data analysis involves descriptive statistics and inferential statistics. Description statistics include the description and summary of the data. On the other hand, inferential statistics involve the conclusion that is reached on the basis of the results.

In this study, the researcher used descriptive statistics to analyse the questionnaire. As this study used a parallel mixed methods design, the findings of both the quantitative and qualitative analyses are discussed in Chapter Six where the results of each method are assessed and compared with the other. From these findings, conclusions are made and results drawn.

4.2 Data analysis

The collected data were drawn from the completed questionnaires and then analysed.

Question 1 to Question 24

- **Section A Biographical Information: Question 1 to Question 3**

Question 1: Age group

As can be seen in figure 4.1, the majority of the respondents are 26 – 35 years old. This represents 66.2% of the respondents. Only three teachers, or 4.1 %, are older than 45 years.

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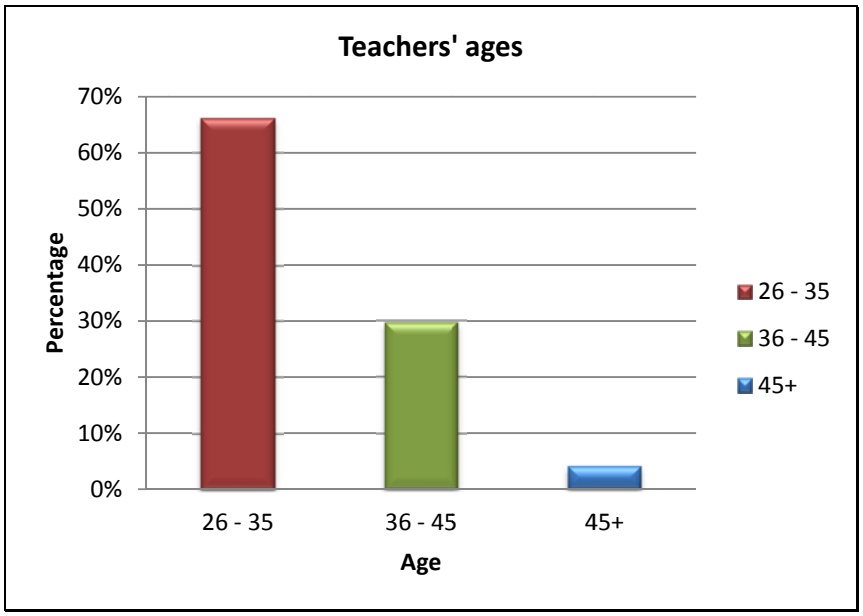

Figure 4.1: Teachers' ages

Question 2: Teaching Experience

As can be seen in Figure 4.2, of the 74 respondents, only one respondent has been teaching for only one year. Nine teachers have been teaching for less than five years. These 10 teachers with less than five years experience make up only 13.6% of the sample. In contrast, more experienced teachers, those with five years or more experience, are in the majority – 64 of the 74 teachers that filled in the questionnaire or 86.4% of the group.

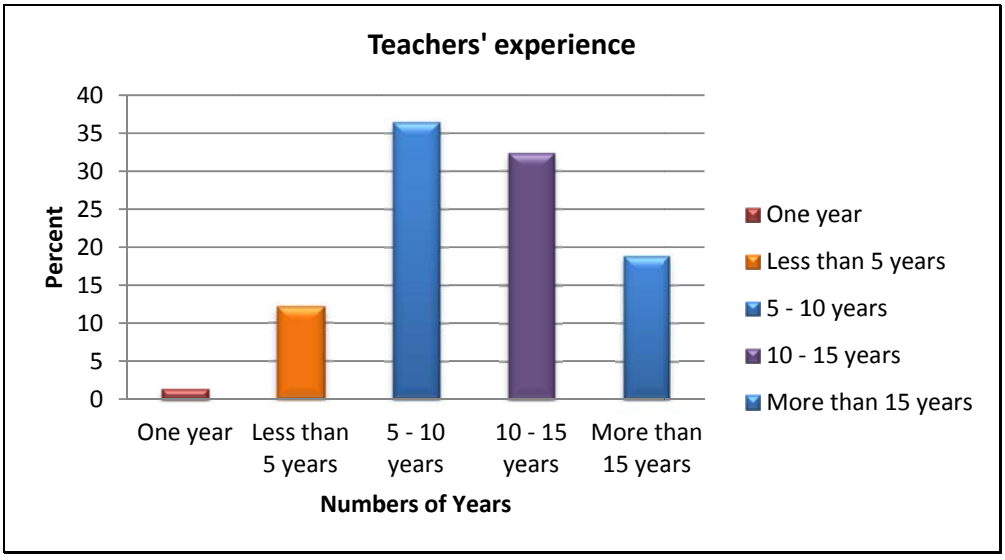

Figure 4.2:Teachers' experience

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Question 3: Qualification

Figure 4.3 shows that the respondents were qualified for their positions, with almost every one (98.6%) having a bachelor's degree. Only a single respondent had gone to improve her qualifications, obtaining an MSc as her highest degree.

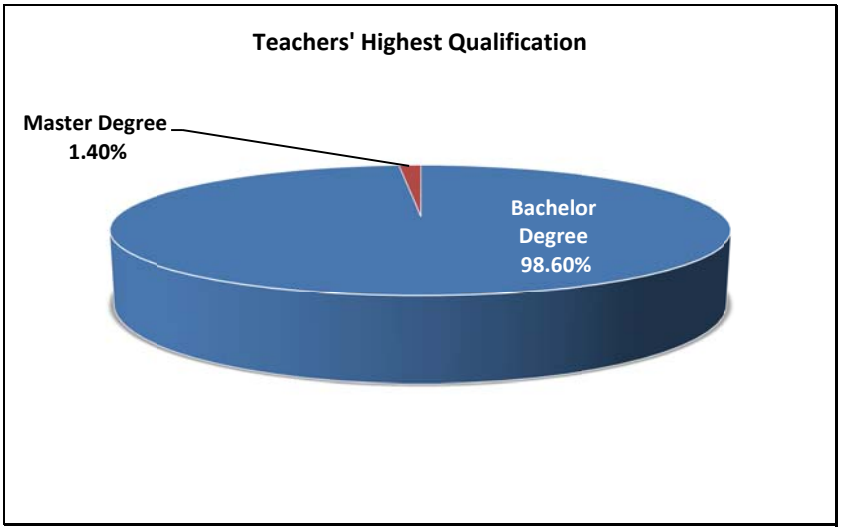

Figure 4.3: Teachers' highest qualification

- **Section B-1: General computer skills: Question 4 to Question 9**

Question 4: Do you have a personal computer? (Yes/No):

Almost all of the respondents, namely seventy three, have personal computers. Only one respondent does not own a personal computer (see Figure 4.4).

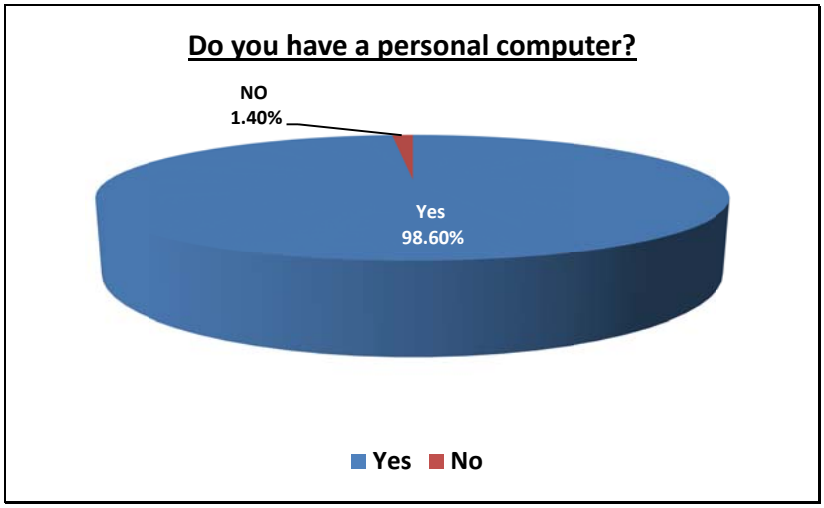

Figure 4.4 :Number of participants who own a personal computer

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Question 5: Can you operate a computer without help? (Yes/No):

As would be expected with so many of the respondents owning their own computers, as many as 66 of the respondents can operate their computer without help. Just eight respondents answered that they cannot operate a computer without help (as illustrated in Figure 4.5).

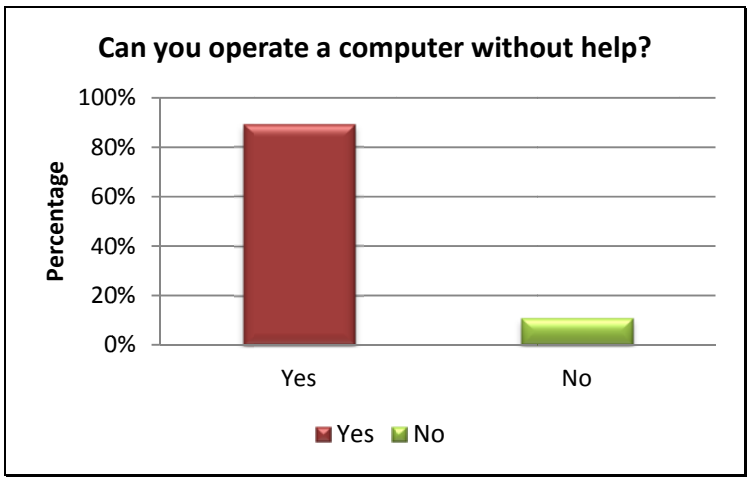

Figure 4.5:Teachers' ability to operate a computer without help

Question 6: Do you have an Internet connection? (Yes/No):

Almost every respondent, a total of 95.9%, indicated that they have an Internet connection, whereas just three respondents do not have an Internet connection. The results of Question 6 are illustrated in Figure 4.6.

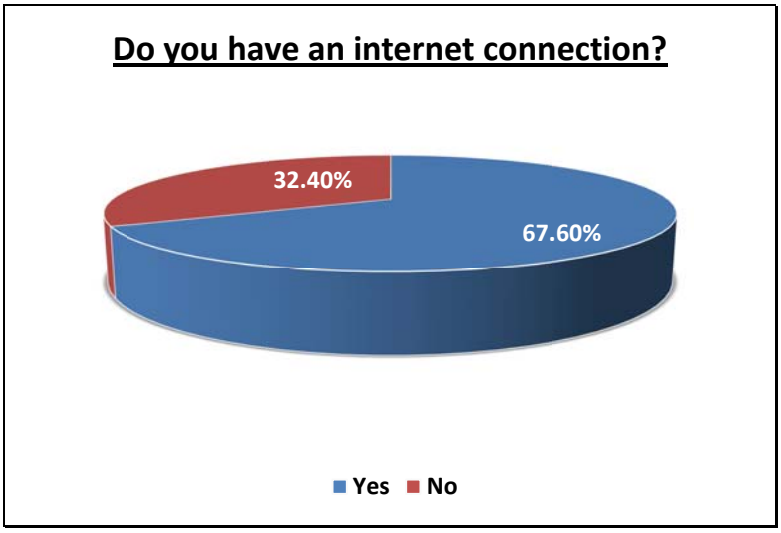

Figure 4.6: Access to the internet

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Question 7: Do you have an email account? (Yes/No):

Sixty-nine of the respondents indicated that they have an email account, while five respondents indicated that they do not have an e-mail account. Thus, as Figure 4.7 shows, it is evident that the vast majority of the respondents have email accounts.

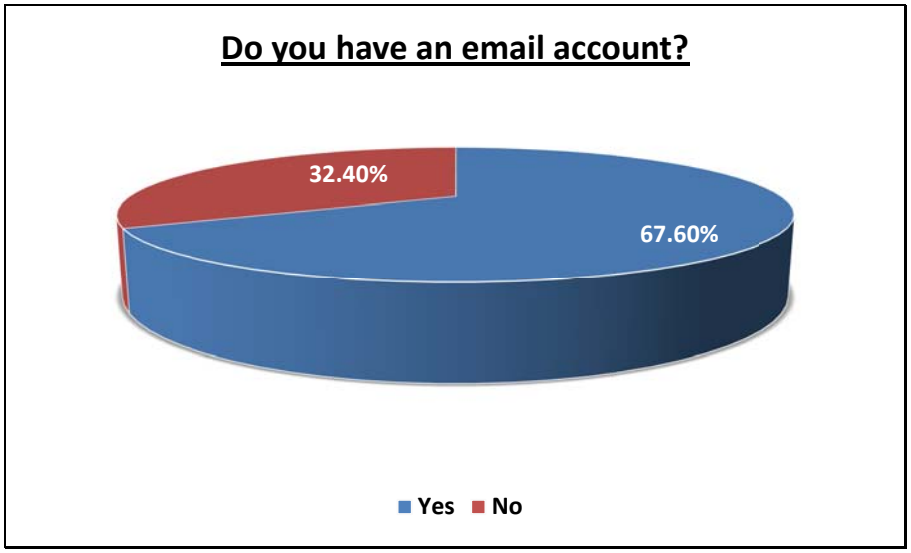

Figure 4.7:Percentage of participants who have an email account

Question 8: Do you use your email? (Yes/No):

Interestingly, not all of the respondents use their email, although 66 respondents do so. Just over 10% of the respondents do not use email, as can be seen in Figure 4.8.

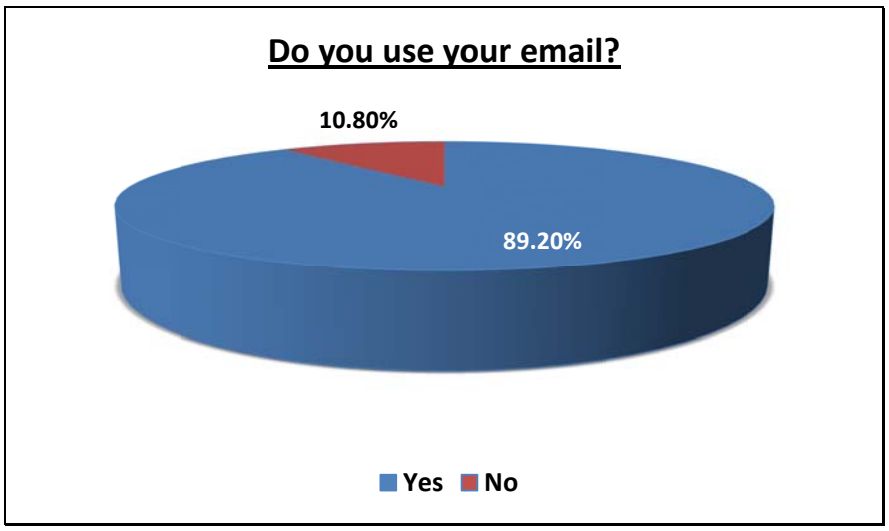

Figure 4.8:Teachers' use of email

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Question 9: Do you feel that you lack some computer skills? (Yes/No):

As can be seen in Figure 4.9, the majority of respondents feel there is some room for improvement in their computer skills, as indicated by the two-thirds response that there are some gaps in their skills. A smaller group felt that they have all the requisite computer skills.

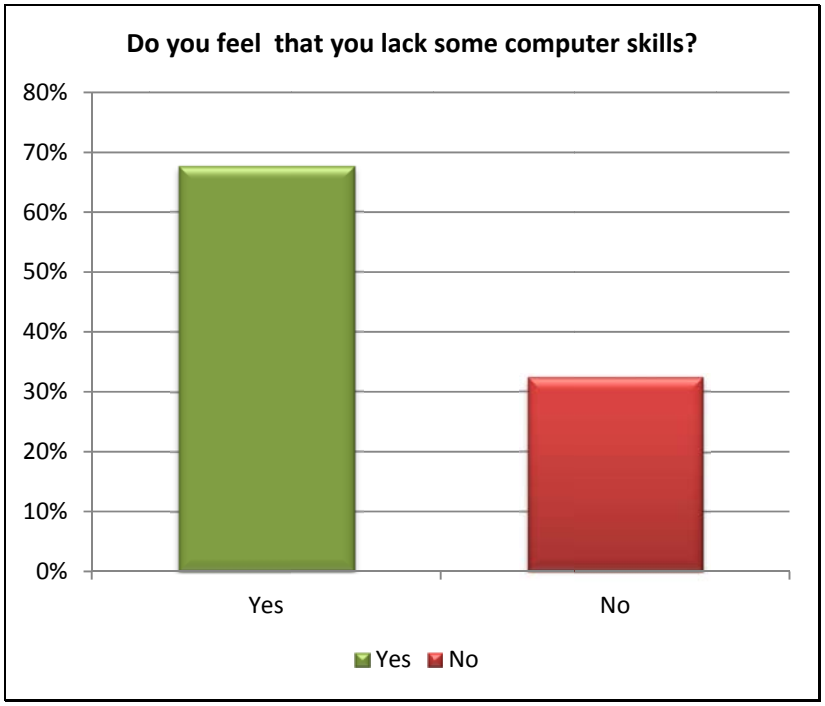

Figure 4.9:Teachers' current computer skills

- **Section B-2: Question 10 to Question 13:**

In this section the participants were asked to rate their computer skills by choosing one answer from the scale. They could rate their skills as poor, adequate, good or excellent. The data analysis for this section follows:

Question 10: Your current word processing skills:

The results show that 43 of the respondents rated their word processing skills as good while thirteen teachers considered their word processing skills as excellent. A minority of 8.1% rated their skills as poor, while 16.2% rated their skills as adequate. Table 4.1 and Figure 4.10 illustrate the results.

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Table 4.1:Teachers' current word processing skills

Your current word processing skills	Frequency	Percentage
Poor	6	8.1
Adequate	12	16.2
Good	43	58.1
Excellent	13	17.6
Total	**74**	**100**

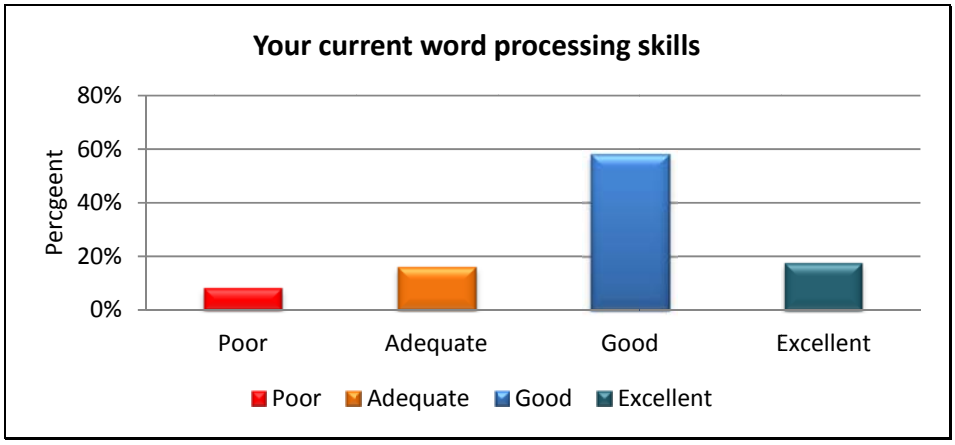

Figure 4.10:Teachers' current word processing skills

Question 11: Your current skills with multimedia applications:

Half of the respondents agreed that their skills with multimedia applications are good, while 19% of them rated their skill as excellent. Around a third of respondents felt that their skills were poor to adequate (see Figure 4.11).

