COMPUTER ASSISTED LANGUAGE LEARNING FOR LEARNING ENGLISH IN SAUDI ARABIA

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CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that this thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition I certify that, all information sources and literature used are indicated in the thesis.

Signature of Candidate

Turki Al mukhallafi

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ABBREVIATIONS

CALS	Computer Assisted Language Software
CALL	Computer Assisted Language Learning
CD-ROM	Compact Disk-Read Only Memory
CMC	Computer-Mediated Communication
EFL	English as a Foreign Language
ENL	English as a Native Language
ESL	English as a Second Language
ICT	Information Communication Technology
ICTAR	Information Communication Technologies in the Arab Region
IM	Instant Messaging
IT	Information Technology
MENA	Middle East and North Africa
MOE	Ministry of Education
PC	Personal Computers
SPSS	Statistical Package for Social Science
SRS	Speech Recognition Software
UN	United Nations
UNDP	The United Nations Development Program
VC	Video Chat

ABSTRACT

The goal of this research was to study the attitudes of English language teachers of intermediate level schools in the Al Madina region with respect to the effectiveness of Computer Assisted Language Learning (CALL) in teaching and learning English, and to seek their views on various issues pertaining to readiness for implementation of teaching using CALL. The views of intermediate level teachers had not been studied prior to this research. A mixture of qualitative and quantitative approaches were used in the data collection process. The researcher designed a questionnaire and an interview to ascertain the teachers' attitudes, and also the status of computer usage in teaching English in the classrooms, and the teachers' readiness to use computers to teach English and move away from 'traditional' face-to-face methods.

This study aimed to inform stakeholders of what might be needed to empower teachers with the skills and equipment necessary for the introduction of this innovation and provide information that could facilitate implementation of computers in teaching English in intermediate level schools, in Al Madina, Saudi Arabia, with the hope that such practice could be generalised throughout the Kingdom at large.

The results of the research disclosed that teachers felt that Saudi Arabia was not technologically advanced in teaching English but most teachers had knowledge about using computers and the Internet in teaching English and would welcome the implementation of computers in intermediate schools, but overall they felt that more training and information was needed. It was found that students also have knowledge of using computers and the Internet but some did not have adequate access to either. Also, there were already ICT systems in some (mainly private) schools and that teaching and learning English via computers was believed to be entertaining, enjoyable and more effective than traditional methods and could provide access to remote students, enabling distance education. Teachers were also concerned that there were some problems that needed to be addressed regarding the currently available CALL programs and syllabuses.

The implications of the research were, that for general implementation of computers and the Internet for the teaching and learning of English to be successful, improvements needed to be made in providing new, computer oriented syllabuses, sufficient hardware and suitable software and that ongoing training of teachers be implemented to keep them abreast of advances in English language teaching via computer.

مستخلص

تهدف هذه الدراسة إلى امكانية معرفة توجه وتطلع معلمين اللغه الانجليزيه في تطبيق الحاسوب في تدريس اللغة الانجليزية في منطقة المدينة المنورة بالمملكة العربية السعودية على أمل تعميمها على أنحاء المملكة وبهذا تحدث الدراسة نقلة للمعلمين والمتعلمين وذلك باستخدام الحاسوب المساعد في التدريس والتعلم وقد استطلع الباحث معلمي اللغة الانجليزية بالمرحلة المتوسطة لمعرفة وجهة نظرهم في امكانية تطبيق الحاسوب في مجال تدريس اللغة الانجليزية واعتمد الباحث على الاستبانات والمقابلات الشخصية لجمع البيانات لغرض تحقيق هدف هذه الدراسة. وتساعد هذه الدراسه متخذي القرار بالمملكه العربيه السعوديه بشأن تدريب معلمي الانجليزيه على استخدام الحاسوب بمجال تعلم اللغه الانجليزيه وتطبيق فكرة المشروع بمدارسهم.

توصل الباحث إلى نتائج هامة منها ما يلي:-

١- معظم معلمي اللغة الانجليزية بالمرحلة المتوسطة في منطقة المدينة المنورة لديهم المام باستخدام الحاسوب في تدريس اللغة الانجليزية ويتطلعون لمزيد من التدريب في هذا المجال لتعزيز المهارات لديهم.
٢- المملكة العربية حسب الاستطلاع ليست متقدمة في مجال استخدام الحاسوب في التدريس.
٣- طلاب المرحلة المتوسطة بالمنطقة لديهم معرفة باستخدام الحاسوب والانترنت.
٤- معلموا اللغة الانجليزية بالمرحلة المتوسطة بالمنطقة يرحبون بتطبيق الحاسوب في تدريس اللغة الانجليزية.
٥- توجد تقنيه الكترونيه مدرسيه في بعض المدارس وبالاخص الخاصه منها وهذا بالتالي يساعد على تعميمه على باقي مدن المملكه.
٦- التعلم والتدريس بواسطة الحاسوب فيه عنصر المتعة والحافز للطلاب كما أنه يخلق علاقة عن بعد بين التلاميذ ومعلميهم.
٧- تصميم المناهج الالكترونيه لتدعيم المناهج والكتب الدراسيه والتي تساعد وتحفز الطالب السعودي على التفاعل في تعلم الانجليزيه عن طريق الحاسوب وبما يخدم العمليه التعليميه.

٨- على الرغم من المشاكل التي قد تعوق تطبيق هذه الفكره للمشروع تبقى على الرغم من ذلك من اكثر طرق واساليب التعليم فعاليه اذا اخذ بالاعتبار المناهج الالكترونيه المناسبه والتغلب على المشاكل التقنيه التي قد تصاحب تطبيق هذه الفكره.

CHAPTER 1

INTRODUCTION

1.0 The rise of the English language to global significance

This chapter provides a brief introduction to the context in which English is learned and taught as a foreign language in Saudi Arabia, including an outline of the contemporary Saudi education system along with the status and methods of English teaching currently prevailing there. This introductory chapter of the study provides an overview and includes such research parameters as the background, research focus, and statements of the problems, research tools, and research questions, significance of the research and overview of the chapters.

This is the era in which the English language has come to be the medium through which social structures and roles are established within a global culture (Facchinetti, Crystal & Seidlhofer, 2010). This is as a result of the domination of the United States of America, both technologically and economically (Al-Jarf, 2005). Most countries today mandate English teaching as part of the curricula of their academic institutions. English has come to pre-eminence globally on account of its international usage in fields such as aviation, research, technology, trade and education. The United Nations has granted the English language a special status as it is used by many of its bodies, agencies and for many of its programs (Al-Hajailan, 2003).

Until the 16th century, in which the Protestant reformation took hold in Great Britain, the far north-western outpost of the ancient Roman Empire, the Latin language of that Empire had prevailed in scholarship, religion and trade throughout the Western world. In the meantime, the Arabic language and a liberal Islamic culture flourished and dominated in the Middle East and Northern Africa.

The Tudor monarchy period (1485-1603) is one of the most exciting in English history (Alchin, 2014). During this period, English history witnessed significant developments in arts, music, science and architecture. When the Tudors declared themselves independent of Rome, they enabled the common people to gain access to their own English language in printed and spoken form in official documents and religious observances. They freed England, Scotland and Wales from subservience to the Roman Catholic empire and gave the British a huge advantage with respect to freedom of thought, trade and exploration (Crystal, 1997; Phillipson, 1992; Wardhaugh, 1987).

On account of Great Britain's colonial past, its maritime and military superiority from the 16th century onwards and the efficiency with which its culture, especially its education system, was promulgated in the countries that hosted its colonies, the English language came to mediate communication globally. This resulted in British domination of the most populous regions of the world, including parts of China, Africa, the Middle East and the Indian subcontinent. The nobility and the wealthy middle classes of these nations sent their sons to be educated to England, thus reinforcing the British cultural and linguistic hegemony in the colonies (Al-Jarf, 2005).

The British exported many of their most independent and free-thinking citizens to America, where they in turn rebelled against the rigidity and oppression of their masters in the old country. The success of the American revolution brought Britain's greatest colony into direct economic competition with the parent nation and that competition in trade and culture spurred on the development of the United States of America into the greatest economic power of the 20th century, towards the end of which the age of electronic communication boomed with the American invention of the Internet, the instrument of globalisation, with American English as its parent language (Al-Jarf, 2005).

Through such historical processes, communication in the English language has enabled transcultural exchange between diverse nations in a world that was once fragmented due to language barriers which formed barriers to international understanding, trade and the exchange of knowledge. When the United Kingdom extended its territories (see figure 1, page 3) through colonialism and imperialism, it also influenced indigenous languages

of that time. Over a considerable period of time, the colonized nations came to adopt English as their *lingua franca*.

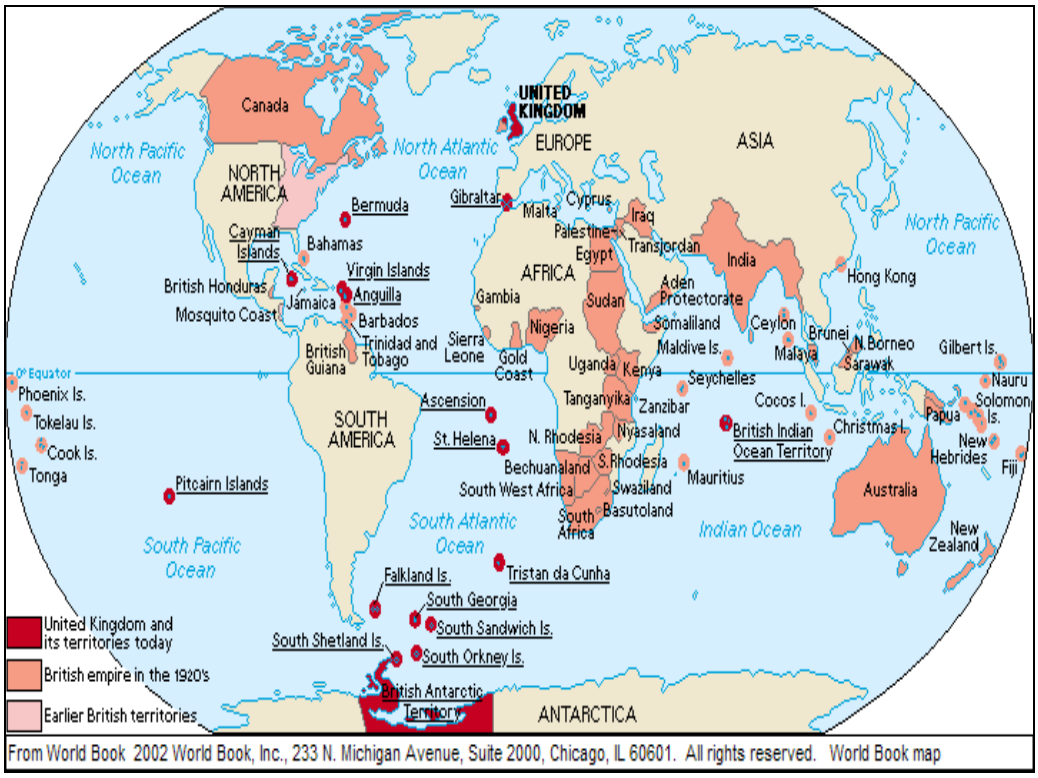

Figure 1: United Kingdom, Territories and former Empire, 2002.

1.1 The need for a study of the effectiveness of the implementation of CALL for teaching English as a foreign language in Saudi Arabia

The English language is a means by which a learner can reach out to the world and communicate with other nations. It is also a significant tool by which a student can gain exposure to new cultures and engage in international studies. However, in Saudi Arabia, learning English is difficult because it involves a process that is different from those for other academic subjects at the primary, intermediate and high school levels (Hanafy, 1991). Learning English requires greater effort, as students are required to immerse themselves in this new language and discover a new culture along with new modes of thinking and feeling (Abdullah, 2005). They also need to understand the various aspects of the cultures of native English speakers and to learn from them the various modes of effective expression that are an integral part of idiomatic expression. Practising written

and conversational use of the language is also essential to attain a fluent level of proficiency. Saudi students study English in school as a foreign language and have minimal access to practise English through contact with native speakers.

At present, English teaching in Saudi Arabia is in need of improvement (Alshumaimeri, 2008). At the intermediate school level, there are four English lessons offered each week. Each lesson runs for only 45 minutes (Al-Hajailan, 2003). Consequently, students do not have sufficient exposure to the language. These time constraints make it difficult for students to attain even a basic level of proficiency. The issue is not only the small number of lessons but also the limited time for each lesson.

This study investigates the process of English language education in Saudi Arabia, with attention as to how the introduction of new methodologies and greater input of direct educators into curriculum planning might improve the educational process for learners. Although educational technologies that could be used to achieve these ends are available, the question that remains is how they might enhance teachers' performance in the classroom? These technologies might provide essential new elements for educational programs, but they need to be tested and proven (Almousa, 2008). These technologies, predominantly computer-based, are especially pertinent to language education as they may provide a link between acquisition of linguistic skills inside the classroom and their use in real life situations.

Computers have become common in both the personal and professional lives of citizens of Saudi Arabia. They have made everyday tasks and activities easier and faster, as they have elsewhere in the world. Saudi society has benefited from this. One area that has received much attention regarding the use of computers and technology is education. Several innovations and new technological tools have been applied so as to improve educational outcomes. The search for the best technologies for these purposes is ongoing, aiming for continuous improvement (Gilakjani & Leong, 2012). For instance, recently 'Smart Board' became available in schools to help students in educational activities. The major outcome of using 'Smart Board' has been to enhance students' confidence in education.

A technological system such as CALL can assist in the learning and teaching of the English language and in attaining competency in English communication. According to Vrasidas, Georgious & Papanastasious (2007), CALL is a computer program developed specifically for educational purposes, to help both teachers and students in English language education. CALL has been in continuous development since the introduction of computers into the learning environment. It has advanced from simple digital textbooks to programs where students have the opportunity to produce their own learning paths and outcomes. As a result of such progress, teachers are being encouraged to make use of CALL so that they can enhance teaching and learning experiences. The interactive element provides students with some control over their learning. Interactive elements are being developed in an ongoing manner. For example, it is now possible to use mobile phone cameras to capture images which can then be used to generate animations and thus tell digital stories (Hoban, 2009).

CALL has become widely popular due to the impact and influence of information technology on society and education (Zaytoon, 2005). Computer-mediated courses such as CALL provide opportunities for learning in a cooperative environment, enabling learners to communicate in pairs and in groups, synchronously and asynchronously (Abu Seileek, 2009). Although CALL has been discussed widely in the English as Foreign Language (EFL) literature in recent years, it remains a relatively novel concept in Saudi Arabia, where learning English as a foreign language is limited in practice and confined to the classroom. In countries such as Japan and Singapore, CALL is the cornerstone of English teaching (Clarke & Gugger, 2007). The use of CALL could also benefit Saudi Arabian schools if they are enabled to follow this international trend in the digital age in which technology is integrated into the education system. If this is to be achieved, Saudi Arabian teachers must be provided with state-of-the-art technology, training and resources.

An interest in integrating new technology in the Saudi education system has stirred a desire to move from traditional teacher-centred methods to participatory classrooms. Sendi (2013) suggested that the introduction of CALL into English language learning (with the support of appropriate training to ensure that teachers are up-to-date with technology) would have a strong and positive impact on teaching and learning. By using

CALL in Saudi Arabian classrooms, students' perspectives may be broadened through exposure to different cultures. Learning may also become more enjoyable and rewarding (Alshumaimeri, 2008).

In Saudi Arabia the majority of people speak Arabic, whereas English is used as a medium of instruction in higher education, at the tertiary level, as well as for communication in trade, business, diplomacy and travel. Recognising this, the Government of Saudi Arabia has introduced English as a compulsory subject from elementary school years 11-13 (Alshumaimeri, 2008). Proficiency cannot be achieved without the improvement of teaching methods throughout the formative years. This means there must be development of an appropriate curriculum and pedagogical methods.

The Ministry of Education in Saudi Arabia announced in 2011 that from the academic year 2012, primary schools would teach the English language, starting at Grade IV (average student age ten years). This plan was approved by the Council of Ministers chaired by the Custodian of the Two Holy Mosques (King Abdullah Bin Abdul-Aziz, King of Saudi Arabia). The Saudi Government is establishing a project called the 'King Abdullah Bin Abdul-Aziz Public Education Development Project' (*Tatweer*) (MoE, 2008). King Abdullah was particularly supportive of the project, inspiring a shift in focus of Saudi education development from local to global levels. *Tatweer* depends on Information Technology (IT) to broaden the use of computers, software and modern electronic devices such as projectors and electronic pointers to improve education in various parts of Saudi Arabia. According to the Ministry of Education Website (http://www2.moe.gov.sa/english/Pages/default.htm), *Tatweer* aims to develop all elements of the curriculum in elementary, middle and transitional schools throughout Saudi Arabia. There are two reasons for the existence and development of *Tatweer*: (i) internal or local reasons; and (ii) global or foreign reasons.

1. The internal (local) reasons:

   Tatweer has recently brought cultural and economic change to Saudi society. A change in curriculum development under *Tatweer* has had a real impact on educational and technical aspects of Saudi life, much more so than previous, more conservative policies.

2. Global reasons:

   In the 21st century, there have been significant developments in Saudi economic, social and technical fields towards their integration with a global culture. *Tatweer* has taken advantage of these modern technological developments to bring about coherence between science curricula and practical life. This has facilitated Saudi Arabia's progress as a developed country where critical thinking, creative thinking and problem solving skills are fostered by the education system.

Moreover, *Tatweer* has provided educational technologies such as electronic blackboards, local networks and access to school-specific smart cards that have partially eliminated manual preparation, providing software applications for curricular management and entry of educational materials. The project aims to develop all elements of the *Tatweer* curriculum, applying the latest educational methods, working in conjunction with the Saudi Ministry of Education and National Academy of Governmental and Civil Operations of Saudi Arabia.

This researcher proposes the *Tatweer* program as a suitable platform for the implementation of Computer-assisted Language Learning (CALL) in Saudi Arabia as *Tatweer* focuses on improving teaching by updating software technology and other tools that create opportunities for English Foreign Language (EFL) teachers and students to practise English using computers. *Tatweer*, in conjunction with this current research, might bring together the elements necessary for implementation of CALL in the Saudi Arabian education system.

Although the use of technology now characterises the Saudi Education System, very limited discussion of CALL has occurred to date. Al-Hazmi (2003), a lecturer in King Khaled University, conducted a study at Taif University to determine factors that hinder effective English language teaching in Saudi universities, and Alshumaimeri (2008), a lecturer in King Saud University, conducted a study focusing on teacher training for English language teachers and computers at the secondary school level. These studies established the effectiveness of CALL for teaching English as a foreign language in Saudi Arabia. This current study researches the readiness of English teachers at the intermediate school level in schools in Al Madina for general implementation of digital classrooms using CALL. It investigates their beliefs about how computers and the Internet will help their students be more successful in learning English than by the traditional lecturing method currently being used. It is the emphasis on the attitudes and readiness of the teachers at the intermediate school level to embrace computers and the Internet for teaching English that distinguishes the current study.

1.2 Background to the study

1.2.1 Education in Saudi Arabia

In Saudi Arabia, Islamic Holy Law serves as both the constitution and the legal framework. The early education system in Saudi Arabia began in Kuttabs (Al-Sadan, 2000; Al-Hajailan, 2003; Wiseman, Sadaawi & Alromi, 2008), the first of which began in 1875 (Al-Hajailan, 2003). Kuttabs were exclusively for boys and concentrated on religious studies. Saudi Arabia started its educational development very late compared to Western countries. A formal system of education did not exist until 1925, when the first curriculum was created by Mohammed Al-Gussab (Wiseman et al., 2008). The first Saudi Education Plan was developed later in 1932 (Al-Salloom, 1995 cited in Al-Hajailan, 2003).

The Directorate of Education in Saudi Arabia was established in 1924 (Al-Sadan, 2000) forming the nucleus of the first modern educational system. The directorate opened schools and institutes of higher education throughout the kingdom. In 1954 it became

the Ministry of Education. Education was made free for all Saudis and allowances were paid to students.

In its early stages, the education system was charged with three aims: (1) to provide a basic education for all Saudis; (2) to teach students basic Islamic principles; and (3) to prepare students for work (Al-Baadi, cited in Wiseman et al., 2008, p. 3). Three types of schools were established—Quranic schools, general secondary schools, and vocational schools. The Quranic schools concentrated on Islamic religious teaching. The vocational and general secondary schools followed a general curriculum in the first year. Then each student specialised in either liberal arts or sciences for the next two years. The general high school curriculum has undergone many changes over the years as policymakers and curriculum planners have attempted to address the changing needs of students as the nation developed. There have been wide differences in perceptions of those needs, in their interpretation, and in their associated pedagogies (Wiseman et al., 2008). Despite secular Western oriented schools having been established in Saudi Arabia, a large part of the new curriculum is still dedicated to religion (Sedgwick, 2001).

For cultural reasons, there are no co-educational schools in Saudi Arabia. The Saudi education system is highly centralised with a uniform national curriculum, syllabus and textbooks (Alshumaimeri, 2008). There are three principal authorities responsible for education in Saudi Arabia—The Ministry of Education, the Ministry of Higher Education and the General Organisation of Technical Education and Vocational Training.

There are five levels of education in Saudi Arabia.

1. Pre-school level nurseries and kindergarten which exist mostly in the cities and larger towns.
2. Elementary level—six grades for ages 6-12.
3. Intermediate level—three grades for ages 13-15.
4. Secondary level—three grades for ages 16-18. It includes general education, vocational education and religious education.

5. Post-secondary and university level—this includes exclusive education for young men and women.

1.2.2 Information technology in Saudi

The first decade of the 21st century has brought increased use of information technology. The Ministry of Education in Saudi Arabia has begun developing e-learning materials to support English teaching courses (Alshumaimeri, 2008). The *Tatweer* project is working to train educators to develop curricula and upgrade the school environment. Launched in 2006-2007, it is considered Saudi Arabia's most important educational project and is the first official project developed to improve the quality of education in Saudi Arabia.

An increase in the population of the country and a decrease in the amount of oil reserves has led to a reassessment of the education system, with a new emphasis on encouraging students and citizens to think creatively and critically. McEvers (2009) believes that in order to reach this goal in Saudi Arabia, it is necessary to reduce the amount of educational focus on Islam. The first stage of the *Tatweer* project has commenced in five major Saudi cities, Taif, Abha, Madina, Riyadh and Jeddah. The project involves use of multimedia and technology. Students have been provided with free laptops in each of four schools in each of these cities.

Tatweer aims to provide laboratories equipped with computers for the purpose of teaching English. These will also be available for Internet learning in other subjects and courses. These laboratories were designed to create a suitable environment for teachers to use CALL for teaching and learning. *Tatweer* is committed to the support of e-Learning in general and the study of English in particular. *Tatweer* is of the utmost importance in shifting the focus of education in Saudi Arabia from traditional learning to digital learning in line with similar transformations occurring around the world. Teachers, students, advisors and school principals were each offered different courses to study to help them to adapt to their roles as the new processes were established (Ministry of Education, Saudi Arabia, 2008).

The current study sought to research the suitability of the introduction of CALL to English language courses in Saudi's intermediate level schools in Al Madina. According to the Central Department of Statistics and Information website, Al Madina's population is approximately 1,614,644 (CDSI, 2007). Thus, it is the fourth largest city in Saudi Arabia after Riyadh, Jeddah and Makkah. The research took place in intermediate level schools in Al Madina, where the new English language curriculum has been developed in preparation for digital learning. The researcher's assumption is that the data collected from the schools in Al Madina can be taken as a representative sample of schools in the nation as a whole. Al Madina, although large, is a typical Arabian city where there is very limited use of English outside the classroom and teachers still adhere to traditional methods of teaching English rather than using electronic media.

However, teachers and students in some schools have begun to make use of computers in English language learning. The full introduction of Computer-assisted Language Learning (CALL) could provide an enjoyable learning environment in which students can practise interactively using multi-media content, with or without teacher supervision (Kawahara & Minematsu, 2012). The use of computers for the purpose of learning and teaching English may contribute to and improve educational outcomes. It will help EFL/ESL teachers develop a broader range of teaching skills than those of teachers of other subjects. With the help of CALL, teachers could become more proficient in new methods of teaching and learning English.

1.2.3 English curriculum and methodology

Since the Ministry of Education was established in Saudi Arabia in 1953, the English language curriculum and methodology has undergone many developmental changes which have affected the learning and teaching of English in Saudi Arabia. Talal (2003) describes the early development of English language teaching in Saudi Arabian education as beginning in 1942, with the Royal decree 2808 of Saudi Arabia, after the fusion of the two levels of elementary school. Prior to that, the English language did not feature in school curricula. In 1944, a scholarship school was opened with a modified five year study plan. English made up a substantial part of the curriculum and was for

12 hours each week in grades 1, 2, and 3 at secondary school level, and for eight hours each week in the upper grades, 4 and 5.

From that time, the teaching of English as a Foreign Language (TEFL) in Saudi Arabia passed through four phases (Al-Hajailan, 2003) which are described briefly below:

The First Phase – started in the year 1945, and developing from the scholarship school, secondary school education extended over five years and the curriculum included readers and novels with dictionary skills being emphasised. The main focus of this extension was the comprehensive use of additional tools. These tools were helpful for students' handwriting, vocabulary and sentence formation, dictation, grammar composition and storytelling (Al-Hajailan, 2003). In the third year, the focus was on revision of what had been taught in second year, including grammar, punctuation, complex sentences and personal letters. The fourth year included more grammar and vocabulary in addition to advanced writing such as essays and commercial letters. The emphasis in the fifth year was on analysis of grammar and dual language translation, in addition to writing essays, précis and commercial letters.

The Second Phase – In the year 1958, the Ministry divided the secondary stage into two parts – the intermediate stage (three years) and the secondary stage (another three years). New plans for the two stages were made and a revised number of periods were adapted. A textbook, Stannard Allen's *Living English for the Arab World* (1958), was introduced with methods such as repetition, imitation and drills at the intermediate school level. The Secondary stage also used a new textbook—Stannard Allen's *Living English Structure.* A comprehension book was also used, in addition to a number of stories chosen to teach language rules, as well as written comprehension and translation.

The Third Phase – began in 1980. The Ministry of Education signed a contract with Macmillan Press to make a new series of textbooks for the Kingdom, titled *Saudi Arabian Schools' English*. These included students' books, activity books, audio cassettes and teachers' books. These books adopted a communicative approach that brought improvement in the quality of English language teaching in Saudi Arabia, as all the skills were integrated and there was a shift from structure to function.

The Fourth Phase – Administrative problems with Macmillan Press along with financial problems led the Ministry of Education to adopt a new project. A new set of books—*English for Saudi Arabia*—was published in 1989, owned by the Ministry, in line with the needs and hopes of the nation. It included students' books, work books, teachers' books, wall charts, flash cards and two audio cassettes. The new books employed the communicative method while remaining committed to local Saudi culture and environment.

The care given by the Saudi Government to teaching English was founded on the need to promote English as a primary and indispensable means to gain knowledge, and master technology and inform non-Muslims about Islam (Al-Hajailan, 2003). Even with the new developments in curriculum and methodology, studies show that Saudis remained weak in all four skills of English language: reading, writing, speaking and listening (Al- Hajailan, 2003; Al-Yousef, 2007).

The Fifth Phase – A number of Saudi Arabian women authors designed an English curriculum for Saudi students in the context of Saudi Arabian society. This involved traditional face-to-face methods of teaching with very little reference to computer-assisted language learning (CALL) (Ministry of Education, 2008). The Internet and technology were used in some lessons and posters. The application of this curriculum met with difficulties due to its complicated methodology and the bulky, four volume curriculum. It was also found to be inappropriate for the students' age groups and levels of learning. A survey of parent and students revealed that they felt that the curriculum content was boring and very difficult for them to manage (Ministry of Education, 2008).

1.2.4 The research focus: the current intermediate level school curriculum

This study confines its focus to the three grade intermediate school level (age 12-15 years) and discusses the general objectives of teaching English at this level. The Saudi policy of English education comprises:

1. Knowledge of basic English language;
2. Application of the basic structures of English;
3. Knowledge of assigned vocabulary;

4. Understanding the basic language;
5. Verbal expression of correct English;
6. Understanding written English materials;
7. Accurate written short guided paragraphs;
8. Appreciation of English as international language of communication—a way to introduce Islam and the culture; and,
9. Appreciation of English and benefit derived from other cultures in accordance with Islamic teaching (Al Ghamdi, & Abduljawad, 2005, pp. 74-78).

Importance is placed on the English language as a subject taught in schools in Saudi Arabia and this has led to the Ministry of Education (MOE), EFL teachers and researchers working together to find the most up-to-date and appropriate methods to create an educational environment to meet the abilities, skills and attitudes of different learners and students. This may enable students and learners to qualify for a higher degree or work competitively in any field.

1.3 Statement of the problem

In Saudi Arabia, English, being a foreign language, is only studied in schools and then not as a medium of instruction. Also, English is not used in the field of administration and as a consequence it is seldom practised in real life situations. However, with the advent of new teaching technology, the use of English could be promoted. Students in Saudi Arabia learning the language through communicative interactive means, such as Computer-assisted Language Learning (CALL), could have the opportunity to interact with others who are native English speakers, thus increasing access to the English language skills used in all aspects of life. It could provide non-English speaking students with the opportunity to improve mastery of the language. Technology has added this perspective to English language learning, enabling learners to understand the language in relation to its cultural context.

Despite the advent of the cyber age in technology that covers all walks of life, the dominant method in Al Madina is still the traditional face-to-face classroom method. For EFL teachers at the intermediate level school in Al Madina, a significant impediment to using computers in teaching English is that the curriculum is based more on theory than practice. According Fodha (2006), EFL teachers in the study area are neither qualified nor trained to use computers in teaching. Students do not have access to computer facilities, and the schools are not equipped with advanced technology and the government does not encourage schools and institutions to use computers in teaching English. EFL teachers are faced with the difficulty of teaching English to students in the Arabian context of four 45 minute-periods each week, with over 25 students in a class. The intention of this study is to examine the most up-to-date English language teaching methods in order to improve teaching outcomes and enhance students' skills in the acquisition of English.

Although interest in teaching and learning English has increased in the Arab world (Abdallah, 2005), the standard of English spoken in Saudi Arabia remains unsatisfactory (Al Ghamdi & Abduljawad, 2005). Although the use of computers has been introduced, there has been no publicly available study to establish to what extent this has been or can be effective. Therefore, this research investigates whether or not schools are well equipped with appropriate technology in order to implement computer-assisted language learning, as well as examining how both teachers and students feel about the use of computers in teaching and learning English. According to Fodha (2006), materials for Saudi speakers of English are readily available through the Internet via educational charts, Skype and video conferencing. These methods can improve English proficiency and acquaint users with the cultures of native English speakers, thereby opening avenues for greater understanding and communication (Erben, Ban & Castaneda, 2008).

1.4 Research questions

The purpose of the research is to investigate the effectiveness of using computers and the Internet to teach English as a foreign language. It also aims to investigate the readiness of teachers of English in Al Madina to adopt computer aided language learning and supplement and/or replace their traditional methods of teaching. This research addresses the following questions:

1. What are the beliefs and attitudes of teachers pertaining to the teaching of English in Saudi Arabia?
2. How can the teachers adapt their current, traditional methods of teaching to include CALL in teaching English?
3. How can CALL effectively be implemented in the schools of Al Madina?
4. What are the constraints to implementation of CALL in Al Madina?

1.5 Significance of the research

The students of Al Madina not only need to develop proficiency communicating in English, but also to have a sound understanding of the context in which the English language is used. The traditional method of teaching has failed to meet this need (Alshumaimeri, 2008). This research investigates whether CALL could provide students with a more effective method of learning the English language through the use of computers and the Internet.

It is anticipated that the results of the study could help the educational administrators of the Al Madina area to devise teacher training programs and introduce reforms in the curricula. The results of the study could provide information that may alter the perception of educational administrators and technical supervisors in regard to the use of CALL in teaching English language, contributing to computerised teaching becoming more accepted.

Participation in the study could encourage the teachers of English in Al Madina to want to update their skills in the use of computers in English teaching. Proficient teachers in English could make use of the results of this research in training new teachers. The

results and data collected from teachers' interviews could be used by syllabus designers to design courses that respond to student needs.

The results obtained from this study may provide a template for other areas of Saudi Arabia such as Dammam, Arar and Riyadh for research projects of their own. If the results show that CALL is effective and it is then implemented and students have the opportunity to speak with native English speakers at times of their own choosing, they could change from being foreign learners to greater capacity to be able to communicate easily and fluently in English whenever they wish, both within the country and in the outside world (Alurani, 2005).

1.6 Research tools

This research uses mixed methods (quantitative and qualitative). There are 20 items in the questionnaire and seven questions relating to the interview that the respondents answer in the context of the study. The sample consists of 60 EFL teachers in the study area (30 male, 30 female) for the questionnaire and 25 for the interview (15 male and 10 female). Please see Chapter Four, Methodology, for details.

1.7 Overview of chapters

The subsequent dissertation chapters are organised as follows:

- Chapter 2 discusses the possible benefits of using CALL in Saudi Arabia and other countries and provides details of other aspects of CALL.
- Chapter 3 includes a discussion of constructivist and positivist theories as the theoretical framework of the study.
- Chapter 4 delineates the research methodology including the mixed methodology—quantitative and qualitative, the research tools, the questionnaire and the interview, the study setting and sample population, sampling techniques, data collection, ethical issues and data analysis.
- Chapter 5 discusses the procedure for data analysis and tabulation and presents the results.
- Chapter 6 discusses the results in detail in relation to the research questions.

- Chapter 7 presents the main findings, implications, significance, and limitations of the research, recommendations for future research and recommendations drawn from the findings.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

"English is the world's most widely known and used language. It is the international language of science, commerce, computing, the Internet and mass entertainment" (Isaacs & Law, 2004, p. 309). Because of this, a large number of people all over the world speak English as a Native Language (ENL), English as a Second Language (ESL), or English as a Foreign Language (EFL). Nowadays, computer-assisted language learning (CALL) has spread worldwide as an appropriate methodology for teaching and learning English.

The current research study investigates the previously unknown attitudes of intermediate EFL teachers towards replacing traditional methods of lesson delivery with computer-assisted language learning. The study took the aspects of technology demonstrated to be most relevant by prior research and investigated their possible implementation for teaching and learning languages in Al Madina. The literature review deals with computer use in teaching, CALL, online language teaching skills, computer orientated activities, teachers and confidence with CALL, information communication technology, online collaboration, learning in Wikis, mobile phones, attitude towards computers, the internet and other new technologies and related Arabic studies.

There have been many experiments and innovations in education and training that have developed new avenues for knowledge dissemination. From face-to-face to virtual education, technology has played a vital role at different times. Since computer technologies came into existence, the meaning of information dissemination has changed. Classrooms, libraries and training centres have been reshaped and reengineered because the development, access, transfer of texts, sound and video data and interactive multimedia programs came into existence (Mishra & Sharma, 2005), paving the way for CALL.

2.1 Introduction to CALL

In the 21st century, known as the Information Age, many aspects of our lives including our approaches to education have been heavily influenced by technology, in particular the Internet (Abdallah, 2005). As a result of the Information Age, EFL teachers and learners have been empowered by the benefits offered by technology. The support that advanced technology, especially computers, offers to language learners and teachers has resulted in Computer-Assisted Language Learning (CALL). CALL is a new method of teaching and learning a foreign language. In terms of methodology, CALL is a highly eclectic field that employs Computer-assisted Learning Software (CALS) and borrows from applied linguistics (Vrasidas, Georgeous, & Papanastasiou, 2007).

In the late 1980s, the computer was a new educational tool in English language teaching. In the 2000s, many researchers, including Alshumaimeiri (2008) and Zaytoon (2005), acknowledged the potential of computers and called for their use in teaching English as they realised that computers could assist the development of aural language learning and spoken language competence. In utilising this modern learning tool, a 'three axes approach' (the student, the teacher, and the teaching method) is of great importance. Computers can provide students with feedback, while maintaining their privacy and autonomy.

Computers can enable students to use different programs to learn English as a second language, either individually or in groups. Flexibility in learning via the computer gives students the opportunity to repeat and listen as frequently as they need, without pressure from the teacher's supervision or concern about comparing progress with other members of the class. It is possible that computers make the learning environment more enjoyable and comfortable for students and teachers, while allowing communication in the educational process. Using a computer in an educational system can give teachers, students and those who compile the curriculum, options and opportunities to tailor the teaching method to the environment, the teaching context, and the individual student's need.

CALL helps the students to develop, refine, present and defend ideas. Students are required to organise their thoughts and information into a knowledge structure so that they can articulate their ideas. Active participation on the part of the learners results in a variety of perspectives on different issues. Students encounter opportunities to experience and resolve academic controversies in the online discourse environment (Harasim, 2000). However there are several disadvantages and inhibitions inherent to CALL. In comparison to traditional books, using CALL may be less user-friendly as users may experience painful and irritated eyes. The CALL system is also costly. In the absence of careful preparation of materials, management and training for both teachers and students, CALL is ineffectual. In addition many CALL programmes are imperfect and inflexible in that they cannot adapt or accommodate to unexpected situations which might deviate from the rigid tuition schemata deployed by the software. To be precise, the differences and individuality of each student's learning style may be foreign to or at odds with the CALL regimens (Hamka, 2008). Similarly, the teacher's interpretation, understanding and application of the software can be inadequate, mistaken or inappropriate to the students' needs or the possibilities and limitations of the software. The learning trajectory for each student can be fraught with unexpected and sometimes unprecedented learning adversities and needs. These learning deviations from the standardised methodology of CALL are often not accommodated by the software or not addressed at all. For these reasons CALL cannot match the flexibility and dynamics of a capable human teacher (Hamka, 2008). In this sense CALL could benefit and be enhanced by further refinement in terms of greater interaction.

Again, inflexibility is a distinct disadvantage in terms of the evaluation and development of the learner's spoken language ability (Hamka, 2008). Contemporary CALL is primarily focused upon reading, listening and written language skills. CALL programmes have recently been developed to instruct and evaluate spoken language. However these programmes are also inflexible in that they cannot instil and evaluate correct language usage in terms of the learner's accuracy and appropriate conversational ability. The learner's pronunciation and the variety of accents from region to region is also difficult for the software to accommodate as is syntax (Hamka, 2008). In addition written language can vary greatly from spoken conversational language and this is particularly true for the English language. This poses further problems for software

writers and users; teachers and students alike. Word usage and meaning can also change over time with fashions and each generation of native speakers. These are the most common disadvantages and difficulties encountered by users of CALL in the Saudi Arabian learning setting.

For successful implementation of computers in teaching and learning English, new technologies including compact discs, software languages and the Internet, with its email and chat room functions have been developed with the potential to improve the students' performance in language acquisition in Saudi Arabia. The use of CALL throughout the Arab world has been surveyed and research conducted to ascertain the attitudes of Jordanian EFL teachers towards computers and Information Communication Technology (ICT) (Abu Samak, 2006). It was observed that a small number of studies had been undertaken in the computer field nexus in terms of its application in learning language. Most of these studies were conducted in American or European contexts. As a consequence, the use of CALL in Arab countries has been imported from Western countries. It was argued that although most of the studies and research on CALL had taken place in a Western context, similar research could be implemented successfully in the Saudi setting as well (Abu Samak, 2006). The work in Jordan provided the model that was adapted for the current research conducted in the Saudi Arabian setting in Al Madina.

Abu Samak (2006) asserts that attitudes are formed from three factors; cognitive, affective and behavioural. Respectively, these factors pertain to perceptions, feeling(s) and responses to the "attitude object" (Abu Samak, 2006,108); in this case this refers to acceptance of the use of computers both now and in the future given current perspectives and expectations. The results of Abu Samak's 2006 study can be perceived to indicate that CALL should be made appropriate to the Saudi Arabian education setting before it can be universally utilised to its full and optimal potential in the classroom.

Through the evaluation of twenty items the Jordanian teachers attitudes were established. These items comprised of a combination of three subscales evaluating the teachers' feelings (affects) towards CALL, knowledge (cognition), behaviour and use of computer assisted classroom learning. Overall the results indicated a positive attitude towards the computerised classroom on behalf of the teachers. More importantly however, the study was implemented in an Arabian context and setting thus making Abu Samak's (2006) study most valuable, relevant and inspirational to the researcher.

The statistically highly positive attitudes indicated in the study of the Jordanian teachers toward the computerised classroom (Abu Samak, 2006) are potentially valuable to the Saudi Ministry of Education (MoE) in the sense that the three subscales of "attitude" (Abu Samak, 2006, p.107) as such will, when considered in terms of foresight, save time and money for the Saudi Arabian MoE and aid the implementation of CALL in Saudi classrooms.