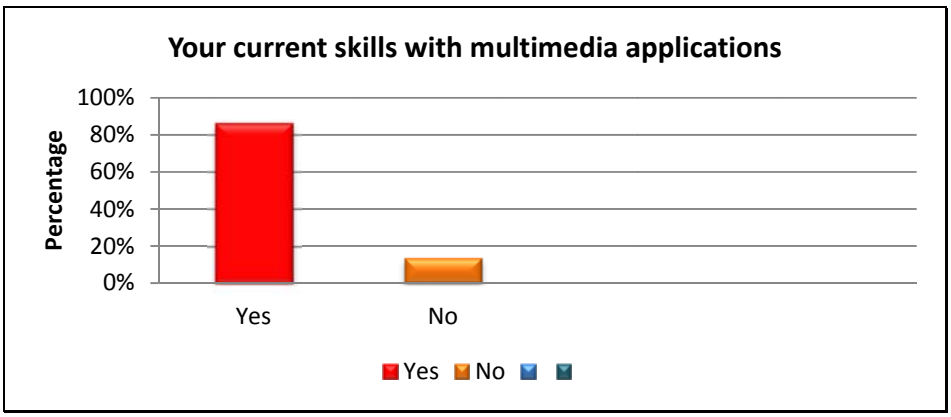

Figure 4.11:Teachers' current skills with multimedia applications

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Question 12: Your web searching skills:

Again, the majority of respondents rated their web searching skills as either good or excellent. Eleven respondents felt they had poor to adequate skills. Figure 4.12 shows the results.

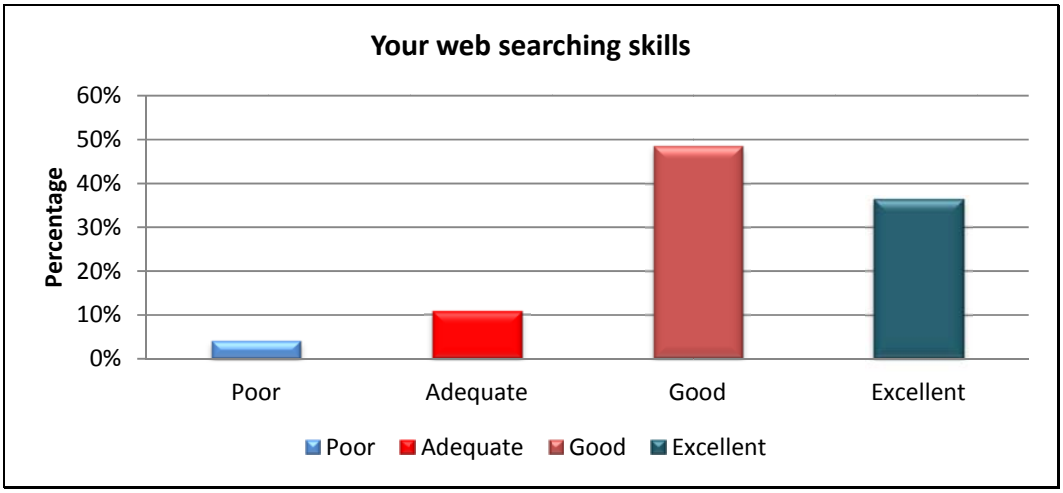

Figure 4.12:Teachers' web searching skills

Question 13: Your ability to search and download information from the Internet:

More than 80% of the respondents rated their ability to search and download information from the Internet as good or excellent. Meanwhile, ten of the respondents rated their skills as adequate, and only one as poor (see Figure 4.13).

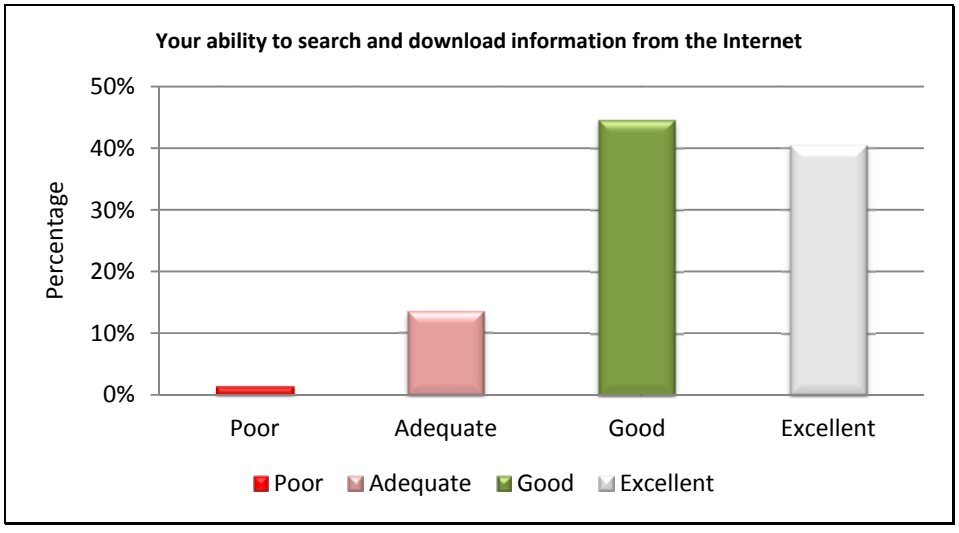

Figure 4.13:Teachers' ability to search and download information from the internet

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- **Section C: Knowledge of CALL: Question 14 to Question 15**

Question 14: What does CALL stand for?

The aim of this question was to ascertain the teachers' level of computer literacy and the extent of their knowledge of terminology in current use. Worryingly, the majority of the respondents (43 of them) indicated that they did not know what CALL stood for. In addition, a further fourteen respondents skipped this question, indicating a probable lack of familiarity with the terminology. Of those who understood the term, there was still some confusion as to the exact meaning of the acronym (see Figure 4.14).

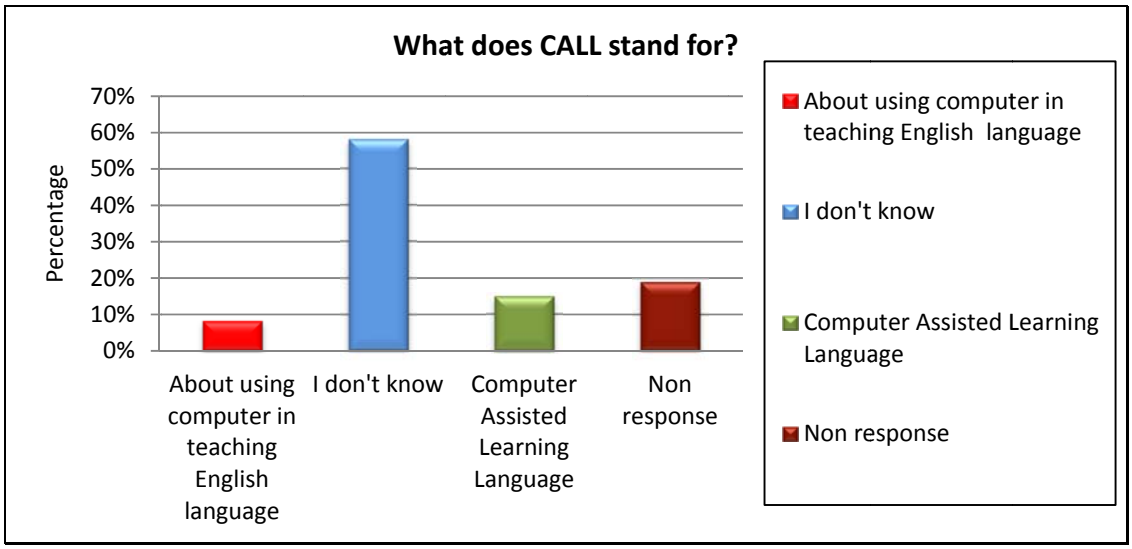

Figure 4.14:Teachers' knowledge of CALL

Question 15: I have heard of CALL before

The aim of this question was to ascertain if teachers had any knowledge of CALL and whether they knew that it was related to language teaching and learning. The results showed that 77% of the teachers had not even heard of CALL. This correlates exactly with the numbers of teachers who indicated in Question 14 that they did not know what CALL stands for. So it appears that a teacher must come into contact with CALL in their teaching context before they come to understand the meaning of the term. Figure 4.15 illustrate the results.

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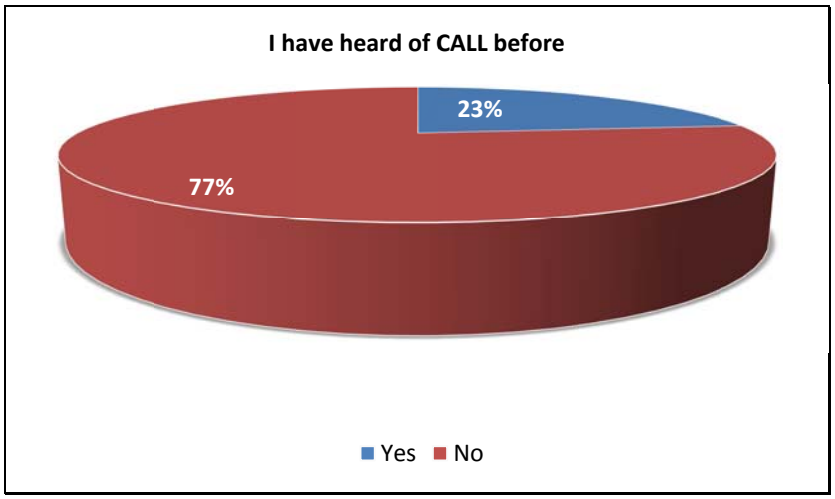

Figure 4.15:Percentage of teachers who had heard of CALL before

- **Section D: Use of CALL in the Classroom: Question 16 to Question 18:**

Question 16: You use a computer in the classroom (Never / Rarely / Regularly / Always)

A total of 31 respondents (see Table 4.16 and Figure 4.16) indicated that they use a computer in the classroom regularly, and 15 said they 'always' use computers – a total of 46 respondents. On the other hand, 17 pointed out that they rarely use computers in the classroom and a sizeable minority of 11 teachers never use a computer in the classroom.

Table 4.2: Using a computer in the classroom

I use a computer in the classroom	Frequency	Percentage
Never	11	14.8
Rarely	17	23.0
Regularly	31	41.9
Always	15	20.3
Total	**74**	**100**

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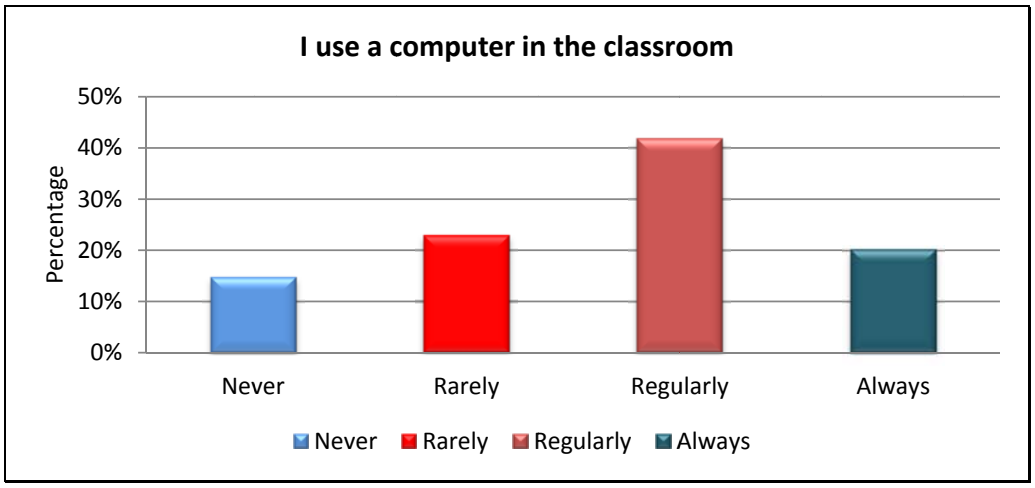

Figure 4.16:Using a Computer in the Classroom

Question 17: I use software packages in my classroom (Yes / No)

The results of Questions 16 and 17 contrast, as 46 respondents indicated regular use of computers in their classrooms (Question 16), but just ten respondents said that they use software packages in the classroom. This may relate to the respondents' understanding of the term 'software packages' as referring to specialised software rather than standard or generic software on a computer (see Figure 4.17).

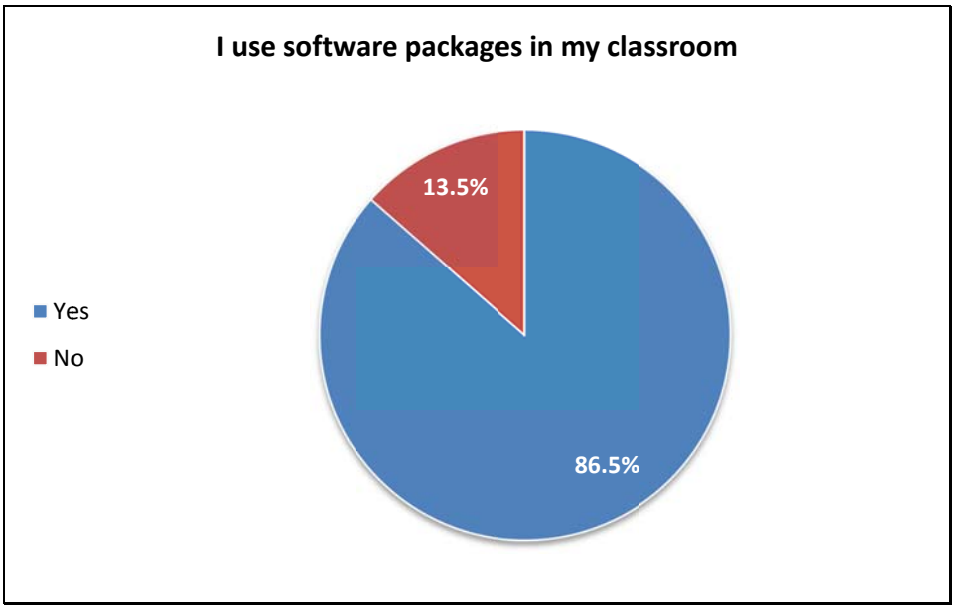

Figure 4.17: Using software packages in the classroom

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Question 18: If you answered 'Yes' to Question 17, please state which packages you use in your classroom?

Question 18 was a branching question for those respondents who answered 'Yes' to Question 17. The aim of Question 18 was to ask those teachers who indicated that they use software packages about the kind of software packages that they use. Of the ten respondents who answered 'Yes' to Question 17, half indicated that they use PowerPoint and four that they use CDs as an example of CALL packages. However, PowerPoint can hardly be regarded as language pedagogical software.

In addition, one respondent said that she used 'student materials'. It appears that she used a CD that came with a secondary school English textbook. The CD mainly focused on listening skills. The results of Question 18 are illustrated in Figure 4.18.

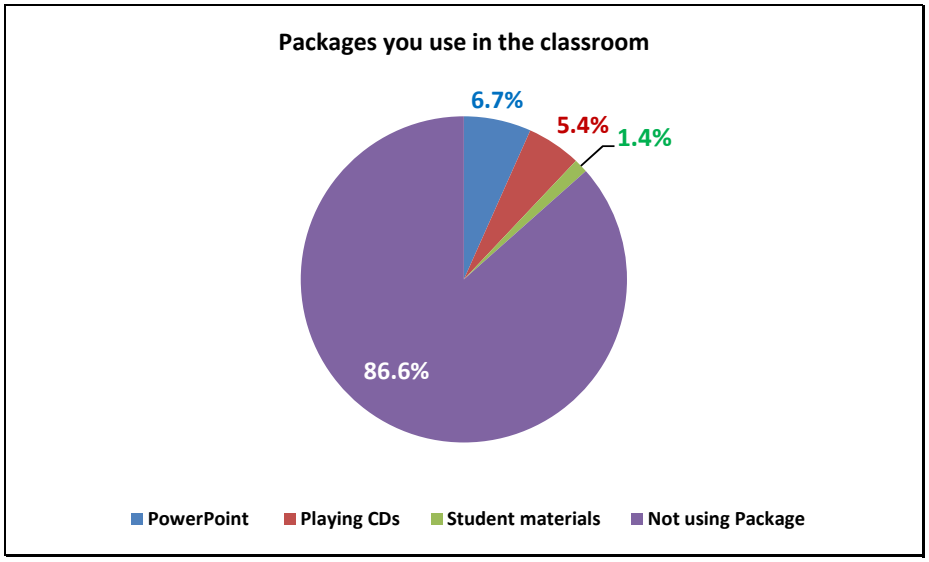

Figure 4.18:Packages used in the classroom

- **Section E: Pre-service and in-service teachers' computer training: Question 19 to Question 24 (Yes / No)**

Question 19: Did you participate in any computer-training course before you starting teaching?

According to Figure 4.19, 43 of the respondents did not participate in any computer training course before they started their teaching experience.

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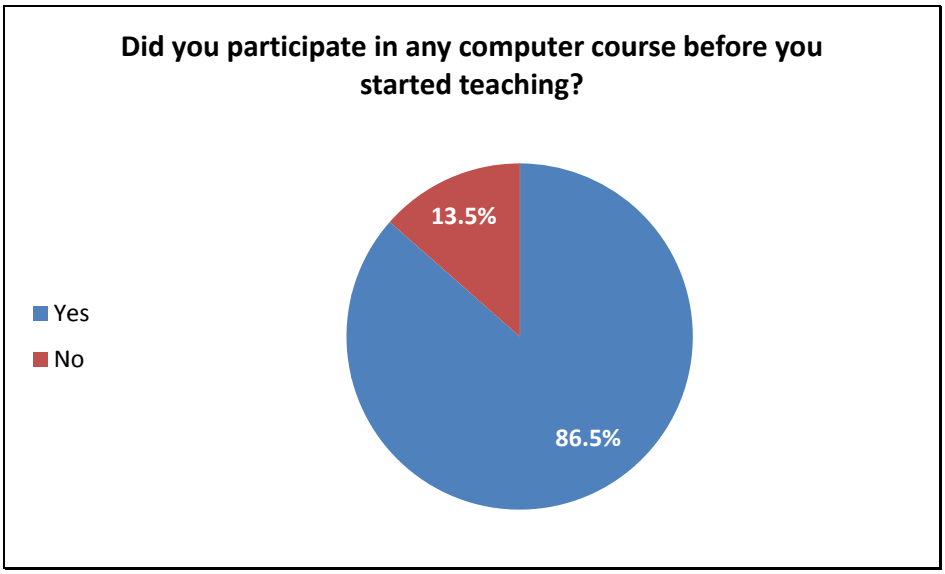

Figure 4.19 :Participation in pre-service computer training courses prior to starting to teach

Question 20: Do you believe English teaching could be more effective when using computers in the classroom?

The majority of the respondents, representing 82.4% of the group, answered positively, meaning that they believe that CALL can improve their teaching of English while only three teachers answered negatively, which indicated their unenthusiastic attitude toward the use of the computer in the classroom. In addition, ten respondents skipped the question, indicating a potentially negative attitude (see Figure 4.20).

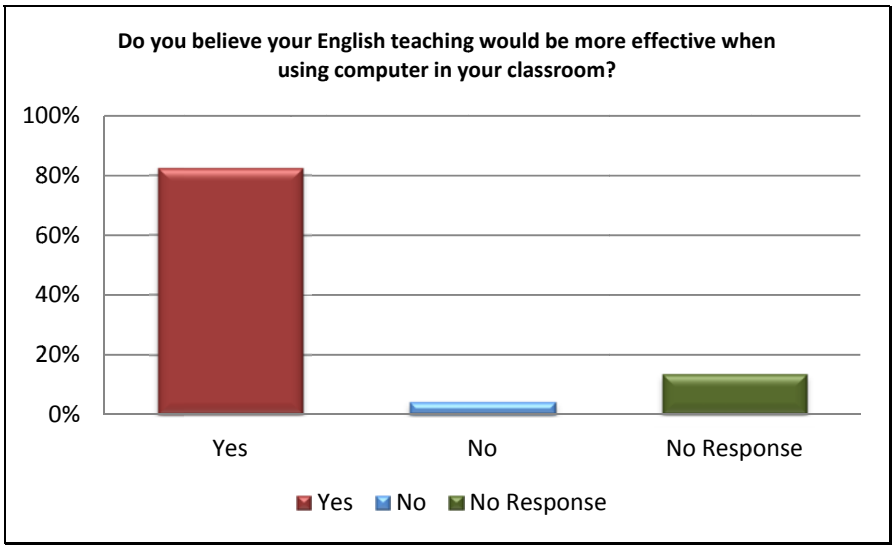

Figure 4.20:Teachers' beliefs about the effectiveness of CALL as a teaching aid in the classroom

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Question 21: Have you participated in any computer courses since you started teaching?

The results show (see Figure 4.21) that 34 of the respondents had participated in computer training courses during their teaching experience, while forty of the respondents indicated that they had not been involved in any computer training courses since they started working as English teachers. So, it is evident that the majority had not received any training during their teaching careers.

Question 22: This question was answered by those respondents who answered 'Yes' to Question 21.

All the thirty four respondents who answered 'Yes' to Question 21 indicated that they felt that the training they received was helpful to their teaching, which means that training made a difference to their experience.

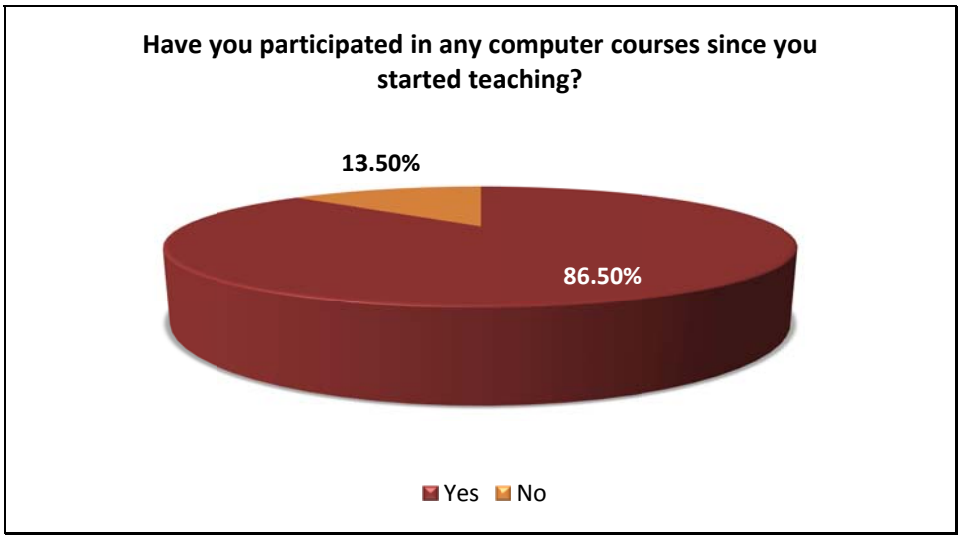

Figure 4.21:Teachers' participation in in-service computer training after teaching commenced

Question 23: Do you feel that you need more training in the future?

A total of 86.5% of the respondents stated that they would need more computer training in the future, indicating the need for further in-service training. The results of Question 23 are illustrated in Figure 4.22.

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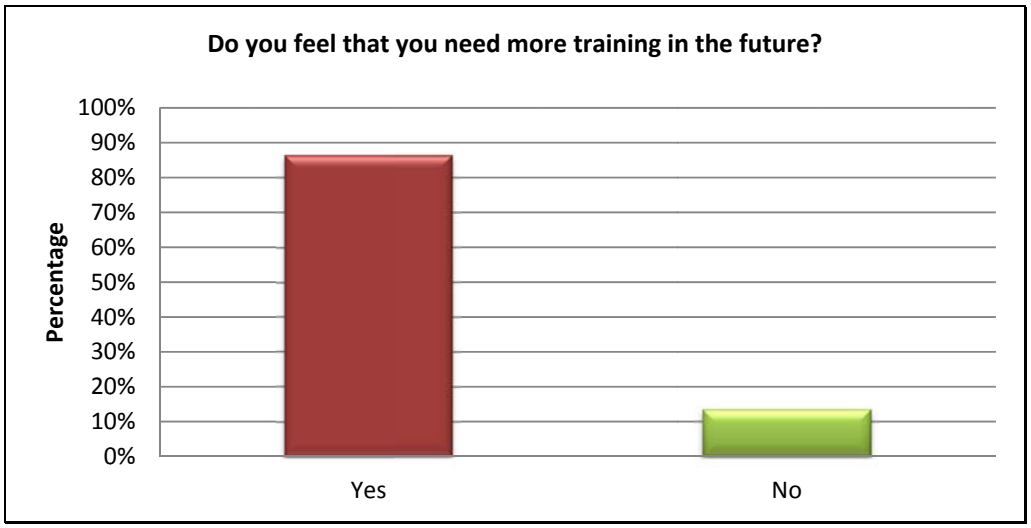

Figure 4.22:Teachers' need for more training

Question 24: Do you believe that computer training should be included in English teacher training programs?

As Figure 4.23 shows, a total of 95.9% of the respondents answered 'Yes' which showed their positive attitudes toward computer training courses and that they are willing to have more training.

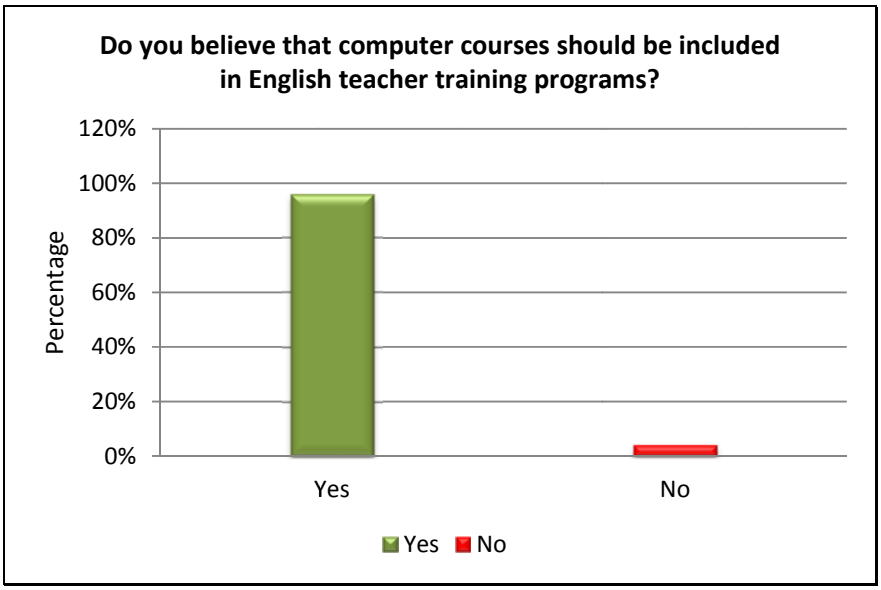

Figure 4.23:The inclusion of computer training in English teachers' training programmes

4.3 Conclusion

In this chapter the data collected from the questionnaires was analysed. Tables and Figures have been used to illustrate the respondents' answers. The researcher also presented the

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statistics in narrative format. The findings of the questionnaire are explored and discussed in more detail in Chapter Six. In Chapter Five the qualitative data obtained from the results collected during the follow up interviews and the focus groups will be analysed and discussed.

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CHAPTER FIVE

QUALITATIVE ANALYSIS

5.1 Introduction

This chapter offers an analysis of the data collected by means of the qualitative methods used in this study. The first part of this chapter offers an analysis of the collected data of the follow-up interview questions that were emailed to twenty participants. In the second part of the chapter the two focus group discussions are analysed. The findings of the data analysis of Chapter 4 (quantitative) and Chapter 5 (qualitative) are presented in Chapter 6.

5.2 Follow-up interview analysis

After the questionnaires were collected, the researcher carried out follow-up interviews by emailing four semi-structured questions to gain extra information from twenty volunteers who agreed to participate in this part of the study. The aim of the follow-up interview analysis is to gain a more thorough understanding of the information that was gained from the questionnaire, such as the level of teachers' computer literacy and their current use of CALL. The aim of this analysis is to discover what the teachers themselves think they need in order to fully integrate CALL into their classrooms and whether or not they really understand the role of a teacher when using CALL technology.

After the researcher obtained the data from the follow-up interviews, all perceptions were organised into four main categories relating to the research questions and the motivations of the study. The information in each category was tabulated and presented as percentages. Because the interviews were conducted by email, part of the analysis consists of quoting the teachers verbatim. The written responses were not changed in any way.

5.2.1 Definition of computer literacy

The concept of computer literacy was defined by the respondents in different ways as tabulated in Table 5.1.

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Table 5.1 :The meaning of computer literacy

	Teachers' Perceptions	Frequency	Percentage
Computer literacy means:	To know how to use a computer in the classroom	10	50%
	To know how to use computer applications	6	30%
	I don't know	2	10%
	To be able to use a computer professionally	1	5%
	To know the basics of a computer	1	5%
	Total	**20**	**100%**

As indicated in Table 5.1, ten of the respondents defined computer literacy as having the ability and the knowledge to use computers in the classroom. For example, Teacher-B said "I think that computer literacy means how I can use computers in my classroom to improve the ability of my students".

Surprisingly, two of the 20 respondents answered that they did not know what computer literacy means. For example, Teacher-D said, "Well, I never heard of it, but I like to use the computer with the old teaching methods". Only one respondent defined computer literacy as the knowledge to use computers professionally. This teacher was Teacher-E who stated: "It means to use the computer professionally".

Of the twenty respondents, six teachers defined computer literacy as having the necessary knowledge to use computer applications. Teacher-C defined computer literacy as "to know how to use computer applications like how to install programs".

Only one of the participants defined computer literacy as the knowledge of the basics of computers, as Teacher-H indicated, "Basic knowledge that a person has to use a computer".

5.2.2 Teachers' beliefs about their role when using the computer

The respondents' beliefs about their role when using the computer in the classroom are presented in Table 5.2.

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Table 5.2:Teachers' beliefs about their role when using the computer

	Teachers' Perceptions	**Frequency**	**Percentage**
Teachers' role when integrating computers in the classroom is:	To guide the class and direct students and help them to get the information required	11	55%
	To make the classroom more attractive and enjoyable	5	25%
	Not sure about my role	3	15%
	To control the classroom	1	5%
	Total	**20**	**100%**

As can be seen in Table 5.2, 11 of the respondents indicated that the teacher's role when integrating computers into the foreign language classroom is to guide the class, direct the students and help them to learn. Teacher-L stated that "my role when using the computer is to give instructions and direct students". Five of the respondents stated that the teacher's role when integrating computers in the classroom was to make that class more attractive and enjoyable. Teacher-I said "my role as a teacher is to make my lesson enjoyable and effective to the students".

Only one respondent indicated that her role when using computers was to control the class.

Of the 20 respondents, three of the teachers were not sure about their role and they were still hesitant about it. Teacher-O revealed, "I think I am not sure because there is not enough information for me about my role and I work on my own".

5.2.3 Using the computer to teach language skills

The third category in this analysis focuses on the use of the computer to teach language skills. Based on the respondents' answers, the researcher divided these skills into seven groups as Table 5.3 shows.

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Table 5.3 :Using the computer to teach language skills

	Teachers' Perceptions	**Frequency**	**Percentage**
I integrate computers in my classroom to teach:	Listening skills	7	35%
	All skills	3	15%
	Listening and speaking skills	3	15%
	Listening, reading and speaking skills	3	15%
	I don't use a computer in my class	2	10%
	Listening and reading skills	1	5%
	Vocabulary, writing and pronunciation	1	5%
	Total	**20**	**100%**

A total of three of the teachers use the computer to teach all aspects of language skills as Teacher-T explained: "Actually, I use it for all skills, listening to answer comprehension passages, reading some electronic books and stories, also typing help to improve their writing skills and they also participate in conversations".

In contrast, some of the teachers use computers to teach only specific aspects. For instance, seven of the respondents use the computer only to teach listening skills. Teacher-M stated, "I prefer to use it for listening only".

The number of respondents who used the computer to teach listening and speaking skills was identical to the number of those who used the computer to teach listening, speaking and reading skills (3 and 3). Teacher-C said, "I use the computer for listening and speaking, but reading and writing from the text book"; Teacher-F said, "I use computer regularly to teach listening, reading and speaking".

Only one of the respondents uses the computer to teach listening and reading. Similarly, only one teacher uses the computer to teach writing, pronunciation and vocabulary as indicated by Teacher-F, "Yes, I do use it to show and pronounce new words; also I use it in writing if possible".

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Two respondents do not use the computer at all to teach language skills. Teacher-J indicated, “No, I don’t use computer because we still do not have enough computers, there is a gap between the number of the students and labs inside schools”. Teacher-L said, “I don’t use computer for any skill”.

It can be said that the majority of the respondents use the computer to teach listening skills as Table 5.3 shows, writing, vocabulary and pronunciation skills receive less attention by only one respondent. This indicates that EFL teachers in public female secondary schools in Riyadh city do not use the computer very effectively to teach all language skills.

5.2.4 The type of training that EFL in-service teachers need

Theme four focuses on the kind of training that teachers think is beneficial to them. The kind of training that EFL teachers need according to their own responses was classified into five types. The answers are summed up in Table 5.4.

Table 5.4:The type of training that EFL in-service teachers need

	Teachers’ Perceptions	**Frequency**	**Percentage**
To improve my computer skills and knowledge I need:	Computer training courses	9	45%
	Computer training courses and equipment	6	30%
	Workshop training	2	10%
	Computer training courses and self-training	2	10%
	Self-training	1	5%
	Total	**20**	**100%**

A total of nine teachers of the group believe that they need more computer training courses to improve their use of the computer as well as their computer skills. Teacher-G said, “I think we need frequent courses to develop our information in educational technology every year because the world is developing and we deal with a modern generation”. Two teachers indicated that they need workshop training to augment their computer knowledge and use as Teacher-A said, “A group works with other teachers to create new ideas”.

A total of six of the respondents indicated that they need computer courses and equipment in their schools to fully integrate CALL in their classrooms as Teacher-H stated, “Teachers

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should take training programs on how to use computers beneficially and schools should be provided with computers and other devices related to it, internet is important too".

Two teachers indicated that computer training courses are the first priority, then self-training to improve their integration of the computer. Teacher-E said, "First, I think Ministry of Education should give more attention to it, second, teacher should have more chance to know more by giving them more training programs. Third, teachers themselves should try to improve themselves by reading more and make more searching using internet." Teacher-M said, "Teacher who still struggle in using computer are highly advised to attend computer courses or teach themselves at home".

Only one of the respondents believes that self-training alone is the best way to improve teachers' computer skills as Teacher I indicated, "I am familiar with technology and I will try to search about any new thing".

The results outlined above show that all the twenty teachers agreed that some form of computer training is vital to advance their computer competence.

The semi-structured interviews thus provided valuable insight into the skills levels and training needs of the teachers, for the purposes of better integrating CALL into their teaching.

5.3 Focus group analysis

This stage of the research describes the analysis of the data obtained in the two focus groups discussions led by the researcher. To analyse the focus group data, there are different modes of analysis as pointed out by the literature.

Onwuegbuzie et al. (2009:4-5) indicate that there are three modes for focus group analysis;

- "Transcript-based analysis represents the most rigorous and time intensive mode of analysing data;
- Tape-based analysis wherein the researcher listens to the tape of the focus group and creates an abridged transcript;
- A memory-based analysis is the least rigorous."

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Bloor et al. (2007) also point out that an analysis of focus group data begins with the transcription of the recorded data. Once transcriptions have been done, the data can be indexed in order to organise them for interpretation. The analyst has to read and re-read the text and to assign index codes which are important to the content of the data and the analytic framework.

The researcher used a 'transcript-based' analysis to analyse the focus group data. The researcher listened to the recorded data several times in order to transcribe what was said as accurately as possible using ordinary orthographic notation. The transcript made use of a 'question-by-question' format following Nieuwenhuis' (2007:92) suggestion that this format should be used "to capture what the group had to say regarding each question". In addition all observational and summary notes that were written down during or immediately after the discussions were added to the margin of the transcript. This being done, the researcher could start with the analysis.

In this section a descriptive analysis using a coding technique is presented. The main themes and ideas pertaining to the research questions are pointed out.

The aims of the focus group discussions were:

1. To get in-depth information about the participants' current computer literacy levels.
2. To get deeper information about the current use of CALL at public female secondary schools in Riyadh.
3. To get an idea about teachers' attitudes towards the integration of CALL and their beliefs about their role when integrating CALL.
4. To ascertain the kind of computer training that is available for both pre-service and in-service teachers.
5. To focus on the in-service computer training that teachers need to enhance their integration of CALL.

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5.4 Questions posed during the focus groups

1. What is CALL?
2. Do you think CALL is currently used by EFL teachers at secondary public schools? Explain.
3. Do you think computer literacy level among ELF teachers at secondary schools is adequate? What are the reasons for your answer?
4. Did you receive any kind of computer training before you started your career? What kind of training did you receive?
5. Do you think that your training was helpful in your teaching career?
6. Do you think CALL is useful to teach English? Explain please.
7. Do you feel equipped to integrate CALL in your classroom? If not, what would you need to equip yourself further?
8. How do you feel about using CALL in your classroom?
9. What barriers do you encounter when using CALL in your classrooms?
10. Do you think training can make these difficulties easier?
11. Do you think computer assisted language learning can improve the quality of teaching?
12. Do you think CALL positively contributes to English learning among Saudi Arabian students?
13. Do you think CALL should be compulsory in schools?

Teachers' answers to the thirteen questions were classified into six categories. In the analysis that follows, the researcher quotes the teachers verbatim, without editing their usage of the English language.

5.4.1 The meaning of term CALL

None of the respondents knew what CALL stands for. Although this term was introduced in the questionnaire, the researcher asked this question again since the majority of the respondents in the questionnaire did not know what CALL stands for. No one answered the question until the researcher indicated that C stands for 'computer'. Only then did the teachers start to suggest the other words as 'learning' and 'language'. However, it was

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difficult for them to give the word 'assisted'. It was clear that they realised it was somehow related to the use of a computer in language learning and teaching. The aim in asking such a question was to ascertain the level of EFL teachers' awareness of current terminology used in second and foreign language teaching. It was evident that none of the respondents knew what CALL stands for.

It was noticed during the two focus groups that all respondents were not familiar with the term CALL which suggests their partial awareness of the acronyms of language teaching and learning. Although all the respondents were not able to give all the words that CALL stands for in accurate order, they indicated that CALL means the use of the computer to teach language. After discussing the meaning of the acronym CALL, all the participants developed their concepts regarding CALL and this enabled them to continue the discussion and to answer the rest of the questions.

5.4.2 The level of computer literacy among EFL teachers

Eight respondents in the two focus groups agreed that current computer literacy levels are not adequate among EFL teachers and only Teacher Four indicated that these are adequate. Also, the eight teachers indicated that they need to improve their computer competencies and they were not satisfied with their computer skills to be really qualified to integrate CALL. For example, Teacher One in the first focus group indicated that her computer literacy is "not enough because the world change. Now, we need to improve our using for computer, so it is not enough for us." All the participants in the two focus groups with the exception of one expressed their dissatisfaction with their current computer skills in the classroom, as they believe that while they can use the computer in the classroom, they still need supervision from people who are more proficient.

5.4.3 Computer training that is available for pre-service and in-service teachers

Regarding pre-service teachers' computer training, all nine respondents in the two focus groups said that they had not received any training course facilitated by the Ministry of Education. Some, however, had received private training which they had, as individuals, decided to participate in and pay for. Teacher One indicated that she gained a basic knowledge of computers from her friends and sister but she still needed more training.

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Moreover, Teacher Three indicated that she had received training in a private institution for three months and Teacher Eight said she had had one year's training at a private institution before she started teaching. So, it is clear from the nine respondents' answers that no computer training courses are available for pre-service teachers and the available training for these teachers is only the computer training done by private institutions.

Although none of the nine teachers had received any training facilitated by the Ministry of Education since they started teaching, they did mention that the basic training they received from their friends, relatives, or private institutions was helpful to them.