To elaborate, in terms of the behaviour subscale the vast majority of teachers expressed not only a desire to learn more about computers but to actually own one themselves (Abu Samak, 2006). Thus it can be concluded that access to computers and training would be advantageous and effective for the Saudi MoE. In terms of the affective subscale most of the Jordanian teachers actually enjoyed using computers (Abu Samak, 2006). This combination of readiness and enthusiasm would positively enhance and effect smooth learning, skill acquisition and assimilation of the computer into their pedagogy. Cognitively, the majority of teachers vouched that potentially computer technology would save time and money and was potentially applicable and adaptable to all subjects (Abu Samak, 2006).

The Jordanians also remarked upon the advantages of the computer in terms of speedy and effective information retrieval and gathering (Abu Samak, 2006). All of these viewpoints are potentially valuable to the Saudi MoE in terms of economic and logistical shortcuts and high quality education. Thus the study by Abu Samak in 2006 can be considered as a valuable and insightful guide for the research conductor and potentially the Saudi Arabian MoE as well.

This literature review explores the role and significance of computer-assisted learning in enhancing teaching and learning English as a foreign language in Saudi Arabia. As well, this review explores the advantages of using CALL and the problems that may hinder its implementation by examination of experiences worldwide. The research conducted for this dissertation offers findings from the Al Madina experience that have the potential to be applied in the implementation of CALL in EFL teaching throughout Saudi Arabia.

2.2 Computer use in teaching English as a foreign language in Saudi Arabia

One aim of this study is to explore the effectiveness of computer use for teaching English in Al Madina intermediate level schools. Education programs in Saudi Arabia for teachers of English as a foreign language have been examined (Al-Hazmi, 2003) and following an evaluation of the standard of English language teaching in Saudi Arabia, these programs were described as inadequate and non-systematic. Given the advent of technology in education, these programs were judged to be unable to produce teachers of English who were adequately prepared to address the needs of students (Al-Hazmi, 2003).

The results of Al-Hazmi's study are therefore indicative of the need for EFL teachers in Saudi Arabia to commit to a schedule of ongoing and continuous professional development and refinement. Concurrently this will permit the EFL teachers to keep abreast of contemporary approaches to tuition, and also enhance their awareness of the latest technological advances for the teaching of English by way of CALL and the Internet, for example (Al-Hazmi, 2003). The results of Al-Hazmi's (2003) study also indicate that in-service teachers, both Saudi and non-Saudi need to complete courses such as TEFL/TESOL and applied linguistics. In this sense Al-Hazmi's study results indicate that the development and refinement of the teachers' skills, will together with a reinforced foundation of knowledge, strengthen and make habitual the process of continuous professional development (Al-Hazmi, 2003).

Although Al-Hazmi's study did not deal directly with computers, it provided important background for this thesis, given that it pointed out the inadequacies in the teacher training of those who are to implement computer use for teaching English. The study provided background that may help to predict the kinds of problems of coping with new technology that may hinder learning. From an action research perspective, this study can be seen as providing useful background regarding the problems that are likely to be encountered in the context of implementing CALL for EFL teaching in Saudi Arabia. Thus it is of direct relevance to the research questions.

In 2003, following the publication of Al-Hazmi's paper, the Saudi Arabian Ministry of Education acted upon the findings by preparing new, planned programs to improve teacher education, rather than to continue to depend upon foreign teachers. Although the deficiencies of teachers' educational programs were pointed out in the same study, the efforts towards improvement made by the Ministry of Education in Saudi Arabia were acknowledged (Al-Hazmi, 2003). It was suggested that supplementation of the teacher training programs, with in-service teacher education, organised in collaboration with the American Embassy and the British Council to acquaint Saudi English teachers with modern teaching methods and to gain independent external perspectives, might help identify obstacles to effective English teaching in Saudi Arabia (Al-Hazmi, 2003). This training should be, not only for teachers, but also for technical supervisors. It could assist teachers and technical support staff towards readiness for the implementation of CALL (Al-Hazmi, 2003).

To address current weaknesses in EFL teacher education, it was suggested that the Ministry of Education should provide a one-year diploma course as a minimum requirement for newly appointed pre-service teachers. The study concluded by emphasising that an (EFL) teacher's role in the reform process should be to initiate change and to be alert to opportunities for further professional development in this Internet-driven information technological age (Al-Hazmi, 2003). This study paved the way for the assimilation of sophisticated technology that is now present in all aspects of life. The current research hopes to make information of up-to-date teaching methods available to EFL teachers at the intermediate level in Saudi Arabia.

In a study by Alshumaimerie in 2008, conducted at King Saud University, 183 male and female teachers were selected randomly, and survey and background data were collected from them. The survey results showed that EFL teachers who undertook specialised training for the integration of CALL into classroom instruction recorded positive attitudes toward the use of the information technology. The study also revealed the importance of teachers' attitudes towards implementation of the tool. The extent of successful implementation of information technology into the classroom method will largely depend on the attitude and approach of the educator who uses it. Resistance, often by 'old hand' teachers, who have not been properly trained in CALL, may adversely affect teaching efficacy.

The effect of the introduction of CALL in EFL teaching on students' achievements and attitudes in an Arabian context was investigated in a study (Al-Mekhlafi, 2006), designed to measure the effect of CALL on preparatory school students. The students were divided into two groups; one group had already used CALL in learning English while the other had not. The study was designed to see whether computer use increased students' exposure to the language and also in learning what effect that might have on the students' performance. The main findings were that the experimental group that had already used computers for learning English performed better than the non-computer users. These findings are pertinent to the present study in the Al Madina area as they provide evidence of successful computer use in learning English.

Research with a bearing on this study was conducted in the non-Arabic context of Brazil (Moras, 2001) into the use of CALL and the Internet in EFL teaching. In contrast to the situation in Al Madina, where the current study was conducted, the Brazilian study was carried out in a context where computers were available and students could readily access CD-ROMs and the Internet. The English language teachers were greatly interested in using computers and were encouraged in computer use when teaching English because the CALL method had proven itself effective by providing immediate positive results for language teaching and learning. Computers allowed students to move from teacher-dependent learning to independent learning. Students' opinions about using computers and the Internet were sought and their responses were uniformly positive. The students supported the use of computers and the Internet for learning

English (Moras, 2001). This study shows the value of the use of computers and the Internet in English teaching in a Brazilian context.

In the American context, research (Albarini, 2009) was also conducted on computer use for language learning. The study advocated the use of communication technology such as computers, educational software and the internet, as a means to revolutionise outmoded educational systems and to reinforce students' skills in the acquisition of the English language (Albarini, 2009). It remains to be seen whether or not this could translate to the context of Al Madina, where improvements to student access to computers, CD-ROMs and the Internet would need to be made in this Saudi city.

The use of CALL to facilitate second language acquisition was studied in Georgia, USA, exploring the experiences of teachers and students who had already used computers in learning and teaching English. Students' scores and teachers' reports were studied and the conclusion was reached that computer use significantly improved the quality of the teaching and learning of English (Cobb, 2002).

The effectiveness of an instructional technology unit on English language teacher training in Egypt, in an Arabic context similar to that prevailing in Al Madina, was studied (Abdallah, 2005). It was confirmed that CALL contributed to improving the methods by which students acquired different parts of a language, such as finding differences between similar voices, and explaining why the meaning of words change according to sentence order. The study showed that CALL also helped to improve the efficiency of translation from English into Arabic. CALL helped students to clarify the meanings of words and their pronunciation by pairing the words with equivalent pictures, thus aiding memorisation and saving teachers' effort and time, while guaranteeing high quality output. This research paper revealed the greater efficacy of computers for teaching the English language, compared to the traditional face-to-face method (Abdallah, 2005).

2.3 Computer use in teaching

Computers have been used in the field of education and training since the 1960s, and increasingly since the 1990s. Vast sums of money have been spent all over the world on developing computer applications designed to help people to learn. Since the advent of the World Wide Web in the mid-1990s, it has been possible to develop courseware that is adaptable to a great extent and is less expensive to create (Philips, McNaught, & Kennedy, 2012).

Computers have come to be fundamental in all fields of life. They have replaced traditional methods of data storage and, because of the Internet, instant communication across the globe is now possible. Research was conducted in the field of information communication technology (ICT) that realized its need and importance and resulted in several advocates for ICT. ICT has become popular worldwide because it was seen as crucial to the progress of developing countries. As a consequence, the United Nations (UN) placed it at number three on the list of the most important global issues after poverty and domestic violence (Abu Samak, 2006). The United Nations Development Program (UNDP) also designed a program known as Information Communication Technologies in the Arab Region (ICTAR) to help reduce poverty and improve administration performance.

The use of ICT in Arab countries has been given top priority in the Gulf States of The United Arab Emirates and Saudi Arabia. Computers are used in all fields of education administration and social life in order to offer the new generation all the attendant benefits. In the context of EFL teaching and learning, the most relevant contemporary technology is CALL. CALL has begun to exert a significant influence on the future of language education in Saudi Arabia as it has done already in the Western world (Abu Samak, 2006). Because CALL has begun to exert an influence in Saudi Arabia, the researcher considered that an investigation into the current attitudes of the intermediate teachers' should be undertaken.

2.4 CALL

ICT can help build educational infrastructure and contribute to educational success. In Saudi Arabia, it can allow otherwise isolated areas of the country to be connected. Secure, efficient and rapid storage of data is possible. In ICT, the emphasis is mainly on the use of management (such as administration, student enrolment, library etc) of audio-visual systems. Computer-mediated communication (CMC) is any communicative transaction between networked computers, for example, instant messages, emails and chat rooms. Research on CMC focuses on social software, networking and the social effects of these computer-supported communication technologies. This can be divided into synchronous and asynchronous modes, where participants are online at the same time, for example, instant messaging or communicating without time constraints as in email (Zaytoon, 2005). One of the most significant aspects of CMC is characterized by its 'substantial interaction' among users.

"A wide variety of inputs from electronic resources such as CD-ROMs, networks, hardware and software enhance CALL because of their unique properties" (Pennington, 2004, p. 8). Language learning takes place through interaction. Substantial interaction between students is necessary for conversational competence. CALL can make this possible, even across great distances. CALL also allows teachers to generate exercises, construct text resources, and develop quizzes to test students' ability to use vocabulary in the correct context.

"Students are also required to work on their vocabulary, test their ability to recognise errors in grammar, and access word frequency data" (Franken & Witten, 2009, p. 249). This can best be achieved through the students' interaction, which can be accomplished via CALL. CALL empowers individual learning by allowing the students to focus on the areas of a subject that they find most interesting or relevant (Pennington, 2004). Owing to increased accessibility, the promotion of self-learning and individual empowerment in the learning process, students are motivated to make more extensive use of the resources available. Additionally, "the advantages of using CALL resources are accessibility, renewability, adaptability, and interactivity" (Kong, 2009, p. 31).

When integrated with other practices, CALL offers four conditions in which optimum language learning can take place. These are: opportunities for learners to interact and negotiate meaning with an authentic audience; involvement of learners in authentic tasks which promote exposure to, and production of varied and creative language; opportunities for learners to formulate ideas and thoughts where intentional cognition is promoted; and, an atmosphere with ideal stress/anxiety levels in a learner-centred classroom (Gunn & Brussino, 1997).

Using CALL was recommended by Fang (2007) in their study which explored the experiences of young adult learners voluntarily engaged in online language learning. It was found that participants were comfortable learning independently and they found it a useful tool in learning English. Computers not only help learners to use different strategies to reach their aims, but it also allows them more time to practise the language than that allowed in face-to-face classroom situations (Fang, 2007). Online resources can be accessed outside the classroom. In June 2004, the first multimedia interactive online resources for Chinese, Japanese and Indonesian languages were released to educational jurisdictions and sectors throughout Australia and New Zealand for free distribution in their schools (Clarke and Gugger, 2007). Since then, further releases have been made, and by mid-2006, a considerable quantity of material was available to support teaching. These developments in the Australian foreign language learning context may provide models for implementation of CALL in learning English as a foreign language in Saudi Arabia.

It is possible CALL provides a feasible method to address the problem of limited opportunities for practical application of English learning outside the Saudi Arabian classroom. Together with chat rooms, emails and forums, CALL could compensate for this deficiency and provide students with the opportunity to practise their language skills through online interaction. If CALL is to be successfully implemented into Saudi Arabian intermediate schools, teachers will need to be supportive of this new technology, and their attitudes towards these possible changes is the focus of this study.

Online language learning has steadily increased in popularity over the last decades with the widespread use of the Internet and the ready availability of computers at home and

in educational settings. This has given rise to distance language learning as fast communication across distances has become accessible to all. The online context of language learning has brought about an urgent need for new teaching approaches and teaching skills. Teachers must be retrained to cope with new technologies in the field of English language teaching and learning. Educational administrators need to be sensitive to rapid changes owing to the use of the computer as a device for language teaching, and they should be aware of training possibilities for their teachers (Compton, 2009).

In 2005, 39% of the jobs in the field of TESOL worldwide required technological skills, whereas approximately one year later, this number had risen to 60% (Hubbard, 2007, Kessler, 2006). This confirms the fast pace with which technology is being adopted, and demonstrates the importance of teacher training courses in technology. It was argued that English language teachers will be disadvantaged if they are not trained in information and computer technology (Hubbard and Levy, 2006). This is especially true in the area of this study (Al Madina) in which technology is little used in education in general and perhaps less in language teaching.

Developments in communication technology have increased the demand for online language learning that involves autonomous learning as well as an increased connection between learners. Using CALL for online language teaching requires skills in addition to those required by traditional language teaching methods. Shown in the following pyramid are the skills that should be mastered by the online teacher or learner.

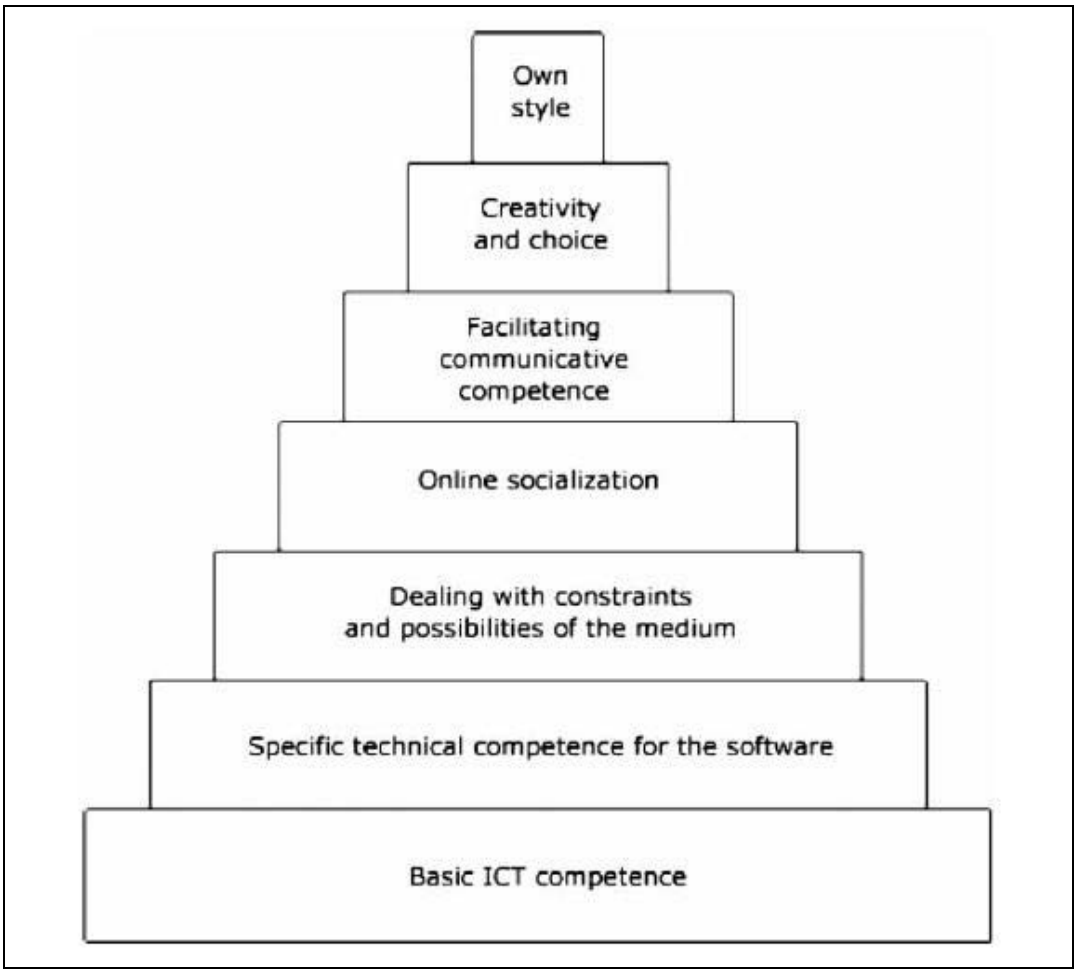

Figure 2: Skills Pyramid on teaching CALL (Hampel & Stickler, 2005, p. 317).

The seven levels of skills described in the above diagram are different from the skills required by traditional methods of teaching and teacher training. From the perspective of this research, the seven levels and their relation to CALL require clarification. In order for EFL teachers to achieve their targets, they must understand the importance of the skills pyramid to help them move through the educational formula and to be up-to-date with the digital age. To achieve their target and, therefore, to be able to implement their skills in the real education environment, teachers must master each level of the pyramid themselves. Development through these skill levels is important to guarantee their effectiveness. The skills pyramid, with its seven levels, sheds light on the path to more digital methods and the software programs of which the EFL teachers should be aware and areas in which they may require training, especially in this era of globalisation. EFL teachers should know the advantages of the technology in the educational field, as well as the disadvantages, in order to minimise the gap between the incoming and the outgoing students' knowledge. Mastery of the skills pyramid is

important in the education field, in particular to teachers and they should demonstrate that they have the basics of these skills to show that they are up-to-date and have not fallen behind at a time when the availability of software programs, internet connections and technology has made teaching by technology common.

The first skill level in the pyramid deals with the basic ICT competency that an online teacher might be required to have during the process of teaching. These skills range from the ability to use the input devices in the computer efficiently, to fixing a simple connection in the event of encountering browser issues. The ability to alleviate browser issues is required because the browser is the most important interface with the user in a computer system. The teachers are also required to have skills for troubleshooting basic networking problems (Hampel & Stickler, 2005). Most of these skills at the level of basic ICT competency are now taken for granted and teachers are expected to have attained a certain degree of mastery in these skills.

Logically, such skills, taken as prerequisites for teachers now, need to be common among the teaching workforce, rather than confined to a small, specific group of teachers. Widely prevalent mastery of these skills will facilitate and maintain a smooth working contingency in the education process. Factors limiting the common teaching workforce from attaining such foundational competencies may include a lack of access to resources; lack of relevant training; and lack of guided, purposeful exposure to the technology. Initially, bringing teachers to this foundation level of skill necessitates the participation of trainers who are familiar with the basics of computer operation, interface and maintenance.

The second ascending level described in the pyramid deals with the ability of the teacher to use and manipulate different language teaching software applications. These applications range from simple communication software such as Yahoo Messenger or Skype to complicated commercial software. But for the purposes of this study, an emphasis has been placed upon the software such as English Curriculum (Sun, 2011) including audio and visual programs that facilitate CALL and make communication easier and more effective for the students.

Within the matrix of the pyramid structure, this level pertains to optimisation of both software and student learning, as both are dependent upon the teacher's knowledge and manipulative skills as these are needed to maximise the full potential of the learners and of the software as a valuable learning device (Hampel and Stickler, 2005). For the teacher, this process can be achieved through experience and exposure to the software, either undertaken of their own volition or else through guided, purposeful training. In this way, the potential communicative competence of the students is best facilitated according to their individual level of language competency and learning attainment.

Mere knowledge of the communicative applications is not enough. Therefore, the second level may constitute an interface between the first and third levels, in terms of the evolution of the teacher's manipulative skills in combining software, hardware and teaching methodology. This leads us to the third ascending level that deals with the degree to which these applications are affordable and the constraints that students face as they endeavour to tap the potential of each application (Hampel & Stickler, 2005). For example, students may face problems in using open channel chat software, as they may receive invitations from strangers who are not part of their contact list. In any society, this matter is of concern in terms of child protection and media censorship and is addressed variously in different local socio-cultural contexts. The teacher needs to possess a working knowledge of software and Internet facilities such as child locks, content controls and filters, in line with cultural and political sensitivities, appropriate to the student age group and locale.

Conversely, over-censorship of any medium by political, religious or cultural authorities can have adverse effects on learning. As language usage is an ever-changing and dynamic process, it is important that learners are exposed to currently popular and contemporary semantic interpretations of the language, particularly when the attainment of native proficiency is desired. This is particularly so in the case of the younger and teenage learners for whom the attraction for fashionable Western culture is substantial. Therefore, in terms of competence, this third skill level proposed comprises a mixture of expertise in computing software and information technology manipulation combined with socio-political awareness (Hampel and Stickler, 2005). Teachers must at all times be mindful that as a product, the lesson should maintain a fine balance between

consumer-appropriate content and semantic representation of contemporary language usage. This fine balance could be established by offering the concept of digital citizenship wherein both the teachers and students learn about ethics and values and how to act while using the Internet for learning purposes. Moreover, what should be taught to the next generation in Saudi Arabia could also be established through digital citizenship.

The fourth level deals with the online teacher's ability to improve and enhance the socialisation skills of the students (Hampel & Stickler, 2005). In the initial stages of CALL based lesson delivery, it is expected that there will be students who are unwilling to express themselves and who are reluctant to become part of the online society. Here the teacher's role will be to increase the students' level of trust. A great deal of effort needs to be made by the teachers to support and improve students' online socialization skills as they learn to manage anxiety and discomfort in online settings (Hampel and Stickler, 2005, Jones and Youngs, 2006, McLoughlin and Oliver, 1999). Once again, the foundational competencies of Hampel and Stickler's (2005) skills pyramid serve to articulate a desirable level of development of the capacities that teachers need to attain to be able to address these concerns.

According to the pyramid, the working knowledge of such software devices as firewalls and anti-spyware is essential to maintain online privacy. These may be termed foundation skills, characteristic of previous levels of competency. But according to Sun (2011), who cites Hampel and Stickler (2005), the teacher is required to employ a traditional teaching pedagogy at this level to catalyse the formation of a social and beneficial online community. To this end, Compton (2009, cited in Sun, 2011) has itemised the components of a proposed pedagogical framework to facilitate online language teaching. The skills may be seen as capturing three facets that are similar to traditional lesson deployment but modified for online teaching. These concern technology, pedagogy and evaluation.

The next level of skill in the pyramid concerns the ability of the teacher to facilitate the communicative competence of the students. Teachers who excel in this skill will have a well-developed ability to create a classroom atmosphere in which there is social cohesion. This goal can be achieved through an appropriate shared learning task, designed by the teacher, one that takes into account the background and interests of all the students present in the class and which tries to cater to their associated needs (Hampel & Stickler, 2005).

Creativity is the sixth skill level described in the above diagram. This level questions and tests the online teacher's ability to choose and evaluate the right materials for the students (Hampel & Stickler, 2005). This is because the Internet makes available a wide range of materials from which careful selections need to be chosen by the teacher.

The seventh and most important skill level in the diagram concerns the online language teacher's ability to develop a personal approach to teaching. This leads to better learning outcomes for the students through personalised teaching. This skill level incorporates all the previous six levels (Hampel & Stickler, 2005). It is important to note that most teachers are not naturally equipped with these skills and abilities. Therefore, it is the teachers' responsibility to try to develop and improve a personal style of teaching that incorporates all the skills mentioned in the other six levels. These seven levels in the above-mentioned pyramid are essential for CALL implementation and cover the requirements to prepare a new ESL/EFL generation in Al Madina and in the Saudi Kingdom at large. Once teachers have gained the above-mentioned skills, they can implement and use CALL in teaching contexts, especially in language education.

The research discussed above has highlighted the benefits of training teachers in the new technologies, and the skills pyramid sets out the levels of achievement necessary for teachers to be able to develop their own style of teaching in the online environment and be fully competent in preparation for the implementation of computer-assisted language learning in teaching English. The current research adds to the knowledge of intermediate teachers' level of computer competence and training in the study area.

2.5 Online language teaching skills

Compton (2009) suggested improvements to Hampel and Stickler's (2005) Skills Pyramid (See above on figure 2, page 32). These may be of practical benefit by providing a framework to develop skills for online language teaching. For effective implementation of the framework, basic abilities in curriculum design, assessment strategies and lesson deployment are prerequisites. However, Sun (2011) contended that Compton's framework lacks practical detail.

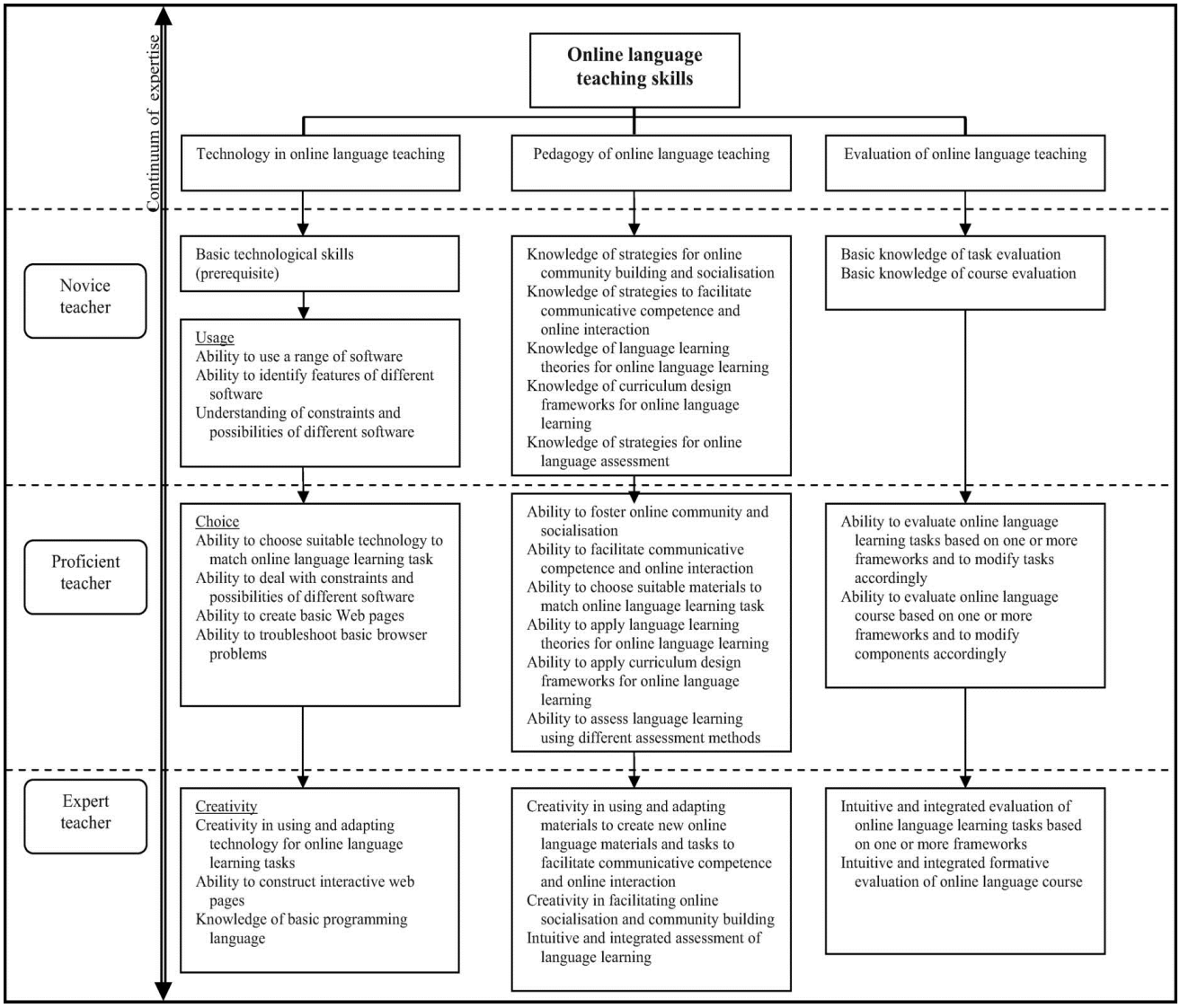

Figure 3: Compton framework for online language teaching skills

Source: Compton (2009, p. 82)

At the first, novice, level of teacher ICT competency, the teacher is expected to possess basic technical skills in order to use a range of software and to be able to recognise the features, advantages and disadvantages of individual types of software (Compton, 2009). The novice teacher is expected to possess knowledge of strategies for building online communities and to facilitate competence in interactive communication. The teacher should also be aware of online language learning theories, curriculum design and assessment strategies. Assessment should evaluate online language teaching in terms of tasks and course content (Compton, 2009).

At the proficient teacher level, the teacher's skills are characterised by knowledge-enabled choice (Compton, 2009). The teacher must be able to discriminate between applications and choose the most appropriate software to achieve an intended outcome. In terms of pedagogy, the teacher possesses refined knowledge of the online environment in order to be able to promote and foster interactive online learning communities. The teacher's knowledge of the Internet should be reflected in the ability to incorporate CALL into curriculum design, language learning theories and assessment methods. The teacher should be able to use a variety of evaluation frameworks to gauge the effectiveness of the online program and modify tasks and course components if indicated (Compton, 2009).

At the expert teacher level, the teacher is described as having creative input. The teacher is able to use and adapt the technology for online tasks by creating interactive web pages and by using basic programming languages (Compton, 2009). Pedagogically, the teacher facilitates interactive communities by creating new online language learning materials and tasks. The teacher stimulates the creative building of social networks within the online community, as well as integrating assessment of language learning. The intuitive creativity characterising this level of teaching expertise would enable integration of evaluation measures into the online learning tasks (Compton, 2009).

The adoption of this three level framework is designed to enable grading of teachers' competencies in new technology in the field of language teaching and learning. Teachers should be required to be up-to-date with the innovations needed to achieve at these levels, and their responsibilities should be allocated accordingly. One focus of the

current research is on whether teachers at the intermediate level feel that training for this new technology is necessary and if they would be willing to participate in continuous training to remain up-to-date. This training could be useful for them to improve their teaching practice and polish their skills in teaching a foreign language, such as English, to the student. To hold multiple workshops and to participate in regular programs under professional trainers in this field could raise teachers' basic knowledge about technology to a high proficiency. This professional training would improve their ability to teach foreign languages and reinforces CALL as a new method in teaching English to non-English speakers.

2.6 Computer oriented activities

The development of network technology has had a major impact on the English teaching process. The shift from traditional teaching methods to computer-assisted language teaching began in the 1960s. Teaching via computer began with mechanical drills and eventually, communicative language interaction was used. Later, teachers designed tasks that enabled online language teaching. CALL has been adopted as a result of technological advancement (Hauck and Youngs, 2009). It was pointed out that the progress in network communication technologies has provided learners of English with the opportunity to break down the barriers of traditional face-to-face classroom settings and gain access to their target language and culture in different ways (Hauck & Youngs, 2009). Thus, it is anticipated that the replacement of traditional teaching methods with the knowledge and use of technology has many advantages for the people of Saudi Arabia, given otherwise limited access to context for conversational and written interactive English language practice.

Consequently, English teachers in Al Madina, Saudi Arabia, where this study focuses its attention, should be empowered with adequate skills to cope with the rapid expansion of technology in the field of language teaching or they will fall behind and not be properly equipped to carry out their work. Furthermore, tele-collaboration exchanges help students break down the cultural barriers that may impede communication. CALL can also be used in educational environments in which physically or intellectually challenged people are educated. For example, CALL is especially useful for visually

impaired students. They can use speech recognition software (SRS) to transform speech into writing. This is a field in which there is scope for further research. To be able to take advantage of such opportunities, Saudi teachers need to catch up with the developments of the last half-century (Almousa, 2008). Educational administrators and supervisors should play a positive role in assisting teachers to be up-to-date with these changes in the field of language learning and teaching.

Opportunities for students to use the English language in real situations are very limited in Saudi Arabia and most of the Arab world (Al-Hajailan, 2003). The impact of online and synchronous computer-mediated communication on university studies in Jordan (Mahfouz & Ihmeideh, 2009) stated that students whose major field of specialisation is not English do not usually have the opportunity to speak with native English speakers (Mahfouz & Ihmeideh, 2009). English is not practised in lecture halls. Using a computer to learn and communicate effectively, potentially could compensate for this. It was argued also that instant messaging (IM) and video chat (VC) provide a permanent avenue for English as foreign language (EFL) learners to engage daily in real life communication and authentic interaction with native speakers of English (Mahfouz and Ihmeideh, 2009). Using technology increases opportunities for language exposure, and the language no longer remains limited to the classroom environment and study hours.

In this study, it is hypothesised that students who undertake CALL in the classroom have more opportunities to improve their English learning via online methods, which are a good way to practise English and communicate with the world outside Saudi Arabia. Teachers of English, together with their supervisors, should acquaint themselves with both the knowledge and use of technology in teaching and learning English. This technology has the capacity to change the world into a 'small village'. The infrastructure necessary for intermediate level schooling should include computers and other technology-related facilities that can pave the way for CALL implementation.

At the present time in Saudi Arabia, it is not effective to use only traditional methods in the field of language teaching. In the past, the teachers used audio-visual recordings and materials to improve language teaching outcomes. Now it has been confirmed that widespread availability of computers can better achieve these ends (Hauck and Youngs,

2009). This has the possibility of opening new horizons for students learning English inside and outside the classroom. This study into the attitudes of intermediate EFL teachers towards computer-assisted language learning may provide important information that will inform stakeholders and may assist them in making decisions regarding the future of English language teaching and learning in Saudi Arabia, especially as implementation is being considered for university and the high school levels (Al Sagier, 2008).

2.7 Teachers and confidence with CALL

Teachers do not necessarily need to have high levels of knowledge of computers and technology if they want to use and implement CALL in their classrooms; a basic acquaintance with computers and technology would suffice (Hubbard, 2006, cited in Kessler & Plakans, 2009). Nonetheless, in the Saudi environment, it will be necessary to encourage teachers to be appreciative of using CALL. One way to achieve this is to engage them in courses that lead to recognised qualifications in CALL.

EFL teachers who have realised the importance of technology have taken up courses to improve their technological knowledge. They are ready to use CALL and its offshoots in their teaching (Kessler & Plakans, 2009). On the other hand, inexperienced, inadequately trained teachers may not yet recognise the importance of technology.

It has been suggested by CALL researchers that language teachers should develop technical knowledge and skills relevant to their classroom settings (Hamdi, 1999, Zaytoon, 2005). Rather than simply expanding their knowledge of technology, teachers need to have sufficient background and familiarity with technological solutions to problems in language teaching. To increase their confidence, teachers should be familiar with the relationship between branches of CALL, such as multimedia and ICT.

The discussion above indicates that teachers do not necessarily need a high level of computer competence, but teachers who have realised the importance of technology are undertaking training to become more competent. This study questioned intermediate teachers to see whether they recognised the importance of technology and if they believed training would be beneficial to them.

2.8 Information communication technology

The ways in which ICT is used in learning and teaching English today was described by Murray (2008). ICT has been used in classrooms for more than two decades and during this time, both the technology itself and its uses have changed (Murray, 2008). Teachers must deal with these rapid changes if their students are to have the best opportunities to develop insight into the target language of English given the way that ICT has come to be essential in delivering state-of-the-art English language teaching. It is essential to the aims of this study that English teachers in Al Madina should be trained to manage changes brought about by the advent of technology in the field of English language teaching and learning.

The stages in the early use of ESL/EFL in which ICT was used as a guide for teachers in the classroom were examined. While the computer was not considered especially useful three or more decades ago, it was noted, even in 1980, that the computer could be utilised as an assistant or guide for the teacher (Murray, 2008).

CALL has two main usages, as a tool or as a tutor (Gobel, 2008). Using CALL as a tool could mean using search engines on the Internet, email applications, word processing software or electronic dictionaries. Given these characteristics of CALL, it will be necessary to accustom both teachers and students in Al Madina to the new technology so they can explore these tools in the process of computer-assisted language learning. They will need to know how to use CALL software. Teachers and educators need to gradually move students in Al Madina to CALL classrooms. To do this, a change in attitudes to computer use must be facilitated. In order to change the views of teachers and students about the use of CALL, it will be essential to discuss how CALL can benefit the language teaching process (Zaid, 2011). This study has been undertaken to

ascertain the current beliefs about, and attitudes towards, computer-assisted language learning so as to establish a baseline from which planning for the implementation of CALL in Saudi Arabia may be initiated.

Technology enhances the teacher's role in the learning process. CALL can bring new opportunities in the field of language teaching and learning. Computers can deliver spoken and written English in different contexts. They can also showcase different cultures. Students can use CALL or other programs offline, making use of a ready designed curriculum. Students can learn online via the Internet, thus improving their language skills and knowledge (Al-Hazmi, 2003).

CALL is envisioned as a means of acquiring a foreign/second language by providing ample opportunities for their students to be exposed to the language they wish to acquire. The opinion that "it is necessary to clarify the scope of CALL because it means different things to different people" was also offered (Gobel, 2008, p. 4). As a corollary to this, it may be considered that CALL presents possibilities for use with different nationalities, different abilities and different ways of thinking.

In this study CALL cannot be discussed in detail without also discussing some topics that have an effect on it, necessarily playing a complementary role in the project. Online or other synchronous interchange between student-teacher, student-student and teacher-teacher is vital to English language learning and can be facilitated by CALL. Groups such as wiki online and various reliable online academic sources are also very useful (Murray, 2008). Online collaborations help students communicate and learn from each other. They facilitate the exchange of information. This helps to create confidence. Additionally, learning via online discussions can keep students in touch with their teachers after school, allowing students to access their teachers' websites (Murray, 2008). Teachers will be able to attend to students' feedback and correct their mistakes.

The discussion of studies in countries other than Saudi Arabia has highlighted that CALL provides for ample opportunities for students to be exposed to, and to practise the language they are learning, thus building confidence. The current study investigates if this can also be achieved in Saudi Arabia.

2.9 Online collaboration

It is argued that collaborative learning can promote autonomy and independent thinking Zorko, 2009). This study view is consistent with Zorko's that the teacher in a computerised environment acts as a facilitator for the students' self-directed learning, either individually or in a group setting. Both forms of learning are augmented and potentially optimised by computer and Internet technology. Additionally, in undertaking self-directed learning, students acquire critical thinking skills as they select and edit information they receive from the Internet and from their collaborators. Additional characteristics of online interaction were identified and summed up by Zorko (2009).
In the article Zorko (2009) asserts that peer interaction facilitates the synchronous and interactive building of jointly formulated solutions to problems. The working team is established and strengthened through engaging in small group skills, this in turn fosters an interdependence among the students (Zorko, 2009). A fair distribution of work is delegated between the team so that each member has the opportunity and responsibility to contribute effectively. Each team member monitors and provides feedback to their fellows so as to optimise each other's positive and effective contributions (Zorko, 2009). Where needed, mutual help is provided to achieve group goals, and constructive criticism, feedback, advice and encouragement are concurrent. The process of planning and initiating further collaborative activities is ongoing throughout this online learning experience, as is the acquisition of knowledge, skills, and attitudes (Zorko, 2009). For example the important skill of critical thinking is developed through the careful consideration and analysis of each other's contribution.

The experience of networking is acquired by exchanging knowledge resources, information and ideas. Perspectives on issues pertaining to the group's focus are exchanged, compared and understood and new perspectives and meanings are subsequently developed and assimilated into the group work process (Zorko, 2009). The skill of reflection is fostered through the exchange of thoughts regarding the work in progress. Simultaneously, discussions occur where the students challenge each other (Zorko, 2009). At other times the students teach each other inadvertently by listening to each other's ideas, suggestions and viewpoints, this is supplemented by the development of autonomous learning (Zorko, 2009).

For students, the online interaction supplements the social element of face-to-face encounters with group members. The online experience strengthens and clarifies group identification, it also builds a sense of community as inter-group comparisons occur regarding work and progress (Zorko, 2009). A final characteristic of the online interaction is the overcoming of international and national time differences (Zorko, 2009).

Consideration of the above list leads to the following conclusion: where students are engaged in interactive and collaborative learning activities, they may learn more effectively, and more knowledge transfer may occur than in the process of didactic teaching, provided that the teacher is adequately equipped to facilitate such a group learning process, and makes best use of this method of delivery (Zorko, 2009). Opportunities for the exchange of feedback, ideas and opinions between peer learners may enhance the educational experience for all, provided that the teacher is able to manage such processes in a way that facilitates a sense of group cohesion, tolerance and mutual respect (Zorko, 2009).