5.4.4 Teachers' attitudes towards CALL

Regarding the significance of CALL to teach language skills, all teachers agreed that CALL is very useful to teach all language skills and after the discussion most of the teachers indicated their positive reaction. For example, Teacher Two said, "It is very attractive way of teaching".

All the respondents were unanimous in thinking that CALL should be compulsory in all schools. Some teachers added that CALL must be compulsory, but only once all schools are equipped with enough computers and computer labs.

On the topic of the use of software packages to teach EFL skills, all the respondents indicated positive attitudes towards the software that was used in the focus group and they said that they need such specialised software packages to help them to teach language skills. The teachers indicated that the software that was used by the researcher is new to them as Teacher Two said 'it is new" and Teacher One, "it is good for the students, okay".

Teachers' attitudes towards CALL were undeniably positive as they were assertive that the software package used in the focus group was useful to teach all language skills. Such high positive attitudes also showed as all the nine respondents came to one opinion that CALL should be compulsory in all schools.

5.4.5 The current use of CALL among EFL teachers

Regarding computer applications that are currently used by teachers in public female secondary schools in Riyadh, three respondents indicated that they use only PowerPoint and

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one respondent uses PowerPoint and Word, while five teachers (One, Two, Five, Six and Nine) did not name any applications. When the researcher discussed different options, they said that they rarely use the computer and the most they used were CDs for listening. Teacher Four said that, “Most teachers, they just depend on PowerPoint, they don’t use, uh, new kinds of uh, way, technology or ways to use computers”. Teacher Five indicated that teachers need training regarding software integration as she said, “Training, yes” and Teacher Seven said “I use it just to PowerPoint” which means that she does not use different software packages.

As the teachers expressed during the two focus groups, most of the EFL teachers in public female secondary schools tend to use simple applications and they are still limited in their use of technology in the classroom.

5.4.6 Barriers that teachers encounter when integrating CALL

During the discussions on this topic, five respondents indicated that the main barrier to integrating CALL was inadequate computer training to help them to use CALL in their classrooms. Three teachers said that they do not have enough computers in each school as Teacher Four said, “we don’t have equipment here in the school”. Moreover, Teacher Five indicated that there are no projectors in the school. Teacher One indicated that her problem is that she cannot find programs that can help her to teach writing and she added, “if we have different programs like the software that the researcher used during the discussion, we will overcome this problem especially if we have programs to teach writing”. The barriers that teachers encounter were classified as follows:

- Lack of education software packages that are designed to teach language skills, especially writing skills;
- Lack of equipment in schools;
- Inadequate training.

During the focus group discussion, respondents indicated their positive reactions toward the topic of this study and they expressed their appreciation for such a study. They also indicated that the phenomenon of teachers using computers should be explored further in Saudi Arabian studies, because they are not really satisfied with their computer skills and the help

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that they receive from the Education Department regarding in-service training. They added that they really need regular computer training to keep their computer knowledge up to date. Furthermore, the participants' discussions revealed their willingness to receive more computer training. They said that training is important to keep them up to date with the latest developments in software and online programs that could improve their teaching of EFL. In addition, the participants insisted that they need training courses facilitated by the Ministry of Education to meet their needs because computer courses in private institutions are not sufficient as they are not up to academic standards, and furthermore, these courses are not designed to meet teachers' needs and to enhance their teaching of English. Another external problem that EFL teachers face is the limited number of computer labs in some schools. The teachers were not satisfied with the labs in their schools in terms of quality and quantity as they indicated that computers are still very few compared to the number of students. In fact, most schools have one lab only, which reduces the chance of using CALL effectively. As a result, teachers are not content with the technical support they receive from the Ministry of Education, because the labs are not up to the global standard and they are outdated.

5.5 Conclusion

The qualitative data analysis indicated that computer literacy levels are currently not adequate, as the teachers did not know what CALL stands for and the teachers defined computer literacy broadly as the ability to use computer in the classroom. However, all teachers did recognise that computer literacy is inadequate among EFL teachers. Regarding available computer training, all respondents in the focus groups indicated that there are no government-facilitated courses available to them, and the majority of the respondents in the follow-up interviews agreed that they need regular computer courses to enhance their computer skills.

It was thus found that the use of computers among EFL teachers is still limited, as teachers indicated in the focus groups that the most used applications by EFL teachers are PowerPoint and Word, and the majority of the respondents in the follow-up interviews indicated that they use computers to teach listening skills only. In addition, the majority of EFL teachers stated that their role when integrating CALL is only to guide the class and direct students, as well as to help them to source information. Moreover, the majority of the

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respondents in the two focus groups agreed that their main barrier to integrating CALL is inadequate computer training courses and thus deficient skills levels.

In Chapter 6, the data presentation in Chapters 4 and 5 will be used to present the findings of the research, collating all the evidence collected.

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CHAPTER SIX

FINDINGS AND INTERPRETATION

6.1 Introduction

As was explained in Chapter three, this study made use of a mixed methods research design. This chapter now offers an integrated interpretation of the findings of the quantitative and qualitative methods as reported on in chapter four (the quantitative data analysis) and chapter five (the qualitative data analysis).

The findings are discussed under the following headings:

- Current use of CALL among EFL teachers
- Current levels of computer literacy amongst EFL teachers
- The role of teachers when integrating CALL
- Teachers' attitudes toward the integration of CALL
- The kind of computer training that is available for both pre-service and in-service teachers
- The kind of training that EFL in-service teachers need to enhance their integration of CALL

6.2 Current use of CALL among EFL teachers

With the help of the questionnaire responses it was easy to establish that although the teachers were fairly familiar with computers as such and also made use of computers in the classroom, this use was largely limited to applications such as PowerPoint and Word. Only 13.5% of the teachers in the research sample make use of specialised software (CALL) packages in their classrooms.

In follow up interviews, it emerged that when EFL teachers do use the computer as a teaching aid, it is almost exclusively to enhance listening skills. Only one teacher made use of computer programmes to teach writing, pronunciation and vocabulary, as Table 5.3 shows. The focus group discussion confirmed the questionnaire and interview findings.

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The integrated findings clearly suggest that CALL is not integrated at all or not fully integrated in the EFL classrooms of public female secondary schools in Riyadh.

When one looks at the answers given by the questionnaire respondents to Question 14 ("What does CALL stand for?") the reason for this state of affairs in the EFL classroom also becomes clearer. One of the significant findings resulting from the questionnaire responses was the fact that the vast majority of the seventy four respondents were not able to state what the acronym CALL stands for. A minority of eleven teachers was able to explain the abbreviation broadly speaking, even if they did not give fully accurate answers. In the light of the fact that seventy three respondents (98.6%) hold a Bachelor's degree and forty six respondents (86.4%) have been teaching for more than five years, this finding is both strange and slightly worrisome. Teachers who do not recognise the acronym CALL can hardly be expected to make use of CALL in their classrooms – they are clearly not conversant with current teaching techniques and aids. This finding was strengthened by the data collected from the two focus groups conducted with nine participants, as none of the respondents were able to give an accurate explanation of what CALL stands for. The teachers did know that CALL was somehow related to the use of computers to teach and learn language, but they were not familiar with the term as such and did not recognise CALL as a term within the context of teaching EFL.

The findings of the study are consistent with the findings reported by Puerto and Gamboa (2009) who conducted a web questionnaire study to gain information about second language teachers' use of communication technologies. The questionnaire was designed in Spain and administered to 166 female and male teachers in different countries. Saudi Arabia was among these countries. The two researchers found that teachers tend to use the computer in simple ways. They do not use complex computer applications that require of teachers more preparation such as Wikis, text chat, and video chat. Also, Puerto and Gamboa found that teachers were competent when using the computer for their own personal use more than when using it in the classroom and their use of the computer was not advanced.

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6.3 Current levels of computer literacy amongst EFL teachers

With regard to the level of computer literacy of EFL teachers, the findings of the questionnaire show that the majority of the participants rated some of their general computer skills such as web searching and downloading information as good. They were not fully satisfied with their computer literacy, stating the lack of certain computer skills as the reason. This was also evident in the two focus groups, where participants likewise expressed their dissatisfaction with their current computer literacy. Regarding more specific uses of CALL, the findings of the questionnaire show that EFL teachers who indicated that they did use software packages in their classrooms were not able to give the names of the packages they used. In general terms the teachers can be described as being not functionally computer illiterate as they mentioned some applications that can hardly be considered as software packages. The majority of the teachers partaking in the questionnaire survey still lack the necessary computer skills and confidence to make use of CALL.

The follow-up interviews provided further evidence that EFL teachers had insufficient knowledge about the meaning of the term “computer literacy”. The majority of the twenty respondents defined computer literacy as the ability to use the computer in the classroom. Teachers need to advance their perceptions of the meaning of computer literacy especially with the rapid augmentation of educational technology. Together with this expansion, computer literacy now means more than just being able to use Word, for example.

The results of the questionnaire indicate that the vast majority of the respondents owned their own computers which were connected to the internet as well their own email accounts. With such services available to these teachers, they should be more computer literate especially in skills that correlate to their teaching, but they were not fully aware of new developments in educational technologies. The findings suggest a discrepancy between technology and devices that were accessible to the teachers and the levels of their computer literacy, suggesting further that teachers need computer training that will help them to implement the potential of CALL in their classrooms.

This finding is consistent with the results reported on by Al-Kahtani and Al-Haider (2010). They indicated that providing EFL female faculty members with technology is not enough. Continuous in-service training is essential to help teachers to fully integrate CALL.

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The study conducted by Al-Kahtani and Al-Haider corresponds with this study in terms of the participants' gender. The research group used in their study consisted of the members of the EFL departments at four Saudi universities whereas this study was conducted with EFL teachers in public female secondary schools in Riyadh city. Both studies were conducted in the same country. Al-Kahtani and Al-Haider found that their research group was not provided with enough computing facilities (including the number of computers), an insufficient number of software as well as insufficient training. These were barriers to the implementation of CALL that were also found in this study. Furthermore, Al-Kahtani and Al-Haider found that the respondents use the computer at home more than they use it for instructional purposes which coincide with the findings of this study.

Moreover, the results of the questionnaire show that the majority rated their general computer skills, such as searching and downloading information, as good, which led us to conclude that EFL teachers seemed more literate when they use the computer as learners, not as teachers. The findings of this study suggest that teachers need to enhance their computer literacy and to be more aware of the technology that is correlated to the teaching and learning of EFL. Computer training courses are significant and vital for EFL in-service teachers in female public secondary schools to be able to make a more valuable incorporation of CALL.

The findings of both the qualitative and quantitative methods suggest that there is a correlation between the current levels of computer literacy among EFL teachers and their current integration of CALL. So, one can assume that the insufficient integration of CALL is due in part to the inadequate levels of computer literacy amongst EFL teachers in public female secondary schools in Riyadh city. The findings of the study suggest that we need to enhance teachers' computer literacy to enable them to integrate CALL. Two other studies, that of Scheffler and Logan (1999) and Saleh and Pretorius (2006) also found that teachers need to upgrade and augment their computer competencies in order to integrate technology.

6.4 The role of teachers when integrating CALL

The findings of the follow-up interviews show that the twenty respondents indicated that there are three roles that teachers play when they integrate CALL in the classroom (cf. Table 5.2), namely

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- to guide the class, direct students and help them to get the information required
- to make the classroom more attractive and enjoyable and
- to control the classroom.

The responses gained from the interview questions suggest that teachers have an inadequate knowledge regarding their roles. They were of the opinion that teachers' roles are limited to the classrooms only and to help students to find information. Teachers need to know more about their roles in the CALL environment. With the rapid development of technology, teachers are expected to do more than just direct students and control the classroom as twelve of the interviewees suggested.

In the environment of CALL, teachers should be able to evaluate the programs they use in their classrooms and make sure that these programs are consistent with their students' culture and needs. In this regard, teachers need to be supported with software that is correlated to their teaching to help them to expand their current roles and to achieve their roles in the CALL environment. Once again, the findings show that when teachers are supported with sufficient computer training within a language teaching environment, the training might enable them to evaluate different educational programs and to choose those that will best suit their needs. The computer training should be practical, to show teachers their new responsibilities in the CALL classroom. This finding corresponds with Xiao et al. (2005) who agreed that teachers need to know how to design activities and how to develop their own software. To enable teachers to play such a role, it is essential that EFL teachers have computer training based on the textbook they will use. This will allow these teachers to design activities and software that suit the contents of the textbook. This finding is also consistent with Tuparova and Tuparov (2011) who indicated that teachers' computer training should be correlated to their teaching practice and to the methods they use in their classrooms which will help them to perform their roles properly.

It can be said that teachers' roles in a CALL setting are influenced by factors such as training and teaching resources. When teachers are supported with sufficient training and have adequate teaching resources such as software and the internet, integrating CALL will be less of a challenge.

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6.5 Teachers' attitudes toward the integration of CALL

The data obtained through the questionnaire show that sixty one respondents (82.4%) agreed that their English teaching would be more effective when integrating the computer in their classrooms. These positive attitudes toward CALL were echoed in the answers to Question 20 ("Do you believe English teaching could be more effective when using computers in the classroom?") where the teachers answered positively. In response to Question 24 ("Do you believe that computer training should be included in English teacher training programs?") seventy one respondents showed that they believe that computer training courses should be included in English teachers' training programs, which indicates their willingness to undergo more training. Similar positive attitudes were indicated during the two focus groups. All the teachers in the two focus groups agreed that CALL should be compulsory in all schools. They also rated the software used by the researcher to demonstrate CALL as useful to teach all language skills.

The findings of this study suggest that EFL teachers showed positive attitudes toward the integration of technology in their classrooms and also toward computer training courses. Although the majority of these teachers had not participated in any computer training before or after they started teaching, they had positive attitudes toward technology. This led this researcher to suggest that computer training for these teachers will be beneficial to enhance their integration of CALL. It is essential to mention that positive attitudes toward technology will make training more effective.

6.6 The kind of computer training that is available for both pre-service and in-service teachers

One significant finding of the questionnaire is the fact that forty three of the 74 respondents had never participated in any pre-service training regarding CALL, and forty respondents had never participated in any in-service computer training. Sixty four of the 74 respondents agreed that they need more training in future. This finding indicates that there are no computer training courses facilitated by the Ministry of Education either for pre-service teachers or in-service teachers. In addition, as the vast majority of the respondents to the questionnaire could not give an adequate explanation of the term “CALL”, this can be considered clear evidence of the lack of both pre-service and in-service computer training

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regarding CALL, especially as all these respondents hold bachelor's degrees as their highest qualification and the majority of them have been teaching for five years and more. Once again, it seems clear that the absence of computer training is the main cause of the lack of computer literacy among EFL teachers in public female secondary schools in Riyadh city.

The findings based on the two focus group discussions correspond with the findings of the questionnaire. Six of the nine respondents had not received any kind of training before or after they started teaching and one respondent indicated that she was only trained by friends and relatives. The two respondents in the focus groups who did receive computer training indicated that they were trained in private institutions. However, this training offered by private institutions is not geared towards providing teachers of EFL with the necessary knowledge and skills to implement CALL. The training is not correlated to English instruction, but teachers are simply trained in using the computer as learners - not in how to use the computer to teach EFL.

6.7 The kind of training that EFL in-service teachers need to enhance their integration of CALL

The findings of the questionnaire suggest that the 34 respondents who have participated in computer training since they started teaching found it useful to their teaching. In-service teachers' computer training can therefore make a difference in teachers' integration of technology.

Regarding the kind of computer training that EFL in-service teachers need, the twenty participants in the follow-up interviews gave a variety of different responses. The majority of the twenty respondents agreed that they need more computer training courses to enhance their use of the computer. Two of the 20 respondents believed that workshop training is important. Three of the respondents agreed that self-training is also important for teachers to enhance their use of the computer (Table 5.4). The findings of the two focus groups show that the respondents decided that they need more training to be able to use different software packages such as the one used by the researcher during the two focus groups. It seems that private current courses only teach some rudimentary computer skills and these courses are not correlated to the syllabus that teachers teach. In-service teachers need regular compulsory computer training facilitated by the Ministry of Education to enhance their

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computer literacy. In addition, in-service teachers need computer training courses that are related to English instruction. Besides, these teachers need to be trained to use a variety of computer applications and software and to be able to evaluate and design programs that are correlated to their instruction. Continuous computer courses are essential to keep their computer literacy up to date and to advance their integration of CALL. Regarding in-service teachers' training, the findings of the follow up interviews and the two focus groups correspond with various previous studies (Saleh & Pretorius, 2006; Park & Son, 2009; Sardessai & Kamat, 2011; and Bala, Phil & Bamba, 2012), which found that in-service teachers' computer training is vital to enhance EFL teachers' computer literacy. Similarly, the findings in this section coincide with those of Egbert, Paulus and Nakamichi (2002) who found that in-service computer training should be continuous because one course is not enough to keep teachers computer literate as the development of technology does not stop. The findings of the study agree with Al-Hazmi (2003) who indicated that EFL teachers' training programs in Saudi Arabia are still limited.

6.8 The obstacles EFL teachers encounter when integrating CALL

The findings obtained by the two focus groups discussions suggest that the main barriers that teachers encounter when integrating CALL may be classified into three groups according to the nine respondents' responses:

- lack of educational software
- lack of equipment in schools and
- inadequate computer training.

These three factors were named by the respondents as hindrances to their use of technology in their classrooms. The majority agreed that inadequate computer training was the main barrier that prevented them from effectively integrating CALL in their classrooms. Additionally, the findings of the follow-up interviews indicate that inadequate computer training and lack of equipment were the main barriers that teachers encounter and some respondents indicated that they needed more computer courses and sufficient equipment to enhance their integration of CALL. The findings under this section coincide with Al-Kahtani and Al-Haidar (2010) who found the three barriers mentioned in this study to be among the main barriers to integrate CALL among the female faculty members in Saudi higher education. As was

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demonstrated by the current study, inadequate computer training was felt to be one of the main barriers to integrating CALL among EFL teachers in public female secondary schools in Riyadh city. This led us to emphasise again the significance of in-service teachers' computer training to integrate CALL. Furthermore, the findings of the follow-up interviews and the two focus groups suggest that the number of labs and computers is still limited in public female secondary schools in Riyadh city and there is a big gap between the number of the students and the computers available in each school. These findings suggest that all schools should be supported with sufficient equipment and devices that are associated with the integration of technology to help teachers to enrich their integration of CALL. This corresponds with Dashtestani (2012), who determined that it is essential for EFL teachers to be equipped with academic software and computer-based facilities to be able to use technology.

6.9 Conclusion

The findings of both the quantitative and qualitative data suggest that the current use of the computer among EFL teachers in public female secondary schools is deficient in both quantity and quality and does not extend to CALL. The current level of computer literacy among EFL teachers is inadequate and teachers need to be more computer literate to fully integrate CALL in their classrooms. Moreover, the available computer training for both pre-service and in-service teachers is inadequate to enable teachers to fully integrate CALL. There were no computer training courses facilitated by the Ministry of Education. This is in spite of the fact that these teachers are working in public female secondary schools under the supervision of the Ministry of Education. Moreover, in-service EFL teachers agreed that they need more computer training courses to enhance their integration of CALL. The barriers encountered by EFL teachers to integrate CALL were: inadequate computer training, lack of educational software, and lack of equipment in schools. Proficient computer training courses are required to increase teachers' computer literacy and consequently enhance their integration of CALL. Software packages that are designed to meet their English instruction needs are required for EFL teachers.

These recommendations are further discussed in Chapter Seven. In addition, Chapter Seven discusses each of the research questions of the study and seeks to provide possible recommendations to enhance the integration of CALL among EFL teachers in public

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secondary schools in Riyadh. Chapter Seven also discusses the need for further studies regarding CALL in Saudi schools.

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CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction and summary of the findings

This study was carried out to explore the current integration of CALL among EFL teachers in public female secondary schools in Riyadh City. The main problem informing the research, as pointed out in Chapter 1, is the real possibility that CALL is not fully integrated in EFL classrooms in Saudi Arabia and that the current lack of training – pre-service as well as in-service – of teachers might be one of the main factors preventing the full integration of CALL.