It is argued that students can explore the Internet and read online, making use of web quests to explore any topic they are going to write about (Zaid, 2011). They will then be able to research using the online materials they have discovered. Then, through brainstorming they can form new ideas for the paragraph or essay they are working on. They will have to know how to filter the many ideas they have collected. After that, the students can choose the ideas that best suit their topic.

Learners at different levels may be able to support each other's learning in such an environment. Likewise, teachers may be able to use such environments to facilitate the development and exchange of critical analysis. Students in such an environment may develop a capacity to support each other's independent learning. All of this depends on teachers being adequately trained to manage such collaborative learning environments as can be facilitated by technology, socialising the students into the shared values that enable online groups to operate as effective learning environments.

Zorko's (2009) study showed that the levels in the Hampel & Stickler (2005) skills pyramid apply to learners as well as teachers and that interaction and collaboration was beneficial in language learning. In this research, intermediate teachers in Saudi Arabia were asked about interactivity and collaboration, and whether they felt it would be beneficial to their students in learning English.

2.10 Learning in wikis

Wikis are collaborative online spaces that can be used for language learning. Wikis depend on all participants making a contribution, in contrast to traditional methods of teaching in which the teacher is the only person speaking in the classroom and the students are usually passive listeners (Zorko, 2009). In traditional methods of teaching, the teacher is considered the only source of information, but when the lesson incorporates wikis, students also learn from each other. The students can access wikis inside and outside lesson time, provided they have Internet access.

Technologies have always had much to offer to the field of language teaching and learning. "Wikis are believed to be a powerful tool assisting the development of a constructivist learning environment, as their nature supports collaboration" (Zorko, 2009). Wikis are suitable for collaborative learning and online collaboration (Zorko, 2009). "Learning in the educational community helps students to become independent thinkers and collaborative learners, which are qualities that are required to meet the challenges of today's society" (Garrison & Anderson, 2003, p. 22).

The incorporation of wikis into the learning process gives the EFL/ESL teacher, as well as the students, the opportunity to participate in interactive and collaborative learning. Wikis are shared work spaces that are becoming increasingly popular. "They are a collection of interlinked web pages that can be easily edited and freely expanded by any user" (Zorko, 2009). Students can readily share the knowledge they have gained, and teachers can readily see what the students are contributing, enabling them to direct their attention to the more reticent students. This may contribute to a greater overall success rate for teaching and learning processes (Zorko, 2009). Wikis can also be beneficial in the development of self-directed learning and critical thinking, either for the individual

learner, or as a contributing member of a group. Because wikis provide links to related information, the learners can also gain valuable skills in research and the sourcing of information. Wikis can be a positive adjunct to the learning of English as a foreign language.

2.11 Mobile phones

At the present time mobile phones are found in nearly every home. Mobile phone technology has great potential in learning environments and the British Council in Egypt recently held MENA (Middle East and North Africa) Mobile Symposium to study the influence of digital and mobile learning on English language education across the region. It aimed to encourage young people to use digital and mobile products to enhance their personal and employment opportunities through improving their English language skills.

The British Council has been developing 'learning English mobile resources' designed in particular to be used on mobile phones, and mini-computers. The products include educational materials from the Council website adapted for use on mobiles. The aim is to create short interactive content that suits students anywhere, thus saving time and money as well as learning English in an effective way (Samih, 2013). In a project studying mobile devices including smart phones and mp3 players, Herrington, Herrington, Mantei, Olney & Ferry (2009) found that these devices could be used pedagogically as cognitive tools and not just as communication devices. The researcher considers that mobile phone applications for learning English may be able to be employed in Saudi Arabia at some later stage. Due to advances in technology in mobile phones, they have become portable computers and this increases the chance to use them as a study tool. This provides the student with a chance to use the mobile as a connection to the internet and as a source of knowledge, through online dictionaries, pronunciations, google translations and internet searches (Samih, 2013). This could complement the implementation of computer technologies in the teaching of language.

2.12 Attitude towards computers, the Internet and other new technologies

The use of computers in the field of education is continuously evolving. Educators must keep sufficiently abreast of the new developments to be able to critically evaluate them, trial their application, and adapt those that prove advantageous to their local conditions. The number of teachers who use computers is not the only factor that will determine the success or failure of the implementation of computer-assisted language learning in Saudi Arabia (Almousa, 2008). Instead, success will depend on the proficiency and competence of the teachers and their administrators in the critical evaluation and creative use of computers and Internet resources.

In order to create a successful marriage between technology and education, educational administrators need to make sure that the technology they are implementing actually has the potential to address the learners' needs, that the teachers are adequately trained to use it and to equip their students to do so, and that sufficient cultural adaptation has been engineered to pave the way for a good fit between the application of the new technology and local customs and circumstances (Almousa, 2008). Teachers will need to have confidence in the support of their administrators as they endeavour to influence parents' attitude towards the use of technology in education.

Saudi students at the intermediate level are already as likely to embrace learning using the technologies as would students of their age anywhere else in the world but will be unable to do so effectively without parental support and the approval of the broader society (Sabbagh, Mourad, Kabbara, Shehadi & Samman, 2012). Educational administrators, including those in government, must endeavour to understand the aspirations of Arab youth with respect to technology in the global context, and bring their influence to bear on the broader Saudi society to facilitate the necessary social conditions to satisfy the young peoples' enthusiasm for the Internet and the new technologies in order for them to be harnessed for constructive educational purposes.

When the attitudes of youth towards learning through new technologies have been appreciated and understood, it will be much easier to predict and positively influence their patterns of behaviour to be more conducive to educational attainment. If a trial of the implementation of CALL is to succeed in the Al Madina area, educationalists, especially administrators and government officials, must pave the way for teachers and parents to be appraised of students' attitudes towards technology and give them due consideration in lesson planning, deployment and the use of new study methods, both in the classroom and at home (Abdallah, 2005).

Every individual can learn but the rate of learning varies from person to person due to individual differences in learning styles and mannerisms. One way to overcome this problem, particularly with regard to slower learners, can be through the use of computers (Abdallah, 2005). Computer-assisted methods permit language learners to acquire knowledge in their own way and at their own pace. Provided that the social conditions support computer-assisted learning, students working by such methods can be less prone to inhibition and performance anxiety (Hammond & Gibbons, 2001). Before a trial of CALL, attitudes need to be assessed; this research addresses questions to teachers regarding the possible implementation of CALL.

2.13 Related Arab studies

The Arab world has not been excluded from studies concerning the introduction of technology in the field of English teaching. Learning English is considered a priority for students in Saudi Arabia and the rest of the Arab world (H. H. Zaytoon, 2005). Therefore, the most efficient and up-to-date methods of learning English should be implemented to improve students' proficiency and motivation to continue with their studies. Abu Samak (2006) summarises reasons for making English the first priority for Arab students and maintains that there are clear grounds for teaching English in the Arab world. She sees English as the language of international organisations and conferences. This is because 85% of international organisations use English, 49% use French and less than 10% use Arabic, Spanish or German (Al-Jarf, 2005). This shows the importance of English in a globalised world in which distances and national boundaries are of diminishing relevance as rapid and complex communication systems transform our experience of citizenship of the world (Abu Samak, 2006).

Learning a foreign language can pave the way for other aspects of the intellectual development of students. It opens new horizons for them. They learn about other cultures and ways of life. It will also be easier for students to learn another foreign language once they have mastered the first one. Therefore, it is imperative to make use of the avenues for integration with the global community that are provided by sophisticated computer applications that have become popular vehicles for language teaching and learning. This is especially important in Saudi Arabia, where there continue to be few opportunities for students to learn from native English speakers (Al-Mekhlafi, 2006).

English gained even greater significance during and after the Gulf War in 1991. Some Arab countries had started teaching English in schools even before this. Educational administrators were required to learn to cope with the new devices used for teaching English (Alkhuli, 1990). The purpose of this study is to draw the attention of stakeholders to the role they must play concerning English teaching and learning in the Saudi Arabian context.

With the advent of the computer and its use in the field of instruction, it has become possible to increase learners' exposure to the language so that they can acquire a near-native speaking ability (H. H. Zaytoon, 2005). In this regard, the computer is expected to enhance mastery of the English language in the Arab world in general and in the Al Madina study area in particular.

In recent times, educational institutions all over the Arab world have been introducing and promoting the development of learning skills in the English language using CALL. Much research has been done to pave the way for computers, the Internet and email to be included in the field of learning and teaching. New technology is starting to find its place in the field of education and research. For example, the use of multimedia as an educational device was favoured in research by Hamdi (1999), while the fact that multimedia are used advantageously and systematically in educational programs to achieve certain objectives was confirmed by Al-Debian (1999). The Internet and computers are considered a good mode to deliver lesson material and are effective in

learning English, in particular in countries that have insufficient opportunities for real life situation practice by students (Al Nakeeb, 2006).

Research was conducted on the effect of CALL on the development of scientific thinking and achievement by Hasanin (1994). Research revealed the effectiveness of CALL in learning achievement, comparing favourably to that achieved through traditional methods by Othman (1995). It was stated that Arabs must focus on learning English because it is an important language in the Arab world, owing to the growing connections of the Arab countries with Western countries such as the USA and the United Kingdom (Al Mutawa & Kailani, 1989). Most importantly, English is the official language of the United Nations. It was found that teaching English to non-native speakers requires a range of materials sometimes in short supply in Arab learning environments (Nabila, 2008). This difficulty could be overcome by using computers and the Internet. These studies conducted by Arab scholars emphasised the need for the use of technology in the field of education and other walks of life.

One of the projects that pioneered electronic learning, specifically the use of CALL in the field of language teaching, was the King Abdullah project. This project began in 2006, with the aim of involving more Saudi Arabian students in language learning. The same project also addressed similar needs in the other fields of study. The introduction of the project was discussed in chapter one, and is discussed further in chapter three (conceptual framework). In 2011, the King reiterated his commitment to English language education in the schooling system. Acting upon the advice of senior education ministers, the King has authorised the teaching of English to children at school level. He has decreed that English tuition by qualified TESOL teachers will commence for students from the age of nine and continue through to the completion of schooling. As this program of English instruction will be gradually implemented for younger and younger students, this research is into attitudes of intermediate teachers is timely, The project will help to reinforce e-learning in Saudi Arabia and transfer the curriculum from hardcopy to software, will be available to students and teachers, will use email for correspondence and will use English in some parts. The project envisages that all schools will eventually be updated with the newest technologies.

2.14 Conclusion

In today's world, learning English has become a necessity. This is partly because the world has become a global village in which everyone needs to be able to communicate with each other, and English has come to be its dominant language, for reasons including those discussed in chapter one of this thesis (Al-Jarf, 2005). Starting in the second half of the 20th century, computers have come to be an integral part of human life, especially from the 1980s onwards, with the introduction of personal computers (PCs) into households. Researchers and scholarly practitioners in the field of language teaching, like their counterparts in other fields of study, have made use of computers.

Visual and audio files have proven to be most useful in language learning and teaching. In the process of language learning and teaching, these visual and audio files contribute a great deal to improving students' speaking and listening comprehension as they learn a foreign language. One of the benefits of using multimedia in language learning and teaching is that students become immersed in the process. This is because a combination of speaking and listening occurs in language lessons that use multimedia. Students become fully involved in the language learning process (Abu Seileek, 2009).

Outside the classroom, there are innumerable online programs that can be used by students in their leisure time (H. H. Zaytoon, 2005). Students should not be deprived of access to such free exposure, and teachers should facilitate their continued use of these resources to improve their language skills. Once used appropriately, CALL can constitute a large part of the language teaching process that is taking place in the classes in Al Madina. The success of this process of implementation at the intermediate level will depend on the support of educational administrators in schools and in government, especially in respect to influencing community attitudes and safeguarding pathways to implementation in the context of the values and traditions of Arab society.

The literature review suggests that the English language can be learned, inside and outside the Saudi Arabian classroom, more effectively using CALL. Learning English using CALL can help to bridge the gap between Saudi Arabian culture and beliefs and those prevailing in other parts of the world. CALL, when used appropriately, can be a

medium for the establishment of friendly relationships between Saudi students and others in the outside world. In this globalised age, it is important to use up-to-date technologies in EFL/ESL learning to achieve the overall educational goal of successful transfer of knowledge, by changing from being a teacher-centred to being a student-centred process. CALL can help to achieve learning that exceeds this goal, with the transfer of knowledge also occurring teacher to teacher, student to student, student to teacher and, teacher to student alike, from the World Wide Web. This research extends on the studies mentioned in the literature review by investigating conditions and teachers' attitudes in Saudi Arabia. The next chapter presents the conceptual framework underpinning this study and the theoretical basis behind the implementation of CALL in Al Madina, Saudi Arabia.

CHAPTER 3

CONCEPTUAL FRAMEWORK

3.0 Introduction

The English language is the world's second most widely spoken, written and read language, following Mandarin in terms of the total number of speakers, but used in a wider range of countries around the globe (Al-Jarf, 2005). It seems likely that the English language may be destined to reign in the future with an even more extensive sway over the globe as a result of globalisation and the internet (Isaacs & Law, 2004).

King Abdullah, in recent years, has recognised the importance of English language education in the schooling system. Acting on the advice of senior education ministers he authorised the teaching of English to children at school level throughout Saudi Arabia. The King's action shows the high regard he has for the value of learning the English language, and his commitment is likely to eventually result in a high degree of English competence among his subjects. The implementation of CALL is consistent with the intentions of the King's program and this should ensure its support by government and school administrators (Ministry of Education, 2008). The King Abdullah project has pioneered the use of CALL in the field of language teaching in Saudi Arabia. Because of the support provided by the King Abdullah project (*Tatweer*), the structures for successful implementation of CALL in English language learning in Saudi Arabia are now in place. Within a constructivist conceptual frame, it is considered that the conditions are such that the time is now right for such an intervention.

The decision to use a constructivist framework is based on the benefits of such a strategy over the behaviourist approach. These theories impact on the aims of education, experience and teaching methods, as supporters of the theory of behaviourism are concerned with the apparent behaviour of the learner, while those interested in the constructivist theory believe that cognitive processes should become integral to the learner (Alnajdi, Sauda, Rashed, 2005). These approaches are in contrast to the

beginning of the development of educational objectives. Teachers utilising a constructivist approach put educational objectives in a general framework using social negotiation between the teacher and the students and the students feel as though they are partners in the formulation of the goal (Almahdi, 2003). In contrast, the teacher using a behaviourist approach sets small specific educational goals for behaviours that are observable and measurable at the end of the lesson, not the end of the semester or the year (Almukbil, 2004). The roles of both teacher and student also differ between the behaviourist and constructivist approaches to education. The role of the teacher in the behaviourist model is to create a learning environment that encourages students to learn the desired behaviour while in a constructivist learning environment, the teacher prepares the students to build knowledge for themselves (Alnajdi, Sauda, Rashed, 2005). So it is apparent that the behaviourist approach focuses attention only on the current educational position of the student and this limits the student to basic understanding of the content, as they learn to repeat back the information that they are received. Constructivist theory focuses on internal mental processes that occur in the mind of the learner. It thereby creates links to prior knowledge and to subsequent learning, helping them build meaning. The teacher designs activities and asks questions, posing problems, so that students can explore and engage in order to develop the skills necessary for learning. The role of the teacher here is completely directed towards achieving the goals of the learners themselves and guides them towards the search for knowledge that can be processed, interpreted and applied in different situations and related to what they have learned in their lives. These independent learning styles are greatly enhanced by computer learning. For this reason, we can say that the teacher needs to focus on creating an environment of learning and facilitate access to a range of learning resources, including CALL. The constructivist approach develops the motivation of students so that the student attempts to find solutions through research, exploration and discussion.

The use of CALL lends itself to a constructivist approach to the teaching of English, as it allows students to explore and interact with the language and develop their own learning environments. Constructivism has further helped to focus the research questions of this study on the readiness of the teachers in the study area to shift to the role of facilitator through the implementation of CALL software.

Educational systems, in which English is not the primary language, have sought to provide their students with English language training whenever they have had the means to do so (Brown, 2007). The reasons for using CALL as the means to this end in Saudi Arabia have been detailed in the first two chapters of this thesis. For a CALL classroom to be effective, teachers need to be well trained to undertake the changes required in their teaching practices. This necessitates theoretical and practical changes as well as technological changes (Gitski, 2011). Teachers must be kept up-to-date with ongoing progress in the field of information and communication technology and the range of information provided by the Internet. They should have the ability to use modern technology to learn English. Teachers should also be good learners in order to be able to communicate adequately with students. This will enable students to learn how to learn through the help of teachers. The role of a teacher is no longer one of filling the minds of students with information. Teachers' roles have changed such that they have now become facilitators of learning (Jaijin, 2003). In Saudi Arabia, EFL teachers are in need of in-service training in the use of the Internet (Zaid, 2011), in order to be able to implement CALL adequately.

CALL uses a constructivist, technology-based approach. It has a positive influence on the learners' attitudes and motivation towards learning English as a foreign language (Valerie & Zumbo, 2009). In Saudi Arabia, there is considerable support from the *tatweer* project for the implementation of constructivist, computer-assisted language learning in a technology-based environment for foreign language teaching and learning. It is time to take positive and practical steps to move from passive learning approaches and limited use of teaching aids towards a more learner-centred approach, combining computer and digital technologies. The use of computers in language learning and teaching has become familiar in many educational institutions (Mahdy, 2013), thanks to extensive progress in the field of information and communication technology. These changes have led to better learning outcomes in those Saudi contexts in which they have been applied to EFL teaching practices (Al Abbad, 2009).

Technology alone without human interaction cannot create a good environment for language learning and teaching. Technology should be implemented and used under the auspices of relevant pedagogy and textbooks must be designed in a way that requires CALL materials. As well as this, a flexible curriculum is needed if CALL is to be easily facilitated and accessed (Mahdy, 2013).

Interaction has transformed the characteristically passive role of students in learning into one of active learning and participation in the construction of knowledge for themselves. The teacher's role is transformed from that of being responsible for providing knowledge into one of interactive teaching and participatory facilitation of learning. Interaction enables new knowledge to be produced and established (Harasim, 2000, p. 53). The theories of constructivism and positivism encapsulate the features of such interaction and provide the conceptual framework of this study.

This study investigates the current computer and Internet services available and the readiness of teachers to implement change in their teaching methods in intermediate level schools in Al Madina, Saudi Arabia. This chapter addresses the conceptual and theoretical framework of CALL as it is employed within this research. The following sections include specific aspects of the theories of constructivism and post-positivist empirical research (quantitative and qualitative), and the relationship of the prospective English teacher to the classroom and to the students.

3.1 The conceptual and theoretical frameworks of the study

The role of teachers in the digital age has changed from being 'the sage on the stage' to being 'the guide on the side', moving from a behaviourist towards a constructivist approach (King, 1993). This does not mean that the teachers need to abandon their role as content experts (Palloff & Pratt, 2003). However, teachers should always be well trained to cope with state-of-the-art technology.

Where once teachers were considered the primary source of knowledge, their role has been redefined by modern theories of learning and teaching in which learning activities are derived from the learners' interests, and take place through reflection and interaction

applying written, read, audiovisual and spoken media. CALL facilitates the three forms of interaction – learner-content, learner-instructor and learner-learner (Moore, 1989). Most modern learners are accustomed to using many types of technologies in their everyday activities. This generation has been described as the "net generation" (Zaid, 2011, p. 196), due to the vital role played by the Internet in communication and provision of up-to-date information.

The research literature documents a strong association between new technology-based practices and changes in the current curriculum. In many countries, the use of educational technology has become part of an instructional shift toward constructivist approaches to teaching and learning within the context of improving schools. Improvements in educational outcomes follow from application of a constructivist approach because it involves the learners in the educational process. It brings them together with the teacher to construct meaning through interaction and takes into consideration each learner's needs. This alteration in the role of the teacher has automatically led to a transformation in the role of the students. Students now interact and participate to a greater degree in the learning process (Zaytoon, 2007).

Apprehending the new roles of both teachers and students requires a precise understanding of what is meant by interaction. This is crucial to the domain of education in general and to teaching in particular. This needs to be addressed with respect to the context and methods of teaching English in Saudi Arabia. In general, school children in the Arab world are accustomed to recitation and rote learning in the classroom (Al-Hjailan, 2003). They are required to learn the structure of a language by heart, so as to be able to repeat their lessons whenever the teacher wishes them to do so.

These practices are prevalent in Saudi Arabia**.** Yet, recitation as a teaching method is contrary to modern trends in language learning. In contrast, interaction is regarded as the optimal language learning practice today. Interaction as a teaching method was introduced in the era of communicative language teachers and learning (Abdallah, 2005). Interaction is the heart of communication. Communication usually involves sending messages which we receive and interpret in a context. We negotiate meanings and collaborate to accomplish certain purposes. Interactive learning, preceded by

several decades of research in the field of language teaching, has proved that the most promising way to learn how to reciprocate is through interaction (Zaytoon, 2005).

Teachers can use CALL to provide easy and rapid access to different learning resources and multimedia components of dynamic and authentic input in all fields of language. Teachers would be unable to present these in the absence of additional teaching aids. Activities such as problem solving, information gaps, animated graphics would become available as a result of implementing CALL. Such tasks would open windows for the students to actively interact with authentic contexts and discuss meanings in the target languages (Khamkhien, 2012). Discussion and brainstorming creates new ideas that help improve learning. This is a very different kind of teaching to the didactic style that currently prevails in most Saudi classrooms (Al Gamdi, 2003).

Language acquisition and the development of sufficient proficiency to benefit from academic instruction in English is a slow and complex process. It is not an automatic and natural process for many children and often requires that teachers help students make clear connections between the material which they read and write in one language and their activities in the target language. It is necessary for teachers to bear in mind that the mere ability to translate one language into another is not sufficient. Understanding of a language means understanding feelings, anecdotes and culturally based nonverbal messages (Smith, 2004). This necessitates mastering both languages; the mother tongue or the first language, and the foreign or second language.

Language is a form of communication—whether spoken, written or signed—based on a system of symbols. Language consists of the words used by a community and the rules used for varying and combining these words. We need language to speak with others, listen to others, to read and to write. Language enables us to describe past events in detail and make future plans. It also helps us pass information from generation to generation, thus enabling transmission of a rich cultural heritage (Santrock, 2006). CALL can provide the opportunity for the learners to be exposed to a variety of fields through which they can come in contact with the cultural background that is necessary for learning a foreign language. CALL can help learning to take place in an interesting

way. Through a variety of interactions, learners can acquire the basic skills of a foreign language, directly and indirectly.

This interaction involves the collaborative exchange of thoughts, feelings or ideas between two or more people resulting in a shared effect for both sides**.** As a result of such interaction, the teacher has become a participant in constructing knowledge along with the group of students. Just as people live in communities, where they negotiate with each other in particular contexts through the medium of language, so this same behaviour can be transferred to language teaching and learning. Students can sit together and discuss various topics through the medium of language. In this discussion, special emphasis and care is given to the content or the subject matter rather than the structure of the language. This practice has resulted in both teachers and students shifting from mechanical language teaching and learning to communicative language teaching and learning (Mishra & Juwah, 2006).

Computer-assisted language learning aims to develop in the students the different language skills—reading, writing, speaking and listening. It also seeks to develop knowledge of culture as represented in literature. These factors are essential as no subject can be studied well without adequate language skills. In elementary schools most language programs focus on helping the students develop written and oral communication skills, comprehension, problem solving strategies, creativity and appreciation of language and literature. In secondary schools, English language programs pay more attention to integration of the language arts, using literature as the main motivator (Ryan and Cooper, 2001) since literature is of interest to students. It is crucial however, that from the outset, students should interact in their language study so as to be able to deal with the affairs of their life in the future, using the interactive skills they acquired in the classroom during their early schooling (Brown, 2001).

Computer-assisted language learning is a medium that helps students acquire language skills as it opens the door to knowledge of what is going on in the world around them. Through interaction, students become familiar with their own and other cultures. Watching an American film that reflects the way Americans live, can provide the students with greater awareness of American culture. Besides learning the English

language, students can learn the cultures of others, which is knowledge necessary for mastery of the language. Students cannot master English without learning the cultures of the native speakers of English. Language cannot be studied in isolation from culture. However, in a globalised world ICT provides an opportunity for the students to access English through music, movies, YouTube, TV shows and advertisements.

Regarding the pedagogical advantages of the interactivity made possible through the use of CALL for English language learning, Brown (1994, p. 159) cites Wilga Rivers:

> Through interaction, students can increase their language store, as they listen to or read authentic linguistic material, or even the output of their fellow students in discussions, skits, joint problem-solving tasks or dialogue journals … in interaction, students can use all they possess of the language, all they have learnt or casually absorbed in real life exchanges. Even at an elementary stage, they learn in this way to exploit the elasticity of language.

With the spread of the English language through ICT, trades, and education, it has become the international language of the Internet (Khamkhien, 2012). English was the first language extensively used on the Internet, and so became the one that achieved most in connecting people worldwide via ICT. Given the vast resources for English language teaching available on the Internet, preparing students to develop competencies in computer use at the early stages of primary and preparatory education enables them to be ready to participate in computer-assisted language learning.

In Saudi Arabia there are people from many parts of the world who speak a wide range of languages. English is the common language connecting these people. Computers substantially assist and mediate that connection, and so they usefully enhance teaching and learning of English in Saudi Arabia. To promote proficiency in the English language in Saudi Arabia, it is useful to consider where technological devices can be employed for both teaching and learning.

Students, especially those in the early years of schooling, may not understand the benefits of learning English. As those around them speak their mother tongue they can communicate adequately without having to learn a foreign language and therefore do not have a strong motivation to do so. Although they may not understand the

significance of learning English, the introduction of computers in a number of schools in the study area has constituted a turning point. The students have become motivated by their computer use to begin to learn a new language (Abdallah, 2005).
In contrast to traditional teaching methods and devices, a computer can provide students with an opportunity to practise the language and change the situation from one in which a foreign language is confined within the classroom to a situation in which language exposure can be more comprehensive. The computer can also bring the language into the students' homes. It could allow them to learn English outside the strict atmosphere monitored by the teacher**.**

Nelson (2008) calls upon teachers to grasp the idea of teaching English in the new digital age. He argues that students are naturally motivated to use new technological devices and the more teachers integrate technology into their lessons, the more they will provide students with opportunities to use English naturally, thereby allowing them to meet the requirements of real life. Nelson continues by saying that the Internet assists students in accessing information, having discussions on the side, making contacts and achieving the aims of the activities in which they have been involved.

There are three natural stages of learning a foreign or second language. These are the cognitive stage, the associative stage and the autonomy stage. Computer-assisted learning can play a vital role in providing the opportunity for students to progress, at their own speed, through these stages (O'Malley & Chamot, 1990).

The first stage is the cognitive stage where the learner acquires a language skill through noticing an experienced language user demonstrating the particular skill. On this occasion, the learner becomes aware of the skill but is unable to efficiently utilise it to express him/herself. The learner is only able to comprehend through the interaction with an experienced person. By this interaction, the learner is exposed to different real life situations where the language is practised. Learners can repeat the situations as many times as needed, in any setting where access to a computer is possible. Learners can choose specific situations that suit their various levels. This means that learners are no longer obliged to use particular materials imposed on them. Learners can find materials to choose from in all fields of knowledge. The computer and the Internet can provide

the learner with a wide range of real situations and with various educational materials. Using pictures and sounds makes it easy for learners to grasp meanings in an interesting way. The more real life situations to which the learner is exposed, the more vocabulary and structures are acquired. During this stage, learners hardly need to be involved with others to practise the new language. Willingness to learn how to be involved is what is required, and practice of interactive and conversational speech can occur afterwards (O'Malley & Chamot, 1990).

The second stage, the associative stage, is distinguished from the cognitive stage by the fact that an alteration in the performance of the learner takes place. This indicates the development of the learner's language skill. In this second, associative stage, the learner gradually becomes ready to participate in a conversation with others who speak the new language, having learned new vocabulary and structures through immersion in real life situations. The learner can use the Internet to chat with friends, as well as for writing and speaking. Computer-assisted learning allows the learner to overcome shyness and fear about writing and speaking, and in the process, competence in the foreign language improves. The more the learner practises with colleagues, and friends, the more new vocabulary and structures are learned (O'Malley & Chamot, 1990).

During the process of learning the English language as a second or foreign language, the learner may be looking to acquire either fluency, or accuracy. The learner striving for fluency pays less attention to the grammar. On the other hand the learner striving for accuracy pays more attention to the grammar, which lessens the degree of fluency. The learner striving for accuracy usually tends to avoid making mistakes. The knowledge of the skill that occurred in the first stage is now extended a little and the learner starts to practise the skill. Performance will develop continuously until the learner almost reaches the language ability of an experienced language user. Because the learner avoids making mistakes and strives for accuracy, performance continues to be slow (O'Malley & Chamot, 1990).

The third stage is that of autonomy. At this stage, the learner’s language development still continues. As language skills develop naturally, the mistakes that hindered the learner’s effective communication may disappear. Now, performance requires little

effort compared to that required at the previous two stages. The learner can spontaneously produce chunks of speech with almost no difficulty. A point of language mastery has been achieved that enables effective interaction within the learner's environment. Learners now know how to write sentences and talk to others, having acquired an extensive vocabulary with which to express themselves clearly, though some mistakes may be made early in this stage. Computer-assisted learning allows the learner to correct the mistakes he/she may make using particular language programs. This is of great help to the learner, as it provides the opportunity for self-correction. It is considered an appropriate and adequate means of self-education. What is of importance is that CALL helps the students learn not only the foreign language, but also the culture of that language, which is necessary for mastery of the language (O'Malley & Chamot, 1990).

Computer-assisted language learning can assist students to correct grammatical mistakes and it also can suggest phrases suitable for particular situations. In stimulating students to write, computer-assisted language learning can provide them with a telegram, letters, or messages to be answered. It can also display visual material—still images or videos—on part of the screen including simulations to aid the current learning task. The students can develop essays on topics of interest through simulations provided by CALL (Hamka, 2007).

3.2 Constructivist theory

This section outlines the main features and qualities of constructivism that have been employed to address the problems investigated in this study. Valerie & Zumbo (2009) argue that constructivist theories are employed in the design of learning environments to facilitate exploration, reinforce context, expand learner control, and facilitate integration. An example of an environment in which constructivist theory has informed innovation that enhances learning, including multimedia CD-ROM production is the hypermedia authoring project that explores the virtual environment of the imaginary Nardoo River in Australia (Interactive Media Pty Ltd, 2013).

In such examples, technology is exploited to advantage. Activities have been creatively designed in a manner informed by constructivism, which Skinner (2010) defines as a theory of knowledge. He believes that knowledge needs to be actively constructed by the learner. This leads to the learner being actively involved. The implications of this theory are that it creates independent and critical students who are beginning to construct their own knowledge. Consequently they are able to take part in decision making, both in and out of the classroom. From Skinner's (2010) definition, we see that the theory of constructivism implies that teachers and learners form a team to work on any project that entails an individual or a pair or group.

Knowledge construction involves thinking about and interpreting experience in order to come up with a new, complete, complex or refined piece of knowledge. This requires that learning take place within a social context that helps promote interactions among individuals at different levels of competence and allows them to exchange ideas. An invaluable asset for building understanding and knowledge is the exchange of emails, through which students can enrich their vocabulary and exchange ideas on a wide range of topics. This paves the way for cooperation with their teachers to solve certain problems and to allow them to cooperate with their peers (Campbell, 2004).

In terms of cooperation, it is noted that the educational communication process is comprised of the following elements: the student, the teacher, a problem in a certain context, and the knowledge to solve the problem. These elements interact with each other at different levels in order to enable the students to apply knowledge to their problems. When students use knowledge to solve a problem, they are able to employ scientific methods in searching for a solution. This is an effective aid in the learning process which involves different meaningful interactions within the elements of knowledge. Eventually the learner will have attained the skills necessary for social interaction (Mishra & Juwah, 2006).

The learner's active role is stressed within a constructivist model. In this kind of learning, learners usually work together and support each other as they use different tools and information resources to solve problems. Constructivism provides the foundation for a pedagogy in which learners explore new integrated multimedia

environments and are allowed to learn individually, apart from others, as they participate in online learning communities. Constructivism operates in contrast to traditional Saudi teaching and learning processes in the way knowledge is transmitted from teacher to students. The negative aspect of the traditional method is that it is a one-way process. It does not activate all the abilities of the learner (Wilson, 1996, as cited in Cohen, Manion & Morrison, 2007).

3.3 A constructivist model

Jiajin (2003) described the features of constructivism and designed a model for using computer associated language learning. Based on Jiajin (2003) a new framework was designed by Alsofyani (2008) as shown below -

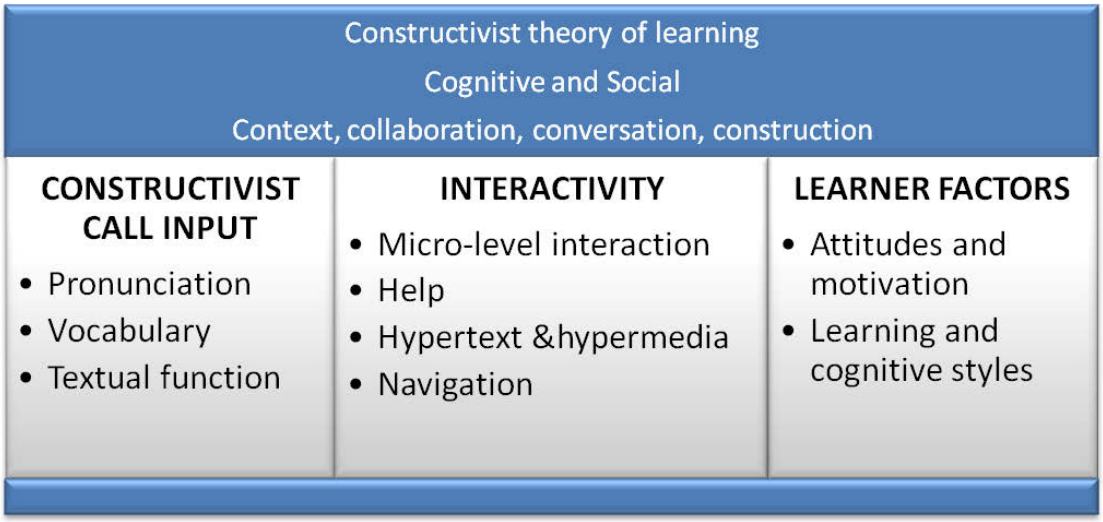

Figure 4: A Constructivist Framework for Computer-Assisted Language Learning Software Design (Alsofyani, 2008, p. 6)

This model illustrates the exchanges and interactions that occur within groups of learners. The opportunity to exchange ideas can also be considered to be motivating. Such a learning environment can foster the ability to develop both learning and critical thinking. This way of thinking can reinforce and augment the learning styles and knowledge bases of individual students. The role of the teacher, as mentioned, becomes more substantial. It requires more than simply providing information and knowledge (Jiajin, 2003).

This model places constructivism at the foundation of CALL. It is a theory that prepares students for later life. The structure of the model permits interaction between the learner and the learning community, which is comprised of the students and their teacher. They interact through cooperation in problem solving tasks or activities. This leads not only to the solution of the problem in question but also to the generation of new ideas. In this way the construction of knowledge is initiated (Jiajin, 2003). As they participate and interact, students can form and individualise their own capacity for interpretation and understanding of meaning. In this sense, learners' activities contribute to the acquisition of knowledge, while the teacher shares the process of learning equally with the students.

The constructivist model is comprised of three main components. These are language and culture, micro-level intervention, and learning factors. The model permits the exchange of ideas through collaboration and communication. In this manner, it can provide a classroom with an arrangement in which shy or reluctant students can express themselves effectively with little fear of making mistakes. They may consequently participate, contribute and express themselves more freely. The progress of the students can be more easily assessed, and their language mastery observed. In addition, working in this model, students learn independence in constructing knowledge and adopt critical thinking processes for solving learning problems. This is the ultimate objective for students who are exposed to this learning process through direct involvement and participation.

The significance of involving students in the construction of knowledge and learning is discussed by Duffy & Jonassen (1992). They maintain that cooperation between learners of different abilities and skills should be promoted in order to develop a common level of understanding and learning. The interaction and exchange of a wide range of ideas through shared input fosters critical thinking and creativity in learning. These are vital assets in the construction of new knowledge within the school as well as in the real world.

3.4 Participant teacher, participant classroom

A constructivist approach requires a teacher who has the ability to manage the learning process effectively in the classroom. Cooper (2007) describes what should be included in the activities of a teacher using constructivist-based teaching methods. He states that the constructivist teacher needs to bring four aspects of teaching into the classroom: the involvement of the learners in real life situations; an emphasis on the learner's perception and points of views; a variety of questions to provoke the learner's thoughts and thinking; and finally**,** Cooper places greater value on the process of thought than on the answer. Cooper is mainly interested in helping learners to engage with problems and issues, searching below the surface, and experimenting with different solutions or explanations. The teacher constructs meaning, which helps shape creative minds and students who are able to solve problems. The constructivist classroom in this sense is a place where many opportunities for discovery and experimentation can be found, often including challenging tasks of collaborative learning. The teacher is a fellow learner rather than a fact giver and drill master (Campbell, 2004).

A constructivist approach involves learning to learn. Schools are required to teach students to learn how to learn. The best method for learning a language, according to Brown (1994), is interactive teaching. Through interaction, students are presented with opportunities to use their own language alongside their newly introduced language. The following principles structure a theory of interaction in the language classroom (Brown, 1994):

1. *Automaticity*: this occurs when the focus is more on meaning and messages and not on the forms of the language and on the content of these forms, rather than the forms themselves. The learners can more easily proceed from controlled mode to automatic mode of processing. There will be a development of automatic mode of language processing.
2. *Intrinsic motivation*: The involvement of students with each other in the fulfilment of speech acts and self-actualisation will satisfy their inner motives. As students become more engaged in speech, they achieve acts of fulfilment and

can develop their own system of self-reward. This leads them to appreciate their own language competence.

3. *Strategy development*: Interaction entails competence in the use of strategic language in order to make certain decisions on how to say or write or interpret language, and be capable of replying when communication pathways are blocked. The spontaneity of interactive discourse requires the use of numerous strategies for the production and comprehension of the language.
4. *Risk-taking*: Interaction requires accepting a degree of risk of failing to produce the intended meaning, and of failing to interpret the intended meaning (on the part of either the addresser or the addressee).
5. *Language-culture connection*: The cultural loading of interactive speech as well as writing requires the language learners to be thoroughly involved in the culture of the language they wish to learn.
6. *Inter-language*: The complexity of interaction requires a long process of language development, with errors of production and comprehension, all of which form part of this development. The role of teachers' feedback is critical to the developmental process.
7. *Communicative competence*: All of the elements of communicative competence (grammatical, discursive, sociolinguistic, pragmatic, strategic) are involved in human interaction. They must all work together for successful communication to take place.

Using the above as a basis, it is clear the teacher must be capable of assuming different roles to lead the learners to communicate through language. A competent teacher who appreciates what interaction really consists of, will not adhere to the singular role of the traditional teaching process, but rather, will be prepared to adapt to any situation. The principles mentioned can also be achieved through using a computer. By using a computer students can interact with their teacher, peers, friends and even family members. So the computer in its own way harmonises with interactive teaching, although a teacher who believes in the significance of interaction as a backbone for learning is still necessary.

A teacher who believes that there are new innovations in the field of teaching can be effective in advancing language learning. Such a teacher will not regard students as vessels to be filled with knowledge, will not pretend to be the only source of knowledge, and will be skilled in applying new technology in the field with students in order to construct knowledge. This will assist students to open many doors to knowledge. Building on this knowledge will encourage the development of a learning society (Ryan & Cooper, 2001).

3.5 Positivism and post-positivism

Positivism is concerned with the methods that must be followed in order to organise the products of constructivism. Sill's (1968) definition of positivism states that objective knowledge is only possible through empirical research, which involves observing, measuring and experimenting. Positivism contributed to the rise of behavioural science, which maintains that behaviour can be explained on the basis of measureable empirical experiences and observations. While this logical positivist philosophy continues to have useful applications in a mixed methods study involving collection and analysis of quantifiable data, Jacobs & Farrell (2001) demonstrate the necessary paradigm shift that has occurred in education, from a positivist teacher-centred didactic approach, to an interactive communication and knowledge-creation-based post-positivist approach, which is much more consistent with the constructivist approach discussed in the previous section. The usefulness of logical positivism for this study is limited to its contribution to behaviourism and its advocacy of the collection and analysis of quantifiable empirical data, which is detailed in the following chapter on methodology.

3.6 Mixed methodology

In social sciences we study human kind, their behaviours, and their attitudes and the most suitable method or approach considered for this is the mixed methods approach, which include both quantitative and qualitative data collection. On one hand, educational investigations using quantitative research are designed to determine what should be studied through questioning, numerical data collection, estimates from the facts already known and analysis using statistical methodologies. On the other hand,

qualitative educational research places an emphasis on participant or research sample input. This input is usually derived from broad general questions for the purpose of collecting data in a verbal or textual form. This enables the qualitative researcher to describe and analyse the data in terms of general themes. In contrast to quantitative methodology, the investigative technique in qualitative research is subjective. However, it is sometimes possible to devise methods for quantifying subjective experiences, especially attitudes, by requiring participants to select numerical scores for quantitative variables designed to measure variation in attitudes. Such problems may thus be addressed through a mix of qualitative and quantitative methods, referred to as a mixed methodology (Creswell, 2005).

Both qualitative research and quantitative research use interviews, observations, and questions for primary data collection. To lessen the extent of various biases to which purely subjective methods are prone, Cresswell (2005) states that it is preferable for a researcher to use a mixed methodology (quantitative and qualitative) that will provide a balance between subjectivity and objectivity. He defines mixed methodology research designs as a procedure for collecting, analysing and merging quantitative and qualitative data findings into a single study to fully comprehend a research problem.

Employing constructivist theory has helped to formulate and design the research tools, both quantitative and qualitative, for this study as it attempts to investigate the most suitable methods for the learner to build knowledge using modern technology. This is based on constructivist theory, which places less emphasis on the teacher as a pivotal point for the education process. This theory focuses on the ability of the teacher to create a learning environment for students and also measures the extent to which the learner's external environment impacts on learning (Almukbil, 2004). It also examines the learner's ability to strengthen knowledge through research, discussion and negotiations by using modern technology. The research tools provide the means to attempt to answer the research questions through questionnaires and interview questions for the purpose of gathering information from a sample study. The questions in these research tools are focused on the creation of a learning space incorporating modern technology, and are therefore derived from constructivist theory.

The positivist paradigm imagines a world consisting of facts and theories that can either be falsified or verified through the testing of hypotheses. This implies that knowledge should not be passed on directly from the teacher to the learner. Knowledge should be constructed by the learner and then reconstructed as new information becomes available. While this is a post-positivist, constructivist position, I have drawn on the advantageous aspects of a positivist approach to the research in constructing a mixed methodology (Wallace, 2008). Teachers can try to create learning situations where learners can build their own knowledge through an active learning process. Quantitative and qualitative research and the mixed method approach is explained more fully in Chapter 4.

3.7 Conclusion

Constructivism as an educational philosophy provides a base for a post-positivist pedagogy that makes use of the computer as a powerful tool to achieve its aims. Computer-assisted language learning (CALL) is a widely used application of this theoretical paradigm in the teaching and learning of English. The theory of constructivism has assimilated modern technology to develop pedagogical methods and processes.

In Saudi Arabia, the influence of Western English speaking countries and societies has become substantially apparent. Initial attempts by teachers to utilise CALL have helped some students to become competent with using technological devices in language learning. The use of computers in the field of teaching is based on a post-positivist constructivist approach. The evaluation of these approaches has been conducted statistically using mixed methodologies, and is described in detail in the next chapter.

CHAPTER 4

METHODOLOGY

4.0 Introduction

An understanding of the theoretical and conceptual framework was provided in the previous chapter. In that chapter, constructivism was emphasized as an educational philosophy that provides a base for a post-positivist pedagogy in which the computer is used as a tool. To clarify this a constructivist model by Jiajin (2003) was also explained in the previous chapter. A constructivist perspective is given since the teachers in the sample study guide their students in learning through challenging activities, often based on real world experience. The Internet allows them access to this wider world and provides resources which can assist with learning English as a foreign language. Constructivism informs the methodology of this study through the design of questions for the questionnaire and interviews in order to obtain the objective with each question. The teacher's role as observer and facilitator is the focus of these questions, which attempt to obtain the observer's perspective on the student's role in education. It measures the attitudes and readiness of EFL teachers to implement CALL. The purpose of this research is dual: first to review the literature on the effectiveness of CALL for teaching English as a foreign language in various countries; then to survey and interview EFL teachers at the intermediate school level with respect to readiness for CALL, in order to provide a knowledge base from which to plan for its possible broader implementation in that setting. This chapter covers the following areas: mixed methods of quantitative and qualitative research tools; the questionnaire and interviews; validity and reliability; population and sampling procedures; data collection; limitations; data analysis; and ethical considerations.

The research addresses four questions:

1. What are the beliefs and attitudes of teachers in teaching English in Saudi Arabia?
2. How can the teachers adapt their current, traditional methods of teaching to include CALL in teaching English?
3. How can CALL be effectively implemented in the schools of Al Madina?
4. What are the constraints and barriers to implementation of CALL in Al Madina in Saudi Arabia?

Self-report survey and interview instruments were designed to gather data in order to make an informed assessment of the teachers' perceived need of and readiness for implementation of CALL in EFL classes at the intermediate school level.

4.0.1 Site selection

The site selection and the selection of the participants helped the researcher to focus on the research questions and supported the researcher's knowledge and aspects of the research sample. Recently, there has been substantial progress in the education sector in Al Madina, in terms of an increase in the number of educational institutions, the infrastructures supporting education and the implementation and application of computers and technology in education. There has been great interest in the schools in the potential for teaching English through CALL. As these developments are already underway in Al Madina, I was interested in studying the beliefs and attitudes of EFL teachers in that area to gauge their readiness to engage in computer assisted language learning alongside traditional face-to-face methods. Al Madina was also chosen as the focus of the study because, as a middle-sized city with a surrounding rural area, it was considered fairly demographically representative of the rest of the Kingdom. Al Madina is a major city in Saudi Arabia and many intermediate schools have specifically developed an English curriculum. It is located in the western part of Saudi Arabia and has particular circumstances with regard to the culture and beliefs of its inhabitants. The map of Saudi Arabia below shows the area targeted by the study, Al Madina (Medina). Conducting research associated with CALL in Al Madina could contribute to a possible

new paradigm and dimensions in building knowledge in circumstances where there is a dramatic rise in the number of educational institutions along with interest in integrating ICT for language learning. Also, Al Madina was chosen because it is the fourth largest city in Saudi Arabia and has government and private schools with Internet infrastructure for learning via the Internet. It has 180 EFL teachers at the third grade intermediate level (year 9) (Al Madina, Directory of Schools, 2010).

Figure 5: Map of Saudi Arabia – Medina is Al Medina

4.0.2 Selection of participants

EFL teachers were chosen as the sample for the study and this sample was focused on consistently. A systematic sampling method was chosen and hence can be considered representative of the EFL teacher population in Al Madina. Systematic sampling was chosen as it provided a way of obtaining a range of responses and avoided repetition within the sample. Random sampling could result in a single respondent answering multiple times and was therefore avoided. For this, the Ministry of Education in Saudi Arabia was contacted for a list of names and contacts for the schools. Later, the principals of these thirty schools were requested to communicate with EFL teachers, and all thirty responded. Given these results, the extent to which generalisations can be drawn regarding the situation in the rest of Saudi Arabia is a matter for speculation.

CALL is not readily available in Saudi Arabian schools, particularly so in the case of the study area of Al Madina. This had a significant impact on the selection of participants since the researcher had to be selective and develop a database of participants whether or not they had tried CALL. The researcher did not approach any teacher who did not have a CALL background because random sampling had been chosen in the study CALL is available only in some private schools. In public schools, teacher training programs have not yet integrated the use of educational technology. Therefore, teachers of English are not equipped with the skills and resources needed to enable them to reach their optimum potential as effective CALL practitioners. In addition, students in Al Madina not only lack proficiency in communicating in English, but also need to acquire a sound understanding of the context in which the English language is used. It is difficult for traditional methods of teaching to meet these needs, so CALL could provide students with a more effective method of learning the English language in a realistic context.

This study is designed to investigate whether teachers at the intermediate school level believe that teaching and learning English through the use of computers and the Internet is more effective, efficient and enjoyable than traditional methods. This study is important because its focus is on the third grade intermediate level only and no one has investigated EFL teachers' attitudes at this level previously. To meet the study objectives, an appropriate research methodology making use of mixed qualitative and quantitative methods appropriate to attitudinal surveys in the social science were adopted.

In this study, research was conducted using two qualitative and quantitative research tools. Questionnaires were administered to participants with a follow up interview to talk in-depth about the research problem and to further explore and clarify the questionnaire findings. Quantitative research has been identified by Creswell (2005) as an appropriate tool for setting objective and unbiased standards in research. The mixed method research design is a procedure for collecting, analysing and mixing both quantitative and qualitative research methods in a single study to understand a research problem (Creswell, 2008). Using both quantitative and qualitative methods in combination can produce data of a nature better suited to developing an understanding

of a cultural or attitudinal problem. In the research, for data collection a concurrent sampling of mixed method was adopted -. “concurrent sampling, in which quantitative probability and qualitative purposeful sampling are combined as independent sampling procedures or jointly” (Cresswell, 2009, p. 218). The major benefit of this kind of sampling is that separate data collection could be integrated into combined analysis and interpretation. However, this structure of mixed study does not make a clear distinction between the quantitative and qualitative phases.

For data analysis and validation procedures, the quantitative data were coded and themes were produced on the basis of qualitative data. In the later phase of the analysis, both types of data were compared and alternatively, quantitative data were also qualified. This helps to answer the fourth research question from a different perspective and helps to get more accurate results.

In this study, data were collected using both questionnaires and interviews. Questionnaires produce results with which to assess frequency tables and trends, while the semi-structured interviews provide the actual words of the participants, their opinions and different perspectives of the research problem (Creswell, 2008).

Research at the present time is becomingly increasingly interdisciplinary, complex and dynamic. So, many researchers need to complement one research method with another. They need a comprehensive understanding of mixed methods to help make communication easy, enhance collaboration, and to provide superior research. When researchers use mixed methods, they are able to tailor and customise their instruments to enable them to address their research questions in a manner that is appropriate to the kind of knowledge that is being sought and to the nature of the field that is being researched. Qualitative researchers are free to complement their work by use of quantitative methods, and quantitative researchers are free to use qualitative methods also to their advantage.

In order to use mixed methods effectively, researchers should bear in mind the characteristics of quantitative and qualitative research. The main characteristics of traditional quantitative research are deduction, confirmation, theory and hypothesis explanation, prediction, standardised data collection, and statistical analysis. The main characteristics of traditional qualitative research are induction, discovery, exploration, theory and hypothesis generation (Cohen et al, 2007).

“Mixed methods research is the process of incorporating both qualitative and quantitative research and methods in a research study” (Creswell, 2009, p. 204). Both qualitative and quantitative research are useful, but in some situations the qualitative approach will be more appropriate, while in other situations, a quantitative approach will be a better fit. In many situations, the researcher can put together insights and procedures from both approaches to achieve the best fit of methods to a particular research task. In this study, questionnaire and interview helps to answer the fourth research question. It provides a detailed belief about EFL teachers in Saudi Arabia in regard to CALL and implementation of this kind of technology in schools instead of traditional methods. It focuses on the advantage of CALL and at the same time it sheds a light on its disadvantages. It also helps to clarify the best method or approach that is effective. On the other hand the interviews discussed with the participants the depth of the constraints and barriers to implement CALL in the study area's schools. The mixed method of qualitative and quantitative approaches gave the researcher an opportunity to distribute a questionnaire among 60 EFL participants. The statistical processing using an SPSS program gives the result by numbers and figures to show the attitudes about these phenomena.

Researchers should collect data using strategic approaches and methods appropriate to the research task, so that the resulting mixture of qualitative and quantitative methods results in complementary strengths and mutually exclusive weaknesses. The aim of mixing the methods is to provide a more comprehensive and more validly tailored approach to that of studies that adopt a single methodology.

4.1 The mixed methods approach to studying teachers' attitudes to the implementation of CALL

The advantages of mixed methods research are that words, pictures and narrative can be used to add meaning to numbers. Numbers can be used to add precision to words, pictures and narratives. Narratives can provide quantitative and qualitative research strengths. A researcher can generate and test a grounded theory and can answer a broader and more complete range of research questions because the researcher is not confined to a single method. A researcher can use the strengths of an additional method to overcome the weaknesses in another method by using both in a research study. The mixed method approach can provide stronger evidence for a conclusion through convergence and corroboration of the CALL data findings and can add insights and understanding that might be missed when only a single method is used. Use of mixed methods may increase the generalisability of results. Mixed methods may produce a wider range of knowledge about the implementation of CALL in the study area and thus may better inform theory and practice. Through the use of questionnaires, this research gains statistical data regarding the prevalence of attitudes towards the implantation of CALL in the study area. This data is further informed by the narrative evidence gathered through interviews, which add depth to the information gathered.

The disadvantages of mixed methods research occur because it can be difficult for a single researcher to carry out qualitative and quantitative research. The researcher has to learn about multiple methods and understand how to mix them appropriately. It may be more expensive and more time consuming (Johnson & Onwuegbuzie, 2004). For this study, the collection of data also involved travel to a number of schools within Al Madina, which is time consuming. Further difficulties are linked to the Islamic traditions of the region, which affected the conduct of interviews of female teachers in the study area. At the same time, the study has limited time to collect data and any extra time taken to collect more data could adversely affect the study timetable.

The mixed method approach employed in this study has various positive features and these can be summarised as follows:

1. Quantitative methods reflect realism, objectivity, causal explanation and truth.
2. Qualitative methods advocate and emphasise interpretive knowledge.

The mixed method approach advocated by Creswell is especially useful where one type of data is insufficient to shed light on an issue or problem. Mixed methods can assist by using quantitative methods to test qualitative study results (Gay, Mills, & Airasian, 2009).

In this study of teachers in Al Madina, a questionnaire containing 20 questions was distributed to 60 EFL teachers, followed by interviews including seven questions about the implementation of CALL and the effectiveness of using computers at the preparatory and third grade level. A summary of the overview of the research process in the 35 intermediate level schools visited is provided in the following figure:

Table 1: Overview of the research process

Phase	Goal	Research method	Description
1	• To assess the teachers' attitudes towards updating their methods by using CALL • To investigate the potential of the Al Madina schools for implementation of CALL.	Questionnaire	a) Designing a questionnaire related to the objective of the study and giving the participants a chance to choose what they are satisfied with. b) Chi-squared for data analysis
2	• To investigate the level of support among teachers for the implementation of CALL • To assess attitudes towards CALL in greater depth and relate them to learning theories.	Semi-structured Interview	a) Verbal answering by recording on tape and transcribing the verbal data into written data b) Frequency tables for data analysis.

The combination of quantitative and qualitative research is based on the strong relationship between them. The link between these two forms of research is used to gain understanding, providing a viewpoint for research which cannot be attained through one method alone (Gay et al., 2009). Such mixed methods allow the culture of the people to be taken into account and allow analysis of the reflections and responses of English teachers' perspectives on the implementation and use of CALL. The survey questionnaire provides a broad way to collect data and the interviews explore these issues in greater depth, collecting detailed data regarding teachers' willingness to make the transition from traditional methods to the proposed new ones. The research seeks to analyse attitudinal, socioeconomic and cultural factors which may influence the

successful implementation of CALL in Al Madina and interpret the aptitude and desire of teachers to introduce CALL to the classroom.

4.1.1 Teachers' attitudes to the implementation of CALL, and the qualitative method

Qualitative data collection allows for the interpretation and analysis of comprehensive data. This requires that the researcher generate new hypotheses in response to the data collected, sometimes discarding those formulated prior to the commencement of data collection, which may be about problems that are considered likely to be revealed in the process context of the investigation—"foreshadowed problems" (Malinowski, 1992, cited in Gay et al., 2009, p. 7).

Qualitative research differs from quantitative research in two ways. Firstly, qualitative data collection deals with collecting narrative and visual data over an extended period of time. Secondly, qualitative data collection occurs in a natural manner. These two features have led to a recent increase in the use of qualitative research methods in education (Malinowski, 1992, cited in Gay et al).

The qualitative method explores attitudes, behaviour and experiences through methods such as interviewing, focus groups and observation. The 25 EFL teacher interviews were recorded and transcribed for data analysis. Body language such as gestures, intonation, expressions and other non-verbal actions were also noted. The qualitative method is concerned with understanding other people's perspectives and aims to gather in-depth opinions from respondents about their experiences, meaning and purposes and thereby provide a greater richness of data. Qualitative research is used to cover complex areas of language learning such as culture and social phenomena (Murray, 2008). It provides an in-depth investigation into why implementation of CALL in Al Madina may or may not work, based on the attitudes and opinions expressed by the teachers in the interview, and on their insights into how CALL will affect both the students' language learning processes and the teachers' instructional processes.

4.1.2 Teachers' attitudes to the implementation of CALL, and the quantitative method

Quantitative research employs variables to describe what is actually happening. The variable may be a construct or property in which the researcher is interested, such as age or gender (Cohen, Manion & Morrison, 2007). A quantitative variable may change in degree and amount. To investigate the possibility of implementing CALL in Saudi Arabian schools, variables such as age and gender were taken into account, using population and sampling procedures covering gender, age and educational level. In this study, the questionnaire covered 30 men and 30 women, with ages ranging from 24 to 55 years, while the interviews covered 15 men and 10 women in the same age bracket. All participants have a Bachelor of Education specialising in English, which is the requirement for teaching English in Saudi Arabia. Several participants also have Masters qualifications (see Table 2, p. 96).

This method provides definitive data that can be modelled statistically. The method also can help to reduce the researcher's bias, provided that the results are interpreted dispassionately (Wiersma, 2000). Questionnaires can be administered to a sample population and the statistics generated from these results can be taken as being representative of a larger population, provided that the limitations of the sampling technique are accounted for (Hatch, 2002; Wiersma, 2000).

The diagram below gives a timeline of stages in the study.

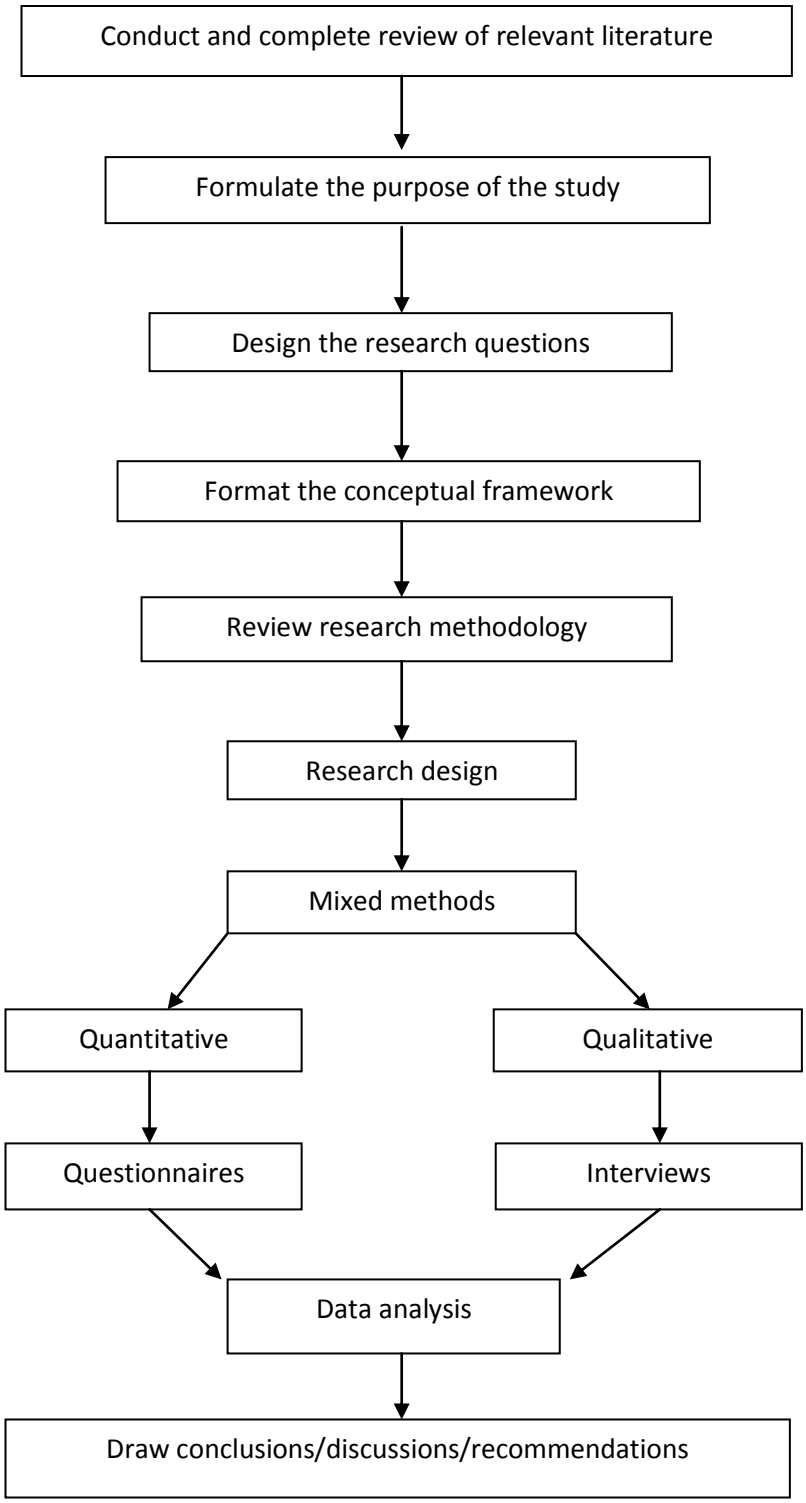

Figure 6: The research design which incorporates the steps required to answer the research questions

This diagram provides an extensive framework of the stages of research conducted by applying mixed methods. The purpose of the study was determined through critical examination of the available literature in the study area. Once there were specified aims for the study, appropriate research questions were set to formulate the conceptual framework. These were further based upon a theoretical understanding of the mixed methods research methodology and a suitable research design was selected, as explained previously. Finally, quantitative and qualitative data was collected by using questionnaire and interview tools, respectively. Data analysis was carried out by applying the data transformation approach to the mixed methods, resulting in the conclusions, discussions and recommendations.

4.2 The research tools

This study employed two specific tools. These were a questionnaire and an interview schedule with semi-structured questions, to allow for further probing and to provide the participants with an opportunity to clarify issues where necessary. During pre-testing comments received from participants were also taken into account and served as useful inputs. A description of the research instruments follows.

4.2.1 The questionnaire

One of the benefits of questionnaires is that the researcher does not have to be present at the time of data collection. Questionnaires are useful tools for gathering structured and numerical data (Wilson & Mclean, 1994). An additional benefit of using questionnaires is that they are easy to analyse. A questionnaire is a "form" used in a survey, which participants in a study complete and return to the researcher (Creswell, 2005). Participants mark choices in answer to questions and supply basic personal or demographic information about themselves. When designing a questionnaire, the researcher must pay attention to a number of issues, including ethical issues. When planning the questionnaire the researcher must anticipate the kind of answers he or she is likely to receive. This process includes clarifying the purpose and aim of the questionnaire as well as identifying and itemising minor topics covered by the research.

There are various types of questionnaires which can be used, although questionnaires with open-ended questions are common. Closed questions have the benefit of limiting the answers that the respondents provide. Other types of questionnaires contain multiple choice questions, rating scales and matrix questions.

The questionnaire used in this study employed matrix questions as these are economical in terms of space in a questionnaire. Matrix questions were suitable options for the society in the study area of Al Madina. This technique minimises ethical dilemmas for the EFL participants in the schools, confining responses to specific choices. Confidentiality and anonymity were maintained by substituting names with coded numbers, thus keeping the researcher blind to the identity of the particular respondent. Participants were assured of strict confidentiality. The questionnaire was designed in such a manner that questions were easy to answer. The questionnaire was reviewed prior to use to check for face-validity. It was established by the researcher that the participants found the questionnaire comprehensible and the response to these questions led towards responses to the research questions. The questionnaire was piloted to seven EFL teachers to make sure that questions had met validity and reliability. Their feedback was sought regarding whether or not questions were clear and unambiguous, including enquiry into what they thought the questions meant, to determine the reliability of interpretation. The small pilot group was also asked what they thought the questions were measuring, in order to assess face validity. The participants were all satisfied.

The reliability of the questionnaire was an important element in determining its distribution to the participants. The researcher, by himself, prepared the questionnaire and distributed it to 60 EFL teachers in the study area. The same questionnaire was provided to all participants following consultation with the MoE in Saudi Arabia. The researcher visited the participating schools to personally deliver the questionnaire to male teachers. The questionnaire was passed to female respondents through their principals. The responses of participants were analysed statistically through SPSS.

4.2.2 Questionnaire objectives

The matrix questionnaire was designed to provide the primary information necessary for the study. It included 20 items, each with five responses arranged on a Likert scale. They ranged from "strongly disagree" to "strongly agree" (Cohen et al., 2007, p. 331). The matrix form allowed the participants to consider various statements about computer-assisted language learning, its effectiveness for learning in general, and particularly for acquiring a second language. Each item was designed to measure some aspect of relevance to the objectives of the study. The questionnaire was divided into sub-groups according to the various issues to be covered. The following is a description of each item:

A. The status of Information Technology in Saudi schools

1. Saudi Arabia is technologically advanced in teaching English.
2. In the Al Madina area, the level of knowledge about the basics of computer use, and the Internet in particular, is at the level required.
3. Students in general have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching.
4. The efficacy and quality of Internet provided by the Saudi Arabia government is satisfactory for utilising online learning.

B. Beliefs and attitudes in regard to ICT and teaching English

5. Computers and the Internet can be sources of knowledge and, in particular, a medium for teaching English.
6. I would welcome the idea of implementing the Internet in teaching English, especially at intermediate school level.
7. Information about the implementation of the Internet at the intermediate school level is available.
8. Online teaching of English will help solve the problems faced by Saudi students.
9. A school ICT system is for those schools, students and societies that are rated as upper class.

C. Teachers' current competencies and needs

10. I am familiar with the use of online language teaching and learning at the intermediate school level.
11. I am aware of the type and variety of interactive interaction available in schools teaching English via the computer.
12. The Saudi Government should make a more serious commitment towards providing a better online learning system.
13. Teachers in general will find online systems helpful for teaching English to their students.

D. Pedagogy and resources

14. Experts should investigate teaching via the computer as an economical replacement to face-to-face teaching?
15. Students will benefit from being taught English via the computer.
16. Online schooling should replace face-to-face teaching.

E. Effectiveness of computers and Internet in teaching and learning English

17. The Internet will be successful in providing the appropriate level of English tuition for schools at the intermediate level.
18. Learning English via the computer can bring improvements because of the level of interaction it offers.
19. Online schooling can help to form a link between 'remote' students and English language teachers.
20. School electronic devices provide an entertaining way of teaching and learning English.

4.2.3 The second research tool: the interview

An interview is an exchange of opinion between two or more individuals on a matter of interest (Kvale, 1996). Interviews provide the researcher with a method of acquiring and using knowledge that centres on information that is exchanged and also enables participants to talk about their own situations and viewpoints. Conducting interviews is an essential process for many researchers who employ a qualitative methodology

(Kvale, 1996). Interviews serve three specific purposes: (a) they are a method of gaining information that directly relates to the objectives of the research; (b) interviews may also be used to test an existing hypothesis or as a tool to suggest the use of a new hypothesis; (c) the third purpose of an interview is the capacity to be employed to complement other methods in a research project (Cohen et al., 2007) and to gather information that has direct bearing on the research objectives. In this study, interview as a tool helps to attain information from the participants to establish a significant relationship between research objectives, questions and analysis. The interviews answered the research questions in more depth and provided the participants with a chance to talk about different opinions and attitudes to CALL in the education field, particularly in relation to the teaching of English in the study area.

In terms of the actual steps followed in the process of a structured interview, the researcher asks a question from an interview schedule, listens to answers or observes behaviour, and records participant's responses. Interviews take place when researchers ask one or more participants general, open-ended questions and record their answers. One of the disadvantages for the implementation of interviews is the difficulty in conducting female interviews in a country like Saudi Arabia, which applies Islamic traditions to daily life, limiting contact between male and female members of society. This made interviews more difficult, as some of the female participants would only answer briefly, causing the interview to end quickly. These interviews, conducted over telephone, also deprived the researcher of the chance to observe the body language of the respondents. The interview tool remains reliable, however, as the same questions were asked of all participants, male or female, and they were provided with a chance to answer without any external influence. They were given full freedom to discuss all questions and answers.

The key fundamentals of a qualitative research interview should accomplish the following:

- Comprehend the primary aspects of the life of the participant.
- Provide a specific description as opposed to a general description.
- Be flexibly open to the use of new data rather than being opposed to its introduction.

- Acknowledge that ambiguities and contradictions may be relevant if they represent reality (Kvale, 1996).

There are two common styles of interviewing suitable for use in research. The structured interview contains a specific set of questions that aims to generate desired responses. Consequently the researcher must design the questions so that they elicit the intended information. If a researcher requires more flexibility, using an unstructured interview can be an option. An unstructured interview is similar to a conversation in that it allows the interviewer to use information that may be available at the time that the interview is conducted as opposed to knowledge that is gained from predetermined questions (Gay et al., 2009). A semi-structured interview incorporates aspects of both of these styles.

A semi-structured interview was designed for the purposes of this study. Seven questions were designed in order to clarify the perceptions of the interviewees on the effectiveness of CALL.

1. Do you think it necessary to have a computer or a laptop in your classroom? Why or why not?
2. Are you, as English teachers in your region, competent to use CALL in teaching English? What makes you think so?
3. Would you use computers to teach English in your class? Why or why not?
4. Should the English teachers be trained to teach using computers? Justify.
5. Have you ever taught English using computers? If yes, please share some positive as well as negative experiences.
6. Would it be more effective to teach English using computers compared to the traditional lecture method? Why or why not?
7. What other advantages/disadvantages do you see in using computers to teach English?

The interviews using these seven questions were conducted to ascertain and discuss how it may be possible to shift from the traditional teaching method to the modern method of language teaching of using computer technology. Fifteen male EFL teachers

were visited for face-to-face interviews in their schools and the answers to the seven questions asked of the teachers were recorded.

As stated previously, the Ministry of Education supported the research and provided the schools' contact numbers. From the Ministry of Education building, female school principals were contacted and the interviews with the female EFL teachers were arranged by appointment. The systematic sampling method was used to select ten different female EFL teachers. The female school principals were very cooperative and assisted in facilitating the interviews. When one teacher refused to have a recorded interview, the principal was especially helpful in finding a replacement.

All the interviews were recorded and later transcribed. All information offered in response to the questions in the interviews was then tabulated. All the procedures in the collection of data were conducted under the authority of the Ministry of Education (MOE).

4.2.4 Interview limitations

No difficulties were encountered when conducting the interviews with the male participants. Some difficulties were encountered with the interviews of the 10 female EFL teachers because the Saudi educational system has separate schools for boys and girls, with neither sex being permitted to visit the opposite sexes' schools (Ministry of Education, 2008). The recorded interviews undertaken with female teachers were therefore conducted via telephone. It was quite difficult to record the responses over the telephone. The schools' timetables and the participants' schedules were also relevant constraints. It was possible to overcome these problems by being in constant communication with the school officials and the participants and arranging follow-ups to validate and clarify data. This strategy facilitated the smooth conduct of the interviews and data gathering.

The fact that there is no co-educational system in Saudi Arabia is one of the most important education policies in Saudi Arabia. The government maintains this policy at all education levels: primary; intermediate; secondary; and tertiary. Because of this policy it was impossible to conduct the interviews with female teachers face-to-face. Recording telephone interviews with the female teachers was considered the best way to address the problem of this circumstance.

4.2.5 Reliability and validity of selected tools

For a questionnaire to be reliable, the content and length must be designed to suit the researcher's targeted sample (Silverman, 1993). To achieve this, a sample of seven EFL teachers was chosen to pilot in the questionnaire. They were asked to identify any problems they had in interpreting and completing the questionnaire, including ambiguities. No problems were encountered by the pilot group in interpreting the questionnaire and no ambiguities were encountered. The feedback was taken into consideration in the production of the final questionnaire document. All these participants found the questions to be clear and understandable. The reliability of an interview can be increased by making the content of the interview more structured while retaining the same format and sequence of words (Silverman, 1993). Methods by which an interview can be made more reliable include interview piloting; training the interviewer; and using closed questions. A research study is reliable if it is dependable and yields the same results when it is repeated in a different context using similar participants (Cohen et al., 2007). A pilot test of the interview questions was done by asking two EFL teachers and checking for ambiguities and if they had any problems with interpreting the questions. No problems were encountered.

It is the validity of a questionnaire that determines its value (Winter, 2000 cited in Cohen et al., 2007). Validity can be achieved through the depth, level of richness and scope of the data as well as the participants involved in the study. There should be a direct link between the objectives of the study and the content of the questionnaire and semi-structured interview that enables the study to yield data that is meaningful in terms of the objectives the study sets out to address. In this study, questions were asked that directly related to teachers' beliefs and attitudes to all aspects of the four research

questions. Questionnaires and interview tools are designed with a view to achieving these objectives, resulting in an outcome of findings which can be objectives generalised within the parameters of the population from which the study sample is drawn. In dealing with quantitative data, the validity of the data can be enhanced by using a representative sample and by use of suitable instruments (for example, a questionnaire) as well as appropriate statistical treatment of the data. To achieve the objectives of this study, a representative sample of the 180 EFL teachers at the third grade intermediate level was chosen by random sample to answer a questionnaire (Al Madina, Directory of Schools, 2010).

The use of previously standardised instruments is one way of enhancing reliability and validity, but may not do so if the previously standardised instruments chosen have not been standardised for the particular circumstances in which the study is carried out (for example, for language and for cultural factors) or are such that they cannot be validly applied to the particular research problem under investigation. For these reasons, the researcher designed new research instruments specific to the problems and setting of this study.

The validity of the interview can be used as an important quality control mechanism as it is in the service of validity that the researcher endeavours to carefully formulate questions in a manner that will enable the participants to offer responses that help to address the research questions (Cohen et al., 2007). One way to ensure the validity of an interview is to compare the interview or questionnaire with a standardised research tool (one with validity that has been already established). When standardised instruments are not used, effort must be invested in the minimisation of researcher bias. Given that no standardised research tools were available that specifically addressed the objectives of this study in its Al Madina context, it was necessary to design original research instruments relevant to the task, thus opening the possibility of researcher bias in the measurement and interpretation of the data. Minimisation of this bias was an ongoing consideration in the mind of the researcher throughout the course of the study. A systematic sampling method was applied to reduce sampling error. Supervisor input was sought when interpreting the data, including the chi-squared analysis, to obtain an external perspective on the limitations of the findings, and as a safeguard against the

tendency to extrapolate beyond the sample population and to over-interpret the findings in a fashion biased towards support of the study objectives.

A questionnaire can be validated in many ways, but the following must also be considered in this process:

a) The level to which a certain topic is important to the respondent
b) The level to which the anonymity of the respondent has been respected and taken into account (Burns, 1997).

During the pre-test phase of the study, the respondents were asked about their interest on the topic of CALL. They were assured of the confidentiality of their opinions. The respondents reported that they believed that research was of relevance to emerging dimensions of their teaching in Al Madina. The validity of the research tools was considered in the preparation for the data collection in consultation with my then supervisor David Cole.

4.3 Population and sampling procedure

The school system in Al Madina is not based on coeducation (Al Ghamdi et al., 2005) but has separate schools for both boys and girls. According to the Central Department of Statistics and Information, the Al Madina area had a total population of 1,614,644, with 24% of this population of non-Saudi backgrounds (CDSI, 2007). It is an area of growth, with a projected population of 2,458,267 people by 2025 (CDSI, 2013). In the study area of the Al Madina Directory of Schools, there are approximately 172 primary, 99 intermediate and 63 secondary schools (Al Madina Directory of Schools, 2010). There are 180 EFL teachers at the third grade intermediate level (equivalent to Australian Year 9, student age 14-15 years). The current research focused on third grade intermediate level EFL teachers from 35 different schools.

A systematic sampling method was used to choose the sample and support was obtained from the Ministry of Education by the provision of the map, the 2010 directory of schools' locations, contact numbers and the Ministry helped with school visits and communication. The schools for boys were visited to distribute the questionnaires and

conduct the interviews and recording for the purposes of the study. The principals of female schools were contacted, the questionnaires were distributed among the female teachers, the interviews were conducted by telephone, recorded with permission, and responses were accepted and noted. Three male EFL teachers refused to participate without stating their reasons, but they were replaced by using the same method without affecting the procedure of data collection for the study.

The 60 teachers surveyed in this study were 30 male and 30 female EFL teachers teaching at the intermediate third grade level. The sample for the interview was 25 teachers consisting of 15 male and 10 female participants. I selected only teachers teaching at this level to ensure further unity in the collection of data. The interviewees gave their opinion about different students but all in connection with the same curriculum.

The population and sampling procedures help to increase knowledge of the site selection and selection of participants to choose the EFL teachers from the research study area. It also contributes to recognition of the demography of the study area. It was a useful guide to the researcher when doing systematic random sampling using the MoE database of schools. At the same time it enabled the researcher to distribute the questionnaire among EFL teachers and conduct interview.

4.3.1 Sampling

After the pilot testing, a systematic sampling method followed to choose 60 EFL teachers from intermediate level schools (see appendix 5, page 199) in Al Madina. Support was obtained from the Ministry of Education and they provided a 2010 map or directory of school locations and telephone numbers. The questionnaires were then administered to the schools as target respondents. Approximately two or three schools were visited every day during the first semester of 2010 to conduct the survey. The teachers were given the survey questionnaire together with a pencil. This gave them the chance to answer all the questions and they were also given the opportunity and privilege to withdraw at any time. The period covered was three months to finish all 60 questionnaires, after which a completion letter was received informing them that the

questionnaire section was completed and that no further visit to the school would be allowed without first seeking permission (see Appendix Nine, page 208).

A systematic sampling approach was adopted to choose the participants for this study. This approach was considered useful, simple and easy to confirm by the reader (Abu Saleh & Avaz, 1988). In the sample, there are approximately 90 male and 90 female EFL teachers. For the questionnaire, using the systematic sampling approach, two groups, each of 30 males and 30 females were obtained. To arrive at this number, the total sample of 90 was divided by 30 which gave three. A random sampling was then done where two were selected from one to three. Then the second, fifth, eight, eleventh, fourteenth and seventeenth names were selected, and so on at intervals of three until 30 participants were selected. Although this procedure was observed, those identified respondents were given the option to voluntarily accept or reject their role as participants. The same procedure was observed for the selection of male and female samples extracted from the Al Madina Census Directory 2010. The table below displays the sampling frame.

Table 2: Sample Description

Research tools	**Gender**		**Age**			**Qualification**		**Total**
	M	F	24-35	36-42	43-55	BA	MA	
Questionnaire	30	30	39	13	8	58	2	60
Interview	15	10	13	7	5	24	1	25

Of the respondents, two women had masters' degrees, while 58 teachers (both male and female) had bachelor degrees in education, specialising in teaching English, as their teaching qualification. In the interview, the same method of systematic sampling was used. There were 25 interviewees, of these, 15 were male and 10 were female. Of these 25 teachers, 24 had a bachelor degree in education specialising in English. One female EFL teacher had a master's degree in TESOL. Referring to the above table, we can observe that the 15 male teacher-interviewees had the following experience teaching English: seven of them have 7-10 years of experience teaching English. On the other hand, only two of the female teacher-interviewees had 7-10 years of experience teaching English. Four EFL male teachers had 14 years of experience while four female

teachers had the same level of experience. Four EFL male teachers and three female teachers had more than 16 years of experience teaching English. Only one female teacher had less than five years of English teaching experience.

The names, along with the numbers, were recorded on a master sheet. A number was assigned to each survey packet. This number corresponded to a name on the master sheet. The above-mentioned technique was used for follow-up purposes where necessary. This procedure made it easy to establish those who responded to the questionnaire and those who did not. However, to reassure the subjects of their confidentiality, only the numbers were shown on the survey packets and not the names. The names were withheld from others and only the researcher had access to these. All the participants in the study have at least a bachelor degree in education, specialising in English. The Ministry of Education (MOE) in Al Madina provided the necessary contact numbers for the schools which were to participate in the research study. I visited the boys' schools myself, but obtained help from the school principals for the female ones. With permission from the Ministry of Education I visited 35 schools in Al Madina to reach the 60 teachers for the questionnaire and 25 for the interview and other data gathering procedures for this study.