An extensive review of the literature on CALL was conducted to sketch the theoretical framework of the study, as well as to highlight those areas that need further investigation. For the empirical part of the study a mixed methods design was chosen to obtain answers to the following research questions:

1. To what extent is CALL used by EFL teachers in public female secondary schools in Riyadh?
2. What is the current level of computer literacy among EFL teachers in public female secondary schools in Riyadh?
3. What kind of computer training is available for both EFL pre-service and in-service teachers to make full integration of CALL possible?
4. What kind of training do EFL in-service teachers need to enhance their integration of CALL?

By seeking answers to these questions, it was hoped that the main objectives of the study, as spelled out in Chapter 1, might be reached.

7.1.1 The use of CALL by female EFL teachers in public female secondary schools in Riyadh

As pointed out in Chapter 6, the qualitative findings of the study suggest that the teachers in the research group do not really integrate CALL in their EFL classrooms. Although the majority of the 74 respondents in the questionnaire used computers regularly or always in

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their classrooms, the vast majority (86.5%) did not use specialised software packages in their classrooms.

As the findings of the follow-up interviews suggest, EFL teachers still use the computer to teach only a limited range of skills..

On the topic of the first research question in this study, the findings of the quantitative and qualitative methods thus provide evidence that CALL, if used at all, is still limited and confined to teaching simple skills. This might not be ideal, if advancing the level of English proficiency among the students is the goal in EFL classrooms.

The insufficient use of CALL among EFL teachers is due to a variety of issues. The barriers to integrating CALL stated by the teachers were external ones such as inadequate training, a lack of equipment as well as a lack of educational software. The results of the study show that the equipment in public female secondary schools in Riyadh is still limited and there is a gap between students' numbers and the numbers of computers they have access to, which reduces the use of the technology in these schools. Such obstacles are the main reasons for the limited use of CALL among EFL teachers. Such barriers were also discovered by Mumtaz (2000) who found that limited resources in schools are great barriers to the integration of technology. Not enough computers and software in the classrooms can surely limit what teachers can do with technology.

On the other hand, the findings of the study showed that EFL teachers hold positive attitudes toward CALL and they do not have any internal barriers to integrating CALL.

The findings regarding the first question led us to recommend that the Ministry of Education should focus on all the barriers that could reduce the integration of CALL among EFL teachers. These teachers should in addition be equipped with the necessary knowledge and skills by providing them with efficient training that correlates to their EFL teaching. Furthermore, the Ministry of Education should provide all schools with adequate numbers of computers and labs and support these labs with the necessary technology. This issue was raised by Mahdi (2013), as he demonstrated that the integration of CALL in most Arab world countries requires a specific educational administrative and technological environment. As

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Mahdi (2013) concluded, there are some external factors that affect the teachers' use of CALL such as lack of support from administrators, training and accessibility. The factors that Mahdi mentioned correspond with the issues that the respondents indicated as the barriers to integrating CALL.

It is essential that the administrators in the Ministry of Education provide teachers with educational software that is related to the content of the EFL textbooks. So, it is important that software packages are especially designed to meet these teachers' needs and consider their culture and religion, as Saudi Arabia country is an Islamic and conservative country. If all barriers mentioned in the study are considered by educators, the use of CALL among EFL teachers in public female secondary schools in Riyadh will be improved.

7.1.2 Computer literacy levels

Regarding the second question, the study found that teachers are computer literate, but only to a limited extent and as learners rather than as teachers. The majority of the respondents to the questionnaires rated their general skills in searching and downloading information as good. However, the findings of the quantitative and qualitative methods revealed that the participants in the study are functionally computer illiterate as teachers since they lack knowledge of the terminology and practice of computer assisted language teaching. The findings of the questionnaire revealed that the majority of the respondents were not satisfied with their computer literacy levels as they believed that they still lack some computer skills. This dissatisfaction was also emphasised during the two focus groups as teachers indicated that their computer literacy was insufficient and they wanted to have training regarding the use of different software packages in their classrooms. Moreover, the findings of the study showed that the teachers had a narrow idea about the meaning of computer literacy as they believed that computer literacy refers only to the ability to use the computer in a very basic sense in the classroom.

We conclude that the level of computer literacy among EFL teachers is very basic and inadequate for integrating CALL. EFL teachers need to enrich their computer literacy as teachers to be able to fully integrate CALL. The Ministry of Education has a duty to evaluate

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these teachers' computer competencies and to provide them with the necessary training they need and this training must be consistent with the developments in educational technology.

7.1.3 Computer training

Good training plays a very big role in ascertaining the success with which CALL might be used in the classroom. Based on the findings as summarised in Chapter 6, it is clear that the available computer training for EFL teachers does not meet the teachers' needs. The findings of the quantitative method suggest that just over half of the research group have not participated in any kind of pre-service or in-service computer training that was linked to teaching. This leads us to conclude that there is no appropriate computer training available for pre-service as well as in-service teachers. Pre-service training is confined to generic or basic training and does not provide the kind of training that is associated with the use of CALL in the classroom. The private institutions that do offer training have commercial goals other than pedagogical ones and they do not provide teachers with computer competencies that are correlated to their mode of instruction. The choice to receive training by private institutions is the teachers' own and their main motivation is to improve their computer skills so as to accomplish administrative tasks such as to prepare exam papers and to design tables of students' names and marks.

To enhance EFL teachers' integration of CALL, the Ministry of Education needs to prepare teachers before they start teaching by including computer training aimed at improved teaching in their training programs. This training will serve as the base for these teachers to start integrating CALL once they start teaching. Similarly, computer training courses should be available for in-service teachers to keep their computer competencies up to date and such courses must be closely linked to the curriculum and the needs of students.

Based on the answers of the first three questions of the study, we can deduce the answer to the fourth question. The findings of the study show that there is no computer training facilitated by the Ministry of Education available for in-service teachers to train them to integrate CALL in their classrooms. As in-service teachers' training is essential for the full integration of CALL, the Ministry of Education should focus on this kind of training.

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In the recommendations section, we will focus on the issue of training, as this seems to be the main issue regarding the poor integration of CAAL.

7.2 Conclusion

CALL is not fully integrated or not integrated at all in female EFL classrooms in Riyadh city, Saudi Arabia. The main reason for this state of affairs is insufficient knowledge of CALL which in turn can be directly linked tot a clear lack of training for both pre-service and in-service teachers.

Teachers need advanced computer training to enable them to use more software applications than they are currently familiar with. This will empower them to choose and evaluate programs that are compatible with the needs (and even the often advanced computer skills) of their students and the objectives of the curriculum. Both theoretical and practical computer training are necessary. Theoretical computer training is essential to help teachers become aware of the acronyms and glossary of language teaching techniques and to have adequate knowledge about new and different approaches to language teaching. Practical training is of course necessary in order that teachers can use computer software packages with the requisite skill and confidence.

To enhance their practice, workshop training should be included in in-service teachers' training. This should be hands-on training. In-service training should be continuous to keep teachers up to date with new developments in the field. A limited number of courses is not useful with the speedy progress of technology. Also, these courses need to be prepared by very able educators who can connect the computer training with the EFL curriculum.

The researcher trusts that both teachers and educators will benefit from the study and the following recommendations.

7.3 Recommendations

- Theoretical training is very essential for both pre-service and in-service teachers. Such kind of training should be done very well for pre-service teachers and should also be given to those in-service teachers who did not receive enough theory about language teaching techniques and methods during their pre-service training. In this study, the

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absence of this type of training was clear as the majority of the respondents were 26-35 years old and about all of them hold a Bachelor's degree but they lack the theoretical knowledge of language teaching. It is recommended that EFL teachers are provided with theoretical training to enhance their knowledge about CALL.

- Practical training is pivotal as a complementary step that must come directly after the theoretical training to provide teachers with a realistic and an authentic training that enable them to integrate technology with confidence. It is recommended that teachers receive frequent workshop training at their schools. This will allow teachers to share their ideas in their workplace and minimize loss of time while travelling as they will be at their schools when participating in such workshops.

- As CALL is still new in Saudi Arabia, EFL teachers need extensive training to enhance their integration of CALL into their lessons. Technology is progressing so fast and students will be better than teachers if teachers do not obtain the computer training that will keep their technological knowledge up to date. In addition, in-service EFL teachers must have computer training courses sponsored by the Government and the Ministry of Education to train teachers in the English curriculum, enabling them to provide the link between technology and the textbook.

- The Ministry of Education should support all schools by providing the necessary computer–based facilities for the integration of CALL.

7.4 Recommendations for further studies

- More studies should be conducted in all regions of Saudi Arabia and not only in Riyadh City, as this study did not investigate the implementation of CALL in all Saudi Arabian schools.

- Since this study is limited to female teachers, further studies are needed to investigate the current integration of CALL among male schools within Riyadh City and more broadly in Saudi Arabia.

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- More studies are needed to evaluate the computer skills of EFL teachers so as to provide them with the necessary training. Although the findings of the study suggest that EFL teachers still lack some computer skills, there is still an urgent need for further studies to determine which precise skills teachers lack. Such studies will help educators to decide what kind of training is necessary for these teachers to enhance their use of CALL in their classrooms.

- There is a need for further studies to investigate a number of issues regarding the implementation of CALL in Saudi Arabian schools. Further studies such as classroom observation studies will add the necessary rich data to give a full picture of classroom practice. More information is needed about the factors that are at play in hindering or enhancing the integration of CALL. Are these factors to do with the students or the teachers?

- Studies on the efficacy of CALL to boost all English language skills in Saudi Arabia are required.

- As students' and teachers' attitudes and beliefs are essential to make CALL more effective further studies on this concern are required.

7.5 Limitations of the study

Since the participants in this study were females, the results of this study cannot be generalized to male teachers in public secondary schools in Riyadh. The results of this study can be generalized only to public female secondary schools in Riyadh city as the study was conducted in these schools.

7.5 Contribution of this study

This study makes a contribution to the literature in CALL in Saudi Arabia by providing findings regarding the current integration of CALL among EFL teachers in public female secondary schools in Riyadh city. This could help to make educators in the Ministry of Education in Saudi Arabia more aware of the importance of the integration of CALL to enhance English teaching not only in these schools but also in all Saudi schools. The study is

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the first of its kind to explore the current integration of CALL among EFL teachers in public female secondary schools in Riyadh. The study thus makes a contribution both to the literature and to the practice of teaching in a specific context.

7.6 Conclusions

The recommendations to follow in this study are in accordance with Arishi (2011) who pointed out that pre-service English training program in Saudi Arabia should include courses regarding the use of CALL. Also, the recommendations are consistent with Dashestani (2012) who indicated that it is important to include specific teachers' computer training courses for in-service teachers to enhance their computer literacy and this training should be involved in EFL teachers' training programs. As Al-Abbad (2010) and Arishi (2012) pointed out, Saudi studies regarding the present status of CALL in the teaching and learning of EFL are still narrow and there is an urgent need for further studies.

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UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

REFERENCES

Abbasi, A. 2011. A survey of teaching strategies in ESL classrooms. *Language in India,* 11:313-329.

Abidin, M., Issa, J. & Mustafa, P. 2012. TESOL in-service teachers' attitudes towards computer use. *English Language Teaching,* 5(1):61-68.

Abraham, L. 2008. Computer-mediated glosses in second language reading comprehension and vocabulary learning: A meta-analysis. *Computer assisted Language Learning,* 21(3):199-226.

Abu Nabah, A. 2012. The impact of computer assisted grammar teaching on EFL pupil's performance in Jordan. *IJEDICT*, 8(1):71-90.

Abu Nabah, N., Hussain, J., Al-Omari, A. & Shdeifat, S. 2009. The effect of computer assisted language learning in the teaching of English grammar on achievement of secondary schools in Jordan. *International Arab Journal of Information Technology,* 6(4):431-439.

Abu Seileek, A. 2011. The effect of computer-assisted cooperative learning methods and group size on the EFL learners' achievement in communication skills. *Elsevier*, 58(12):231-239.

Abu Seileek, A. & Rabab'ah, G. 2007. The effect of computer-based grammar instruction on the acquisition of verb tenses in an EFL context. *Jalt CALL Journal*, 6(3):59-80.

Abu Seileek, A. & AbuSa'aleek. A. 2012. Computer Assisted Language Learning: Merits and Demerits. *Language in India,* 12(4):23-36.

Ahmed, K. 2010. English in the Arab Gulf. *Asian journal of University Education,* 6(1):1-12.

Ahmed, Z. & Khurshid, F. 2012. Problems of teachers in developing computer assisted instruction at university level. *Language in India*, 12(3):124-144.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Al-Abbad, A. 2010. Computer-Assisted Cooperative Learning in EFL in Saudi Arabia. *The EuroCALL Review,* 16:1-5.

Al-Ahmadi, B. 2011. Saudi student's perceived attitudes toward computer-assisted class discussion CACD as a vehicle for communicative interaction. *LICEJ,* 2(2):393-401.

Al-Asmari, A. 2005. The use of the Internet among EFL Teachers at the Colleges of Technology in Saudi Arabia. Columbus, OH: Ohio State University. (Dissertation – PhD).

Al-Asmari, A. 2011. Evaluating the prospects of integrating technology in pre-service EFL teacher training. *Arab World English Journal,* 2(2):133-166.

Al-Hammadi, F. 2011. The effectiveness of using a multi-media software in developing some listening skills among Saudi secondary school students. *Damascus University Journal,* 27(3):43-86.

Al-Hashash, S. 2007. Bridging the gap between ESL end EFL: using computer assisted language learning as a medium. *Indian Journal of Applied Linguistics,* (1):2-47.

Al-Hazmi, S. 2003. EFL Teacher Preparation Programs in Saudi Arabia: Trends and Challenges. *TESOL Quarterly*, 37:341-344.

Al-Jarf, R. 2009. What students' e-mails tell us about their needs. *IATEFL RESIG Newsletter.*

Al-Jumah, F. 2012. Saudi learner perceptions and attitudes toward the use of blogs in teaching English writing course for EFL majors at Qassim University. *English Language Teaching*, 5(1):100-116.

Al-Kahtani, S 1999. Teaching ESL Reading Using Computers. *The Internet TESL Journal,* 5(11). http://iteslj.org/Techniques/AlKahtani-CumputerReading/. Date of access: 10 Nov. 2012.

Al-Kahtani, S. 2007. CALL Integration: A Proposal for In-service CALL Training program for EFL Faculty at Saudi Arabian Universities.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

http://faculty.ksu.edu.sa/saad/Documents/Integrating%20CALL%20Proposal.pdf. Date of access: 25 November 2012.

Al-Kahtani, S. 2011. EFL female faculty members' beliefs about CALL use and integration in EFL instruction: the case of Saudi higher education. *Journal of King Saudi University – Language and Translation*, 23:87-98.

Al-Kahtani, S. & Al-Haider, S. 2010. Factors affecting the use of CALL by EFL female faculty members in Saudi higher education: current status. *The Jalt CALL Journal*. 6(3)p.153-170. http://journal.jaltcall.org/articles/6_3_AlKahtani.pdf. Date of access: 19 November 2012.

Al-Ma'shy, A. 2011. Causes of EFL speaking weakness in Saudi secondary schools in Al-Gunfuthah City. Riyadh, SAU: King Saud University. (Thesis – Masters).

Al-Maini, Y. 2010. Computer-assisted Cooperative Learning in EFL in Saudi Arabia. http://eurocall.webs.upv.es/index.php?m=menu_00&n=news_16#al-maini. Date of access:5 Des. 2012.

Al-Mansour, A. 2006. Comprehensive development of education in the Gulf cooperation council countries – A study of the directives stated in the supreme council resolution on education. The Cooperation Council for the Arab states of the Gulf Secretariat General. p: 17-18.

Al-Mekhlafi, A. 2004. The internet and EFL teaching: the reactions of UAE secondary school English language teachers. *Journal of Language and Learning.* 2(2). http://www.jllonline.co.uk/journal/jllearn/2_2a/mekhlafi.pdf. Date of access: 20 Jun. 2011.

Al-Mekhlafi, A. 2006. The effect of Computer Assisted Language Learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students' achievements and attitude. *Journal of Interactive Learning Research*, p. 121-142.

Al-Murabit, I.A. 2012. A closer look at an English language curriculum of a community college in Saudi Arabia. *English Language Teaching*, 5(8):226-242.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Al-Sadan, I. 2000. Education Assessment in Saudi Arabian schools. *Assessment in Education*, 7(1):143-155.

Al-Samaani, A. 2012. Assessing Saudi learner's beliefs about English language learning. *International Journal of English and Education,* 1(2):31-55.

Al-Seghayer, K. 2005. **Teaching English in the Kingdom of Saudi Arabia: Slowly but steadily changing**. (*In* Braine, G. ed. 2005. Teaching English to the world – History, Curriculum, and Practice. London: Lawrence Erlbaum.P.).

Al-Seweed, M. 2009. Attitudes of Saudi secondary school level students toward learning of English as a Foreign Language. *Journal of Arabic and Human Sciences,* 2(1):9-22.

Al-Shehri, S. & Gitsaki, C. 2010. Online reading: a preliminary study of the impact of integrated and split-attention formats on L2 students' cognitive load. *ReCALL,* 22(3):356-375.

Al-Shorman, A. & Al-Mansour, S. 2009. The effect of computer-assisted instruction on Saudi university students' learning of English. *Journal of King Saud University – Language and Translation,* 24:51-56.

Al-Shumaimeri, Y. 2008. Perceptions and attitudes toward using CALL in English classrooms among Saudi Secondary EFL Teachers. *The Jalt CALL Journal,* 4(2):29-46).

Al-Twairish. 2009. The effect of communicative approach on the listening and speaking skills of Saudi secondary school students: an experimental study. Riyadh, SAU: King Saud University. (Thesis – Masters).

Amaral, A.L. 2011. On using intelligent computer-assisted language learning in real life foreign language teaching and learning. *ReCALL,* 23(1):4-24.

Arishi, S. 2011. Faulty members' attitudes toward Computer-Assisted Language Learning in Saudi Arabia English Classes. *International Journal of Instructional Technology and Distance Learning,* 8(12):45-58.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Arishi, S. 2012. Attitudes of students at Saudi Arabia's industrial colleges toward Computer-Assisted Language Learning (CALL). *Teaching English with Technology,* 12(1):38-52.

Ayodele, O.J. 2012. Validity and reliability issues in educational research. *Journal of Educational and Social Research,* 2(2):391-400.

Bahrani, T. 2011. Speaking fluency: technology in EFL context or social interaction in ESL context. *Studies in Literature and Language,* 2(2):162-168.

Baki, R. 2004. Gender-segregated education in Saudi Arabia: Its impact on social norms and the Saudi labour market. *Education Policy analysis Archives,* 12(28):1-12.

Bala, V., Phil, M. & Bamba, V.2012. Factors affecting quality of teaching learning of English reading at the secondary school level. *Language in India,* 12:585-596.

Bangs, P. & Cantos, P. 2004. What can Computer Assisted Language Learning contribute to foreign language pedagogy? *International Journal of English Studies,* 4(1):221-239.

Baqutayan, S. 2011. Issues in the implementation of science and technology education in Saudi Arabia. *International Journal of Applied Science and Technology,* 1(5):165-167.

Basheer, V. 2011. 'Enhancing Computer Assisted Language Learning via the World Wide Web for English Language Teaching', in Technology for Education (T4E): *2011 IEEE International Conference*. p. 291-292.

Bax, S. 2003. CALL – past, present, future. *System,* 31(3):13-28.

Beatty, K. 2003. **Teaching and Researching Computer Assisted Language Learning**. London: Pearson.

Behjat, F. 2010. 'Exchanging e-mails: a way to enhance language learners' communicative writing skill', *In* ICELET: 2010: *The 2nd International Conference on E-Learning and E-Teaching*. p. 1-3.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Behjat, F. 2011. Teacher correction or word processors: Which is a better option for the improvement of EFL students' writing skill? *Journal of Language Teaching and Research,* 2(6):1430-1434.

Berankova, J., Cechova, I. & Zerzanova, D. 2011. 'Computer Assisted Language Learning implementation in the military university environment', *In* Proceedings of the 14th International Conference on Interactive Collaborative Learning: 2010 Piešt'any, Slovakia. p.506-509.

Bingimlas, K. 2009. Barriers to the successful integration of ICT in teaching and learning environments: a review of the literature. *Eurasia Journal of Mathematics, Science & Technology Education,* 5(3):235-245.

Blake, R. 2007. New trends in using technology in the language curriculum. *Annual Review of Applied Linguistics,* 27(7):76-97.

Bloch, J. 2009. The design of an online concordance program for teaching about reporting verbs. *Language Learning & Technology*, 13(1):59-78.

Bloor, M., Thomas, M., Robson, K. & Frankland, J. 2001. **Focus groups in social research**, Sage Publications Limited.

Boulton, A., Chateau, A., Pereiro, M. & Azzam-Hannachi, R. 2008. Learning to learn languages with ITC – but How? *CALL EJ,* 9(2):1-17.

Brown, D.H. 2006. Forty years of language teaching. *Lang. Teaching Journals,* 40:1-15. Retrieved from http://journals.cambridge.org.Date of access: 8 Apr. 2011.

Burke, W. 1986. **Computers in the classroom – what shall I do?** New York: Garl.

Butler, K. 2009. Foreign Language – speaking their language. District Administration. p. 28-32.

Cameron, K. (ed). 1999. **Computer Assisted Language Learning (CALL). Media, Design and Applications.** Lisse: Swets & Zetinger.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Carballo-Calero, F. 2001. The EFL teacher and the introduction of multimedia in the classroom. *Computer Assisted Language Learning,* 14(1):3-14.

Chapelle, C. 2001. **Computer applications in second language acquisition – Foundation for Teaching, Testing and Research**. Cambridge: Cambridge University Press.

Chapelle, C. 2008. **Computer Assisted Language Learning**. (*In* Spolsky, B. & Hult, F. eds. The handbook of educational linguistics. 1st ed. Malden: Blackwell. p. 585-595).

Chapelle, C. 2010. The spread of computer-assisted language learning. *Cambridge Journals,* 43(1):66-74.

Chen, C. & Lee, T. 2011. Emotion recognition and communication for reducing second-language speaking anxiety in a web-based one-to-one synchronous learning environment. *British Journal of Education Technology,* 42(2):417-440.

Chen, H. 2011. Developing and evaluating an oral skills training website supported by automatic speech recognition technology. *ReCALL,* 23(1):59-78.

Cohen, L., Manion, L., & Morrison, Keith. 2007. **Research Methods in Education, Sixth edition.** London. Routledge.

Collins, K., Onwuegbuzi, A. & Jiao, Q. 2007. A mixed methods investigation of mixed methods sampling designs in social and health science research. *Journal of Mixed Methods Research,* 1(3):267-294.

Colpaert, J. 2004. Design of online interactive language courseware: conceptualization, specification and prototyping. Research into the impact of linguistic-didactic functionality on software architecture. Antwerp, BE: Universiteit Antwerpen. (Dissertation – PhD).

Compton, L. 2009. Preparing language teachers to teach language online: a look at skills, roles and responsibilities. *Computer Assisted Language Learning,* 22(1):73-99.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Cope, B., Kalantzis, M., McCarthey, S., Vojak, C. & Kline, S. 2011. Technology-mediated writing assessments: Principles and processes. *Computers and Composition,* 28(2):79-96.

Corder, D. & Walter, G. 2005. An analysis of the effectiveness of an in-house CALL software package for the learning and teaching of kanji (Japanese characters) and the development of autonomous learning skills. *CALL EJ,* 7(1):1-16.

Creswell, J.W. 2009. **Research design: qualitative, and mixed method approaches.** Thousand Oaks, CA: Sage Publications.

Creswell, J.W. 2012. **Educational research: planning, conducting, and evaluating quantitative and qualitative research**. Boston: Pearson.

Creswell, J.W. & Plano Clark, V.L. 2011. **Designing and conducting mixed methods research**. Los Angeles: Sage Publications.

Cviko, A., McKenney, S. &Voogt, J. 2011. Teachers enacting a technology-rich curriculum for emergent literacy. Education Tech Research Dev. Retrieved from http://dspace.ou.nl/bitstream/1820/4035/1/ETRD2011.pdf .Date of access: 26 November 2012.

Dai-Young, K., Heui-Seok, L., WonGyu, L., SoonYoung, J., Taeweon, S., & Kichun, N. 2010. A personalized English vocabulary learning system based on cognitive abilities related to foreign language proficiency. *KSII Transactions on Internet & Information Systems,* 4(4):595-617.

Dashtestani, R. 2012. Barriers to the implementation of CALL in EFL courses: Iranian EFL teachers' attitudes and perspectives. *The JALT CALL Journal*, 8 (2), p.55-70. Available at: Barriers to the implementation of CALL in EFL courses: Iranian EFL teachers' attitudes and perspectives [Accessed: 10 February 2013].

Davies, G. 2005. Computer Assisted Language Learning: Where are we now and where are we going? Retrieved from http://http://camsoftpartners.co.uk/docs/ UCALL_Ketnote.htm Date of access: 10 Feb. 2012.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Dornyei, Z. 2007. **Research methods in applied linguistics: quantitative, and mixed methodologies.** Oxford: Oxford University Press.

Edley, N. and Litosseliti, L. 2010. **Contemplating Interviews and focus groups.** In Litosseliti, L. (ed.) 2010: 155-179.

Egbert, J., Paulus, T. & Nakamichi, Y. 2002. The impact of CALL instruction on classroom computer use: A foundation for rethinking technology in teacher education. *Language Learning and Technology,* 6(3):108-126.

Egorova, V.V., Jantassova, D.D. & Churchill, N. 2007. Developing pre-service English teachers' competencies for integration of technology in language classrooms in Kazakhstan. *Journal of Educational Media International,* 44(3):255-265.

Eisenhart, M. & Howe, K. 1992. **Validity in educational research.** (*In* LeCompte, M.,Millroy, W. & Preissle, J. eds. The handbook of qualitative research in education. San Diego: Academic Press. (p. 642-680).

Eskenazi, M. 2009. An overview of spoken language technology for education. *Science Direct,* 4(5):832-844.

Fasting, R. & Lyster, S. 2005. The effects of computer technology in assisting the development of literacy in young struggling readers and sellers. *European Journal of Special Needs Education,* 20(1):21-40.

Garret, N. 1991. Technology in the service of language learning: Trends and issues. *Modern Language Journal,* 75:74-101.

Garret, N. 2009. Computer-assisted language learning trends and issues revisited: Integrating innovation. *Modern Language Journal,* 93:719-740.

Gawi, E. 2012. The effects of age factor on learning English: a case study of learning English in Saudi schools, Saudi Arabia. *English Language Teaching,* 5(1):127-139.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Ghasemi, B., Hashemi, M. &Bardine, S. 2011. The capabilities of computers for language learning. *WCETR*, 28(11):58-62.

Godwin-Jones, R. 2009. Emerging technologies – Focusing on form: Tools and strategies. *Language Learning & Technology*, 13(1):5-12.

Goodwyn, A. 2000. **A bringer of new things: An English teacher in the computer age?** (*In* Goodwyn, A. ed. English in the Digital Age: Information and Communications Technology and the Teaching of English. London: Cassel.

Grabe, C. & Grabe, G. 2012. **Integrating Technology for Meaningful Learning.** Houghton Mifflin.

Gunduz, N. 2005. Computer Assisted Language Learning (CALL). *Journal of Language and Linguistic Studies*, 1(2):193-213.

Hamdan, A. 2005. Women and education in Saudi Arabia: challenges and achievements. *International Education Journal*, 6(1):42-64.

Hammond, C. 2005. The wider benefits of adult learning: an illustration of the advantages of multi method research. *International Journal Social Research Methodology*, 8(3):239-255.

Hanson-Smith, E. 2003. A brief history of CALL theory. *CATESOL Journal*, 15(1):21-30.

Hardly, J. 1998. Teacher attitudes toward and knowledge of computer technology. *Computers in the School,* 14(3):119-136.

Hashemi, M. 2012. Reflections on mixing methodologies in Applied Linguistic studies. *Applied Linguistics*, 33(2):206-212.

Hashemi, M. & Aziznezhad, M. 2011. Computer assisted language learning freedom or submission to machines? *WCETR*, 28(11):832-835.

Hesse-Biber, S.N. 2010. **Mixed methods research: merging theory with practice.** New York: Guilford Press.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Hong, K.H. 2009. L2 teachers' experience of CALL technology education and the use of computer technology in the classroom: The case of Franklin county, Ohio. Columbus, OH:. Ohio State University. (Dissertation - PhD).

Hubbard, P. ed. 2009. **Computer Assisted Language Learning: Critical Concepts in Linguistics.** Vol. I-IV. London: Routledge.

Ioannou-Georgiou, S. 2006. Normalisation of CALL. *TESL-EJ*, 9(4).p.1-32. Retrieved from http://www.tesl-ej.org/ej36/f1.pdf. Date of access: 18 November 2012

Ioannou-Georgiou, S. 2006. The future of CALL. *ELT Journal*, 60(4):382-384.

Jamjoom, M.I. 2010. Female Islamic studies teachers in Saudi Arabia: A phenomenological study.*Teaching And Teacher Education: An International Journal Of Research And Studies*, 26(3): 547-558.

Javid, C., Farooq, M. & Gulzar, M. 2012. Saudi English-Major undergraduates and English teachers' perception regarding effective ELT in the KSA: a comparative study. *European Journal Of Scientific Research,* 85(1):55-70.

Jiang. T, Tang. M, Ge. F, Liu. C, & Dong. B. (2009) 'An effective CALL system for strongly accented mandarin speech', *In International Conference on Research Challenges in Computer Science.* Wulumuqi, China, 28-29 Dec, 2009,IEEE Pres, 92-95.

Jian-wen, C. & Xin-li, W. 2011. 'The study on college teachers' role position under the condition of modern information technology' in E-Business and E –Government: *ICEE2011 International Conference*.

Johnson, R. & Onwuegbuzie, A. 2004. Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7): 14-26.

Johnson, R. & Onwuegbuzie, A. & Turner, L. 2007. Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2): 112-133.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Kaneko, K., Hasegawa, K., Jin, X., Ishikawa, M., Shinagawa, N. & Miyakoda, H. 2008. 'Autonomous and collaborative learning environment for vocabulary acquirement' in Information Technology Interfaces, 2008: *ITI 2008, 30th International Conference*. p. 147-152.

Kern, R., Ware, P. & Warschauer, M. 2008. **Network-based language teaching.** (In Van Deusen-Scholl, N. & Hornberger, N. eds. Encyclopaedia of Language and Education. Volume 4: Second and Foreign Language Education. 2nd ed. New York, Springer. p:281-292.

Kessler, G. 2010. When they talk about CALL: Discourse in a required CALL class. *CALICO Journal,* 27(2):376-392.

Khatib, A. 2011. The effect of the increase in oil revenue on government expenditures on education in Saudi Arabia. *Journal of Business Studies Quarterly*, 3(2):74-76.

Kilickaya, F. 2009. The effect of a computer-assisted language learning course on pre-service English teacher's practice teaching. *Journal of Educational Studies*, 35(4):437-448.

Ko, C. 2012. Can synchronous computer-mediated communication (CMC) help beginning-level foreign language learners speak?, *Computer Assisted Language Learning*, 25(3): 217-236.

Kopcha, T. 2012. Teachers' perceptions of the barriers to technology integration and practices with technology under situated professional development. *Computers & Education*, 59(12):1109-1121.

Kothari, C. R. 2004. Research methodology methods & techniques. New *Delhi, New Age International.* Retrieved from http://public.eblib.com/EbIpublic/PublicView.do?ptilD=431524 Date of access: 28 October 2012.

Kruger, F., Mitchell, B., & Welman, C. 2005. **Research methodology.** Cape Town, Oxford University Press.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Lai, C. & Kritsonis, W. 2006. The advantages and disadvantages of computer technology in second language acquisition. *National Journal for Publishing and Mentoring Doctoral Student research*, 3(1):1-6.

Lan, Y., Sung. & Chang, K. 2009. Let us read together: development and evaluation of a computer-assisted reciprocal early English reading system. *Computers and Education*, 53:1188-1198.

Lee, C., Wong, K., Cheung, W. & Lee, F. 2009. Web based essay critiquing system and EFL students' writing: a quantitative and qualitative investigation. *Computer Assisted Language Learning*, 22(1):57-72.

Lee, K. 2000. English teachers' barriers to the use of computer-assisted language learning. *The Internet TESL Journal* 6(12) http://iteslj.org/ Date of access:15 December 2012

Lee, L. 2010. Exploring wiki-mediated collaborative writing: a case study in an elementary Spanish course. *CALICO Journal*, 27(2):260-276.

Leech, N. & Onwuegbuzie, A. 2009. A typology of mixed methods research designs. *Quality & Quantity,* 43(2):265-275.

Leedy, P.D. & Ormrod,J.E. 2005. **Practical research: planning and design.** Upper Saddle River, NJ: Merrill Prentice Hall.

Levy, M. 1997. *CALL Context and Conceptualization*. Oxford: Oxford University Press.

Levy, M. 2006. **Effective Use of CALL Technologies: Finding the Right Balance.** (In Donaldson, R. & Haggstrom, M. eds. Changing Language Education Through CALL. Abingdon: Routledge, p.1-18).

Levy, M. & Hubbard, P. 2005. Why call CALL 'CALL'? *Computer Assisted Language Learning*, 18(3):143-149.

Li, P. & Qian, X. 2010. Study on students' English autonomous learning in CALL environment. *IEEE*, 10:121-124.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Lin, M. & Chiu, T. 2009. The impact of an online explicit lexical program on EFL vocabulary gains and listening comprehension. *Jalt CALL Journal,* 5(2):3-14.

Ling, J. & Kai, S. 2011. 'The influence of multimedia annotation on vocabulary learning in CALL of context',. In :Consumer Electronics, Communications and Networks (CECNet):, *2011 International Conferencee on, 16-18 April 2011 2011*. p. 5394-5397.

Linhorst, D. 2002. A review of the use and potential of focus groups in social work research. *Qualitative Social Work,* 1(2):208-228.

Lipsitz, L. 1971. **Technology and Education.** Englewood Cliffs, NJ: Educational Technology.

Liton, H. 2012. Developing EFL teaching and learning practices in Saudi Colleges: a review. *International Journal of Instruction,* 5(20):129-152.

Litosseliti, L. (ed.) 2010. **Research Methods in Linguistics.** New York: Continuum.

Lowe, C. 2003. Integration not eclecticism: a brief history of language teaching, 1853-2003. Retrieved from http://wwwihworld.com/ihjournal/articles/03BRIEFHISTORY.pdf. Date of access: 4 February 2011.

Liu, Q. & Shi, J. 2007. An analysis of language teaching approaches and methods effectiveness and weakness. *US-China Education Review*, 4:69-71.

Lui, T. 2009. A context-aware ubiquitous learning environment for language listening and speaking. *Journal of Computer Assisted Learning*, 25(9):515-527.

Liu, Z., Wen, F., Lu, Z. & Chen, M. 2011. 'Research on pronunciation scoring technology in language training system' *presented at the2011International Conference on e-Education, Entertainment and e-Management.*

Macaro, E., Handley, Z. & Walter, C. 2012. A systematic review of CALL in English as a second language: focus on primary and secondary education. *Lang. Teach*., 45(1):1-43.

Mahdi, S. H. 2013. Issues of computer assisted language learning normalization in EFL

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

contexts. *International Journal of Linguistics*, 5 (1), p.191-203. [Online] Available at: http://www.macrothink.org/journal/index.php/ijl/issue/view/171[Accessed: 22 Feb 2013].

Mahfouz, S. 2010. A study of Jordanian university students' perceptions of using e-mail exchanges with native English keypals for improving their writing competency. *CALICO Journal*, 27(2):393-408.

Mahmud, R. & Ismail, M. 2010. Impact of training and experience in using ICT on in-service teachers' basic ICT library. *Malaysian Journal of Educational Technology*, 10(2):5-10.

Maleki, N. & Ahangari, S. 2010. 'The impact of computer assisted instruction on improving Iranian EFL learner's reading comprehension', at the 2nd International Conference on E-Learning and E-Teaching.

Margaret, B. 2010. 'Teaching speaking skills in English language to engineering students using Language Lab technology', *In* Technology for Education (T4E): 2010 International Conference. p. 224-225.

Marks, D. 2009. Literacy, instruction and technology: meeting millennials on their own turf. *AACEJ,* 17(4):363-377.

McBride, K. 2011. The effect of rate of speech and distributed practice on the development of listening comprehension. *Computer Assisted Language Learning.* 24(2):131-154.

Mikulecky, B.S. 2009.Teaching Reading in a Second Language. Retrieved from http://longmanhomeusa.com/content.FINAL-LO%20RES-MikuleckyReading.%20.pdf . Date of access: 15 April 2012.

Min, C. 2011. 'Study on teachers' role in fostering learner autonomy under CALL environment from teachers' perspective', in E-Business and E -Government (ICEE): *2011 International Conference.* p. 1–3.

Min, Y., Yunxia, S. & Zhuo, S.2010.'On theoretical foundations of CALL: constructivism and input-output hypothesis', International Forum on Information Technology and Application *(IFITA): 2010 International Forum*.p.402-405.

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Ministry of Economy and Planning. 2010. The Ninth Development Plan (2010-2014). [Report] Riyadh, Kingdom of Saudi Arabia. Retrieved from http://www.mep.gov.sa/themes/GoldenCarpet/index.jsp.jsession=F9730D29B32EDB09D263393799AA9A0.alfa#1249183. Date of access: 9 November 2012.

Mohamad, F. 2009. Internet-based grammar instruction in the ESL classroom. *International Journal of Pedagogies and learning,* 5(2):34-48.

Moras, S. 2001. Computer-Assisted Language Learning (CALL) and the Internet. Retrieve from: http://snurprima.wordpress.com/2010/12/25/computer-assisted-language-learning-call-and-the-internet/ Date of access: 14 December 2011.

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.

Nakata, T. 2011. Computer-assisted second language vocabulary learning in a paired-associate paradigm: a critical investigation of flashcard software. *Computer Assisted Language Learning*, 24(1):17-38.

Neri, A., Mich., Gerosa, M. & Guiliani, D. 2008. The effectiveness of computer assisted pronunciation training for foreign language learning by children. *Computer Assisted Language Learning,* 21(5):393-408.

Neuman, W.L. 2007. **Basics of social research: qualitative and quantitative approaches.** Boston: Pearson/Allyn and Bacon.

Nieuwenhuis, J. 2007. **Qualitative research designs and data gathering techniques.** In: Maree, K. eds. 2007.*First steps in research*. 1st ed. Pretoria: Van Schaik, p.92.

Oates, B.J. 2006. **Researching Information Systems and Computing.** London: Sage Publications.

O'Bryan , A. & Hegelheimer , V. 2007. Intergrating CALL into the classroom: the role of podcasting in an ESL listening strategies course. *ReCALL*, 19:162-180.

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UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

O'Bryan, A. & Hegelheimer, V. 2009. Using a mixed methods approach to explore strategies, metacognitive awareness and the effects of task design on listening development. *Canadian Journal of Applied Linguistics*, 12(1):9-38.

Okonkwo, U. 2011. Computer Assisted Language Learning (CALL) software: Evaluation of its influence in a Language Learning Process. *Unizik Journal of arts and Humanities*, pp:76-89.

Onwuegbuzie, A. & Leech, N. 2004. Enhancing the Interpretation of 'Significant' Findings: The Role of Mixed Methods Research. *Qualitative Report*, 9, 4, pp. 770-792.