4.4 Procedures for data collection

In order to gather the numerical data, a structured questionnaire was used. The respondents were 60 intermediate level English teachers. In order to increase the reliability and validity of the questionnaires, the survey data were collected by a procedure, outlined above, that facilitated anonymity and confidentiality, in order to make it easier for the participants to complete the questionnaire honestly and accurately. A semi-structured interview was used for 25 intermediate teachers. The interview questions asked teachers their opinions about ICT and whether they were willing to use ICT. It also questioned their perceptions of CALL. The interviews were all administered by the sole researcher, enabling substantial procedural reliability. The exception to this was the need to conduct the interviews with the female teachers by telephone due to regulations prohibiting their face-to-face conduct. The face-to-face interviews with the male teachers had already been commenced prior to the researcher's realisation of the

barrier to face-to-face interviews with the female teachers. This had not been anticipated at the outset of the study, or else all of the interviews would have been conducted by telephone, in order to standardise data interview procedures for both participant genders. As some face-to-face interviews with the men had already been conducted, it was decided to proceed that way through all the male teacher interviews. On average, the interviews went for two and half hours for male and almost one hour for female respondents. In the Islamic culture of Medina, when men talk to men they can take their time without hesitation. However, when women talk to men, they are embarrassed. The researcher was focusing on the interview questions and obtained the core ideas which helped to answer the research question. There is a limited effect on the results as the researcher remained focused on the questions to help obtain data without influencing the participants.

The survey packets included an information statement, consent letters and a cover letter in both Arabic and English. However, the survey was in Arabic. Next, the Ministry of Education in Saudi Arabia was contacted and approval was obtained on 18 January 2010. Two months later, 60 surveys were distributed among the participants, who were asked to complete the survey. I delivered the surveys to the EFL teachers and collected them from each school with the support of the principals. I also distributed 60 questionnaires to 60 EFL teachers and made sure that all the completed questionnaires were collected.

The survey was followed by face-to-face interviews with the male teachers conducted when visiting the school. The female teachers were interviewed by telephone. The same sampling procedure used to choose the first 60 participants was used to choose the 25 participants for the interview, 10 female and 15 male.

4.5 Data analysis

Quantitative data requires statistical analysis to provide results which are valid and reliable. Statistics are “a set of procedures for describing, synthesising, analysing, and interpreting quantitative data” (Gay et al., 2006, p. 301). In quantitative data analysis, the researcher uses “statistical analysis” to describe trends, compare group differences

or relate variables, and interpret and compare results with prior predictions and past research (Creswell, 2005, p. 55).

Frequency is related to the number of times an occurrence takes place. In descriptive statistics, frequency denotes the number of occurrences of each value of a variable (Gay et al., 2009). Tabulation and coding procedures are also important statistical methods. Tabulation is the process through which data are organised systematically. When dealing with comparisons within subgroups in analyses, the scores should be tabulated for each subgroup. Once the scores have been tabulated, descriptive statistics can be used to summarise the data. Graphic representation of the data may be presented as well. This is important because the way the data have been distributed can influence the choice that the researcher makes in descriptive statistics. Among the different methods of data representation and graphing, constructing a frequency polygon is the most common method. Other methods of displaying data are bar graphs, scatter plots, pie charts as well as stem-and-leaf charts (Gay et al., 2009). Both bar and pie charts are used to display frequency data in Chapter 5 of this study.

It was found useful to apply interpretative analysis to the data yield (Young, 2004). In an endeavour to further economise the interpretative process I utilised various mechanisms suggested by Denzin and Lincoln (2003). The basic question of the study was defined as: "What is the attitude of teachers towards using computers for English instruction?" Critical scrutiny and consideration of relevant contemporary viewpoints were provided in the literature review so as to ascertain prior conceptions and construct a theoretical working framework. Data were then collected from the field by way of questionnaire and interview. The data have been subsequently categorised and sorted, then tabulated and deconstructed graphically and statistically. The results were then amalgamated and compared with the findings and opinions from the literature reviewed with respect to the working theoretical framework of my research. This provided me with the means to achieve valid and reasoned conclusions that could be applied to the Saudi Arabian context. An additional aspect of this research focuses on the teachers' attitude towards implementation of CALL in the Al Madina community and the effect of socio-economic factors in spreading knowledge throughout the society and the teachers and students of Al Madina.

A semi-structured interview was conducted with 25 intermediate English teachers in the selected region. The interviews provided data on the teachers' current attitudes. To validate the data collected from the interviews, the interview data were compared with the data from the questionnaire. The reliability of the data collection was further ensured by carefully scheduling the interviews, and making extended use of questions that enabled the respondents to demonstrate their own ways of looking at the issue (Silverman, 1993). The questionnaire contained 20 items that assisted in gathering the data required to understand the effectiveness of the students as well as teachers in the implementation of CALL. For in-depth, qualitative material, the EFL teachers in Al Madina were also interviewed about their attitudes towards and perceptions of CALL.

Qualitative data analysis can be defined as the organisation and explanation of the data. It focuses on the participants' understanding of the situation (Cohen et al., 2007). The organisation of the data needs to be dependable and accurate and lead to findings that will prove robust in the face of critical efforts at refutation (Gay et al., 2009). Although there is more than one definitive way of analysing qualitative data, the important point is that the method used for data analysis should fit the purpose of the research (Gay et al., 2009).

In addition to the above processes, special attention was given to analytic induction. In analytic induction, the data are scanned in order to discover meaningful relationships between the data categories and make summaries based on the data which has been examined, and refine and modify them where necessary (Cohen et al., 2007). Therefore, scanning, summarising and analysing were used in the research. In addition to the above, this research into attitudes, levels of knowledge and other perceptions potentially influencing the implementation of CALL in Saudi Arabian schools requires constant comparison of the obtained data with the existing data. Therefore, if the data derived from the study challenge the existing categories or theories, these explanations must be modified until all the data are fully accommodated by the new explanations that are formulated (Cohen et al., 2007). The data from this study adds to the information available to the stakeholders.

The Statistical Package for the Social Sciences (SPSS) program was used for data analysis of the questionnaire responses. This software uses descriptive and statistical analysis according to replicated tables. The numerical coding for the responses were derived from the Likert scale reflecting the intensity of agreement or disagreement as response alternatives, managed by participants rating responses as a minimum of one (strongly agree) to a maximum of five (strongly disagree). The data collected from the interview was analysed and interpreted by classifying, categorising and ordering the units of meaning (Cohen et al., 2007), and the final data were used to test the hypothesis of the research using the Chi-Squared method applied to a frequency table. The data analysis was conducted on both the interview and the questionnaire results, inductively and deductively, so as to compare the relevant concepts and issues arising in the context of this dual approach.

4.6 Ethical considerations

Prior to distributing the survey instruments, ethics approval was sought from the University of Technology Sydney Ethics Committee. Trust between a researcher and the participants of the study is important if the research is to yield results from which any valid conclusions can be drawn (Gay et al., 2009). Without such trust, and in situations where participants are under duress, meaningful interpretation of the findings is not possible, especially in qualitative research. Participants also need to be protected from harm, and it must be ensured that they are taking part in the research willingly (Gay et al., 2009).

The privacy of the respondents was respected in regard to the questionnaires. The procedure by which this was achieved has been outlined in the previous section of this chapter. This procedure ensured participants' responses to the questionnaire were chosen willingly rather than under threat of exposure, punishment, adverse consequences, actual or threatened, to coerce them into responding in a particular way or measure (Cohen et al., 2007).

I was granted ethics approval and received a clearance letter from the Human Research Ethics Committee on 19 July 2010 with issue number 2009-358A. I then submitted my supervisor's letter to the Saudi Arabian Cultural Mission in Canberra. Following this, I received permission from the Ministry of Education in Saudi Arabia to visit the Al Madina schools, collect data and meet the teachers for the purposes of the study. This permission was essential. In Saudi Arabia, Islam is practised in people's daily lives and the population has strongly held beliefs within their Islamic culture and heritage. Such respectful procedure is considered culturally necessary and appropriate, in keeping with Islamic practice. For cultural reasons, it was necessary to conduct the interviews with the female participants by telephone. All the participants received a consent form and were given the option to participate or refuse to participate without having to provide a reason. The questionnaires were prepared in two copies: one in Arabic, and one in English. The participants were able to choose whichever one they preferred. I also obtained consent from the interview participants to record their interviews. The survey participants were offered the option of completing the questionnaire alone in their rooms or in the presence of their friends.

4.7 Limitations

One substantial limitation of the study was that the interviews with the female respondents could not be conducted privately via mobile phones, nor could they be recorded, due to prohibitive cultural factors. As a result, the researcher was not able to collect as detailed information from female respondent as from male respondents. The lack of extensive literature on applications of CALL in Arab societies meant that the research was breaking new ground, but also meant that cultural sensitivity in design and administration of the research needed to be carefully considered, without an established knowledge base to draw on, accumulated from prior work in the Arab context.

4.8 Conclusion

I have discussed different research methods in this chapter, focusing on the mixed method of research, which was found to be the most appropriate for this study. I discussed both qualitative and quantitative methods of ascertaining teachers' attitudes to the implementation of CALL and the research tools used, which were questionnaire and interview and their reliability and validity through piloting the study. I have outlined questionnaire objectives and population and sampling procedures. In this chapter I have also discussed procedures used for data collection and analysis. Ethical considerations were also discussed. The next chapter will detail the results and data analysis.

CHAPTER 5

RESULTS AND DATA ANALYSIS

5.0 Introduction

This chapter presents the findings of the survey questionnaire completed by a systematic sample of 60 EFL teachers, 30 of each gender, at the intermediate level in schools in Al Madina, and semi-structured interviews conducted with 25 EFL teachers (15 men and 10 women) in the same study area. The questionnaire examined attitudes regarding the use of computers and the Internet in teaching English as a foreign language, and the readiness for their implementation. The interviews explored these issues in greater depth.

In this study, statistical data collection was done by the researcher personally visiting schools and distributing questionnaires, resulting in a 100% return rate, and conducting interviews and noting the responses. These responses were then tabulated and statistical analysis was applied to the results. This is very useful for revealing trends. The results of such a method are best represented by graphs, so in this study the tables of data are also represented graphically.

Various terms used in presenting the results are defined as follows:
Questionnaire terminology:

1. Observed Number – The number of respondents answering the questions.
2. Expected Number – The expected number of respondents answering is calculated by the data analysis program.
3. Residual – (Expected N – Observed N).
4. DF – Degrees of freedom.
5. Asymp. Sig. – Asymptotic significance, indicating that the potential error value is approaching zero (Al Najar, 2003).

5.0.1 The chi-squared test

Prior to presenting the chi-squared results a brief definition and explanation of chi-square is presented **(**http://wessam.allgoo.us/t12767-topic**).** A chi-squared test establishes whether or not a statistically significant difference exists between the frequencies that are expected to be revealed by the research and those that actually eventuated. A chi-squared test can also determine if this observed difference is due to factors such as sampling error. A number of requirements need to be satisfied before using a chi-squared test. These include: the data must be quantitative; one or more categories must be used in the research study; the observations need to be independent of each other; the sample size needs to be at least 10; the sample needs to be random; the data need to be in frequency form; and all the observations should be used. This provides an aid in determining whether there are statistically significant differences between a random frequency distribution and the distribution that eventuated in the study (Abu Saleh & Avaz, 1983). By including the chi-squared test results, this study helps the reader identify significant variations between the expected and observed results and to understand the importance of such variation as either chance or an unknown influence. This helps to determine the beliefs and attitudes towards CALL in the study area and to identify the constraints to implementation in Saudi Arabia that need to be overcome in order to pave the way for an update of educational technology.

5.1 Questionnaire results

The results are shown in Tables 1-20. Each table is accompanied by graphic and statistical figures in order to make the results visually clearer. Below each table, an additional small table provides the final result together with the chi-squared value and the degrees of freedom and significance (p values). The tables have been used in order to display the results in a precise and accurate form and to explain each question in detail to provide the participants' identified attitudes towards using computers and the Internet in schools. For each question, there are three sections. The first section contains the frequency table, the second section describes the test statistics, and the final section includes a bar or pie chart displaying the results graphically.

5.1.1 Technological levels in Saudi Arabian teaching

Participants were asked to select responses to the statement, "Saudi Arabia is technologically advanced in teaching English." A chi-squared test was performed to analyse the distribution of attitudes to this statement. The results are presented below.

Table 3: Saudi Arabia is technologically advanced in teaching English.

Response	Observed N	Expected N	Residual
Strongly Agree	1	12.0	-11.0
Agree	17	12.0	5.0
Neutral	7	12.0	-5.0
Disagree	13	12.0	1.0
Strongly Disagree	22	12.0	10.0
Total Respondents	60		

Test Statistics

	Saudi Arabia is technologically advanced in teaching English.
Chi-squared	22.667
Df	4
Asymp. Sig.	.000

Table 3 shows the opinion of the respondents as to whether Saudi Arabia makes use of advanced technology for teaching English. The sample of 60 was taken from the teachers of English in the study area (Al Madina). The table shows that only one respondent strongly agreed with the statement. Seventeen agreed, while seven were neutral in their opinion. Thirteen disagreed. The number of respondents who strongly disagreed that Saudi Arabia was technologically advanced in its use of computers for teaching English was 22. The chance that this trend in the distribution towards disagreement with the statement was random approaches zero, and is highly statistically significant. Overall, this indicates that the participant sample tended to consider Saudi Arabia not to be technologically advanced in teaching English.

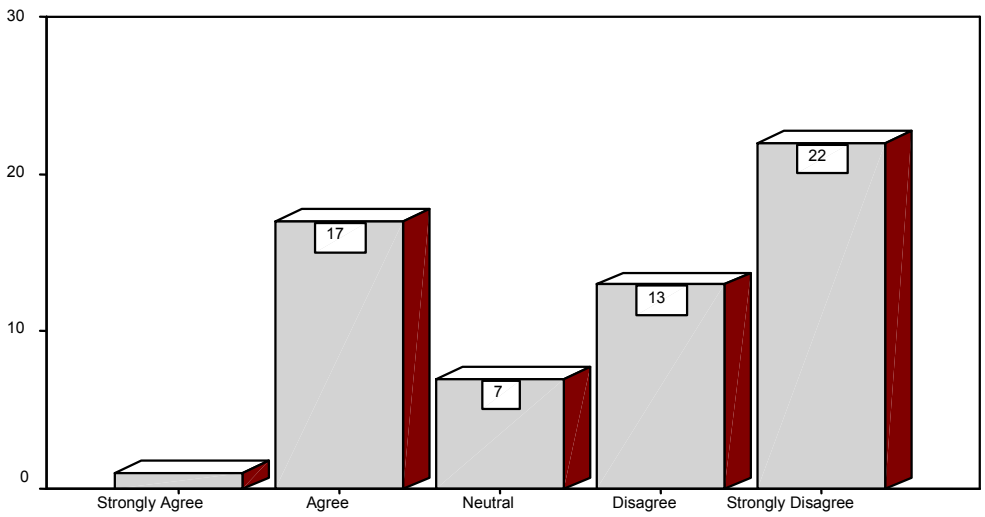

Figure 7: Saudi Arabia is technologically advanced in teaching English.

5.1.2 Level of computer knowledge

Table 4: In the Al Madina area, the level of knowledge about the basics of computer use, and the Internet in particular, is at the level required.

Response	Observed N	Expected N	Residual
Strongly Agree	6	11.6	-5.6
Agree	34	11.6	22.4
Neutral	5	11.6	-6.6
Disagree	10	11.6	-1.6
Strongly Disagree		11.6	-8.6
Total Respondents	58		

Test Statistics

	In the Al Madina area, the level of knowledge about the basics of computer use, and the Internet in particular, is at the level required.
Chi-squared	56.310
Df	4
Asymp. Sig.	.000

Table 4 documents the sampled population's opinion on whether the level of knowledge concerning the basics of computer use and the Internet is at the level required and whether they possess the ability and skills to use computers to obtain knowledge from sources like the Internet and use computers to deliver lessons to the students in the Al Madina area. The required level of knowledge of computer systems and the Internet for successful classroom implementation includes knowledge of how to access and run appropriate programs, how to access and search the Internet and knowledge of the software currently available for use. Two participants did not answer the question. Six respondents strongly agreed that knowledge of both computer use and the Internet was at the required standard. The number of those who agreed was 34. Five participants were neutral, while ten disagreed and three strongly disagreed. The overall result is that the sampled population tended to agree that the level of knowledge in the Al Madina area concerning the basics of computer use and Internet was at the required level (see test statistics above).

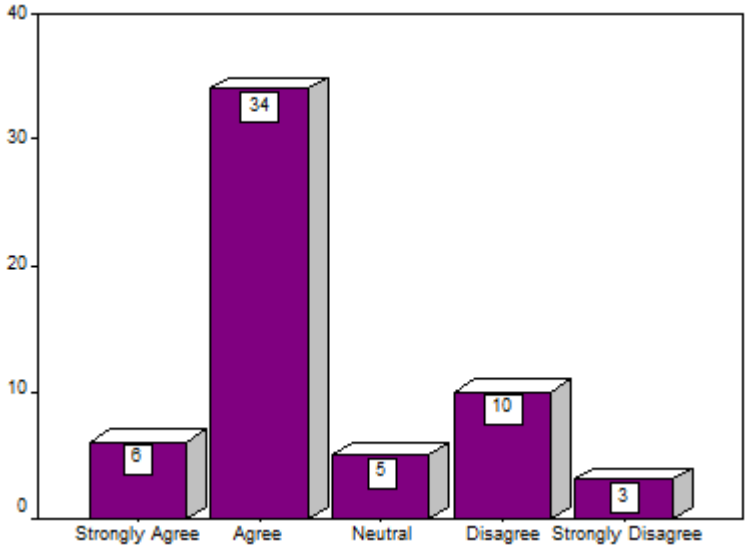

Figure 8: In the Al Madina area, the level of knowledge about the basics of computer use, and the Internet in particular, is at the level required.

5.1.3 Students and the Internet

Table 5: Students in general have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching.

Response	Observed N	Expected N	Residual
Strongly Agree	4	12.0	-8.0
Agree	24	12.0	12.0
Neutral	17	12.0	5.0
Disagree	12	12.0	0
Strongly Disagree	3	12.0	-9.0
Total	60		

Test Statistics

	Students in general have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching.
Chi-squared	26.167
Df	4
Asymp. Sig.	.000

Table 5 illustrates whether or not the teaching staff consider that students in the study area have access to the Internet and computers in their homes and schools that would allow them to benefit from learning English through online teaching and learning. The table indicates that there is a statistically significant difference between the observed frequency distribution and a random distribution of the results. Twenty-four of the respondents agreed that students in general had access to the Internet through computers in the home and school that would allow them to benefit from learning English through online teaching means. The chi-squared test table shows that the difference is statistically significant because the Pearson chi-squared value is 26.167, the number of degrees of freedom is four and the asymptotic significance of .000 is less than .05. This means that there was a tendency among the teachers to agree that their students had access to the Internet and computers at home and at school to allow them to use technology for the purpose of learning English.

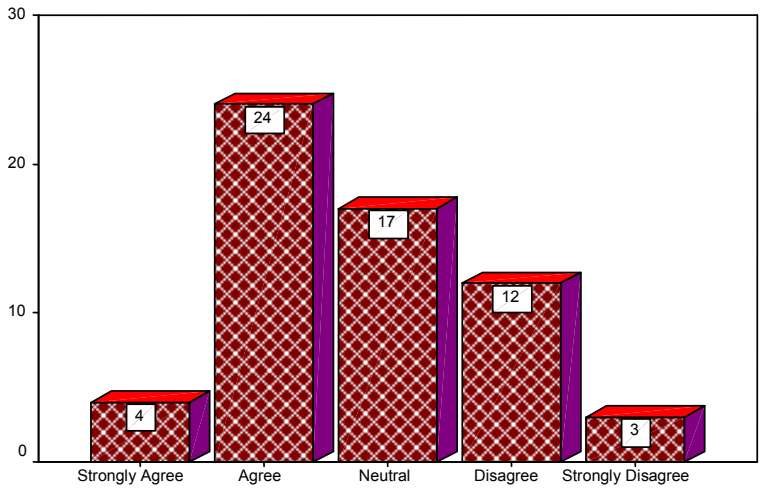

Figure 9: Students in general have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching.

5.1.4 Internet in Saudi Arabia

Table 6: The efficiency and quality of the Internet provided by the Saudi Arabian government is satisfactory for utilising online learning.

Response	Observed N	Expected N	Residual
Strongly Agree	2	12.0	-10.0
Agree	12	12.0	0
Neutral	25	12.0	13.0
Disagree	12	12.0	0
Strongly Disagree	9	12.0	-3.0
Total Respondents	60		

Test Statistics

	The efficiency and quality of the Internet provided by the Saudi Arabian government is satisfactory for utilising online learning.
Chi-squared	23.167
Df	4
Asymp. Sig.	.000

Table 6 presents a measurement of teachers' opinions regarding the efficiency and quality of the Internet provided by the Saudi Arabian Government. Two of the participants strongly agreed that Saudi Arabia was efficient in the quality of the Internet provided. Twelve agreed, 25 were neutral, 12 disagreed and nine strongly disagreed. The measurement according to the test statistics: chi-squared is 23.167; the degree of freedom is four; and the significance is .000. There is a difference between the observed number and the expected number of the sample's responses. The chi-squared test table shows that the difference from the random distribution is statistically significant, but the trend is towards a neutral response to this statement, rather than towards agreement or disagreement. It could suggest that teachers are ambivalent regarding the efficiency and quality of the Internet provided by the Saudi Government when it comes to applying it to the implementation of online learning or that they did not feel knowledgeable enough to answer the question. In others words, the teachers lack sufficient knowledge and experience in using the Internet.

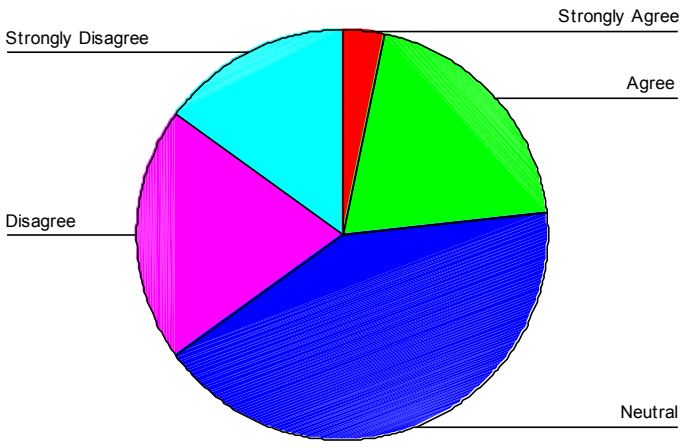

Figure 10: The efficiency and quality of the Internet provided by the Saudi Arabian Government is satisfactory for utilising online learning.

5.1.5 Computers and the Internet as sources of knowledge

Table 7: Computers and the Internet can be sources of knowledge and, in particular, a medium for teaching English.

Response	Observed N	Expected N	Residual
Strongly Agree	35	12.0	23.0
Agree	24	12.0	12.0
Neutral	1	12.0	-11.0
Disagree	0	12.0	-12.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	Computers and the Internet can be sources of knowledge and, in particular, a medium for teaching English.
Chi-squared	30.100
Df	2
Asymp. Sig.	.000

From Table 7 above, the following information is evident: 35 out of 60 respondents strongly agreed that the computer and the Internet could be sources of knowledge and, in particular, a medium for teaching English. Twenty-four of the sample population agreed and one was neutral.

There is a very substantial trend towards agreement on this issue, with a high level of statistical significance.

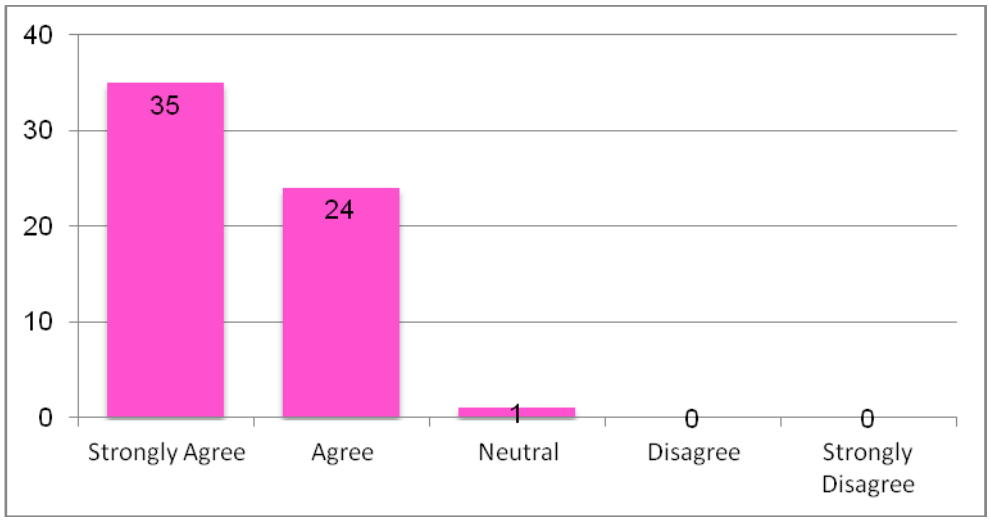

Figure 11: Computers and the Internet can be sources of knowledge and, in particular, a medium for teaching English.

5.1.6 Teachers and the Internet

Table 8: I would welcome the idea of implementing the Internet in teaching English, especially at the intermediate school level.

Response	Observed N	Expected N	Residual
Strongly Agree	21	12.0	9.0
Agree	32	12.0	20.0
Neutral	3	12.0	-9.0
Disagree	3	12.0	-9.0
Strongly Disagree	1	12.0	-11.0
Total Respondents	60		

Test Statistics

	I would welcome the idea of implementing the Internet in teaching English, especially at the intermediate school level.
Chi-squared	63.667
Df	4
Asymp. Sig.	.000

Table 8 presents the attitudes of the sample towards using the Internet in teaching English, in particular at the intermediate school level. Twenty-one respondents said that they strongly agreed with the idea of using the Internet in teaching English. Thirty-two of the respondents agreed, three of the respondents remained neutral, three disagreed and one strongly disagreed.

The table also shows that there is a significant difference between the observed number of respondents and the expected number. This is indicated by the fact that the Pearson chi-squared value is 63.667, with four degrees of freedom and an asymptotic significance approaching zero. These results indicate that the idea of using the Internet in teaching English, especially at the intermediate level in Al Madina, is considered acceptable by almost all respondents.

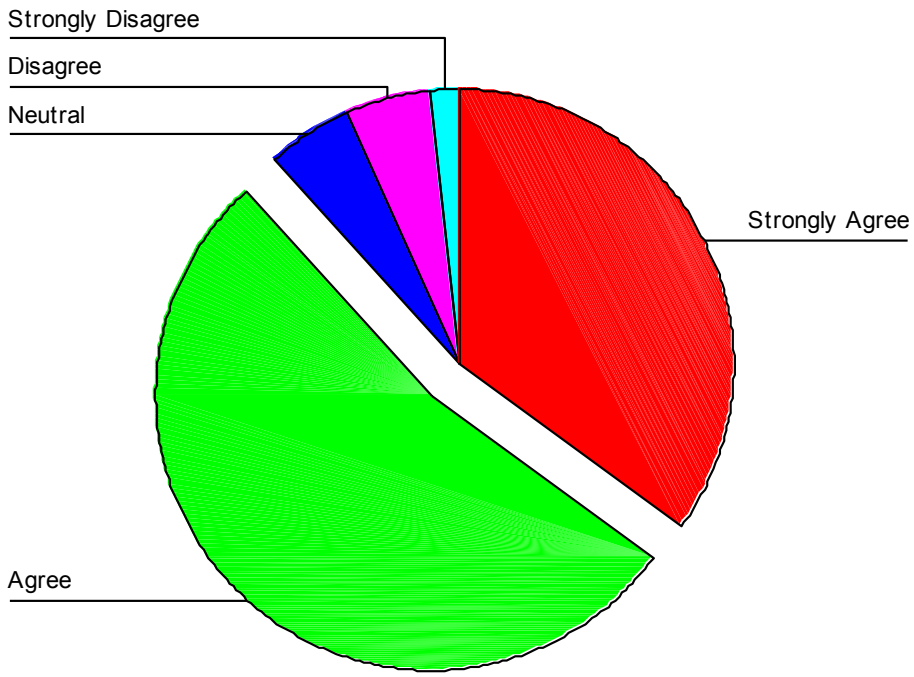

Figure 12: I would welcome the idea of implementing the Internet in teaching English, especially at the intermediate school level.

5.1.7 Intermediate school level and the Internet

Table 9: Information about the implementation of the Internet at the intermediate school level is available.

Response	Observed N	Expected N	Residual
Strongly Agree	7	12.0	-5.0
Agree	29	12.0	17.0
Neutral	17	12.0	5.0
Disagree	4	12.0	-8.0
Strongly Disagree	3	12.0	-9.0
Total Respondents	60		

Test Statistics

	Information about the implementation of the Internet at the intermediate school level is available.
Chi-squared	40.333
Df	4
Asymp. Sig.	.000

As Table 9 shows, there are statistically significant differences between the observed and expected distributions of the sample. Twenty-nine participants agreed that information on the implementation of the Internet at the intermediate school level was available and the chi-squared test label shows that the difference is significant with the Pearson chi-squared value (40.333) and four degree of freedom. The asymptotic significance level approaches zero. This implies that information in regard to using the Internet at the intermediate school level is thought to be available by most teachers of English in intermediate schools in Al Madina.

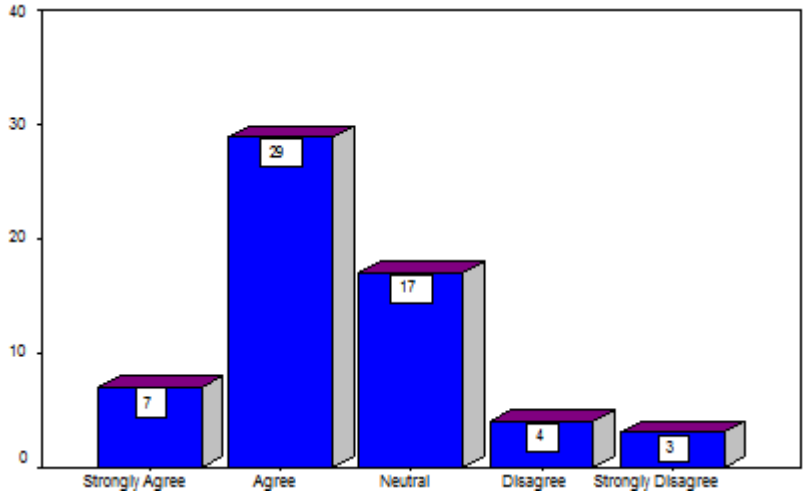

Figure 13: Information about the implementation of the Internet at the intermediate school level is available.

5.1.8 Online teaching

Table 10: Online teaching of English will help to solve the problems faced by Saudi students.

Response	Observed N	Expected N	Residual
Strongly Agree	6	12.0	-6.0
Agree	33	12.0	21.0
Neutral	15	12.0	3.0
Disagree	5	12.0	-7.0
Strongly Disagree	1	12.0	-11.0
Total Respondents	60		

Test Statistics

	Online teaching of English will help to solve the problems faced by Saudi students.
Chi-squared	54.667
Df	4
Asymp. Sig.	.000

Participants were asked to select responses on the statement, "Online teaching of English will help to solve the problems faced by Saudi students." Table 10 shows that there are statistically significant differences between the observed and expected results for the sample population. Thirty-three of the respondents agreed that online teaching of English would help to solve the problems faced by Saudi students. The chi-squared test table shows that the difference is statistically significant because the Pearson chi-squared value is 54.667, with four degrees of freedom and an asymptotic significance approaching zero. This means that the respondents tended to believe that online teaching of English could help to solve the problems faced by Saudi students.

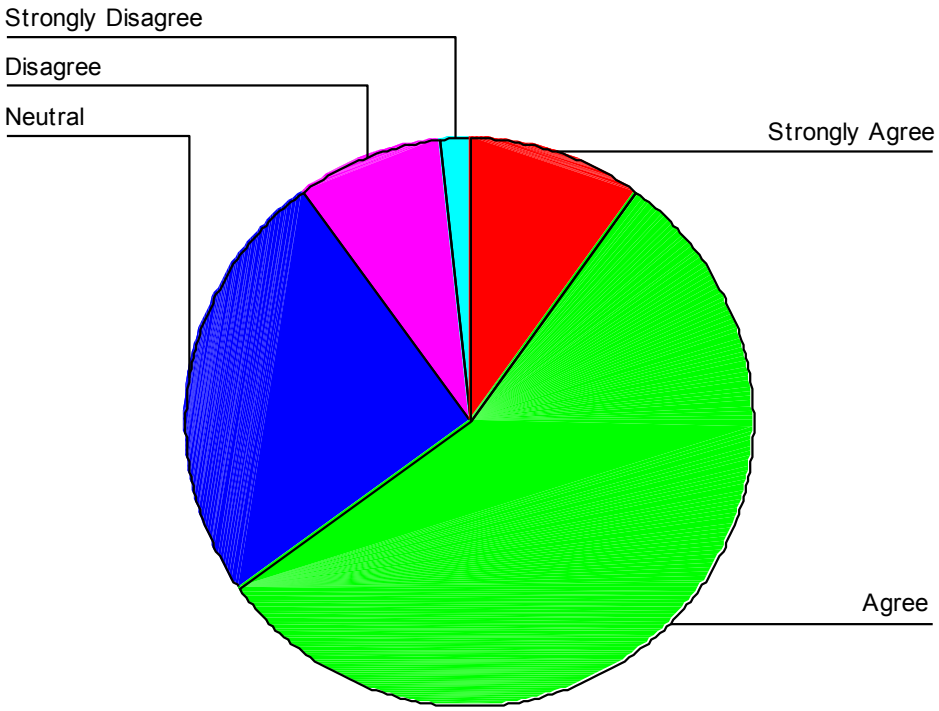

Figure 14: Online teaching of English will help to solve the problems faced by Saudi students.

5.1.9 School ICT systems

Table 11: A school ICT system is for those schools, students and societies that are rated as upper class.

Response	Observed N	Expected N	Residual
Strongly Agree	6	12.0	-6.0
Agree	22	12.0	10.0
Neutral	14	12.0	2.0
Disagree	13	12.0	1.0
Strongly Disagree	5	12.0	-7.0
Total Respondents	60		

Test Statistics

	A school ICT system is for those schools, students and societies that are rated as upper class.
Chi-squared	15.833
Df	4
Asymp. Sig.	.003

Table 11 displays the difference between the observed and expected results for the sample population. Participants were asked to select responses on the statement that, "A school ICT system is for those schools, students and societies that are rated as upper class." Upper class means students from professional/upper-middle class families. Twenty-two of the respondents agreed that a school ICT system was for those school students and societies that are considered to be upper class and the chi-squared test table shows that the differences are statistically significant because the Pearson chi-squared value is 15.833 with four degrees of freedom and an asymptotic significance level of 0.003. This indicates that although ICT is available in all the schools of Al Madina, there is a tendency for the teachers in the sample population to see ICT systems as something for upper class schools. As with Western society, upper class in Saudi Arabia is linked to wealth and upper class schools are those that cater to students from wealthy backgrounds. The trend was not as strong as that found in some of the previous tables when analysing the results of the attitudinal questionnaire. It should be noted that the

question was not put as to whether the teachers believed that such systems should be available to all students, regardless of social class or socioeconomic status.

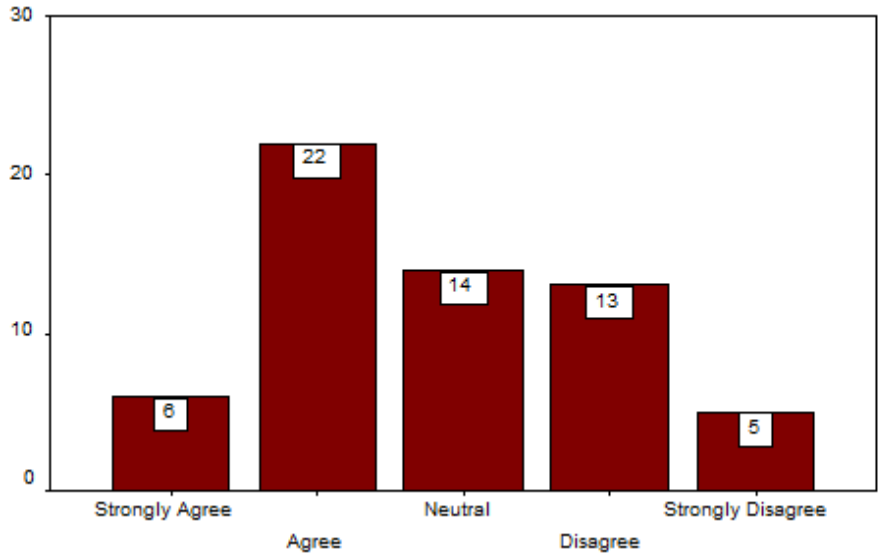

Figure 15: A school ICT system is for those schools, students and societies that are rated as upper class.

5.1.10 Teachers' familiarity with online language teaching and learning

Table 12: I am familiar with the use of online language teaching and learning at the intermediate school level.

Response	Observed N	Expected N	Residual
Strongly Agree	16	12.0	4.0
Agree	36	12.0	24.0
Neutral	6	12.0	-6.0
Disagree	2	12.0	-10.0
Strongly Disagree	0	12.0	-12.0
Total	60		

Test Statistics

	I am familiar with the use of online language teaching and learning at the intermediate school level.
Chi-squared	46.133
Df	3
Asymp. Sig.	.000

Table 12 shows the differences between the observed and expected distribution of the sample. Thirty-six of the observed sample agreed that they were familiar with the use of online language teaching and learning at the intermediate level. The chi-squared test table shows that the difference is significant because the Pearson chi-squared value is 46.133 with four degrees of freedom and an asymptotic significance approaching zero. Teachers of English at the intermediate level in the Al Madina area tend to agree that they are familiar with the use of online language teaching and learning.

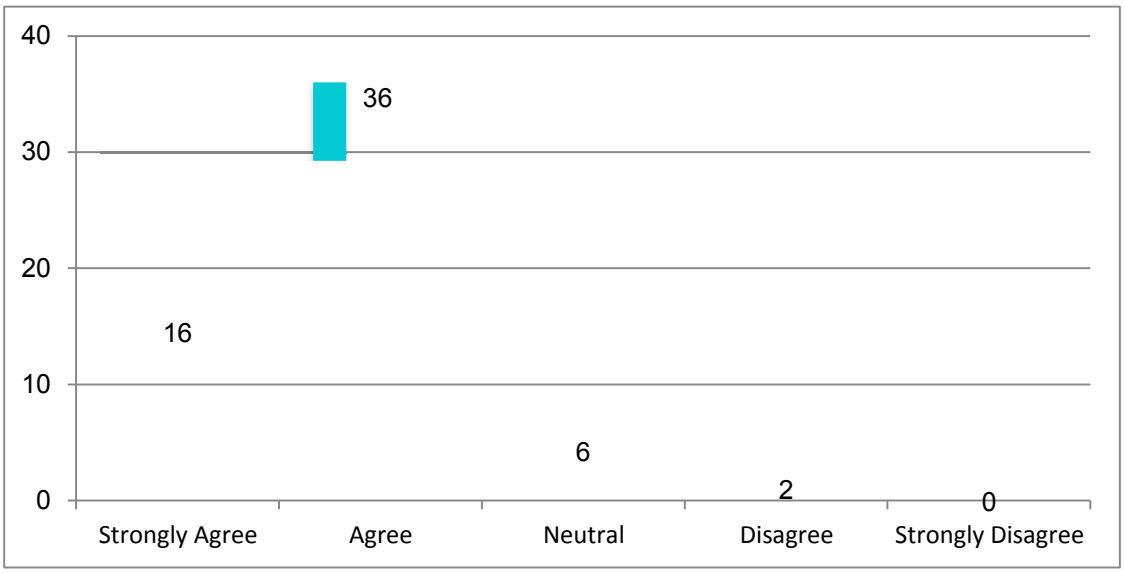

Figure 16: I am familiar with the use of online language teaching and learning at the intermediate school level.

5.1.11 Awareness of type and variety of interactive interaction

Table 13: I am aware of the type and variety of interactive interaction available in schools teaching English via the computer.

Response	Observed N	Expected N	Residual
Strongly Agree	9	12.0	-3.0
Agree	31	12.0	19.0
Neutral	14	12.0	2.0
Disagree	6	12.0	-6.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	I am aware of the type and variety of interactive interaction available in schools teaching English via the computer.
Chi-squared	24.933
Df	3
Asymp. Sig.	.000

Table 13 reveals the differences between the observed and expected numbers for the sample distribution. Forty of the respondents agreed or strongly agreed that they were aware of the types of interactive interaction available in schools teaching English via computer. The chi-squared test table shows that this difference approaches asymptotic significance, because the Pearson chi-squared value is 24.933 within four degrees of freedom. The results show that teachers of English in the study area tended to agree that they were aware of the type and variety of interactive interaction available in schools teaching English.

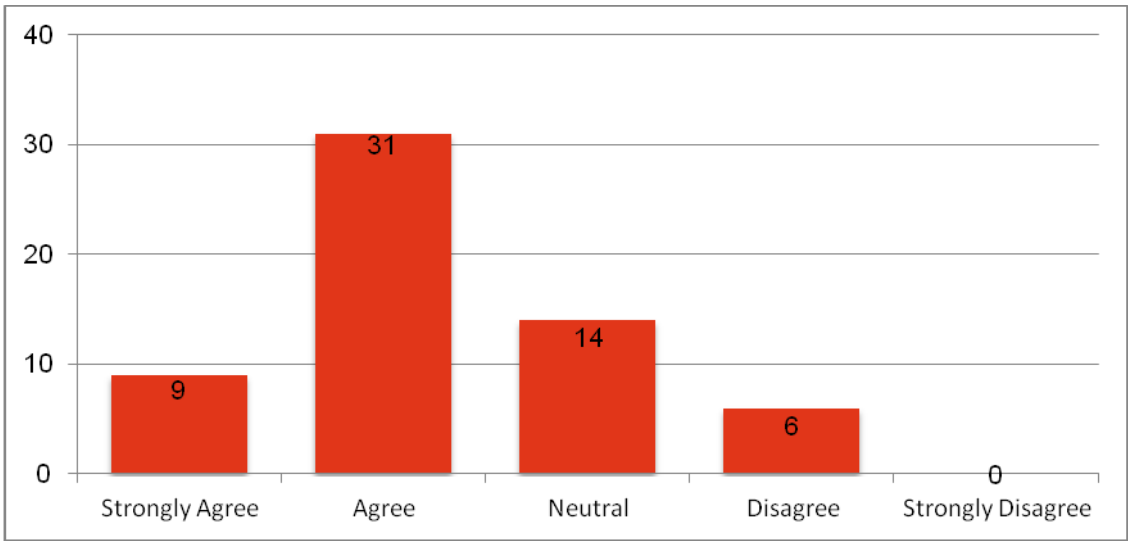

Figure 17: I am aware of the type and variety of interactive interaction available in schools teaching English via the computer.

5.1.12 Government commitment

Table 14: The Saudi Government should make a more serious commitment towards providing a better online learning system.

Response	Observed N	Expected N	Residual
Strongly Agree	34	12.0	22.0
Agree	20	12.0	8.0
Neutral	4	12.0	-8.0
Disagree	2	12.0	-10.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	The Saudi Government should make a more serious commitment towards providing a better online learning system.
Chi-squared	42.672
Df	4
Asymp. Sig.	.000

The table above reveals a statistically significant difference between the observed and the expected response distributions, with asymptotic significance approaching zero. Although it is zero, the sample is limited compared to the population in the study area and may not be an accurate reflection. However, this survey focuses on a small portion of the population – intermediate teachers of English – and the result remains reliable. Thirty-four of the participants strongly agreed with the statement and 20 participants agreed. From this it can be concluded that there was a trend for the Al Madina English teachers who made up the sample to agree that the Saudi Government should be encouraged to make a more serious commitment towards providing a better online learning system.

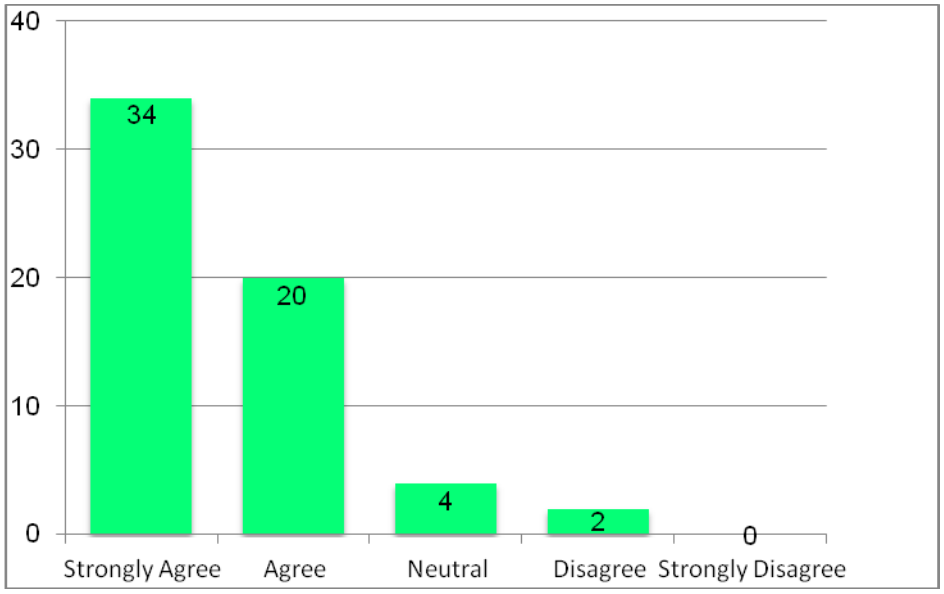

Figure 18: The Saudi Government should make a more serious commitment towards providing a better online learning system.

5.1.13 Teachers and online systems for teaching English

Table 15: Teachers in general will find online systems helpful for teaching English to their students.

Response	Observed N	Expected N	Residual
Strongly Agree	28	12.0	16.0
Agree	26	12.0	14.0
Neutral	3	12.0	-9.0
Disagree	3	12.0	-9.0
Strongly Disagree	0	12.0	-12.0
Total	60		

Test Statistics

	Teachers in general will find online systems helpful for teaching English to their students.
Chi-squared	38.533
Df	4
Asymp. Sig.	.000

From Table 15 above, it can be seen that there is a statistically significant difference (asymptotic significance approaches zero) between the observed numbers and the expected numbers in the response frequency distribution. Twenty-eight respondents strongly agreed and 26 respondents agreed that teachers in general would find using online systems helpful when teaching English. Therefore it can be asserted that within the sample population, the teachers of English in the Al Madina area, there was a strong trend towards agreement with the statement that they would find online systems helpful for teaching English to their students.

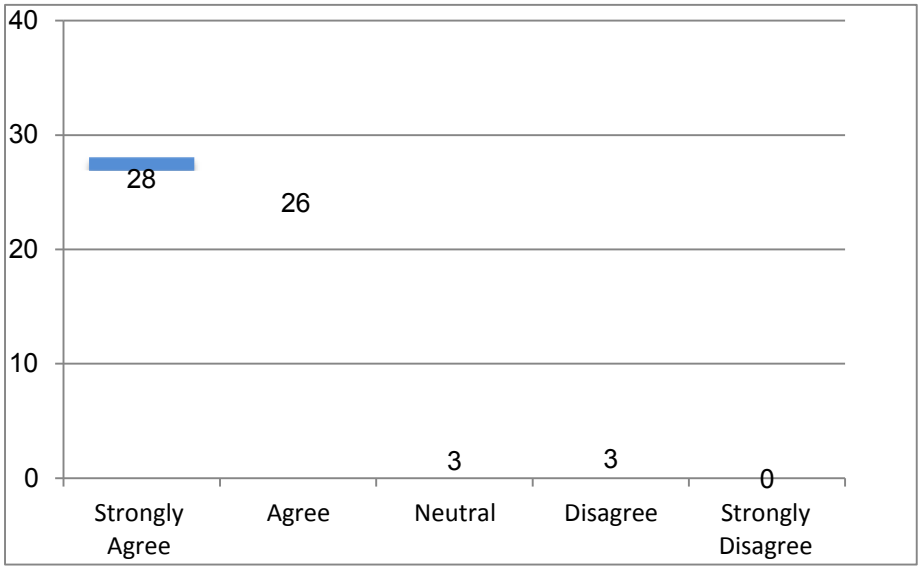

Figure 19: Teachers in general will find online systems helpful for teaching English to their students.

5.1.14 Should experts investigate replacing face-to-face teaching?

Table 16: Experts should investigate teaching via the computer as an economical replacement for face-to-face teaching.

Response	Observed N	Expected N	Residual
Strongly Agree	14	12.0	2.0
Agree	32	12.0	20.0
Neutral	13	12.0	1.0
Disagree	1	12.0	-11.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	Experts should investigate teaching via the computer as an economical replacement for face-to-face teaching.
Chi-squared	32.667
Df	4
Asymp. Sig.	.000

Table 16 above concerns the opinions of the sample on whether experts should investigate the economical benefits of replacing face-to-face teaching of English with teaching via computers. There is a statistically significant difference between the observed and the expected response distributions, with the asymptotic significance approaching zero. Fourteen participants strongly agreed and 32 agreed that investigations should take place. Thirteen chose a neutral response. The overall trend was towards agreement that there should be investigation by experts of the economical benefits of replacing face-to-face teaching of English with teaching English via computers.

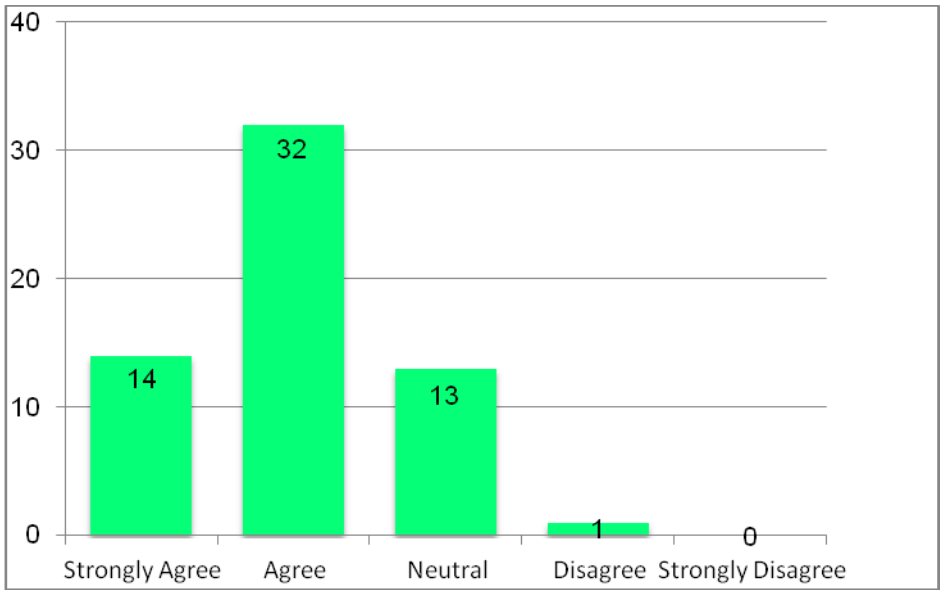

Figure 20: Experts should investigate teaching via the computer as an economical replacement for face-to-face teaching.

5.1.15 Will students benefit?

Table 17: Students will benefit from being taught English via the computer.

Response	Observed N	Expected N	Residual
Strongly Agree	31	12.0	19.0
Agree	23	12.0	11.0
Neutral	5	12.0	-7.0
Disagree	1	12.0	-11.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	Students will benefit from being taught English via the computer.
Chi-squared	41.067
Df	4
Asymp. Sig.	.000

In Table 17 above there is a statistically significant difference between the observed and the expected responses of the sample. Thirty-one of the respondents strongly agreed and 23 agreed that students would benefit from being taught English via the computer. There is a strong trend towards agreement with this statement. The chi-squared value is 41.067 with four degrees of freedom and an asymptotic significance approaching zero.

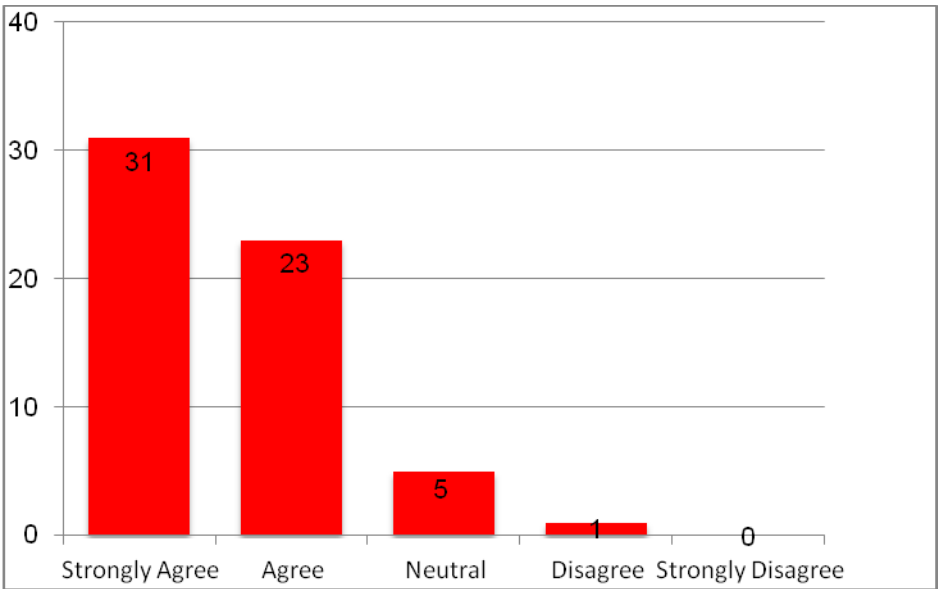

Figure 21: Students will benefit from being taught English via the computer.

5.1.16 Should online schooling replace face-to face teaching?

Table 18: Online schooling should replace face-to-face teaching.

Response	Observed N	Expected N	Residual
Strongly Agree	19	12.0	7.0
Agree	16	12.0	4.0
Neutral	14	12.0	2.0
Disagree	10	12.0	-2.0
Strongly Disagree	1	12.0	-11.0
Total Respondents	60		

Test Statistics

	Online schooling should replace face-to-face teaching.
Chi-squared	16.167
Df	4
Asymp. Sig.	.003

Participants were asked to select responses to the statement, “Online schooling should replace face-to face teaching.” From the table above, it can be observed that there is a difference between the observed and the expected number of the responses of the sample group. Nineteen of the respondents strongly agreed that face-face-teaching should be replaced, 16 agreed, 14 were neutral, 10 disagreed and 1 strongly disagreed. There is a statistically significant trend towards agreement with this statement, as shown by the chi-squared value of 16.167 which, with four degrees of freedom, has an asymptotic significance of 0.003. These results suggest that most English teachers in the Al Madina area tended to believe that the traditional face-to-face method of teaching should be replaced by online computer-based teaching.

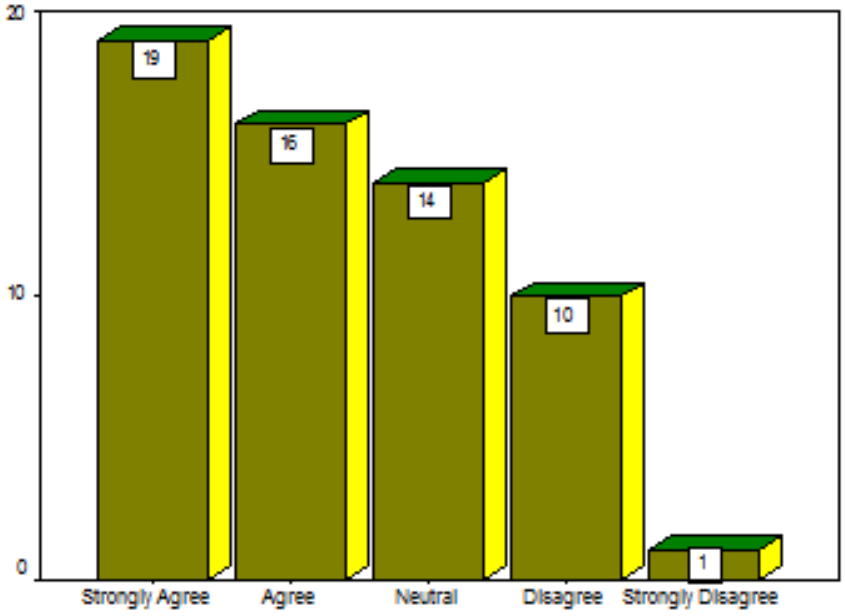

Figure 22: Online schooling should replace face-to-face teaching.

5.1.17 Will the Internet be successful?

Table 19: The Internet will be successful in providing the appropriate level of English tuition for schools at the intermediate level.

Response	Observed N	Expected N	Residual
Strongly Agree	17	12.0	5.0
Agree	36	12.0	24.0
Neutral	6	12.0	-6.0
Disagree	1	12.0	-11.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test Statistics

	The Internet will be successful in providing the appropriate level of English tuition for schools at the intermediate level.
Chi-Squared	48.133
Df	4
Asymp. Sig.	.000

Table 19 makes the following information clear. The distribution of responses from the observed sample is significantly different from the expected results. This is indicated statistically by the value of chi-squared, which is 48.133 with four degrees of freedom, indicating an asymptotic significance approaching zero. Opinion regarding whether the Internet would be successful in providing tuition in English at an appropriate level for intermediate school students trended towards agreement, with 17 participants strongly agreeing and 36 agreeing.

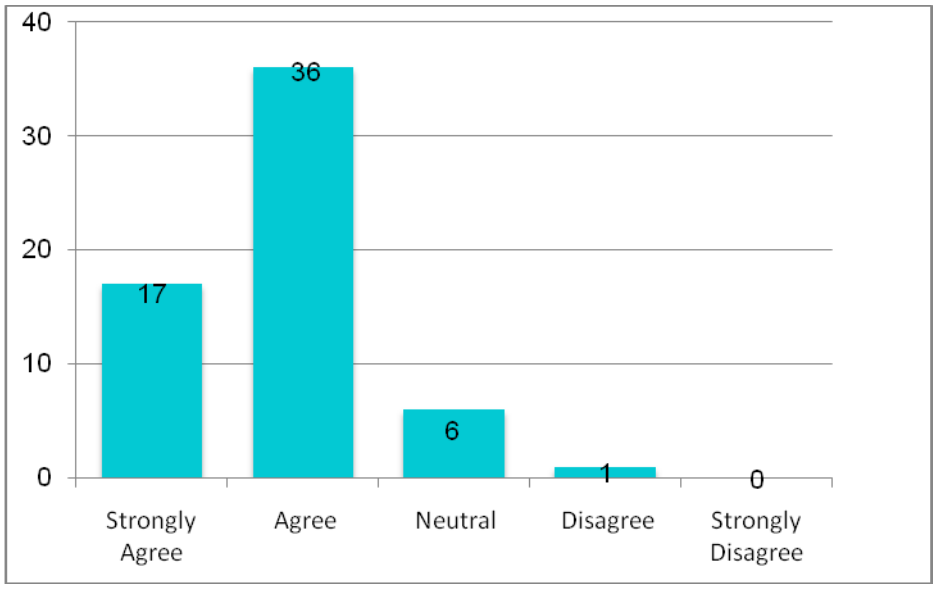

Figure 23: The Internet will be successful in providing the appropriate level of English tuition for schools at the intermediate level.

5.1.18 Computer learning and interaction

Table 20: Learning English via the computer can bring improvements because of the level of interaction it offers.

Response	Observed N	Expected N	Residual
Strongly Agree	10	11.0	-1.0
Agree	39	11.0	28.0
Neutral	5	11.0	-6.0
Disagree	1	11.0	-10.0
Strongly Disagree	0	11.0	-11.0
Total Respondents	55		

Test Statistics

	Learning English via the computer can bring improvements because of the level of interaction it offers.
Chi-Squared	64.782
Df	4
Asymp. Sig.	.000

Five participants chose not to respond to this item. Table 20 shows that the distribution of responses of the observed sample is significantly different from that of the expected results. A statistically significant trend towards respondent agreement with this statement is reflected by the chi-squared value which is 64.782, with four degrees of freedom, yielding an asymptotic significance approaching zero.

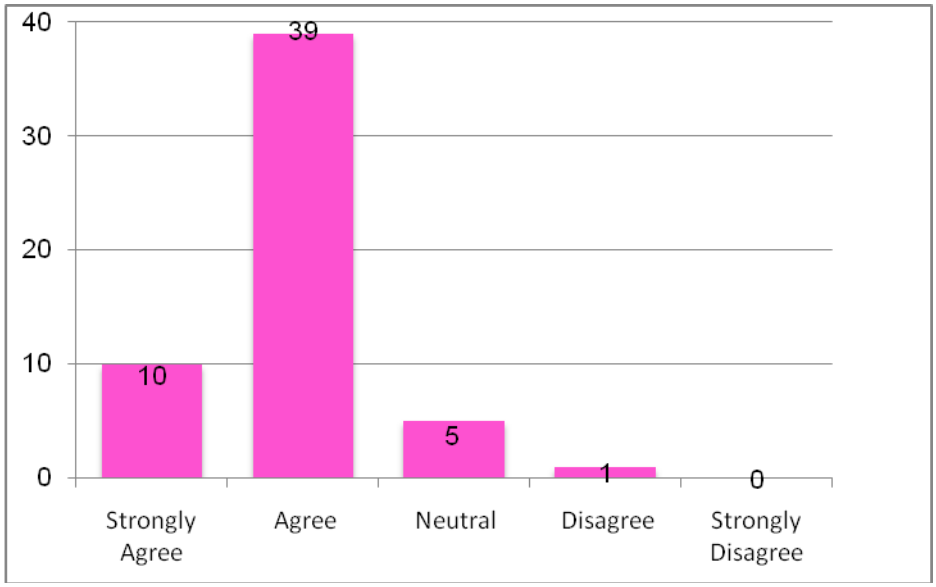

Figure 24: Learning English via the computer can bring improvements because of the level of interaction it offers.

5.1.19 Online schooling and distance education

Table 21: Online schooling can help to form a link between 'remote' students and English language teachers.

Response	Observed N	Expected N	Residual
Strongly Agree	13	12.0	1.0
Agree	31	12.0	19.0
Neutral	10	12.0	-2.0
Disagree	5	12.0	-7.0
Strongly Disagree	1	12.0	-11.0
Total	60		

Test Statistics

	Online schooling can help to form a link between 'remote' students and English language teachers.
Chi-Squared	44.667
Df	4
Asymp. Sig.	.000

The information provided by Table 21 indicates that there is a significant difference between the observed sample response distribution and the expected distribution. The chi-squared value is 44.667, with four degrees of freedom, giving an asymptotic significance approaching zero, for the trend towards agreement with this statement. This result shows that participants tend to believe that the availability of online schooling will assist in forming a link between teachers and 'remote' students, thus enabling distance learning.

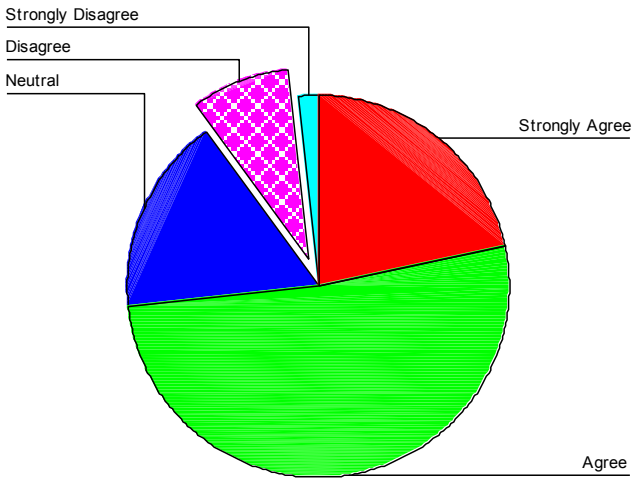

Figure 25: Online schooling can help to form a link between 'remote' students and English language teachers.

5.1.20 An entertaining way to teach English

Table 22: School electronic devices provide an entertaining way of teaching and learning English.

Response	Observed N	Expected N	Residual
Strongly Agree	33	12.0	21.0
Agree	26	12.0	14.0
Neutral	1	12.0	-11.0
Disagree	0	12.0	-12.0
Strongly Disagree	0	12.0	-12.0
Total Respondents	60		

Test statistics

	School electronic devices provide an entertaining way of teaching and learning English.
Chi-Squared	28.300
Df	4
Asymp. Sig.	.000

The information provided by Table 22 above illustrates that the chi-squared value is 28.300, with four degrees of freedom, giving an asymptotic significance approaching zero for the trend towards agreement with this statement. Almost all the English teachers in Al Madina agree that electronic devices in schools provide an entertaining way of teaching and learning English.

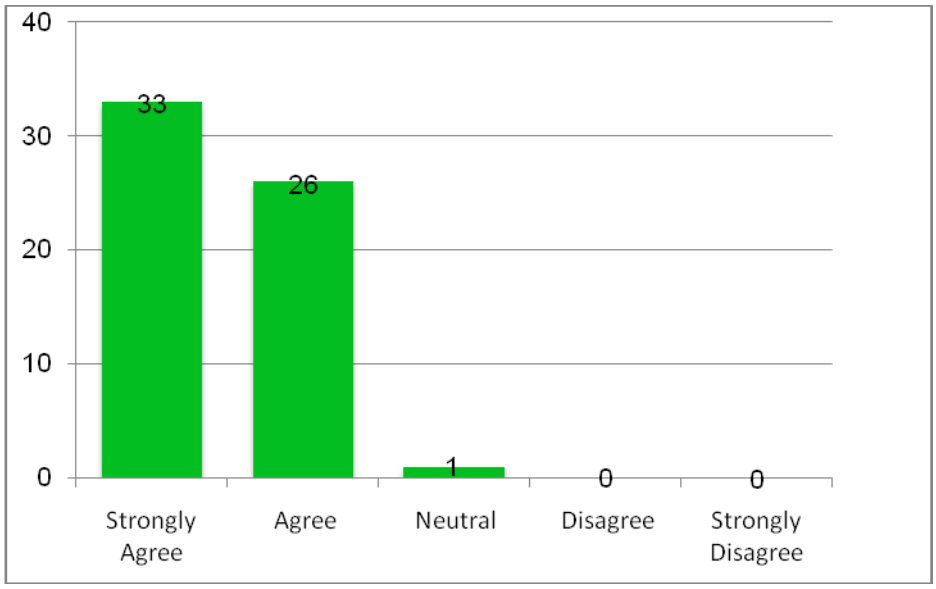

Figure 26: School electronic devices provide an entertaining way of teaching and learning English.

5.2 Interview results

The interview gave more in-depth information about teachers' attitudes toward computer-assisted language learning and the implementation of computers and the Internet in Saudi Arabia. The researcher conducted the interviews with the 25 participants, asking them seven main questions, and providing the opportunity for them to qualify their answers with reasons for their responses. The answers from the female teachers were more detailed than those from the male teachers. The results of the interviews of the 25 EFL teachers are tabulated and discussed below. Responses were chosen by participants from among defined alternatives.

5.2.1 Is it necessary for teachers to have a computer in the classroom?

Table 23: Do you think it is necessary to have a computer or a laptop in your classroom?

Response	Frequency	Percentage
Yes	24	96.0
No	1	4.0
Total	25	100.0

Table 23 above indicates the perceived need for a teacher of English in the Al Madina area to have a computer or a laptop in the classroom. Twenty-four participants responded positively to the question. Only one regarded a computer as unnecessary. EFL teachers in the Al Madina area agree that computers are necessary in classrooms.

5.2.2 Reasons for having a computer in the classroom

Table 24: Why is it necessary to have a computer or laptop in the classroom?

Response	Frequency	Percentage
It helps students to understand and get more information	15	60.0
It saves time	2	8.0
Effective way of learning English	7	28.0
Beside the response	1	4.0
Total	25	100.0

The table above shows teachers' opinions on why they consider a computer or a laptop to be necessary in the classroom environment. Fifteen of 25 respondents said that a computer or laptop was necessary because it helped students understand and receive more information. Seven teachers said that the computer was a very effective way of learning English and two said that the computer saved time. The teachers tended towards agreement that computers helped students to understand and get more information.

5.2.3 Perceived competence in using CALL

Table 25: Are you, as English teachers in your region, competent to use CALL in teaching English?

Response	Frequency	Percentage
Yes	23	92.0
No	2	8.0
Total	25	100.0

The table above illustrates the teachers' perceived notions of their competence in using CALL in the teaching of English. The number of respondents in the affirmative was 23 out of the total number of 25. The number of participants disagreeing was two out of 25. This indicates that most participants consider teachers in the Al Madina area to be CALL competent.

5.2.4 Reasons for competence

Table 26: What makes you think you are competent to use CALL in teaching English?

Response	Frequency	Percentage
It is available	4	16.0
Teachers are trained	16	64.0
It is not difficult to use	1	4.0
Total Respondents	21	84.0
Non-respondents	4	16.0
Total	25	100.0

Table 26 presents the reasons for participants' belief in their ability to use CALL in teaching English. Four respondents said that teachers are capable of using CALL because it was available. 'Available,' in this sense, means that the first stage and second stages of the King Abdullah project had supplied that particular school with computers and Internet access, and some teachers had been using computers and the Internet in teaching English and had some training. One respondent indicated that CALL is not

difficult to use. Sixteen out of 21 respondents, the majority of participants, attributed teachers' ability to use CALL for teaching English to teachers having been trained.

5.2.5 Computers and teaching

Table 27: Would you use computers to teach English in your class?

Response	Frequency	Percentage
Yes	25	100.0
No	0	0

The purpose of Table 27 above is to present the data on whether or not the teachers of English in Al Madina would use a computer to teach English. Twenty-five out of 25 respondents indicated that they would use a computer for English language teaching.

5.2.6 Reasons for using computers to teach English

Table 28: Why would you use computers to teach English in your class?

Response	Frequency	Percentage
It facilitates student understanding and permits them to receive more information.	11	44.0
It saves time	4	16.0
It is a very effective device for English teachers	9	36.0
Total Respondents	24	96.0
Non-respondents	1	4.0
Total	25	100.0

Table 28 above shows the responses chosen by the participants of reasons why they would use computers in their classroom. Forty-four percent of the participants chose to respond that they would use a computer in their classroom because it helped students to understand and assimilate more information. Sixteen percent responded that they would use computers in their classroom because it saved time, while 36% responded that they would use a computer in teaching English in the classroom because it was a very

effective device for English teachers and promoted successful outcomes for their students.

5.2.7 Computers and teacher training

Table 29: Should the English teachers be trained to teach using computers?

Response	Frequency	Percentage
Should be trained	23	92.0
Should not be trained	2	8.0
Total	25	100.0

Table 29 describes the number of respondents who stated a belief that teachers of English in Al Madina should be trained to use computers. Ninety-two percent of the respondents said that teachers of English in the study area should be trained to use computers in their classrooms. Eight percent of the participants said that teachers of English should not be trained in computer use for teaching English.

5.2.8 Reasons to be trained for computer competency

Table 30: Why should English teachers be trained to teach using computers?

Response	Frequency	Percentage
Some lessons require the use of computers for effective lesson delivery	3	12.0
Increasing teacher's experience of using the computer	20	80.0
Total Respondents	23	92.0
Non-respondents	2	8.0
Total	25	100.0

Table 30 indicates the reasons why teachers of English in the study area should be trained to use computers in teaching English. Three out of 23 respondents stated that some lessons required the use of computers for effective lesson delivery. Twenty out of 23 respondents responded that teachers of English should be trained to teach English via computers to increase their experience of using computers. Teachers should be trained

to use new methods of teaching English which also brings new and different but enjoyable interactions between students and teachers. Two participants did not respond.

5.2.9 Why training is not needed

Table 31: Why do English teachers not need training to teach using computers?

Response	Frequency	Percentage
Most know how to use computer	1	4.0
They have a lot of information	1	4.0
Total Respondents	2	8.0
Non-respondents	23	92.0
Total	25	100.0

Table 31 describes the reasons why English language teachers in Al Madina consider teachers do not need training to use computers in teaching English. Most of the 25 participants did not respond to this question, suggesting that it was of limited usefulness. Speculation on the reasons for this, including the ambiguity of the question and the limitations of response alternatives offered, is to be found in the discussion of limitations of the research (Chapter 7). Only one respondent in each case chose either of the two alternative explanations offered, suggesting poor validity for this item. At the same time, regarding Table 30 EFL teachers' training helps to teach effective listening to the students and increases teachers' experience in teaching English as a foreign language.

5.2.10 Teachers' previous experience with computer-aided language teaching

Table 32: Have you ever taught English using computers?

Response	Frequency	Percentage
Yes	22	88.0
No	3	12.0
Total respondents	25	100.0

Table 32 above shows whether the participant teachers in Al Madina have ever taught English using computers. Eighty-eight percent of the respondents within the study area said they have used a computer in teaching English. Only 12% of those in the study area said that they had never used a computer for teaching English. This indicates that most of the teachers of English in Al Madina have used computers for teaching English and the remaining teachers indicated that they are willing to use them during the interview process.

5.2.11 Positive and negative experiences

Table 33: What are the positive experiences of teaching English using computers?

Response	Frequency	Percent
It helps students to understand and receive more information.	12	48.0
Ease of presentation and understanding.	2	8.0
It is a very effective way to convey information	8	32.0
Total Respondents	22	88.0
Non-respondents	3	12.0
Total	25	100.0

Table 33 above presents the positive experiences of the use of computers in classrooms in the study area. Forty-eight percent of the participants chose the response stating that using computers in the classroom helped students to understand and increased their knowledge of the English language. Eight percent of the participants chose the response that computers presented information clearly and facilitated students' understanding

conveniently. Thirty-two percent of the participants said that computer usage in the classroom was highly effective and helped students to focus on mastery of the English language. Three participants did not respond. No negative experiences were reported.

5.2.12 Effectiveness of computer-aided language teaching

Table 34: Would it be more effective to teach English using computers compared to the traditional lecture method?

Response	Frequency	Percentage
Yes	25	100.0
No	0	0

Table 34 above indicates that all English language teachers surveyed in Al Madina agree that it would be more effective to teach English using computers rather than by using traditional lecturing methods. All 25 respondents stated that using computers for English instruction in the classroom environment would be very effective. This indicates that the teachers of English in Al Madina are aware of the advantages of computers and technology in improving learning outcomes compared to traditional lecturing methods.

5.2.13 Why might CALL be more effective?

Table 35: Why is it more effective to teach English using computers compared to the traditional lecturing method?

Response	Frequency	Percentage
It combines the two methods; traditional and computerised methodology of lesson delivery	6	24.0
It increases practice	8	32.0
Affords teachers freedom to closely follow students' progress	2	8.0
It enhances understanding	3	12.0
It attracts attention of the students and helps in presentation of lesson material	6	24.0
Total Respondents	25	100.0

Table 35 provides a breakdown of the responses chosen by the participants. Twenty-four percent of the respondents said that using computers to teach English is effective because it combined qualities of both traditional and computer methods. Thirty-two percent of respondents said that using a computer in teaching English increased the students' practice of the English language. Eight percent said that using computers to teach English afforded teachers the freedom to closely follow the progress of their students, while 12% stated that teaching English via the computer helped facilitate student understanding. Twenty-four percent of the respondents said that computer use for teaching English attracted the students' attention more easily and helped them, as teachers, in presentation of lesson material. All respondent suggested that computers were more effective than the traditional lecturing method.

5.2.14 Other advantages of computer use in teaching English

Table 36: What other advantages do you see in using computers to teach English?

Response	Frequency	Percentage
It helps students to understand and focus their attention upon the lesson.	15	60.0
It's very effective for providing visual and listening information	4	16.0
The provision of material from the Internet	1	4.0
It makes it easier to track progress and it makes it easier to promote understanding	5	20.0
Total	25	100.0

Table 36 illustrates the participants' selected responses out of a list of potential advantages of using computers to teach English in Al Madina. Sixty percent of the respondents chose the response that the use of computers for teaching English in Al Madina helped students to understand and concentrate on their English. Sixteen percent of the participants chose the response that using computers in teaching English was highly effective because it provided clearly articulated audio-visual information.

Along with grammatical and listening information, a computer can elaborate on this and be linked with pictorial inputs. Twenty percent said that a computer was advantageous in teaching English because it was an easy way to track progress and demonstrate aspects of the language to students. Four percent of the respondents interviewed said that the computer was useful as a source of information from the Internet.

5.2.15 Other disadvantages of computer use in teaching English

Table 37: What other disadvantages do you see in using computers to teach English?

Response	Frequency	Percentage
The material is not well programmed	6	24.0
No disadvantages	16	64.0
It depends on the type of the lesson	3	12.0
Total	25	100.0

Table 37 presents the perceived disadvantages of using computers for teaching English in Al Madina. Twenty-four percent of the respondents said that one of the disadvantages was that the material was not well programmed. Sixty-four percent of the respondents said that there were no disadvantages in using computers for teaching English. Twelve percent said that if there was a disadvantage in using computers it could be related to the nature of the lesson itself. None of them mentioned technical difficulties. This suggests that most EFL teachers in Al Madina have very optimistic views about CALL and tend not to acknowledge its potential difficulties, especially its technical difficulties.

5.3 Conclusion

Data analysis was conducted as shown in the above tables and diagrams on the self-administered questionnaires filled out by 60 teachers and the results of the structured telephone surveys of 25 interviewees, both male and female. SPSS was used to process the data yield and this analysis is shown in the frequency and chi-squared tables.

The responses in this study suggest that assisting and maintaining teachers in gaining positive attitudes towards the use of computers and the Internet and providing them with sufficient hardware and technical support could influence them to be willing to use computers and the Internet in the classroom. The study has provided data that reflects attitudes towards the use of the Internet in the classroom and could be useful as a predictor of the intention to use computers and the Internet. Interpretation of the results of the interview will need to be moderated by a realisation that the participants might have chosen more than one of the response alternatives to each item on the interview

schedule, had they been given the opportunity. This limitation will be among those issues discussed in detail in Chapter 7, together with other limitations of research design, with a view to making recommendations to be noted by future researchers.

In the next chapter, I discuss the findings in depth, relating the secondary data, as found in the literature review, to the primary data, obtained through teacher surveys and interviews. I also attempt to address and discuss the extent to which the research questions have been answered by the findings.

CHAPTER 6

DISCUSSION

6.0 Introduction

"There is worldwide interest in how advances in technology can be employed to enhance educational processes and increase efficiency of teaching and learning in all disciplines" (Mishra & Sharma, 2005, p. vi). The main focus of this thesis is on the attitudes of intermediate school level teachers in the Al Madina district of Saudi Arabia regarding readiness for implementation of technological advancements in computer-assisted learning of English as a foreign language. Therefore this study employs questions regarding the beliefs and attitudes of teachers pertaining to the teaching of English in Saudi Arabia; teachers' adaptation to including CALL in current and traditional methods of teaching English along with parameters for implementation and constraints in the schools of Al Madina regarding CALL. To summarize the respondents' opinions, it could be said that teachers are optimistic in regard to using CALL in Al Madina and find the idea attractive. Most of the teachers believe that computers and the Internet could be a good source of knowledge for teaching the English language. However, there are certain constraints including teachers' lack of proper experience, software that is out-of-date and teachers also requiring adequate training before using CALL.

The literature discussed in Chapter 2 indicated that computers have been used in teaching since the late 1980s. From that time, computers have come to be used worldwide for teaching purposes. Abu Samak (2006) stated that information and communication technology has become popular throughout the world and has a role to play in progress, reducing poverty and enhancing administrative performance in schools and other governmental and non-governmental organisations. Kong (2009) argues that the use of information and communication technology in teaching English, namely computer-assisted language learning has advantages such as accessibility, renewability, adaptability, and interactivity. CALL has the additional advantages of student directed learning. Gunn and Brussino (1997) contend that when integrated holistically with

language skills, CALL can provide opportunities for learners to interact and negotiate meaning with an authentic audience. Learners are involved in authentic tasks which promote exposure to and production of varied and creative language. This affords opportunities for learners to formulate their own ideas and thoughts within an environment where intentional cognition is promoted, in a learner-centred classroom atmosphere of minimal stress.

In research conducted by Fang (2007), it was pointed out that computers help independent learning. As a useful teaching and learning device, a computer enables a learner to learn even in the absence of a teacher and provides opportunities for language learning which are not available through traditional methods. Abu Samak (2006) considers that as English is the language used by 85% of international organisations, it should be taught through sophisticated devices such as computers. Computers cover science and technology, banking, economy and trade, advertising, tourism, tertiary education, international flights, international law, interpretation and translation, technology transfer, Internet communication and most professions in the world.