Onwuegbuzie, A, Dickinson, W, Leech, N, &Zoran, A 2009, 'A Qualitative Framework for Collecting and Analyzing Data in Focus Group Research', *International Journal Of Qualitative Methods*, 8, 3, pp. 1-21.

Onwuegbuzie, A. & Johnson, R. 2006. The Validity Issue in Mixed Research. *Research In The Schools*, 13(1): 48-63.

Oyaid, A. 2009. Education Policy in Saudi Arabia and its Relation to Secondary School Teachers' ICT use, Perceptions, and Views of the Future of ICT in Education. South West England, UK: University of Exeter. (Thesis – PhD).

Park, C. & Son, J. 2009. Implementation Computer-Assisted Language Learning in the EFL classroom: teachers' perceptions and perspectives. *International Journal of Pedagogies and Learning*, 5(2).

Pérez-Llantada, C. 2009. Textual, genre and social features of spoken grammar: a corpus-based approach. *Language Learning & Technology*, 13(1):40-58.

Perry, Fred, L. 2011. **Research in applied linguistics: becoming a discerning consumer**. New York: Routledge.

Pharaon, N. 2004. Saudi Women and the Muslim state in the twenty-first century. *Sex Roles*,5(6):349-365.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Prathibha, J. 2010. Computer Assisted Language Learning: Benefits and Barriers. *Journal of Literature, Culture and Media Studies*, 2(3):59-71.

Premawardhena, N.C. 2011. 'Interactive computer aided learning in teaching English as a second language to adult learners' in International Conference on Interactive Learning (ICL): *11th International Conference Virtual University.* p. 302-305.

Puerto, F. & Gamboa, E. 2009. The evaluation of computer-mediated technology by second language teachers: collaboration and interaction in CALL. *Educational Media Journal*,. 46(2):137-152.

Rahimi, M. & Yadollahi, *S.* 2011. ICT use in EFL classes: A focus on EFL teachers' characteristics. *World Journal of English Language,* 1(2):17-29.

Rath, M. 2010. Use of technology to develop language skills. *Journal of Literature, Culture and Media Studies,* 2(3):107-114.

Rugh, W. 2002. Education in Saudi Arabia: Choices and Constraints. *Middle East Policy*, 6(2). 40-55.

Salaberry, M. 2001. The use of technology for second language learning and teaching: a retrospective. *The Modern Language Journal*, 85(1):39-56.

Saleh, S.S. & Pretorius, F.F. 2006. English as a foreign language: teachers' professional development via the Internet. Retrieved from http://uir.unisa.ac.za/bitstream/handle/10500/4993/English.pdf?sequence=1 Date of access: 16 Oct. 2012.

Sardessai, S. & Kamat, V. 2011. Using a blended approach to in-service teaching trainer: a case study. *IEEE*, 11:266-269.

Sauro, S. 2009. Computer-mediating corrective feedback and the development of L2 grammar. *Language Learning & Technology*, 13(1):96-120.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Scheffler, L. & Logan, P.1999. Computer technology in schools: what teachers should know and be able to do. *Journal of Research on Computing in Education*, 37(3).

Schmid, E. 2010. Developing competencies for using the interactive whiteboard to implement communicative language teaching in the English as a Foreign Language classroom. *Technology, Pedagogy and Education,* 19(2):159-172.

Scott, D. & Morrison, M. 2006. **Key ideas in educational research.** London: Continuum.

Scrimshaw, P. 1997. **Computers and the teacher's role.** (*In* Somekh, B. & Davis, N. eds. Using Information Technology Effectively in Teaching and Learning. London: Sage).

Seale, C., Gobo, G., Gabrium, J.F. & Silverman, D. 2004. **Qualitative research practice.** London, Sage.

Shao, J. 2012. A study of multimedia application-based vocabulary acquisition. *English Language Teaching*, 5(10):202-207.

Shen, H. 2012. An application of computer-assisted language teaching in college English teaching. *Consumer Electronics, Communications and Networks (CECNet), 2012 2nd International Conference.* pp.138,140,

Son, J., Charismaidji, I. & Robb, T. 2011. Computer literacy and competency: a survey of Indonesian teachers of English as a foreign language. *CALL EJ*, 12(1):26-42.

Sophocleous, S. 2012. CALL (computer assisted language learning) wiki. *Procedia Social and Behaviour Sciences*, 34(12):174-180.

Stockwell, G. 2007. A review of technology choice for teaching language skills and areas in the CALL literature. *ReCALL*, 19(2):105-120.

Sufeng, Y., Liming, S. & Runjuan, S. 2011. Computer-Assisted Language Learning in Higher Education. *IEEE*, 11:137-141.

© University of Pretoria

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Sun, F. 2010. 'Research on the effect on listening comprehension using Computer Assisted Language Learning' IEEE, Computer Engineering and Technology (ICCET): *2010 2nd International Conference*.p.125-128.

Sun, Y. 2012. Examining the effectiveness of extensive speaking practice via voice blogs in a foreign language learning context. *CALICA Journal*, 29(3):494-506.

Sun, Y., & Chang, Y. 2012. Blogging to learn: becoming EFL academic writers through collaborative dialogues. *Language Learning & Technology,* 16(1):43-61.

Sung, D. & Yeh, C. 2012. Perceptions of using technology in language education: an interview study with Taiwanese university students. *Procedia Social and Behavioural Sciences*, 51(12):405-410.

Tal, M. & Yelenevskaya, M. 2012. Computer-assisted language learning: challenges in teaching multilingual and multicultural student populations. *Procedia Social and Behavioural Sciences*, 47(12):263-268.

Tanner, M. & Landon, M. 2009. The effects of computer-assisted pronunciation readings on ESL learners' use of pausing, stress, intonation, and overall comprehensibility. *Language Learning & Technology*, 13(3):51-65.

Tashakkori, A. & Creswell, J. 2007, Editorial: Exploring the Nature of Research Questions in Mixed Methods Research. *Journal Of Mixed Methods Research*, 1(3): 207-211.

Tsai, C. 2010. Do students need teachers' initiation in online collaborative learning? *Computers & Education*, 54: 1137-1144.

Tuan, L & Doan, N. 2010. Teaching English grammar through games. *Studies in Literature and Language*, 1(7):61-75.

Tuparova, D. & Tuparov G. 2011. Implementation of blended learning scenarios for training school teachings. *IEEE*, 11:285-289.

Twal, G. 2009. **Discover The Kingdom of Saudi Arabia.** Riyadh: King Abdulaziz.

© University of Pretoria

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YUNIBESITHI YA PRETORIA

Vanderstoep, S.W. & Johnston, D.D. 2009. **Research methods for everyday life: blending qualitative and quantitative approaches.** San Francisco, CA: Jossey-Bass.

Van Els, T., Bongaerts, T., Extra, G., Van Os, C. & Janssen- Van Dieten, A-M. 1984. **Applied Linguistics and the Learning and Teaching of Foreign Languages.** London: Edward Arnold.

Verdugo, D. & Belmonte, I. 2007. Using digital stories to improve listening comprehension with Spanish young learners of English. *Language Learning & Technology*, 11(1):87-101.

Vi, V.T.2005. 'Advantages and disadvantages of using computer network technology in language teaching', *Journal of Science*. vol 2,pp.61-66. Retrieve from: http://tapchi.vnu.edu.vn/Ngoaingu_2/Bai7.pdf. Date of access: 5 December 2012.

Vishranthi, N. 2012. CALL of English. *Language in India*, 12(7):597-600.

Vivian, T. H., Mu-shang., Y. & Pan-ju, L. 2009. A meta-analytical review of current CALL research on second language learning. *IEEE*.

Wang, L. 2005. The Advantages of Using Technology in Second Language Education: Technology Integration in Foreign Language Teaching Demonstrates the Shift from a Behavioral to a Constructivist Learning Approach. *T.H.E. Journal*, 32(10). p.41-42.

Wanyi, L., Taogang, L., Fengwen, L. & Sumin, Y. 2011. 'Computer Assisted Language Learning,' in E -Business and E -Government (ICEE): *2011 International Conference*.p.1-4.

Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, 31:57-71.

Warschauer, M. & Meskill, C. 2000. **Technology and second language learning.** (In Rosenthal, J. ed. Handbook of Undergraduate Second Language Education Mahwah: Lawrence Erlbaum. p. 303-318).

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UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Wibeck, V., Dahlgren, M. & Öberg, G. 2007. Learning in focus groups: an analytical dimension for enhancing focus group research. *Qualitative Research*, 7(2): 249-267.

Wiggins, B.J. 2011. Confronting the dilemma of mixed methods. *Journal of Theoretical and Philosophical Psychology*, 31(1) 44-60.

Wisenand , T. & Dunphy, S. 2010. Accelerated student learning of technology terms: The crossword puzzle exercise. *Journal of Information Systems Education,* 21(2):141-148.

Winke, P. & Goertler, S. 2008. Did we forget someone? Students' computer access and literacy for CALL. *CALICO Journal*, 25(3):482-509.

Wood, E., Specht, J., Willoughby, T. & Mueller, J. 2008. Integrating computer technology in early childhood education environments: issues raised by early childhood educators. *The Alberta Journal of Education Research*, 54(2):210-226.

Xiao. L., Merkel. C., Nash. H., Ganoe. C., Rosson. M.B., Carroll. J.M., Shon. E., Lee. R. &Farooq, U. 2005. 'Students as teachers and teachers as facilitators', in the *38th Hawaii International Conference on System Sciences*. p1-10.

Xiong, L. & Ling, Z. 2010. 'Teachers' role in computer-based college English teaching', in the 2nd International Conference on Education Technology and Computer (ICETC). p. 258-261.

Xu, J. 2010. Using multimedia vocabulary annotations in L2 reading and listening activities. *CALICO Journal*, 27(2):311-327.

Yang, Y. 2010. Computer-assisted Foreign Language Teaching and Practice. *Journal of Language Teaching and Research*, 1(6):909-912.

Yildirim, S. 2000. Effects of an educational computing course on pre-service and in-service teachers: a discussion and analysis of attitudes and use. *Journal of Research on Computing in Education*, 32(4):479-495.

© University of Pretoria

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YUNIBESITHI YA PRETORIA

Zhang, L. & Li, Q. 2010. 'On teacher's roles in collaborative learning of college English in a web environment', in the 2nd International Workshop on Education Technology and Computer Science. p. 563-566.

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APPENDIX A

Questionnaire

Questionnaire number V1 ☐☐☐

SECTION A: Biographical Information

1. Please indicate your **age**.

20-25	**1**
26-35	**2**
36 - 45	**3**
45+	**4**

V2 ☐

2. I have been teaching for ( ) **years**

1 year	**1**
Less than 5 years	**2**
5 – 10 years	**3**
10 – 15 years	**4**
More than 15 years	**5**

V3 ☐

3. The **highest qualification** I hold is: V4 ☐

.....

.....

SECTION B: General Computer Skills

Please check (√) in the box that applies to you:

		Yes	No	
4	Do you have a personal computer?			V5 ☐
5	Can you operate a computer without any help?			V6 ☐
6	Do you have an internet connection?			V7 ☐
7	Do you have an email account?			V8 ☐
8	Do you use your email?			V9 ☐
9	Do you feel that you lack some computer skills?			V10 ☐

Please rate your **computer skills**

		Poor	Adequate	Good	Excellent	
10	Your current word processing skills					V11 ☐
11	Your current skills with multimedia applications (video/audio)					V12 ☐
12	Your web searching skills					V13 ☐
13	Your ability to search and download information from the internet.					V14 ☐

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SECTION C: Knowledge of CALL

14. What does **CALL** stand For? V15 ☐

.....

.....

15. I have heard of **CALL** before (**Yes** / **No**) V16 ☐

.....

.....

SECTION D: Use of CALL in the classroom

Please check (√) in the box to indicate your computer use

16	I use a computer in the classroom	**Never**	**Rarely**	**Regularly**	**Always**
17	I use software packages in my classroom	**Yes**		**No**	

V17 ☐

V18 ☐

18	If you answered **'Yes'** to question **17**, please state which packages you use in your classroom?	....

V19 ☐

SECTION E: Computer traning

Please check (√) in the box to indicate your computer training experience

		Yes	**NO**
19	Did you participate in any computer course before you started teaching?		
20	Do you believe English teaching could be more effective when using computers in the classroom?		
21	Have you participated in any computer courses since you started teaching?		
22	If you answered **'Yes'**, to questions (21), do you feel that training helped in your teaching?		
23	Do you feel that you need more training in the future?		
24	Do you believe that computer training should be included in English teacher training programs?		

V20 ☐

V21 ☐

V22 ☐

V23 ☐

V24 ☐

V25 ☐

Thank you for your time and co-operation

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APPENDIX B

Focus Group Transcript

First Focus Group Discussion

Interviewer:	Hello everyone.
Speaker 1:	Hello
Interviewer:	How are you?
Speaker 1:	We are fine, thank you, how about you?
Interviewer:	Fine, thank you. Uh, first of all I would like really to thank you for accepting to participate in this interview; uh do you still remember the questionnaire that you answered already?
Speaker 1 :	Yeah.
Interviewer:	Ok, uh, our first question; Do you know what's the meaning of CALL?
Speaker 1:	For me, I don't know, I don't know the meaning exactly.
Interviewer:	Ok, you don't know?
Speaker 1:	I don't know the meaning.
Interviewer:	Ok and you?
Speaker 2:	No, I have no idea about it.
Interviewer:	You don't have any idea?
Speaker:	No.
Interviewer:	Ok, Its abbreviation for something related to computer.
Speaker 1:	Ok
Interviewer:	So that 'C' is for computer
Speaker 1:	Computer.
Interviewer:	'A' for Assisted.
Speaker 1:	Ok
Interviewer:	Language, Learning. So it means that you use computers to help you ...
Speaker 1:	For learning...
Interviewer:	...teach or learn language, not only English, any language, you can also use it for Arabic language.
Speaker 2:	And any subjects?
Interviewer:	Yeah, so now you can have an idea about CALL ...
Speaker 1:	Ok

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Interviewer: ... what does it mean ...

Speaker 1: Yeah

Interviewer: ... So let us continue our question. Do you think CALL is currently used by English as a Foreign Language teachers in public female secondary schools in Riyadh? You please?

Speaker 1: Do you think CALL is currently used?

Interviewer: Yeah, do you think it's actually used by teacher?

Speaker 2: We can say it's used?

Speaker 1: Not for all, ok, the teachers. Not in all the schools, ok, for some people, ok?

Interviewer: Ok, you mean some teachers?

Speaker 1: Some teachers, just, in our country, ok I think.

Interviewer: Ok and you?

Speaker 2: Yeah, the same, yeah.

Interviewer: So, you...you... you do not believe that all teachers are using it?

Speaker 2: No, no.

Interviewer: Ok, uh, do you think uh computer literacy, I mean anything related to computer among English as Foreign Language teachers at secondary level, is adequate, is enough?

Speaker 1: No, it is not enough.

Interviewer: Ok...

Speaker 1: Because the world has change now, ok so we need to improve ok, our computer use, so it is not enough for us.

Interviewer: Ok, and you?

Speaker 2: Yeah, I think also it is not enough.

Interviewer: So you agree with her?

Speaker 2: Yeah

Interviewer: Ok. Did you receive any kind of computer training before you started your career? Please, you?

Speaker 1: No, I don't, ok receive anything

Interviewer: So no pre-service training?

Speaker 1: No, no.

Interviewer: Ok

Speaker 1: From myself, ok, I learn by myself, just, ok.

Interviewer: So, no courses, no official training?

Speaker 1: No courses, just the basic ok, from my sisters from my friends

Interviewer: Ok, and you?

Speaker 2: No, I did not have any computer training at all.

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Interviewer: Uh, any king of training?

Speaker 2: No.

Interviewer: Ok. Do you think that your training was helpful uh in your teaching? The training you received by your sister...

Speaker 1: Absolutely

Interviewer: It was helping?

Speaker 1: Absolutely, ok, helping...

Interviewer: But you need official?

Speaker 1: But we need more than this, ok, we need to improve ok, my learning

Interviewer: Ok, if you don't mind, now we are going to uh to look at an example of Computer Assisted Language Learning...

Speaker 1: Ok

Interviewer: ...which is a software, it is called 'Tell Me More English'. Just, we will have a look and you will see how exercise relating to reading, listening and I want to take your point of view regarding this.

Interviewer: Ok, as you can see, we have 'Beginner Level', 'Advanced Beginner', 'Intermediate' 'Independent' and 'Advanced'. Let us choose, what do you want?

Speaker 1: 'Beginner' because, ok we know ok... this is the first time for us

Interviewer: Ok, here, just press here.

Speaker 1: Ok. *click*

Interviewer: Ok, and as you can see, we have different exercises

Speaker 2: Ok.

Interviewer: Ok, relating to speaking, reading, listening and also writing

Speaker 1: Ok

Interviewer: Ok, let us see how the, ok, word

Speaker 2: Ok, word pronunciation

Interviewer: Ok let us see, here you just see the list of the words and then you press in any word

Speaker 1: Ok

Interviewer: Just you will hear the pronounce of this

Computer: 'Always'

Speaker 2: Hm, nice.

Interviewer: Ok and you repeat.

Speaker 1: Uh, ok ...'Always'

Computer: 'Always'

Interviewer: And you see your score...

Speaker 2: Uhm, nice, it's nice.

Computer: 'Always'

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Speaker 1: Always

Interviewer: Ok, let us, for you, try another word.

Computer: 'Bag'

Interviewer: Ok say it

Speaker 2: 'Bag'

Interviewer: Again

Speaker 2: 'Bag'

Computer: 'Bag'

Interviewer: Ok, it's not score yet

Speaker 1: Hmmm

Interviewer: Ok

Speaker 2: It's nice.

Interviewer: This is, this is useful in brilliant pronunciation when you want to teach the...

Computer: 'Bag'

Interviewer: 'Bag'

Computer: 'Bag'

Speaker 2: Yeah

Interviewer: It will be blue...

Speaker 2: Uh ha

Interviewer: ...once you really score it...

Computer: 'Bag'

Interviewer: ..and say it the right way. Ok is it clear for you?

Speaker 2: Its new

Speaker 1: I like it, I like it

Interviewer: Especially the pronunciation, its

Speaker 1: Its good for the students, ok, also

Interviewer: Ok, and here you press for 'Home', you choose again which one, which practice you need. Let us choose for example...

Speaker 2: Reading? Do you have reading?

Interviewer: Yeah and 'Word Search'

Speaker 2: Ok, yeah.

Interviewer: And this I find it, ok, for example, which is, you just press here,

Computer: 'American'

Speaker 1: Uh hmm

Interviewer: 'American', where is it here?

Speaker 2: Ok , it's here

Interviewer: You just...

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Speaker 2: Hmm and underline or circle.
Computer: 'American'
Speaker 2: Ah ha...that's nice.
Interviewer: Ok, number two...
Computer: 'Austrian'
Speaker 2: Ok
Interviewer: 'Austrian', It's here, 'Austrian'
Speaker 2: Hmmm yeah
Computer: 'Austrian'
Speaker 1: It's nice
Computer: 'Finland'
Interviewer: 'Finland', where is 'Finland'?
Speaker 2: I think it, this one?
Speaker 1: Yeah
Interviewer: Here?
Speaker 2: No, no, before, before, start from the 'F', from the 'F'.
Interviewer: Oh, ok.
Speaker 2: Ok, is it?
Interviewer: No, it's not here, 'Finland', 'Finland'. We can find it here.
Speaker 2: Yeah
Interviewer: Up to the 'D'
Computer: 'Finland'
Speaker 2: Ah ha
Interviewer: How do you find it?
Speaker 2: It like a puzzle?
Speaker 1: Yeah
Interviewer: Like a puzzle, but what's
Speaker 1: ..crossword...
Interviewer: ..nice about it is that you hear...
Speaker 1: ..yeah
Interviewer: ..the pronunciation and the mutual **unclear**
Speaker 1: **unclear**
Interviewer: So at the same time you are listening and
Speaker 1: Ok and
Interviewer: And the spelling also.
Speaker 1: Yeah the spelling also, it looks like the dictation
Interviewer: Ok, what else?