Chapter 2 of this study suggested that the 21st century is the cyber age in which cyber culture and Internet-aided education is replacing traditional teaching methods (Abdallah, 2005). Accordingly, it is reasonable to assume that computer-assisted language learning (CALL) could become a worldwide phenomenon. Saudi Arabia should not, therefore, exclude itself from introducing computers for teaching in general, and for the teaching of English in particular. The sense of globalisation generated via the Internet has enabled teachers of English in the study area to be acquainted with new innovations in the field of English language teaching.

Technological advancements can be employed to the benefit of teachers and students of English as a foreign language. The traditional methods of lectures and student drills can be replaced and/or supplemented by interactive learning via computers and the Internet. This has meant that the role of the teacher has changed from one who instructs and sets tasks for a group, then corrects mistakes, to one who guides each individual student through a learning process at that individual's own pace (Harasim, 2000).

This change in role for the teacher of English as a foreign language has meant that teachers are now much more mentors than instructors, guiding students to learn rather than instructing them in material that the teacher or curriculum deems necessary. This method of learning changes the dynamics of education. The teacher is no longer the fount of all knowledge, entirely responsible for the information supplied to the students. The students' responsibility is no longer limited to learning by rote the information supplied by the teacher. Electronic education has introduced the concept of autonomous learning, as learners have the opportunity to choose for themselves from a variety of options that have the potential to meet their needs and aspirations in language learning (Harasim, 2000).

Due to advances in the application of technology in the field of language learning, there is now a large volume and variety of resources available for use with computers and via the Internet. Learning via computers and the Internet could provide educational experiences with rich resources that are related to the learners' lifestyles and are available everywhere, at all times. This may not be attainable in traditional classroom settings (Abdallah, 2005).

Computers and technologies can contribute to good communication between the educator and learner. This creates opportunities for learners to improve and develop their language skills via technological means under the auspices and the mentoring of the teacher. In addition, it also opens channels for students to access information for themselves from websites at home, possibly with the advice of their parents and/or others. This method of mentoring enables learners to gain necessary information from various technological sources to improve and develop their linguistic skills (Al-Bouhi, 2001).

This chapter discusses the results of the survey and interviews regarding teachers' attitudes towards implementation of the use of computers and technology in language teaching in Al Madina, Saudi Arabia in the context of the findings of other contemporary research. The data were collected via the questionnaire and interviews. The data were analysed using statistical tools and the results of the statistical analysis

were discussed in Chapter 5. The results obtained are considered in the context of the questions raised by the research.

The discussion addresses the following questions:

1. What are the beliefs and attitudes of teachers pertaining to the teaching of English in Saudi Arabia?
2. How can teachers adapt their current, traditional methods of teaching to include CALL in teaching English?
3. How can CALL be effectively implemented in the schools of Al Madina?
4. What are the constraints to implementing CALL in Al Madina in Saudi Arabia?

6.1 Teachers' beliefs and attitudes to teaching English

This section addresses the first research question: "What are the beliefs of teachers pertaining to the teaching of English in Saudi Arabia?" Previous research has shown that instructional media can play a vital role in the design and use of systematic instruction (Al-Hazmi, 2003). The instructional format establishes conditions which enable the learner to gain knowledge, skills and attitudes. Instructional media could be interpreted as either the teacher or the textbook (Al-Hazmi, 2003). However, in this study, the media being considered are the photographic, electronic and mechanical means for processing and reconstituting visual or verbal information through CALL.

A minority (28%) of teachers believed that Saudi Arabia was technologically advanced in teaching English, while 21% disagreed and 37% strongly disagreeing (Table 3, page 106). This result is not an unambiguous endorsement for technological change in English teaching. The teachers may be satisfied with the *status quo*, but given the results shown in answer to other questions, where teachers do endorse such change, and indicate that they see this as beneficial for all, the number of teachers who disagreed or strongly disagreed that Saudi Arabia was technologically advanced in the teaching of English is suggestive that these teachers may be supportive of the implementation of up-to-date technology in English language teaching. The majority of teachers in the study area (88%) said they would welcome the idea of implementing the Internet in teaching

English an intermediate level (Table 8, page 113). CALL's flexibility for learning was considered to be an advantage by the participants in the study. Where provided, the Internet's lack of time constraints and the continuous, constant availability enables learners to learn anything, anywhere and at any time. Students can use and reuse materials as many times as they need or want. Using appropriate applications, students can receive immediate feedback during, or at the end of the session. The facility for instant feedback is particularly advantageous as it corrects the students' misconceptions during the session with the avoidance of negative face-to-face feedback with the consequent negative psychological effects that may result (Nelson, 2008). This is further supported by previous research, which found that a further advantage of CALL is that it can be culturally adapted to the local context. Grammatically, teachers can utilise a computer database to recognise, classify, correct and explain common errors that are due to the influence of the students' first language. In terms of independent learning, students can self-correct their work either outside or inside the classroom (Nelson, 2008). CALL materials were found to possess a flexibility that allows concepts and key elements to be repeated at standardised levels. This flexibility is also evident in the development of a dynamic learning process. Initially derived from a pre-determined syllabus, the course of learning becomes a continuously emerging and evolving learning path, individualised by the students themselves. For example, a monotonous worksheet based on a task, such as filling in the blanks can be personalised and made interesting by providing students with the opportunity to select material in which they are interested by using either the self-access self-assess mode. This is one example among many by which CALL facilitates the synthesis of a pre-planned syllabus through a decision-making process shared by students and teachers (Hamka, 2008).

However, it would appear that not enough information about the implementation of the Internet at the intermediate school level was available, as only 60% of respondents believed this to be the case (Table 9, page 115). This result indicates that improvements need to be made to increase the availability of information to teachers regarding the implementation of CALL via the Internet. A much higher percentage (87%) of teachers were familiar with the use of online language teaching and learning at the intermediate level (Table 12, page 119) and 67% were aware of the type and variety of interactive interaction available in schools teaching English via computer (Table 13, page 121).

Ninety-two per cent of teachers surveyed said teachers should be trained to teach using computers (Table 29, page 139) and 92% said they were competent in using CALL (Table 24, page 136). However, only 64% of teachers said they were competent in using CALL because they had been trained (Table 26, page 137). It is not necessarily the number of teachers who use computers that will determine the success or failure of the implementation of computer-assisted language learning in Saudi Arabia (Alshumaimerie, 2008). Success will depend on the proficiency and competence of the teachers.

Although teachers of English in the intermediate level schools in the study area believe Saudi Arabia not to be technologically advanced in teaching English via computer (Table 3, page 106), the level of knowledge in the Al Madina area about the basics of the computer and the Internet is believed (by 66% of the respondents) to be up to the level required for this to occur (Table 4, page 107).

The teachers' current tools for teaching English need to be noted. In the study area of Al Madina, teaching methods are mainly "chalk and talk" where the teacher lectures the students and they in turn practise drills. There is little interaction between teacher and student or between student and student (Al-Hajailan, 2003). At present in Al Madina, computers are not widely used in classroom activities and the teachers' tools consist mainly of equipment such as overhead projectors and audio recorders (Al-Hazmi, 2003). Based on the current poor English language ability of students, the quality of these resources is regarded as insufficient in terms of both quality and quantity. In this modern age, the materials that are currently available are either inappropriate or insufficient to accommodate the envisioned lesson content (Al-Hazmi, 2003).

The study revealed that 98% of the teacher participants believed that computers and the Internet can be sources of knowledge and a medium for teaching English (Table 7, page 112). To be successful, any changes in the method of teaching English, especially by computer, would require the whole-hearted support of teachers, so this belief is encouraging. In addition, 90% of the teachers believed that students would benefit from being taught English via computer (Table 17, page 127). This is a further indication that

teachers would be supportive of the introduction of computers in language learning in Al Madina.

Teachers mostly agreed (65%) that the electronic method of teaching English would assist in solving problems faced by Saudi students (Table 10, page 116). These problems, identified in previous research, include a lack of language interaction and practice (Abdallah, 2005). The majority (90%) responded that they believed that the system of the electronic method of teaching and learning would be helpful to them also, as teachers of English (Table 15, page 124).

Few intermediate school teachers of English in the Al Madina area are using computers in the classroom, although 88% of participant teachers said they had previous experience with computer-aided language teaching and had used a computer in the classroom (Table 32, page 141). Although these particular teachers had used computers in the classroom they were using software not specifically designed for the purpose. Twenty-four out of the 25 interviewed said that teachers need a laptop or a computer in the study area for teaching English (Table 23, page 136). This indicates that they believe that computers are necessary for teaching English to their students. This belief is further reinforced by the results in Table 19 (page 130) where 88% of respondents said they believed that the Internet would be successful in providing the appropriate level of English tuition for schools at the intermediate level. The reasons given by teachers (Table 24, page 136) for the belief that the introduction of computers and the Internet into the classroom are necessary to improve teaching and learning of English in Al Madina were that it helped students to understand and access information (60%); it was an effective way of learning English (28%); and, it saved time (8%).

When asked if it was more effective to teach English using computers, rather than via traditional lecturing methods, 100% of participants responded in the affirmative (Table 34, page 142). The positive aspects of computer aided teaching (Table 33, page 141) were that it helped students understand and receive more information (48%) and that it was an effective way of conveying information (32%). Further reasons for the belief that computer aided language teaching was effective were given in Table 35 (page 143): it increased practice (32%); attracted the attention of the students and helped in

presenting material (24%); combined the two methods of traditional and computerised methodology of lesson delivery (24%); enhanced understanding (12%); and it allowed the teacher to follow the progress of the students more easily (8%). These results are indicative of the teachers' readiness and majority support for the implementation of technological change in English teaching in Al Madina. The results are also suggestive of a desire of these teachers to become more technologically advanced in English teaching because they believe that this would be advantageous to their students and to themselves.

When asked to consider the advantages of using computers in teaching English (Table 36, page 144), teachers responded that it helped students to understand and focus their attention on the lesson (60%); that it was very effective for providing visual and listening information (16%); and that it was easy to show progress and promote understanding (20%). 89% of teachers also believed that learning English via computers and the Internet would bring improvements because of the level of interaction offered (Table 20, page 131). This is an important consideration because, at present in Al Madina, the low level of interaction is seen as one of the failings of the traditional method of teaching (Al-Hajailan, 2003). Another advantage of computer aided language learning is that it affords the ability to learn at a distance. The responses chosen in Table 21 (page 132) show that 73% of teachers believe that online schooling can help form a link between teachers and remote students. This belief that computers are effective teaching devices is also supported by many experts in the field of English teaching (Al-Mekhlafi, 2006; Alshumaimeri, 2008). Participatory activities present students with interactive tasks that provide them with the opportunity to develop and strengthen their capabilities for problem solving in a real world context (Al-Mekhlafi, 2006). It allows the students to develop learner-content interaction as well as learner-learner (Moore, 1989). This is an advantage of CALL, as the students are directed through the essential unit and entry level questions. These types of Internet activities could provide meaningful learning experiences that focus on curricular objectives.

The overwhelming majority (98%) of teachers also believed that computers provided an entertaining way of teaching English (Table 22, page 134), which suggests that students would engage with material. This enables students to take responsibility for their own learning, as they become active participants and develop the capacity for self-directed learning. In this sense, the use of CALL and the Internet can be considered as enabling technologies because they permit access to a vast range of resources and information, outside and inside of the classroom. But most importantly, the capacity for self-directed learning is developed, as the students can independently initiate their own learning pathways, either outside of the classroom or, where permitted, concurrent with the lesson in the classroom. This is further supported by previous research, which found that Internet use can encourage passive or reticent students to become active participants in the learning process (Nelson, 2008).

The teachers surveyed considered the use of CALL and the Internet for English to be enjoyable for both teachers and students. They believed that CALL facilitates an atmosphere that is highly conducive to learning. The teachers indicated that the novelty of technology encouraged enthusiasm for learning as students might not feel bored and distracted as they tend to do in a traditional classroom setting. This is because technology provides a means to be more interactive (Table 13, page 121). This suggests that technology use could promote the development of co-operative learning endeavours among students. Through exposure to the learning styles of others, the students could discover new ways of learning. Another positive aspect of co-operative learning could be the development and enhancement of social relationships between students. This is because within the co-operative learning context students would be encouraged to respond to each other's questions (Stephen, 2010). CALL is a flexible technology that can accommodate different learning styles, thereby enabling students to learn about what they enjoy and thus to love what they learn (Nelson, 2008).

Some participant teachers based their belief in the appropriateness, effectiveness and enjoyment potential of computer aided language learning through the application and use of their own computers and through their own independent initiatives, which became clear during the interview process. These teachers had purchased their own computers without the aid or official support of the education department of Al Madina.

Such initiative suggests that EFL teachers may be keen to expand the use of CALL throughout the intermediate level schools in the study area.

However, in Table 6 (page 110) respondents showed a mostly neutral response (42%) to the statement that the efficiency and quality of the Internet provided by the Saudi Arabian Government is satisfactory for implementing online learning and more disagreed (35%) than agreed (23%). This suggests that teachers are ambivalent regarding the efficiency and quality of the Internet provided by the Saudi Government when it comes to applying it to the implementation of online learning and this is an indication that improvements need to be made.

While 47% of respondents believed that students in the study area had adequate access to the Internet and computers at home and at school to allow them to use technology for the purpose of learning English, 28% were undecided and 25% did not believe that students had adequate access to computers and the Internet (Table 5, page 109). This is an indication that improvements need to be made in this area as well, if CALL is to be successfully implemented.

When asked to consider the disadvantages of using computers in teaching English (Table 37, page 147), 64% of teachers said there were no disadvantages while 24% said that the current material was not well programmed. Twelve percent said that, if there was a disadvantage in using computers, it could be related to the nature of the lesson itself. None of them mentioned technical difficulties. This suggests that most EFL teachers in Al Madina have very optimistic views about CALL and tend not to acknowledge or know about its potential difficulties, especially its technical difficulties. Previous research has established that there are disadvantages to the CALL system for Saudi Arabian schools as there are imperfections and limitations of the software itself (Hamka, 2008). At present the CALL software mainly deals with English reading, writing and listening skills. There are some speaking programs that have been recently developed, but their functions are limited and somewhat inflexible. A program should ideally be capable of understanding the learner's spoken input, be able to evaluate and correct this as well, not only for content, form, grammar and syntax, but also for its idiomatic contextual appropriateness (Hamka, 2008). Speaking programs should have

the ability to identify a learner's problems and errors in pronunciation, syntax or usage, and then logically arrive at an appropriate, intelligent, and quickly considered alternative response derived from a variety of idiomatic options. The inability of CALL to address and accommodate unexpected and unusual learning situations is a distinct disadvantage of the current software. A second language learner inevitably encounters an ever-changing array of learning situations, perceptions and challenges in the course of acquiring a new language. For instance, current computers and CALL cannot immediately deal with a learner's questions in the way that a capable human teacher can, since computers possess only limited, artificial intelligence (Almousa, 2008). In terms of interactive potential the available software is simply insufficiently developed when compared to the degree of articulation possible with a human tutor. These shortcomings are a definite disadvantage of CALL and detract from the appeal of adoption of the technology by the Saudi Arabian education system. However, CALL could be adopted in its current form as a valuable adjunct to face-to-face teaching with the teacher fulfilling a mentoring role and addressing the students' questions when they encounter unexpected and unusual learning situations that CALL is currently unable to address.

The lesson difficulties were reported to be problems with the syllabi being designed for traditional lecturing methods and not for use with computers. The difference between the viewpoints of no difficulties and problems with programming, suggests that there is little experience in using CALL in teaching English in Al Madina. There is no suitable curriculum or syllabus designed to use CALL or computers and there are very few computers being used for teaching English (Al-Hazmi, 2003). Because programs have not yet been designed for use in Saudi Arabia, technical difficulties could cause many problems and could affect and/or slow down the successful implementation of CALL. Overcoming these difficulties would need the input and support of the Ministry of Education and the Saudi Arabian Government. Additional constraints were late programs and not having effective training for pre-service teachers about CALL.

Although 88% of respondents said that they would welcome the idea of implementing the Internet in teaching English, especially at intermediate level (Table 8, page 113), at present CALL suffers from a number of distinct disadvantages. Teachers are concerned about the lack of teachers trained and competent in the use of CALL. They have also encountered software imperfections that reveal that it is not adequately designed to accommodate unexpected demands and situations.

The study participants considered it to be of utmost importance that teachers and students have a basic working knowledge of computers and software usage prior to, and/or simultaneous with, undertaking a course of second language teaching and learning. In contrast to Al Madina, other schools in Saudi Arabia where computer resources within schools are scarce and there are no teachers who are CALL trained are at a disadvantage. It is obvious that computers and their educational applications will only be of use for those who are trained and familiar with the technology in Saudi Arabia and particularly in Al Madina. In general, the current lack of trained teachers makes it difficult to functionally and appropriately implement CALL in schools in Saudi Arabia. Therefore, to implement CALL throughout Saudi Arabia it can be concluded that both students and teachers must have a basic foundational knowledge of information and communication technology as a prerequisite for the general implementation of CALL across all schools.

In the light of the findings of this study, those surveyed felt that students and staff should ideally possess a basic proficiency in the English language prior to utilising CALL. This is because English is the basic language of computers and the Internet. Therefore, in the initial stages of learning, CALL cannot currently completely override the need for basic English ability, nor can it be a complete substitute for traditional methods of teaching. However, the acquisition of a rudimentary English knowledge can enhance and optimise the experience of using CALL for students and teachers alike.

Initially the two teaching approaches will need to exist and operate simultaneously until the traditional methods are enhanced by the CALL technology. However, Nelson (2008) asserts that computers and Internet technology should always be considered to be merely another tool or adjunct to the lesson rather than an independent mode of

teaching. The teacher needs to appreciate and consider the individual learning styles of each student as well as how effectively they are able to use a computer during lesson time so as to maximise the learning experience, when and where computers are available. This is crucial to the success of the educational experience. Thus the current situation in Al Madina, where computers are not widely used in classroom activities, is inherently disadvantageous as it restricts and limits opportunities for teachers and students alike to become acquainted with the technology and thus utilise CALL to its full potential and benefit. The participants in the study have concurred that training is necessary to enable teachers to utilise technology in the teaching and learning process. Therefore, the lack of trained teachers and on-the-job training in CALL is perceived as a distinct impediment to the introduction of CALL in Al Madina.

This finding of the study reinforces the importance of the teacher's understanding or knowledge of their student's learning capabilities and style regarding the use of technology. Under the present conditions, CALL cannot be considered as a comprehensive alternative or substitute for traditional teaching methods. The participants in the study considered that the ways in which students use computers are more important than how frequently they are able to access computers. This is in accord with Nelson's (2008) inferences.

The study participants indicated that through training and experience, teachers needed to be aware of contemporary, state-of-the-art technology in the field of computers and CALL in particular. This, in turn, will provide their students with opportunities to obtain contemporary insights into the constant and rapid advances in this science and technology. Thus, in Saudi Arabia, training courses for teachers of foreign languages must be well designed to accommodate these progressive advances. These courses should meet international standards and expectations. According to the study participants, the current CALL technology is insufficient in this regard. Nevertheless, the advantages and novelty value of the technology and Internet undoubtedly means CALL will spread of its own accord among learners and teachers.

Table 24 on page 136 presents findings from the interviews that suggest that teachers of English in the study area believe computers are necessary for teaching English. The intermediate level English language teachers tend to agree that a computer helps their students to use English and to be proactive in using the information the medium provides. Much of the literature presented in Chapter 2 was in support of such a viewpoint (Abdallah, 2005, Al-Hazmi, 2003). The computer can provide multimodal and multidimensional networks that can enrich the students' and teachers' experience. This is, of course, reliant upon the provision of stimulating software focused on teaching English. Likewise, the development of teaching using CALL could result in new technology, greater versatility of software platforms, software languages and other associated innovations. Promotion of a computer-oriented and motivated atmosphere in the field of English language teaching may facilitate other beneficial developments. The teachers of English in the study area have been exposed to the technology of their own volition and are mostly enthusiastic about it. Overall, there is a sense of readiness among them to adopt computers as their chosen platform for the delivery of English language teaching.

The results of the questionnaire and interviews show that the participants in the study consider CALL technology advantageous for teaching English as it is a versatile medium, audio-visually attractive and saves time. The sample group tend towards a state of readiness and willingness to utilise the technology, largely due to their own independent investigations into CALL. The teachers indicated that they believe CALL is more effective in teaching English than traditional methods and the teachers also maintain that the students themselves are attracted to the format because it engages their attention in terms of lesson presentation. Additionally, this computerised format may also stimulate and promote independent self-directed learning. These research findings concur with the opinions of the contemporary writers presented in the literature review, as well as with the fieldwork findings.

However, the answer to the first research question also needs to take into account present inadequacies in both computer software and hardware, with respect to student access, both in the classroom and at home, as well as in the range of capabilities of the programs. Appropriate hardware must be made available along with compatible

software. The above considerations provide a comprehensive answer to the first research question. The following section covers the second question of the research: How can teachers adapt their current, traditional methods of teaching to include CALL in teaching English?

6.2 Traditional methods and CALL implementation

In the 21st century all walks of life are affected by advances in technology and as a consequence EFL teachers and learners may be motivated and heavily influenced by new technologies in the field of English language teaching and learning. Vrasidas, Georgious & Papanastasious (2007) argue that as far as methodology is concerned, CALL is considered to be highly eclectic, linking traditional methods with the new technology represented by computers. A student can learn through a combination of face-to-face interactions and with groups via technological communication. This will change the state of English language learning throughout the world, including the Arab community. Pennington (2004) has noted that computer use increases and promotes self-learning as students have more time available for learning when they are able to use computers at home. This will enable students to make more extensive use of the resources available. The conceptual framework which employs constructivism and post-positivist empirical research (quantitative and qualitative), and the relationship of the prospective English teacher to the classroom and to the students, as explained in the Chapter 3, contributes to the analysis of whether computers help students to interact and to participate in constructing knowledge, in contrast to traditional learning methods, where the role of the students is more passive.

Teachers of English in the study area are accustomed to teaching English using traditional methods (Al-Hajailan, 2003). With the advent of the computer, four teachers in three schools have introduced technology alongside traditional methods, as this study has discovered that computer use is advantageous in helping their students to learn English. Implementation of computer use has begun to spread in some parts of the study area.

A computer or laptop has become a necessity according to 96% of participant teachers (Table 23, page 136). Teachers either have begun to use computers in their teaching or else view it as imperative to do so, were they to be made available for that purpose. Some teachers in the study area through their own efforts are using their own computers in the classroom, confirming support for the idea that they consider a classroom computer to be necessary. Sixty percent of teachers think it is advantageous to use computers in teaching English because it helps students to understand and gain more information and 28% believe it is an effective way of learning English (Table 24, page 136). The prevailing traditional methods do not preclude implementation of computer use in teaching English in the study area.

Teachers in the study area believe they are competent to use CALL (92%), even though only some of them are currently using this technology (Table 25, page 137). Indeed, there is a general readiness among teachers to use technology in general and computers in particular, for the purpose of teaching English in the Al Madina area, as revealed by the interview responses.

When teachers of English in Al Madina were asked if they were competent to use CALL for teaching English, 92% of them replied that they believed they were (Table 25, page 137). A small number of participants indicated that there were some problems with a lack of training at pre-service and in service for teachers (Table 26, page 137). Overall, the use of CALL in the study area was considered feasible by the participants. Teachers of English in the study area believe that the use of CALL in teaching English would help their students to a better understanding, save time and be more efficient. The lack of training in CALL, however, is something that will need to be addressed so teachers can adapt their teaching to include CALL.

Almost all of the teachers have experience in using a computer and very few require basic training (Tables 25 and 26, page 132). While most (88%) state they have previous experience in teaching English via computer (Table 32, page 141), 92% also believe that teachers should be trained to teach English using computers (Table 29, page 139) and the main reason chosen was that training increased teachers' experience of using computers (Table 30, page 139). When asked why there could be reasons that teachers

did not need training, 77% made no suggestions (Table 31, page 140). This suggests that most of the teachers did not agree that teachers did not need training. Attending training courses would enhance teachers' ability to use CALL effectively. Teachers need to develop and improve their skills from being mere users of computers to being experts in dealing with computers as an educational tool. The 88% of teachers who stated that they have taught English using computers (Table 32, page 141) did so using the current curriculum which is considered inadequate (Al-Hazmi, 2003). Should syllabi designed for using CALL become available, all teachers should have training specific to those new syllabi so they become empowered to use CALL in their teaching.

According to the teachers in the study area, the advantage of using computers to teach English is that they help students to understand and focus their attention on the lesson. Moreover, computers provide effective audio-visual materials which are easy to show and understand (Table 36, page 144). According to the teachers of English in the study area, Saudi Arabia is not particularly technologically advanced in computer use for teaching generally and for teaching English in particular. This indicates that the EFL teachers will encounter some problems in implementing and using computers in the schools within the study area. However, the findings show that most of the teachers believe they have knowledge and skills in the use of computers. This should be sufficient to make the move towards implementation feasible. Training in the field of using computers for the purpose of teaching English is necessary in order to prepare teachers to adapt their teaching methods to accommodate CALL (Table 4, page 107) regarding levels of participants' computer knowledge).

Survey responses indicate that participants believe that only some students in the study area have access to the Internet and computers in their homes and schools which would allow them to learn English online (Table 5, page 109). As more of the students in the study area acquire basic knowledge and gain access to the Internet and computers, teachers consequently should also have access and an even wider knowledge. This would ready them for the implementation of CALL. CALL could then supplement and/or replace the traditional methods of teaching English at the intermediate school level in the Al Madina area. Some teachers (23%) in the study area strongly agreed with the idea that computers should be investigated as an economical replacement for face-

to-face teaching, 53% agreed, and only one teacher disagreed with this idea (Table 16, page 125). A small majority (53%) of teachers said that online schooling should replace face-to-face teaching (Table 18, page 128). Once there is a suitable syllabus, teaching English by computer may not be as labour intensive as traditional lecturing methods, so it is logical there could be an economic benefit to the education system.

It is unlikely that problems will arise from teacher resistance to implementing the general use of computers in all the schools of the study area and the Kingdom at large as they see computers as necessary (Table 23, page 136). Teachers are already acquainted with advances in technology and many have already implemented some computer use in teaching English through their own personal efforts. However, because of insufficient training and the lack of software and an up-to-date curriculum, the effectiveness of these efforts is in doubt. So, a readiness is present in the attitudes and views of the teachers in the study area for broader implementation of computer use in teaching English. All the teachers in the study area would be willing to use the Internet in teaching English at the intermediate level (Table 27, page 138).

Teachers of English in the study area said that computers provided their students with greater opportunities to practise English outside the limits of the classroom. Students can use different ways to learn English. For example, instant messages (IM) and video chat (VC) provide students with continuous opportunities for language exposure.

The findings show that teachers in the study believe the implementation of CALL could be advantageous for them and their students. The findings also show that teachers believe that with sufficient hardware, software and training, their current teaching methods can be adapted to include CALL. The following section deals with the third question of the research: How can CALL be effectively implemented in the schools of Al Madina?

6.3 CALL implementation in the study area

This research argues that computers are the most appropriate devices for language teaching and learning. In 2011, King Abdullah of Saudi Arabia decreed that all students from the age of nine should undertake formal English teaching throughout their entire schooling (http://www2.moe.gov.sa/english/Pages/default.htm). This has enhanced and raised the status of the English language in the Kingdom. It has created a state of readiness among the teachers of English in the Kingdom, including English language teachers at the intermediate level schools in Al Madina, the focus of this study. This state of readiness on the part of teachers could facilitate a smooth transition to integration of CALL into the educational framework. Once teachers have a thorough knowledge of the methodology, they can utilise its potential. Effectively, this will assist optimisation of both lesson delivery and students' reception. It will hopefully result in positive lesson outcomes and progress in the form of students' advancement in English language skills, with the ultimate aim of promoting students' proficiency in the language.

6.3.1 How can it be implemented?

There is a large body of literature concerning the use of computers for teaching in general and for teaching English in particular. Experts' contributions to CALL studies reflect its significance in the field of teaching English. Abu Samak (2006) writes of a program provided by the United Nations Development Program (UNDP) which is intended to promote administration and reduce poverty in the Arab world. The program employs various communication technologies, one of which is the computer. This program requires cadres to be trained to use new technology. It will encourage computer use in all walks of life and its proliferation will certainly affect the field of education.

The use of computers in teaching English has given rise to new technologies related to its usage in teaching English (Abu Samak, 2006). These include discs, software languages and Internet applications with email and chat room functions. These new technological products can assist students in Saudi Arabia to develop and improve their standard of English learning. While Saudi Arabia is financially able to build the ICT

projects necessary to implement and enhance the infrastructure the country, only 23% of participants felt that the government was currently providing satisfactory Internet resources (Table 6, page 110). Ninety percent of the teachers believe that the government of Saudi Arabia should make a more serious commitment towards providing a better online learning system (Table 14, page 122). Saudi Arabia has the financial resources to make this possible. The development of high quality and efficient Internet access is therefore an important step towards the implementation of CALL.

In addition, participants indicated that some students have insufficient access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching and learning (Table 5, page 109). If the number of students that have access is increased, it may become possible to make the use of computers universal for teaching and learning English throughout the study area, but student access must be improved if this is to occur. The results also reflect class differences in education in Saudi society. In Saudi Arabia, electronic teaching systems are found only in certain schools, particularly in upper class schools (Table 11, page 118). The systems existing in those schools could be used as a model to design a system for use in all schools throughout the Kingdom to enable use of computers in schools to be extended to cover both affluent and less affluent social classes (Al Sagier, 2008). The efficiency and quality of the Internet provided by the Saudi Arabia Government is not regarded as being completely satisfactory yet for accommodating online language teaching and learning (Table 6, page 110). So far this has not proven to be a substantial barrier to the process of implementation of computer use in the study area. The majority of teachers of English in the study area said they would welcome the idea of using the Internet for teaching English at the intermediate level (Table 8, page 113). These results suggest that teacher resistance would not be a barrier to implementation of CALL in the study area for English language teaching and learning. It is possible that these findings could be extrapolated to advocate the widespread use of such technology in Saudi Arabia.

The contribution of CALL to improving the methods of acquiring different language skills has been outlined (Almousa, 2008). Almousa's argument was supported by Vrasidas (2007) in terms of methodology. CALL is a highly eclectic field that employs computer-assisted learning. This is in addition to the possibility of borrowing from applied linguistics. Methodological eclecticism tends to be an effective method in language teaching, when teachers have the ability to borrow the best from each method. Computers are an appropriate tool for eclecticism in teaching but it is important to train teachers in the methodologies adopted by the computer to deal with the teaching of English. This new method, brought about by the introduction of the computer, requires continuous training courses to enable teachers to stay up-to-date with computer use for the purposes of teaching. This is supported by the interview results, which show that 76% of participants felt that training increased competency with the implementation of CALL (Table 26, page 137). Ninety-two percent felt that training should be provided for English teachers (Table 29, page 139). The research shows that the computer as a teaching and learning device requires the training of teachers as a prelude to their introduction throughout the Kingdom. This will contribute to producing learners who are independent and able, when required, to make wise decisions. Teachers of English in Al Madina have provided reasons why they consider themselves to be competent in using computers in teaching English (Table 26, page 137): 64% of the respondents said that they use computers in their teaching because they are trained to do so. While the existence of a substantial majority of computer trained teachers in the study area will help to facilitate implementation of computers is English language learning in Al Madina schools, it will be necessary for all teachers throughout the country to be trained, if computer use in language learning is to become universal throughout Saudi Arabia. Four percent of the respondents said that they use computers without difficulty while the majority of them have had some training. Once there are a sufficient number of trained cadres there will be fewer problems with implementing computer use. While only 4% of respondents expressed confidence in using computers without difficulty, the percentage of the participants that perceived themselves as competent in using CALL was very high (92.0%, Table 25, page 137). Further research is needed to determine what further training is necessary to enable those teachers who perceive themselves as competent in this field to overcome the difficulties they have using computers, and to

enable the teachers who do not view themselves as competent to have grounds for confidence.

A substantial majority of teachers regard having a computer or laptop in the classroom as necessary to aid their work of teaching English (Table 23, page 136). The findings suggest a basic degree of readiness among the participants chosen for the research for the implementation of computers in teaching and learning English. Teachers of English in the intermediate level schools of Al Madina listed their reasons for believing computers were necessary in their classrooms (Table 24, page 136). They said that computers helped their students' comprehension and provided them with almost any information they required to help them to learn English. This indicates that many teachers of English in the study area already value the use of computers in their classroom teaching activities. As 92% of the teachers of English in the study area have an interest in using computers for teaching English, this should encourage their implementation for this purpose. It is to be hoped that this readiness will promote positive responses from officials in the study area.

Information about the implementation of the Internet at the intermediate school level is available to the majority of teachers in the study area, but there is a substantial minority who report that they do not have access to such information (Table 9, page 115). The indications are that improvements need to be made to increase the availability of information to teachers to establish a solid foundation upon which EFL teachers can advocate for and support official endorsement of the implementation of technology in language teaching. Therefore, for CALL to be implemented successfully in Al Madina, training courses of an ongoing nature would need to be designed and introduced. The Saudi Arabian education system has the capability for adaptation to enable this training to be implemented in order for the installation of CALL to be effective.

CALL is believed to be significant in helping individual learning (Pennington, 2004). The interview results supported this previous research, as 100% of respondents believed that using computers to teach English would prove more effective that traditional methods (Table 33, page 141). Reasons for this include the ability to increase the amount of language practice completed by students and the increased interest of

students in the language when it is presented through computers (Table 35, page 143). This could motivate students to extend their learning beyond the classroom and take the language to their homes. This allows students to make the English language part of their daily communication and provides additional opportunities for exposure. The teachers surveyed tend towards agreement that computers can and should be implemented, and towards acceptance of computer use. There is general satisfaction among the research participants with the use of computers in teaching and learning English. The support of teachers of English in the study area for the use of the computer as a teaching and learning device can provide an impetus for educational administrators to move towards implementation of computer use.

Existing research demonstrates that the integration of CALL with holistic language skills will help to produce a fertile environment to improve learning for students of English (Brussino, 1997). Gerlach & Ely (1980) have examined the properties of language learning software and consider them to be the backbone of the resources needed by teachers to carry out their profession effectively. These latest technological innovations in teaching and learning are appropriate for Saudi Arabia. The computer, in particular, is recommended because it can store a huge amount of information in a very limited space. Heift (2008) is specifically concerned with satisfying learners as individuals. He maintains that designing models for learners will answer the needs of each individual learner, so it will be necessary for models to be designed for CALL to be effectively implemented. These models will also help to reveal individual differences between learners. Computer use encourages autonomy (O'Malley & Chamot, 1990). O'Malley and Chamot identified three stages of knowledge development – i) cognitive, ii) associative and iii) autonomous. To be effectively carried out, these three stages would benefit from the computer as a teaching and learning device. All language skills and learning situations can easily be simulated using computer technology, as the computer is a flexible instrument (Jenks, 2009). Participants of the study also found that computers could be used as a medium for teaching English, with 98% agreeing (Table 7, page 112) and 88% of participants indicating that they would welcome the implementation of the Internet in teaching English (Table 8, page 113). In the interviews, 96% of respondents felt that a computer was necessary for the classroom (Table 23, page 136) as it would assist students in understanding and accessing

information, as an effective way to learn English and as a time saving measure (Table 24, page 136). The computer is clearly one of the most essential devices for teachers and learners in the study area and installation of sufficient numbers of computers is necessary for the effective implementation of CALL.

Based on these findings, most EFL teachers in the study area would be likely to support the implementation of computer use in general and for teaching and learning English in particular. The information provided by the theoretical and practical phases of the research, constitutes an answer to the third question of the research in the study area. The following section discusses the fourth question of the study: "What are the constraints to implementation of CALL in Al Madina in Saudi Arabia?"

6.4 Constraints to CALL implementation

In this section, the study identifies problems that might hinder implementation of computer use for teaching and learning English in Al Madina intermediate schools. The literature, together with the primary data, supports the claims and hypothesis of the study concerning the problems of CALL implementation.

According to the results of the questionnaire and the interviews in the study area, the teachers of English in the intermediate schools have demonstrated a basic working knowledge of CALL in classrooms but they believe that English teachers should be trained to teach using computers (Table 29, page 139). Because CALL is a new, up-to-date system all teachers would require additional training. Otherwise, problems will arise in the use of technology in the field of English language teaching and learning. Training could enhance the capability of those teachers of English who are new to CALL and increase the effectiveness of those already familiar with the technology (Zaytoon, 2005). If training in teaching English using computers in the study area matches the new innovations, this would result in a high degree of competence throughout the workforce. It is therefore clear that one of the anticipated constraints that stands in the way of implementation of computer use in teaching English is the untrained and partially trained teachers. Research, conducted by Sultan Al Hazmi at King Khalid University (2003), accurately reflects the situation of teacher education in

Saudi Arabia. One of his main findings is that the programs prescribed for teacher training fail to produce efficient teachers who would be capable of coping with new technological innovations in the field of teaching English. Teachers will need to continually update their skills through training programs. Otherwise, a time will come when teachers' skillsets are outdated, especially those teachers who are not using computers in everyday teaching activities.

Alshumaimeri's (2005) study indicates that untrained teachers face difficulties in using technology to implement CALL. It is crucial to the students' learning that teachers are sufficiently trained in information technology (IT). The behaviour of teachers can greatly influence the learning process and a teacher trained in CALL implementation is more likely to be able to facilitate students' learning via this medium. This is emphasised by research conducted by Moras from Brazil (see Chapter 2, page 26). Hampel and Stickler (2005) suggest that particular online technologies exist to help teachers to develop skills in teaching using information and communication technology. Compton (2009) suggests how novice, i.e. pre-service, teachers might start using computers and how they might acquire the basic technical skills in order to use software by recognising the features (pros and cons) of the computer. The novice teachers in particular need special assistance in order to enable them to teach English effectively.

The students in the study area are also to some extent acquainted with the idea of using computers to learn English. Potentially this situation will make the teacher's task of teaching English via the computer easier. Having learners with prior experience in using computers for many purposes, including learning the English language, is an asset. But among the students, there is a small number whose knowledge of the computer is too poor to enable them to use it to learn. These students will be a problem if their needs are not considered. Their lack of knowledge may be attributed to the fact that their families cannot afford to provide this service. Their problems will be resolved when computers are available in all the schools and they have the opportunity to use a computer in the school laboratory.

In the survey of the intermediate schools of the study area teachers indicated they faced serious problems in designing their lessons from the current syllabi to be presented by a computer. This, as almost all of them commented, is attributed to the fact that the present syllabi have been designed to be taught by traditional methods. They find it difficult to design lessons from the current syllabi to fit the new technology. Officials must acknowledge the fact that new syllabi should be designed to suit computer usage. There should be a general updating of all syllabi. This will clearly constitute a constraint to CALL implementation in the study area. The shift from traditional methods of teaching English to modern ones requires responsible officials to design a roadmap for teacher training to pave the way for the comprehensive implementation of computers in the study area. The EFL teachers in the study area are encouraged to provide and participate in ongoing courses and workshops to permit the continual development of the workforce's overall capacity for working with CALL. For example, tuition regarding software such as PowerPoint will permit teachers to present lesson content to its full audiovisual potential. This arresting presentation format can reinforce lesson information objectives and thus maximise the opportunities for positive lesson outcomes. It is noteworthy that almost all the teachers in the study area indicated that they had training in the use of computers in teaching English. Very few of them are untrained. This minority should not be ignored or left behind. Further training should be available to all teachers to ensure that they are all possess a similar level of skill and knowledge in the use of technology for teaching English.

Another problem is that the traditional school environment needs to be provided with all the necessary technological equipment. There should be computer labs and Internet access attached to each school to prepare the way for the full implementation of CALL. As technical supervisors and educational administrators provide technical back-up for the teachers for their teaching via computers in the study area, it is essential that the government commit to the development of infrastructure in the area to enable the implementation of CALL. The survey also revealed that the participants believed that student access to technology was not complete (Table 5, page 109) and this appeared to occur along social lines (Table 11, page 118). For effective implementation of CALL for the teaching of English, computers and Internet access would need to be provided to all students, including those from lower socio-economic backgrounds.

In spite of these obstacles there is sufficient teacher support for CALL's use to make implementation possible if the decision-makers have the will to enact the process and address the obstacles. Another encouraging factor is that existing satisfactory infrastructure to support the platform is available in Saudi Arabia.

6.5 Conclusion

The findings of the research indicate that the majority of the English language teachers in the study area consider computers and the Internet to be of benefit in teaching and learning English. The teachers of English acknowledge the usefulness and validity of computerisation in English tuition, both as a resource for lesson design and deployment. This high incidence of acceptance of computers and the Internet is analogous to the number of teachers within the interviewed sample who consider themselves and their colleagues to be adequately trained and competent in the use of CALL. Their personal initiative has advanced the group's readiness and willingness to adopt the methodology and be up-to-date with current approaches to English tuition.