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Speaker 2: Uh, can we choose 'Key Vocabulary'?

Interviewer: Yeah, of course... Ok you can work at this.

Speaker 1: Ok

Speaker 2: Ok, use your hand

Computer: 'Always'

Speaker 1: Lets choose, ok, another word

Speaker 2: Ok

Speaker 1: Ok, sure

Speaker 2: Ok

Speaker 1: Ok

Computer: 'Sure'

Speaker 2: 'Sure'

Interviewer: You see how it

Speaker 1: Yeah, it gives us the correct, ok, the exact, ok, pronunciation for the word.

Interviewer: So do you have...

Speaker 1: Yeah, yeah yeah...

Interviewer: ...an idea of the software as an example of Computer Assisted Language Learning? Ok, I have some questions to you after you see this program. It's as an example of CALL.

Speaker 1: Ok

Interviewer: Ok, I have your questions after you see this program or this software. After participation in this discussion, do you think CALL is useful to teach English?

Speaker 2: It's very useful.

Interviewer: Very useful? And what about you?

Speaker 1: Surely, it is useful

Interviewer: Ok, and why, or how?

Speaker 2: It is a very attractive way of teaching.

Interviewer: Ok and what else?

Speaker 2: It clarifies the information.

Interviewer: Clarify the information, ok and what about student? Do you think its make them improve their English?

Speaker 1: Yes.

Speaker 2: Of course.

Speaker 1: It shows us the correct language, how can you, ok accept correct language. So I think the writing, the reading and the speaking. It will give you, ok, a correct way to learn English language.

Interviewer: Ok, ok as an English teacher, do you feel equipped to integrate CALL in your

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classroom? Are you ready?

Speaker 1: I think that I need a course.

Interviewer: Ok, you don't feel you are really ready or equipped

Speaker 1: I'm ready, but I'm not sure about myself. I need, ok, to improve my, ok, using, ok, for this, ok, program, or for this, ok, technique. So we need, ok we need, we need many courses, ok?

Interviewer: So, you mean that to be more confident...

Speaker 2: Yeah...

Interviewer: ...you need more training?

Speaker 1: Yeah.

Interviewer: And what about you?

Speaker 2: Uh...

Interviewer: Are you equipped, are you ready?

Speaker 2: No, I am not ready.

Interviewer: You feel you still need more training?

Speaker 2: Yeah, of course.

Interviewer: Uh, ok. How do you feel about using CALL in your classroom, when you use the computer? How do you feel?

Speaker 1: For me, if I will do it, ok if I will accept it in my classroom, it's nice, ok. It's wonderful, ok, it's useful...

Interviewer: Ok and you?

Speaker 2: Yeah, it's a very successful way

Interviewer: Ok, and make your teaching easier?

Speaker 2: Yeah, of course.

Speaker 1: Yeah, than the, ok, traditional way.

Interviewer: Do you think that training can make these difficulties easier for you, if you find difficulties?

Speaker 1: Yeah.

Interviewer: First of all, do you have barriers to the integration of CALL in your classroom?

Speaker 1: Yeah, yeah.

Interviewer: Like what?

Speaker 1: Uh, like ok, uh, writing...

Speaker 2: Ahh...

Speaker 1: Ok, writing, and uh, I found many difficulties.

Interviewer: Ok, so you need program that specialises in writing?

Speaker 1: In writing, ok so for me, in writing.

Interviewer: Yeah, I agree with you about this, writing is difficult and you can't find software that

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can improve writing skills.

Speaker 1: Yeah, ok I can't find, ok a good solution for this problem. I think that CALL, ok give me, ok, the good solution for this problem.

Interviewer: Ok, and you, what difficulties?

Speaker 2: Yes, the same, in writing I have difficulty.

Interviewer: Ok, so, how, how do you think we can solve this problem?

Speaker 1: If we will use, ok, a good technique like this, I think, ok...

Interviewer: You mean good software?

Speaker 1: Yeah, ok, software, ok, good software

Interviewer: Ok, ok. Ok, do you think that Computer Assisted Language Learning can improve your teaching, develop your teaching as a teacher?

Speaker 1: Surely!

Interviewer: Ok.

Speaker 1: Step by step...

Interviewer: Ok.

Speaker 1: ... you have to improve yourself, the, ok, the world change, ok, around us, ok, computer, uh, learning computer is very important nowadays...

Interviewer: Ah, ok

Speaker 1: ...so we need to follow...

Speaker 2: You need to follow the world.

Interviewer: I think it's improve your teaching.

Speaker 1: Yeah, improve my language also.

Speaker 2: It will improve my teaching, technology.

Interviewer: So you agree it will improve?

Speaker 2: Yeah, yeah, of course.

Interviewer: Ok. Do you think CALL will **unclear** contribute to learning English among Saudi students also?

Speaker 2: Yeah

Interviewer: Can improve?

Speaker 2: Yeah

Speaker 1: Can improve!

Interviewer: Ok

Interviewer: Especially we have a problem in, uh English among the students. It's not that, it's not the international proficiency

Speaker 2: Yeah, yeah.

Interviewer: Ok, do you think CALL should be compulsory in schools

Speaker 1: Yeah, of course.

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Interviewer: So you agree?

Speaker 2: One hundred percent.

Interviewer: Ok, thank you so much, sisters, for participating in this, I really appreciate, although you are busy, you give me your time. Thank you so much.

Speaker 1: It is our pleasure, thank you so much. Good luck for you.

Second Focus Group Discussion

Interviewer: Hello everybody, first of all, I would like to thank you for participation in this focus group. Uh, I will ask you some questions, then I will show you the, uh, software that is called 'Tell Me More English' and I want to know your idea and your point of view regarding this program. First of all, I will ask you the first part of the question. No Arabic when you answer the question. Ok, the first question we are going to discuss is: What is CALL? If you remember when you answered the questionnaire, there was a question: Do you have any idea about CALL? Ok, and I think all of you answered...

Speaker 3: We don't know.

Interviewer: Yeah, that you don't know what CALL means. CALL – 'C' is standing for 'Computer', 'A' is standing for 'Assisted' and 'Language', 'Learning'. So; 'Computer Assisted Language Learning'. What does that mean, 'Computer Assisted Language Learning'. Do you, can you understand?

Speaker 4: Yes.

Interviewer: What?

Speaker 4:: To use computers in learning.

Interviewer: Yes.

Speaker 4: In the process of learning.

Interviewer: Yeah, and teaching?

Speaker 4: Yes, of course.

Interviewer: What language, only English?

Speaker 4: Any language.

Interviewer: Any language. Ok, so now you have an idea about CALL, so you can answer the following question. Do you think CALL is currently used by Foreign Language Female Teachers in Public Secondary Schools in Riyadh?

Speaker 4 Yes.

Interviewer: And Explain.

Speaker 4: Yes it's used.

Interviewer: Ok, you please.

Speaker 3: Yes, we have, we have, uh, a lot of lessons that are taught by Power Point.

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Interviewer: Ok.

Speaker 3: So this is using, uh, computers.

Interviewer: So you think it's totally used by all teachers in Riyadh? I'm talking about Riyadh area.

Speaker 3: I think most, or like 75 % now use computers...

Interviewer: Ok.

Speaker 3: ...in the process, of teaching.

Interviewer: Ok, so you think 75 %...

Speaker 3: Yes.

Interviewer: ...are using computer in the secondary school?

Speaker 3: In secondary schools, yes.

Interviewer: Ok and you?

Speaker 4: No, I think less.

Interviewer: You think less?

Speaker 4: Yeah, maybe 50% use.

Interviewer: Ok, not all the teachers.

Speaker 4: Not all teachers, no, definitely not.

Interviewer: Ok, you please.

Speaker 5: Yes, maybe 50

Interviewer: Maybe 50 teacher

Speaker 6: Maybe 70.

Interviewer: 70?

Speaker 7: I don't know exactly, but, uh, we use it.

Interviewer: They use it?

Speaker 7: Yeah.

Interviewer: Ok, all?

Speaker 7: No, I don't know how many percent, how much they use it.

Interviewer: Ok, you can, uh, you can judge how many percentage.

Speaker 8: Uh, I think it's, uh, 50%.

Interviewer: 50%?

Speaker 8: Yes.

Interviewer: Ok, thank you. And do you think computer literacy levels among Foreign Language Teachers at secondary uh, schools are adequate, are enough? Computer literacy, we don't mean uh, the use of computer, the abbreviation, the terms regarding computers.

Speaker 8: No.

Interviewer: Do you feel its adequate, enough among teachers

Speaker 3: No, no, no, no.

Interviewer: Ok, so you, you, ok you please.

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Speaker 3: Mostly, uh, teachers are self learned, uh, in, in, in using uh, computers

Interviewer: Ok, so you mean there is no official training?

Speaker 3: No, no, no, not, not, there isn't any official training from the Ministry itself.

Interviewer: Ok.

Speaker 4: Most teachers, they just depend on Power Points, they don't use, uh, new kinds of uh, way, technology or ways to use computers.

Interviewer: Ok, you mean that they still use it in simple ways?

Speaker 4: Simple ways, yes.

Interviewer: They don't go deeper and...

Speaker 4: No, no, no, no, no.

Interviewer: ..and use it in more modern and more uh, ok. And you?

Speaker 5: Also, and maybe also we need, uh, more...

Interviewer: You need more training?

Speaker 5: Training, yes.

Interviewer: Ok.

Speaker 6: We use it in simple way.

Interviewer: Simple way?

Speaker 6: Yeah

Interviewer: You still not, you don't feel satisfy with this?

Speaker 6: No.

Interviewer: Ok, and you?

Speaker 7: The same, I use it just to Power Point.

Interviewer: Just for Power Point?

Speaker 7: Yes.

Interviewer: And you?

Speaker 8: Just for Power Point and uh, the Word, only.

Interviewer: The Word only?

Speaker 8: Yes.

Interviewer: This is your use for computer?

Speaker 8: Yes, Word and Power Point.

Interviewer: Not more than that?

Speaker 8: Not more than that.

Interviewer: Ok. Do you think computer, ok, sorry, did you receive any kind of computer training before you started your career? What kind of training did you receive? Please, just tell me if you receive, we call it pre-service, uh, training. Did you receive any kind of this training?

Speaker 3: Uh, yes, I went to an institute and I got three months of uh, basic...

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Interviewer: Ok, only the basic?

Speaker 3: Basic

Interviewer: And, uh, you are the one who...

Speaker 3: Yes..

Interviewer: ...choose to do that?

Speaker 3: Yes, yes. Of my own expense.

Interviewer: Yeah, and you pay, and you paid for that?

Speaker 3: Yes I paid for three months of basic training...

Interviewer: But not official one of the ministry?

Speaker 3: No. Before I started teaching I didn't have any kind of training.

Interviewer: Any kind?

Speaker 3: Any kind.

Interviewer: Even the basics?

Speaker 3: No. Not even the basics. After I started teaching.

Interviewer: Ok, and you?

Speaker 4: I didn't have any.

Interviewer: You didn't have any?

Speaker 4: No.

Interviewer: You please.

Speaker 5: No, I didn't have.

Speaker 6: I didn't have any.

Interviewer: You?

Speaker 7: I am the same as the other one. I have uh, basic training.

Interviewer: Uh ok you have a special course.

Speaker 7: Yeah, before my career, yeah.

Interviewer: Ok. And you?

Speaker 8: I have a, I uh, trained for one year.

Interviewer: Ok

Speaker 8: Just only one year, before, uh, career.

Interviewer: Yeah, what kind, uh, what kind of course was that?

Speaker 8: Uh, basic and with, uh, Microsoft, all the programs of the Microsoft. Also, only this.

Interviewer: Ok, but you choose to do that, it was not...

Speaker 8: Yes yes, I paid by myself.

Interviewer: Ok, thank you. Ok, do you think that your training was helpful in your teaching career? That kind of training whether official, not official, do you think it was helpful for you, now?

Speaker 3: Yes, yes.

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Interviewer: Ok, you?

Speaker 4: Yes, yes.

Speaker 5: Yes of course.

Speaker 6: Of course yes.

Speaker 7: Yes.

Speaker 8: Yes it's very helpful.

Interviewer: Ok, thank you. So now I will turn on the, this software, it's called 'Tell Me More English', you can see? Can you see, all? Ok, ok, as you can see here, this software have 'Beginner', 'Advanced Beginners', 'Intermediate' 'Independent' and 'Advanced'. These are the levels regarding listening skills, speaking, all. So which one you would like us to chose to see the different skills?

Speaker 6: Beginners?

Interviewer: Beginners, ok. Ok, for example here, ok, this is called, this skill's called 'Word Search'. Ok, for example, I will press here to listen to the word.

Computer: 'Austrian'

Interviewer: 'Austrian', ok, then I try to find it here, ok, 'Austrian'. Can anyone please find it? 'Austrian'. You please. 'Austrian'. It starst with 'A'.

Speaker 3: 'A', yeah.

Interviewer: Yeah. Ok, take your time, sit down please. Sit down. Can you find it?

Speaker 3: Believe you me, I can't see it.

Interviewer: It could be like this or...Ok please move to the second one.

Computer: 'Brazil'

Interviewer: 'Brazil'

Speaker 3: It's here? 'B'

Interviewer: Ok, you can find it here. Yes, and it shades, it shades yeah. Ok, let me do it. Ok we find it here, thank you so much. Ok, so the next one for example.

Computer: 'Canada'.

Interviewer: 'Canada', ok it is number 4.

Computer: 'Cuba'.

Speaker 4: 'Cuba'.

Computer: 'France'. 'India'.

Interviewer: Ok, just to have an idea about this. So this, this as you can see, this exercise, its pronunciation and spelling at the same time. Ok, here let me choose, yeah this one. Yeah I like this one. Ok, you can read and then you listen is it right? If it's right then this gonna turn to blue. Ok 'meet, you, are, very, happy to finally'. You arrange it here and then you read it. If it's right, this one will turn to blue. Ok so can anyone arrange it?

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Speaker 3: Yes

Interviewer: Ok, you write it here, ok you write it and then you read it and its gonna be blue so this is right.

Speaker 3: Ok, do I have to write it?

Interviewer: Yes. Or you say it.

Speaker 3: 'I'm very happy to finally meet you.'

Interviewer: Ok, 'I'm very happy...'

Speaker 3: 'To finally meet you.'

Interviewer: 'To finally meet you'. Ok. Now you can move to the 'Home' and choose another kind of exercise. For example, let me choose 'Dictation'. Ok, now you listen and write a sentence or the word.

Computer: 'You arrived at London Victoria Station. I was waiting for you. I'm your exchange partner. I'm happy to see you. How are you? I'm a bit tired but I'm alright. Let me help you, give me one of your bags. You arrived at London Victoria Station.'

Interviewer. Again? He will say it very slowly. Ok? Is it clear for you?

Speaker 4: Yes.

Interviewer: Ok, how do you find this software?

Speaker 5: It was interesting.

Speakers: Yes, yes.

Interviewer: Is it new for you, or have you...

Speakers: Yes, Yes.

Interviewer: ..it's not familiar?

Speakers: No, no.

Interviewer: Ok, how did you find it?

Speaker 3: Helpful.

Interviewer: You find it's helpful?

Speakers: Yes, Yes.

Interviewer: Ok, let me just stop and then ask the other questions. Ok, after participation in this discussion, do you think CALL is useful to teach English? How and why?

Speaker 3: Yes it is.

Interviewer: You please.

Speaker 3: Yes, uh, it is useful.

Interviewer: Ok, why?

Speaker 3: Uh, it's creative and it shows us new ways to uh, perfect the skills that are, uh, used in teaching.

Speaker 4: The same thing, she gave the correct answer, because,

Interviewer: Ok, so you find it's useful?

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Speaker 4: Yes. It's useful.

Interviewer: Ok.

Speaker 5: It's useful

Interviewer: And you?

Speaker 6: Sometimes the skills, uh, are integration so it's very important.

Interviewer: Ok. You thank you.

Speaker 7: Yeah, it's help me to have a different idea

Interviewer: Ok.

Speaker 8: Yes it's very useful for the teacher and for the student.

Interviewer: Ok. Do you feel equipped to integrate CALL in your classroom? That mean, are you ready, are you feel you are fully trained, ready to use CALL in your classroom?

Speaker 3: Yes.

Interviewer: If not, what would you need to equip yourself further? You feel equipped?

Speaker 3: I think it's easy to use.

Interviewer: No, not this one, I am talking about CALL in general.

Speaker 3: In general? No, no.

Interviewer: Different software?

Speaker 3: No, maybe the simple kinds of software, ok, but the more advanced ones? No.

Interviewer: So you are not equipped?

Speaker 3: No.

Interviewer: You feel you are...

Speaker 3: For the advanced kind of software...

Interviewer: Yeah.

Speaker 3: But no, I feel I am not equipped. For advanced kind of equipment, no I am not equipped.

Interviewer: So you feel you need more training?

Speaker 3: Training, yes I do.

Interviewer: Ok.

Speaker 4: You know, I feel I am ready to use the, uh, different kinds of technology

Interviewer: You are ready, I mean, that you are not ready after you trained, but are you are trained enough?

Speaker 4: Yes I'm trained enough.

Interviewer: Ok, you?

Speaker 5: No, I need more training

Interviewer: You need more training?

Speaker 5: Yes.

Interviewer: And you?

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Speaker 6: I need more training.

Interviewer: You? You agree you need more training?

Speaker 7: Yes, I need more training.

Interviewer: Ok and you?

Speaker 8: Also, I need more training.

Interviewer: Ok. Ok, how do you feel about using CALL in your classroom? How do you feel? About using CALL software?

Speaker 3: It should be used in each lesson because it is creative and in each lesson you can use uh, a different kind of a, a game or uh um, you can download videos or use uh, new kinds like uh, using iPhones or iPads or smart words..

Interviewer: Ok, but how do you feel? Do you feel comfortable with this?

Speaker 3: Yes, yes.

Interviewer: Do you feel it's helpful?

Speakers: Yeah, yes.

Interviewer: So all of you agree?

Speakers: Yes.

Interviewer: Ok. Uh, what are the barriers to the integration of CALL in your classroom?

Speaker 3: We don't have equipment in our classroom..

Speaker 4: Yes, we don't have equipment here in the school

Interviewer: Ok, you mean you don't have lap?

Speaker 4: In this school...

Interviewer: Ok you don't have laps.

Speaker 5: There are no projectors.

Interviewer: There are no projectors, no laps in this school?

Speaker 6: I agree with them, there are no laps.

Interviewer: Ok, and you?

Speaker 7: In this, I think there are no...

Speaker 8: Equipment

Interviewer: Equipment in the school, ok and laps?

Speaker 8: Yes

Interviewer: Do you think Computer Assisted Language Learning can improve the quality of teaching?

Speaker 3: Yes, yes of course.

Interviewer: Do you think if you use CALL it will improve your teaching?

Speaker 4: Yes.

Speaker 5: Yes of course.

Interviewer: Ok, do you think CALL will positively contribute to learning English among Saudi

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students?

Speakers: Yes, yes.

Interviewer: Do you believe it will improve their English?

Speakers: Yes. Of course. Yes.

Interviewer: And will make their conversation with when they go outside, more effective and more efficient?

Speakers: Yes.

Interviewer: And more proficient, I mean their proficiency?

Speakers: Yes.

Interviewer: Will be stronger, ok?

Speakers: Yes.

Interviewer: Do you think CALL should be compulsory in schools?

Speaker 5: Yes, but there should be enough computers in each schools.

Interviewer: Do you agree, all?

Speakers: Yes. Yes.

Interviewer: Ok, teachers, thank you so much and sorry for taking this long time with you, I know you are all working and you are busy. But, thank you so much, I really appreciate it.

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