Participants in the research found that the advantages of CALL outweigh the disadvantages. The facility of CALL to stimulate motivation, enthusiasm and autonomy within the learners of a foreign language, and simultaneously provide compatible learning at flexible times, immediate, detailed and relevant feedback, error analysis and a logical process of syllabus application, make CALL a valuable inclusion in any course of learning a second language. The potential for the software to be culturally and linguistically adapted is appealing, particularly in areas of Saudi Arabia where English and Western customs are rarely encountered and might be considered intimidating, imposing, or even abhorrent (Hamka, 2008).

The participants in the study considered that the advantages of utilising CALL include the software's facility to stimulate self-motivated autonomous learning that is time flexible and provides immediate feedback including analysis of errors, covering the syllabus systematically. A syllabus incorporating CALL technology can also be tailored and adapted culturally and linguistically to a particular culture, locale and first language.

Exposure to contemporary English language interpretations, where appropriate, could overcome cultural differences. From the responses to question 8 of the questionnaire it might be inferred that, for some populations, computer/online presentations of lessons is less confronting and intimidating than direct presentations from Westerners. Also, owing to the geographical isolation of some populations, the implementation of tuition via the Internet can overcome vast distances between the teacher and student, making English tuition accessible for isolated students.

Participants indicated that they believed CALL motivates learners so that they can follow programs of English language learning without becoming bored (Al Abbad, 2009). CALL enables students to use a variety of programs to learn English as a second language, either individually or in groups. Using a computer for English allows flexibility. The CALL format provides students with the opportunity to independently recite and listen frequently, without pressure from fellow students or the teacher's supervision and monitoring inside the classroom.

Teachers have also discovered that computers are a vital tool for learning and can add support in performing daily classroom activities. The process of learning English takes place inside and outside the classroom more effectively when using CALL. Other educationalists, from different cultural backgrounds, who are interested in language teaching, support the use of CALL in education (Clarke & Gugger, 2007). Learning English using CALL bridges the gap between different cultures and beliefs and is considered to be a good means to build relations and friendships. The findings support the study hypothesis that by using CALL we can encourage the students' confidence in English language skills.

It was found that many of the survey participants were already adapting to include the use of computers and the Internet within their classrooms. One difficulty that they faced was the inflexibility of the current syllabus, which did not lend itself to the implementation of CALL for the teaching of English. Despite this constraint, teachers expressed confidence in their ability to integrate the use of computers and the Internet into their current teaching practice, provided that they received sufficient hardware, software and training. CALL has already been partially implemented in the study area

and has been endorsed by those teachers using it. This is an encouraging sign that further implementation may gain universal support. The ICT systems that already exist in some of the schools of the study area could serve as design templates to extend the system throughout the area. This will also help in answering the second question of the research.

The following steps need to be taken, both in order to implement CALL effectively in the schools of Al Madina and to overcome constraints facing the use of technology in English classrooms. The quality and efficiency of the Internet provided by the Saudi Government would need to be improved in order to accommodate online language teaching and learning. Improvements will contribute greatly towards overcoming the logistical inadequacies prior to the implementation of computer based education in the study area. Available and enthusiastic experts in the field of computers could be consulted to help implement computer use in the study area and throughout the kingdom. Moreover, Saudi Arabia can make use of the (UN) Program of Information Communication Technology in the Arab Region (ICTIAR) to train the required personnel in the field of education through foreign experience in the technological domain. The already existing program designed by the United Nations for the implementation of computer use in the Arab world could also be of great benefit for implementing computer use in the field of English language teaching and learning.

Teachers of English in Al Madina area have some previous knowledge of how to use computers in teaching and learning English. Computers are unlikely to be implemented efficiently or effectively if the teachers are untrained in using the technology. Teachers of English at the intermediate level in the study area are aware of the types of software based interactions that are available for teaching English via the computer. Most teachers of English in the study area have a strong desire to use computers in teaching English. They are highly motivated and have professed their readiness to implement computer use within their teaching.

Most teachers in the study area favour computer use being introduced for teaching and learning English. This creates a generally positive and receptive atmosphere for the people responsible for implementation of ICT systems.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.0 Introduction

The findings of this study may alter existing perceptions regarding the use of CALL to facilitate learning of the English language in Saudi Arabian schools. It is hoped that the study findings will influence educational administrators and technical supervisors to realise the potential benefits of implementing CALL throughout the Kingdom.

In introducing this chapter, the researcher acknowledges the considerable effort invested by the Saudi Government in advancement of the teaching of English. The government has decided to begin teaching English to all students, both boys and girls, from middle primary school (students aged nine and ten) instead of waiting to start at the intermediate school level (students aged 13 and 14). The Minister of Education, Prince Faisal Bin Abdullah has also confirmed that, over the next few years, English will be generalised within the school curriculum for students aged six and seven. This will encourage students to learn English and appreciate the language from an earlier age. In May 2012, Prince Faisal Bin Abdullah, announced a further expansion of the *Tatweer*, which is detailed on the Ministry of Education website (www.tatweer.edu.sa). He outlined intentions for an "English Development Programme", by way of teacher training and curriculum redesign incorporating new technology and software to achieve an enhanced knowledge base and appreciation of the English language throughout Saudi society. It is envisioned that these efforts will result in students achieving the curriculum objectives and attaining a high enough level of English proficiency to enable them to study at the tertiary level within Saudi Arabia and in English speaking educational institutions worldwide. This is confirmation of the Prince's idea to begin the installation of digital classrooms. It is in this context that the findings of this study are of great relevance. In this seventh chapter, the researcher makes recommendations for the achievement of this end, drawing on the research findings.

This statement of commitment by the Prince to the expansion and elaboration of the English study curriculum is encouragingly analogous to the researcher's statement of the original aim of this study, that is, to facilitate improvement in the teaching and learning of English by researching the readiness of English teachers at the intermediate school level in schools in Al Madina for general implementation of digital classrooms using CALL. This may pave the way for classrooms throughout all of Saudi Arabia to become more interesting, stimulating and effective environments for both teaching and learning English.

The researcher also anticipates that participation in the study and knowledge of its findings will provide a starting point for teachers unaccustomed to CALL to become aware of the contemporary possibilities, potentials and benefits of using CALL and will thus encourage them to become familiar with its use and gain proficiency in its practice. The results, data, findings and recommendations of the researcher could be considered and incorporated into a syllabus designed by these experienced teachers to train and develop the skills of teachers with various levels of experience in the use of CALL.

If CALL can be successfully implemented, it will bring with it the possibility that the digital English class will include real time interaction with native English speakers. Also, the students will be able to pursue and enrich their exposure to the language at their own pace and within their own time, independently. This would be in direct contrast to the current situation where the students are only exposed to the language during class time, consisting now merely of language drills learnt "parrot fashion" and devoid of actual conversational skill development.

Therefore, in the context of this recent commitment made by Prince Fasil Bin Abdullah, at the time when the current research was being conducted, the likelihood that the aims of this research can be positively realised has been greatly enhanced.

7.1 Summary

In this last chapter of the thesis, its process and its findings are summarised. The key topic of using technology in education, especially in teaching and learning English as a second language in the Kingdom of Saudi Arabia, is addressed. The researcher recalls a past in which the teacher carried a tape recorder to use in the classroom. This helped the students to listen to the native speaker so that their pronunciation would improve. This was carried out through listening to short conversations that were modelled and repeated as the students attained various levels of English competence.

The computer came to be of significance in the field of language education in more recent decades. Much research has been done to verify the effectiveness of use of the computer for teaching English as a foreign language (Al-Hazmi, 2003). The studies mentioned in the literature review suggest that, over the course of time, traditional English language classroom teaching will give way to the developing technology embodied in the computer and the Internet (Abdallah, 2005). Teachers come to feel uneasy if they are not keeping up with innovations in their field. It is hoped that the findings of the current study will encourage the Saudi teachers of English to gain knowledge and skills in the field and enter the digital era willingly.

In the course of the literature review, it was found that, among those learning and teaching English as a foreign or second language through computer use, the students came to be able to play the role which previously was the teacher's only. Thanks to the computer and the Internet, both the teacher and the learner have become partners in the process of learning, in enhanced collaboration. No longer is the teacher the only player. A good student may be called a good teacher, and vice versa (Nelson, 2008). This has paved the way for creating a productive, positive learning environment and learning society.

Due consideration should be given to the various inherent disadvantages of current CALL technology, as well as those disadvantages particular to the Saudi Arabian setting, so that CALL can be assimilated smoothly into the school system. The scarcity of readily available equipment throughout the country, as well as a lack of trained,

competent staff could be remedied by way of official financial commitment by the education system. However, the characteristic limitations of the software can only be addressed through trial and error in the actual learning setting, followed by the input of software writers with a clear understanding of the shortfalls of the current CALL software. To create this software, teachers and software writers should work together to gain awareness of the needs, strengths and perceptions typical of Saudi Arabians who are learning English. This is necessary for all stages of learning in terms of the distinct grammatical and linguistic differences between English and Arabic. It is these language differences that Hamka (2008) considers to be a contributing factor in the shortcomings of CALL in dealing with unexpected or varied input.

The advantages presented by the technology far outweigh the disadvantages. For example, the Scholastic website is available through the CALL system in which authors of some of the popular books written for children are available to chat on-line, for example, Lee Bennett Hopkins, author of *The Writing Bug*. During the chats, students and teachers can meet and pose questions to the author regarding the writing of the books and other related topics. A powerful feature of these types of Internet sites is the facility for teachers to put forward a unit or entry level question to students who can then address and discuss this with the featured speaker.

Under the supervision of the teacher, students in the classroom can help other students learn how to learn independently. The computer can open a variety of windows to knowledge. Moreover, it can encourage communication between peers and groups at local, national and international levels. No longer need shy students be afraid of not being able to talk fluently. They can practise communicating with colleagues freely, away from the teacher, without being inhibited by fear of making embarrassing mistakes (Nelson, 2008).

The collaborative online spaces known as Wikis could also be used by students in order to practise their English language skills. Wikis could provide opportunities for students to share knowledge with other students. They also provide links to related information so students can use wikis for research and learning. More specifically, Wikis can help

students to get feedback from their peers, both in the classroom and from English speaking students.

The Kingdom of Saudi Arabia has established a good network with other nations around the world. It is visited by thousands of people who come from different countries, especially to the holy City of Mecca, the House of Allah. As well, many people of many different nationalities live in Saudi Arabia. The common language understood by all these different nationalities is English. This adds importance to the study of English by Saudis, as it has become *the* international language and because of this, the attention of many countries has been directed towards learning and teaching English as a second or foreign language. Learning and teaching English as a foreign or second language has become a necessity for countries that wish to cope with the most recent advances in science and technology worldwide (Al Jarf, 2005).

This thesis investigates the attitudes of the teachers of English in the study area of Al Madina in Saudi Arabia, in order to pave the way for the implementation of the computer and the Internet as devices of learning and teaching English in the study area. The researcher designed two tools to collect the primary data: a questionnaire and an interview. The information collected with these two tools has been statistically analysed to calculate the significant differences between responses within the participant sample of teachers. Chi-square values, degrees of freedom and levels of asymptotic significance have been calculated to help interpret the data tabulated. The tables are all presented in Chapter 5 of this thesis and they represent the empirical output of the research.

The data stated in Chapter 5, after being analysed, are ostensibly in keeping with extant knowledge in the field as presented in the literature review (Alshumaimeri, 2008). The theoretical basis for the research is presented in Chapter 2 of the study. The third chapter examined the theories of constructivism and positivism. The two main tools used in the study, the questionnaire and the interview, were discussed in terms of mixed methodologies in Chapter 4. The results obtained were then presented in Chapter 5. Chapter 6 discussed the study findings in relation to the research questions. Chapter 7 provides an overall summary of the research findings, as well as drawing conclusions and making recommendations, based upon the research findings.

7.2 Main findings

After analysis of the responses of the sample population used in the study, through the two tools used for collecting the primary information, the following findings were reached:

1. Saudi Arabia is not technologically advanced in teaching English but knowledge about the basics of the computer and the Internet is up to the required level and information about the implementation of the Internet at the intermediate school level is available to most teachers.

2. Teachers of English in Al Madina consider it necessary to have a computer or a laptop in the classroom, because it helps students understand and provides information and resources that are of great use in learning English as a second or foreign language. Learning a language cannot be achieved in isolation from the culture of the language being learnt. It is taken for granted that the meaning of a word is determined according to the cultural context in which it is used.

3. Teachers of English in the study area would welcome the idea of using the Internet in teaching English, especially at the intermediate school level.

4. Almost all teachers of English in the intermediate level schools in the study area have knowledge of use of computers in teaching English. This is due to training they have already received. Almost all of them believe themselves to be competent to use a computer in teaching and learning English.

5. English teachers believe that they should be trained to teach using computers because this will increase their expertise.

6. Teachers of English in the study area report familiarity with the use of ICT in language teaching and learning at the intermediate school level and they are aware of the range of interactive software available in schools for teaching English via computers.

7. The teachers believe that computers and the Internet can be good sources of knowledge, and in particular, a medium for teaching and learning English and that learning English via computer is more effective and enjoyable than traditional methods.

8. Online teaching of English will help to solve the problems faced by Saudi students. They can listen repeatedly to any part of the lesson they might not have understood, just by pressing a button. Shy students will be given the chance to learn without being afraid that other students will laugh at them. They can learn freely in a non-threatening atmosphere. As well, slower learners will be able to learn at their own pace.

9. The teachers see it as advantageous that the computer is available 24 hours per day. It can be used anywhere, at any time. Students can use it whenever, wherever and however they choose. Because the computer allows the students to listen to the native speaker of the language being taught, students' pronunciation can be improved to a great extent.

10. Online teaching could be utilised for the learning of English by 'remote' students. It is highly beneficial for the 'remote' students since they lack adequate exposure in learning English in their local environment. On a number of occasions they can communicate with the students who are in urban areas or even in foreign lands to exchange ideas. To some extent, online teaching provides access to the students who are in 'remote' areas and are unable to access facilities. It is also a cost effective program in education.

11. The participant teachers report that there are already school ICT systems for those schools and students from sectors of society that are rated as upper class. With CALL, students will have equality of opportunity when learning. All students, not only wealthier ones, can have access to up-to-date facilities and expert teaching.

12. Most of the students in the study area have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching and the efficiency and the quality of the Internet is considered satisfactory for utilising online learning and teaching. The students can access up-to-date facilities and experts even from their homes.

13. Teachers believe that investigation should be made into the economics of replacing face-to-face teaching.

14. CALL has some disadvantages related to programming and the unsuitability of the current syllabus that will need to be addressed before it can be implemented successfully.

Teachers of English in Al Madina are fortunate to belong to the first generation to be in contact with the products of language teaching technology represented by the computer and the Internet. A question that arises in response to this research on their attitudes and readiness for implementation of computer-assisted language learning in schools is to what extent these findings can be extrapolated to the rest of the Kingdom.

A negative answer to this possibility is supported by research conducted by Sultan Al Hazmi at King Khalid University (2003. Al Hazmi assessed teacher education programs throughout the Kingdom. He found that most programs needed to be updated and developed to help teachers to carry out their professions effectively and to cope with online teaching, bringing them up to worldwide standards in this area. The successful implementation of computers and the Internet in language learning depends on adequate training for the teachers. On this account, the researcher makes recommendations with respect to matters that need to be addressed to ensure the successful implementation of computer-assisted English language learning in schools throughout Saudi Arabia.

7.3 Implications of findings

This study was conducted to investigate the readiness of intermediate teachers for a change in their methods of teaching English. The findings of this study will inform the authorities in the Ministry of Education in Saudi Arabia of the current attitudes of teachers in Al Madina toward the use of computers and the Internet in teaching English. Information derived from the findings of this study could be useful to the Ministry in planning how they are to advance the education system in Saudi Arabia. To have the help and co-operation of teachers would be especially advantageous in the implementation of changes.

7.4 Significance of research

1. This study is the first to sample the attitudes of intermediate school teachers of Al Madina toward using computers and the Internet for the teaching of English.

2. This study differs from that of Alshumaimeri (2008), who investigated teachers at the secondary (senior) school level and Al-Hazmi (2003), who investigated university graduates and undergraduates.

3. From the findings we note that EFL teachers in the study area (Al Madina) are ready and willing to use computers and the Internet to teach English in schools and to shift from using the traditional lecturing methods to using digital classrooms.

4. It was found from the research that the teachers believe that they need training to be and remain competent in teaching English using computers and they need sufficient hardware, suitable software and new, computer oriented syllabuses.

7.5 Limitations of research

Any research study conducted in the field has several limitations. One limitation of this study was that it relied on participants self-reporting their responses in the form of a questionnaire survey as the main means of gathering data. Therefore, the researcher relied on the sincerity and openness of the participants when they made their responses.

In the interview stage of the survey, the researcher was restricted to using the telephone to conduct interviews with the female EFL teachers because of the cultural and legal restrictions relating to gender differences (Ministry of Education, 2008). This meant that the interviews were more constrained and fewer details were able to be collected than from the male participants because of the communication difficulties. The use of the telephone with the female participants also prevented the researcher from recording valuable contextual information such as body language.

Another limitation relates to population representation. Al Madina has the fourth largest population in Saudi Arabia and participants were selected from across the whole area. The current study sampled only intermediate level EFL teachers in the Al Madina area. Private schools were not included, nor were other school level teachers sampled because the main aim of the current study was to ascertain the beliefs and perceptions at government intermediate schools.

Another limitation of the study is the lack of previous research of intermediate level school teachers' beliefs and perceptions that could be used as a baseline for reference. The current study had to refer to literature from various cultural contexts such as Brazil (Moras, 2001) and the United Arab Emirates, (Al-Mekhlafi, 2006). The current study also referred to literature from similar cultural contexts such as Egypt (Abdallah, 2005) and Jordan (Abu Samak, 2006) as well as Al-Hazmi (2003) from Saudi Arabia.

7.6 Recommendations for future research

1. I strongly recommend further research into the use of CALL in Saudi Arabia using a different method of data collection, for example by observing two classes, one using CALL, one using traditional methods and comparing the progress of the students. This could also be done sampling schools at other levels and/or comparison of private schools and government schools. This research could also be conducted by a female researcher to ascertain the female EFL teachers' readiness to use CALL.

2. Further research is recommended to determine what training is needed by teachers for the implementation of CALL.

3. CALL is especially useful for visually impaired students. They can use speech recognition software (SRS) to transform speech into writing. This is a field in which there is scope for further research.

4. The results obtained from this study may provide a template for other areas of Saudi Arabia such as Dammam, Arar and Riyadh for research projects of their own.

5. Mobile phones could provide opportunities for students to practise their English. As mentioned in Chapter 2, the Middle East and North Africa Mobile Symposium aimed to encourage young people to use mobile products to enhance their personal and employment opportunities by improving English language skills. It was also mentioned in Chapter 2 that the British Council has been developing 'learning English mobile resources' designed to be used on mobile phones, and mini-computer educational materials, with the aim of creating short interactive content that can be used anywhere there is mobile telephone reception. There is scope for further research into the implementation of mobile technology in the classroom in Saudi Arabia.

7.7 Recommendations

The previously stated findings are proposed as potentially useful to the body responsible in preparation for the implementation of use of computers in teaching English in the study area, and throughout the Kingdom. Building on these findings, the researcher recommends the following processes should be instituted to enable the implementation to proceed:

Infrastructure

1. The Saudi Government should commit to providing an improved online learning system, one that is up-to-date with contemporary technological developments internationally. This should be possible, as the Saudi Government is very sensitive to developments in the field of educational technology, and official policy is for Saudi Arabian standards in this area to be kept up to those prevailing internationally. The researcher hopes the findings of this present study will provide information that will inform and support the stakeholders, including the Ministry of Education, as they move ahead with implementation of the computer and Internet in teaching English throughout the Kingdom.

2. An official decision to use computers in teaching English in the study area should be made by the Ministry of Education. This decision should be expanded to all schools in Al Madina and throughout the Kingdom.

3. An efficient high speed Internet service should be extended to all schools in the Al Madina area, beginning with those at the intermediate level, to facilitate the initial phase of implementation of English language teaching via computer. As soon as possible, these services should be extended to all schools throughout the Kingdom.

4. Because the teachers of English in the study area of Al Madina already have knowledge of using computers in teaching English and because of the multitude

of benefits for students, the stakeholders in the area should extend the official implementation of CALL to all the schools of the area.

5. The teachers of English in the study area and any other area in which CALL is implemented should be provided with computers or laptops. If necessary, this could be achieved by supplying them in instalments. The principals, together with the technical supervisors in the districts in which CALL is being implemented could collaborate to help the schools own the devices.

6. Even though most of the students have access to desktop computers at home and at school, students of English should be provided with up-to-date laptop computers and wireless Internet access, so that they can practise learning via CALL, work collaboratively at a distance, and research new information, not only in the classroom, computer laboratories and libraries, but wherever they go.

7. All schools should make computer use and Internet access freely and equally available, in order to bridge the learning gap between students from wealthier and poorer backgrounds. Equitable access should be given to all, with particular assistance provided to those most disadvantaged, either economically, or in terms of learning disability, as well as to those most gifted. Flexible curricula that enable remedial work for those with learning disabilities alongside accelerated programs for gifted language students need to be developed. CALL can readily accommodate and facilitate such developments, due to the opportunities it offers to allow students to progress at their own pace, according to their various abilities. This equity of access and encouragement of use of the computer and the Internet in learning English should prevail with equal opportunities for male and female students and teachers.

8. In the process of implementation of CALL in Saudi Arabian schools, provision should be made to provide links between teachers and remote students. This will enable remote students to access education.

9. The Saudi Government should make a serious commitment towards continuous improvement of the online learning and teaching system used in schools and there should be regular periodical maintenance of the computers and the networks at schools and other educational organisations. Specific information technology support staff should be appointed to do this task at the local and regional levels.

Curricula, teacher training and community support

10. English teaching curricula at the intermediate school level should be rewritten to incorporate computer-assisted English language learning with the aid of the Internet, in readiness for implementation of CALL, first in Al Madina, and then throughout the Kingdom. The new curricula should encompass flexibility with respect to individual students' learning paths and should incorporate learning about the cultures of native English speakers.

11. The curricula should be designed in a way that enhances student-centred learning, not teacher-centred learning, be interactive to facilitate interaction between students and between students and native English speakers all over the world. Such curricular interactivity and practice of interaction in teaching and learning processes is necessary for increasing students' and teachers' fluency in the language. Interaction leads to greater confidence in using the language. Care should be taken to ensure that the medium is used to provide an entertaining way of teaching English to the students. Learning in an entertaining atmosphere helps make learning fun.

12. Care should be taken by educators, curriculum designers and parents when choosing software necessary for the students, to find educational material that fits respectfully with the Saudi way of life, while enabling students to be exposed to and learn from the positive aspects of international cultures where English is spoken. Here, emphasis must also be on the concept of digital citizenship. Digital citizenship refers to ethics and guidelines for appropriate and

responsible use of technology use. It will help to teach how to act online and what should be taught to the next generation.

13. Educators (both pre-service and in service) and researchers have to be aware of the need to create a culture of educational computer and Internet use which upholds the positive aspects of Saudi culture and values while opening the perspective and experience of the students to the best of what is offered by the world outside. This will necessitate the establishment of policies and protocols for network administration, including consideration of appropriate filtering, partial restriction, and monitoring of students' and teachers' Internet access when using school networks and equipment.

14. Teachers should be trained to use computers for teaching English and they should attend regular training programmes to be kept up-to-date with advancements in technology and curricula.

15. Education and support of parents and students regarding the culture of using the Internet side-by-side with the computer for educational purposes of learning and teaching should be specifically addressed in the process of implementation and on an ongoing basis thereafter, so that parents and students will be made aware of using such technologies in an appropriate manner in keeping with prevailing cultural values. Officers should be appointed within each school to provide parent education, address concerns of parents and other stakeholders within the community and provide education and support to the teachers as they educate the students during the process of implementation and beyond.

16. The use of the computer and the Internet in Saudi Arabian schools should be implemented and practised in a way that is mindful of and models the necessary use of computers in the course of the students' future employment and that assists them in gaining skills necessary for them to be attractive to employers upon completion of their schooling.

17. There should be on-going evaluation and review of the use of educational technology to ensure that ethical, educational and technological standards are advanced and maintained.

18. The Saudi Government should facilitate the involvement of mass media, so that the media become actively engaged and play a part in the spread and propagation of the culture of using educational technology in a safe manner that enhances Saudi society and does not undermine nor diminish it.

19. To prevent misuse, educators and researchers should be trained in the ethics of computer and Internet use, so that they are able to teach the students how to use these resources responsibly, in keeping with the best standards of Saudi Arabian culture. Teachers in each school, with strong information technology and ethical practice backgrounds, should be given responsibility for network administration and monitoring, as well as in-service training in these areas.

Students

20. Students in the study area should be encouraged to make use of computers and the Internet for English language learning in their homes and schools. Implementing CALL officially may give them an even stronger motive to exploit it for the purpose of English language learning on their own.

21. Students should be encouraged to learn how to construct their own understanding, integrating the different branches of knowledge. They should be encouraged to monitor their own learning and to become able to solve real life problems using the computer.

22. Students should be encouraged to think creatively when using the Internet and the computer and curricula should be designed with the promotion of creativity and innovation in mind.

23. Students should be encouraged to think critically when using the Internet and the computer, and to critically evaluate what they are learning in that environment. Their education should include guidance in what differential levels of credence to place on the various different kinds of information sources available on the World Wide Web.

24. Students should be encouraged to be aware of, cope with, and participate in globalisation. They should be encouraged to email and be in communication with other students from different schools at local, national and international levels. They should be encouraged to learn how to organise, analyse, and summarise information and exchange ideas with these other students, which will widen the scope of their knowledge and help enhance peace, tolerance and mutual understanding.

The future

25. Research and development resources should be immediately invested by the Saudi Government to investigate the most economical and efficient way to implement English language teaching via computer in Saudi schools, with the intention of replacing less effective and less efficient traditional methods of language teaching. This research and development team should include experts in English language teaching, not only educational administrators and economists. As well as this, there should be ongoing assessment of using computers in teaching and learning English. These experts should benefit from studying international experiences in the field.

26. At every moment, new ideas are born and new devices invented and developed as part of an ongoing revolution in science and technology. If the best available technology is to be used in the process of implementation of computer-assisted language learning in Saudi schools, the government must institute processes to keep abreast of these developments and to ensure that they translate into actual services provided to and by teachers throughout the Kingdom. This must be done if Saudi education is to compare favourably with that in other developed

countries. It should be considered that the civilisation of any country is founded on the type of education being applied in that country. No progress can take place without progress in education. The more advanced education is, the better for a country's development.

Students at the intermediate school level, after becoming aware of the advantages of the computer in learning English, express a strong desire to obtain a computer or a laptop. This has been inferred and elicited from the researcher's meetings with some of the students in the study area. The students expressed both eagerness and enthusiasm regarding the use of computers for the purpose of learning English. The students are already strongly motivated and looking forward to the implementation of computer based learning in their schools. The various decrees issued by His Majesty, King Abdullah bear witness to the due attention given by the Saudi Government to the implementation of the computer in all school levels under His Majesty's direction. The researcher hopes this thesis will serve a pioneering function in the field of implementation of the technology represented by the computer and the Internet in the study area, and that such implementation and use will then spread to all parts of the Kingdom.

The previously stated recommendations, based on the research findings of this study, may enable the ESL teachers in the study area to move their schools from using traditional methods of teaching English to using state-of-the art methods in which technological innovations (the computer and the Internet) are used, manipulated and successfully exploited to educational ends.

7.8 Conclusion

The Findings and recommendations may help push the wheel of development forward in the field of English language teaching and learning in the area of Al Madina. The recommendations, together with the findings, are relevant for all those concerned with the profession of teaching, starting from the top administration, represented by the Ministry of Education, to those represented by the local administrative units and school administrations, through to the teachers as front-line educators. The researcher also

hopes to encourage an endeavour in the universities of Saudi Arabia to gear research and the teaching of education and language students towards this new field, to participate in the ongoing education of teachers to enable them to be competent in exploiting computers for the purpose of English language teaching and learning.

APPENDIX ONE: COMMITTEE APPROVAL

بسم الله الرحمن الرحيم

وفوق كل ذي علم عليم

Kingdom of Saudi Arabia
Ministry of Higher Education
Deputy Ministry for Scholarship Affairs

المملكة العربية السعودية
وزارة التعليم العالي
وكالة الوزارة لشؤون البعثات
وكالة الوزارة لشئون البعثات

(خطاب هاتفي)

سعادة الملحق الثقافي في استراليا المحترم

السلام عليكم ورحمة الله وبركاته

إشارة لخطابكم رقم ١٩٧٥٧٦ و تاريخ ١٤٣٠/٠٤/٢٧هـ المتضمن طلب المبتعث / تركي رباح قعيشيش المخلفي (رقم هويته الوطنية ١٠٢٦٣٠٣٦٦٧) ترقية بعثته لمواصلة الدراسة للحصول على درجة دكتوراة في تخصص تدريس اللغة الانجليزية من جامعة سدني للتكنولوجيا في استراليا.

أفيدكم أنه بعد عرض الموضوع على لجنة الإلحاق بالبعثة في اجتماعها رقم ١٦٩ بتاريخ ١٤٣٠/٠٤/٠٥هـ ،

فقد أوصت اللجنة (بالموافقة على ترقية بعثته حتى ١٤٣٣/٠٤/٠٨هـ الموافق ٢٠١٢/٠٢/٢٩م) وفق الشروط التالية :

- تعتبر ترقية البعثة ملغية إذا لم يلتحق المذكور بالدراسة خلال ستة أشهر من تاريخ التخرج.
- ضرورة معادلة الشهادة السابقة خلال ستة أشهر من تاريخ التخرج.
- الالتزام بقرار لجنة معادلة الشهادات الجامعية رقم ١/٨/١٤١٨ و تاريخ ١٤١٨/٧/٤ هـ.

نأمل إكمال اللازم في ضوئه و إشعار المذكور بذلك.

ولكم تحياتى ،،،

وكيل الوزارة لشؤون البعثات المكلف

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أ.د. عبدالله بن عبدالعزيز الموسى

ص/ لإدارة الإلحاق (قسم الترقية)
ص/ للطالب مع تمنياتنا له بالتوفيق و النجاح
ص/ (شعبة الملفات) مع الأساس للحفظ بملف الطالب
ص/ للملحق الثقافي في (استراليا) للإفادة عن بدأ الدراسة
ص/ للاتصالات لتسديد القيد رقم ٣٦٦٨٤ و تاريخ ١٤٣٠/٠٤/٢٩هـ

الرقم ٤١٦٧٨ التاريخ ٢٤ جمادى الثاني ١٤٣٠ المرفقات

الرياض ١١١٥٣ – ت ٢١٠٧٥٣٣ – ٤٤١٥٥٥٥ (٩٦٦-١+) ف ٢١٠٧٥٦١ (٩٦٦-١+)
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APPENDIX TWO: ETHICS CLEARANCE

19 July 2010

Dr David Cole
Social and Political Change Group
KG02.02.29S
UNIVERSITY OF TECHNOLOGY, SYDNEY

Dear David,

UTS HREC 2009-358 – COLE, Dr David, LJUNGDAHL, Dr Lesley (for RABAH, Mr Turki, PhD student) – "The Effect of Computer-assisted Language Learning on Learning English in el Madina Area (third grade intermediate level)"

Thank you for your response to my email dated 19/07/10. Your response satisfactorily addresses the concerns and questions raised by the Committee, and I am pleased to inform you that ethics clearance is now granted.

Your clearance number is UTS HREC REF NO. 2009-358A

Please note that the ethical conduct of research is an on-going process. The *National Statement on Ethical Conduct in Research Involving Humans* requires us to obtain a report about the progress of the research, and in particular about any changes to the research which may have ethical implications. This report form must be completed at least annually, and at the end of the project (if it takes more than a year). The Ethics Secretariat will contact you when it is time to complete your first report.

I also refer you to the AVCC guidelines relating to the storage of data, which require that data be kept for a minimum of 5 years after publication of research. However, in NSW, longer retention requirements are required for research on human subjects with potential long-term effects, research with long-term environmental effects, or research considered of national or international significance, importance, or controversy. If the data from this research project falls into one of these categories, contact University Records for advice on long-term retention.

If you have any queries about your ethics clearance, or require any amendments to your research in the future, please do not hesitate to contact the Ethics Secretariat at the Research and Innovation Office, on 02 9514 9772.

Yours sincerely,

Professor Jane Stein-Parbury
Chairperson
UTS Human Research Ethics Committee

APPENDIX THREE: SAUDI ARABIAN EMBASSY LETTER

Kingdom of Saudi Arabia
Royal Embassy of Saudi Arabia – Canberra
Cultural Mission to Australia
Admin of Academic Affairs
Subject:.....

المملكة العربية السعودية
سفارة خادم الحرمين الشريفين بكانبرا
الملحقية الثقافية بأستراليا
إدارة الشؤون الدراسية
الموضوع: تأجيل البعثة

إلى من يهمه الامر

نفيد سعادتكم أن الطالب تركي رباح قعيشيش المخلفي رقم السجل المدني ١٠٢٦٣٠٣٦٦٧ مبتعث من وزارة التعليم العالي إلى أستراليا لدراسة الدكتوراة في مجال تدريس اللغة الإنجليزية بجامعة سدني للتكنولوجيا، سيقوم برحلة علمية إلى وزارة التربية والتعليم (الإدارة العامة للبحوث) بمنطقة المدينة المنورة في المملكة العربية السعودية وذلك من تاريخ ١٤٣٠/١٢/٠٨هـ الموافق ٢٠٠٩/١١/٢٠م و حتى ١٤٣٠/٠٢/١٠هـ الموافق ٢٠١٠/٠١/٢٥م.

شاكرين حسن تعاونكم وتقبلوا وافر التحية و التقدير،،،

الملحق الثقافي في أستراليا

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د. علي بن محمد البشري

صور لمف الطالب

Ref No:....., Date:....., Attachments:.... .....:المرفقات، التاريخ:.....، الرقم:

Tel: +61 2 62693170 Fax: +61 2 62325978 P.O. BOX 1206, DICKSON, ACT, 2602, Australia

APPENDIX FOUR: CIRCULAR TO SCHOOLS OF APPROVAL OF RESEARCH TOOL

المملكة العربية السعودية
وزارة التربية والتعليم
(٢٨٠)
الإدارة العامة للتربية والتعليم
بمنطقة المدينة المنورة
(بنين)

وزارة التربية والتعليم
MINISTRY OF EDUCATION

الرقم: ٩٢٣
التاريخ: ١٤٣٠/ ١٢/ ١٨هـ
المشفوعات:

إدارة التخطيط والتطوير – البحوث والمشروعات التربوية

تعميم إلى جميع المدارس المتوسطة والثانوية داخل المدينة

إلى : مدير مدرسة / سلمه الله

من : المدير العام للتربية والتعليم بمنطقة المدينة المنورة

بشأن : تسهيل مهمة الباحث / تركي رباح قعيشيش المخلفي .

السلام عليكم ورحمة الله وبركاته . . . وبعد .

إشارة إلى خطاب سعادة الملحق الثقافي في أستراليا والمتضمن رغبة الباحث /تركي رباح قعيشيش المخلفي بتطبيق أداة دراسته بعنوان " تدريس اللغة الإنجليزية عن طريق الكمبيوتر والإنترنت لطلاب المرحلة المتوسطة والثانوية بالمدينة المنورة " وذلك ضمن متطلبات الحصول على درجة الدكتوراه .

نأمل تسهيل مهمة الباحث عند زيارته لكم ونحن على ثقة باهتمامكم بالبحث التربوي الذي يسهم في تطوير العملية التربوية والتعليمية.

ولكم خالص تحياتي ،،

الأخت
١٤/١٨

د. تنيضب بن عواده الفايدي

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- صورة لقسم البحوث والمشروعات التربوية
- صورة للباحث
- صورة للاتصالات

هاتف ٨٣٦٦٣٣٣ - ٨٣٦٠٣٥١ - ٨٣٦٠٣٥٩ فاكس ٨٣٦١٩٢٧ بريد إلكتروني : madinaedu@admin.madinaedu.gov.sa

APPENDIX FIVE: SCHOOLS VISITED BY THE RESEARCHER, WHERE SURVEYS AND INTERVIEWS WERE CONDUCTED

Abbad ibn Bishr al-Ansari

Abdul Aziz bin Baz

Abdul Quddus Ansari

Abdul Rahman bin Zaid

Abu Bakr

Abu Darda Ansari

Abu Huraira

Abu Obaida

Ali ibn Abi Talib

Amr Ibn Malik

Arqam ibn Abi al-Arqam

Asim bin Omar

Aws ibn Auf

Bashir bin Saad Ansari

Hasan al-Basri

Ibn Hisham

Ibn Sirin

Jabir bin Abdullah

Ka'b ibn Adi

Ka'b ibn Amr

Mundhir bin Amr

Nawfal ibn Harith

Omar ibn al-Khattab

Prince Faisal bin Fahd

Rabia ibn al-Harith

Tamim Dari

Umaamah Baahili

Zaid ibn Arqam

APPENDIX SIX: QUESTIONNAIRE (ENGLISH)

QUESTIONNAIRE

A. The status of Information Technology in Saudi schools

1. Saudi Arabia is technologically advanced in teaching English.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
2. In the Al Madina area, the level of knowledge about the basics of computer use, and the Internet in particular, is at the level required.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
3. Students in general have access to the Internet and computers in their homes and schools to allow them to benefit from learning English through online teaching.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
4. The efficacy and quality of the Internet provided by the Saudi Arabia government is satisfactory for utilising online learning.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

B. Beliefs and attitudes in regard to ICT and teaching English

5. Computers and the Internet can be sources of knowledge and, in particular, a medium for teaching English.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
6. I would welcome the idea of implementing the Internet in teaching English, especially at the intermediate school level.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
7. Information about the implementation of the Internet at the intermediate school level is available.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
8. Online teaching of English will help solve the problems faced by Saudi students.
   Strongly Agree Agree Neutral Disagree Strongly Disagree
9. A school ICT system is for those schools, students and societies that are rated as upper class.
   Strongly Agree Agree Neutral Disagree Strongly Disagree

C. Teachers' current competencies and needs

10. I am familiar with the use of online language teaching and learning at the intermediate school level.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

11. I am aware of the type and variety of interactive interaction available in schools teaching English via the computer.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

12. The Saudi government should make a more a serious commitment towards providing a better online learning system.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

13. Teachers in general will find online systems helpful for teaching English to their students.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

D. Pedagogy and resources

14. Experts should investigate teaching via the computer as an economical replacement for face-to-face teaching?

    Strongly Agree Agree Neutral Disagree Strongly Disagree

15. Students will benefit from being taught English via the computer.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

16. Online schooling should replace face-to-face teaching.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

E. Effectiveness of computers and Internet in teaching and learning English

17. The Internet will be successful in providing the appropriate level of English tuition for schools at the intermediate level.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

18. Learning English via the computer can bring improvements because of the level of interaction it offers.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

19. Online schooling can help to form a link between 'remote' students and English language teachers.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

20. School electronic devices provide an entertaining way of teaching and learning English.

    Strongly Agree Agree Neutral Disagree Strongly Disagree

APPENDIX SEVEN: INTERVIEW (ENGLISH)

INTERVIEW

This interview has been designed to enable qualitative data collection on teaching English via the computer. It is targeted at the teachers of English together with their supervisors in the Al Madina area of Saudi Arabia. Its purpose is to ascertain the teachers' views on their current skills, the traditional ways of teaching English and their readiness and willingness to use computers and the Internet to teach English. The questions asked will be:

1. Do you think it is necessary to have a computer or a laptop in your classroom? Why or why not?
2. Are you, as English teachers in your region, competent to use CALL in teaching English? What makes you think so?
3. Would you use computers to teach English in your class? Why or why not?
4. Should the English teachers be trained to teach using computers? Justify.
5. Have you ever taught English using computers? If yes, please share some positive as well as negative experiences.
6. Would it be more effective to teach English using computers compared to the traditional lecture method? Why or why not?
7. What other advantages/disadvantages do you see in using computers to teach English?

APPENDIX EIGHT: QUESTIONNAIRE (ARABIC)

الاستبيان

النسخة العربية:-

١	تعتبر السعودية متقدمة حيث استخدام التكنولوجيا (الكمبيوتر والإنترنت) في تدريس اللغة الإنجليزية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٢	بالمدينة مستوى معرفة اساسيات الكمبيوتر والحاسوب بالمستوى المطلوب لمعلم الإنجليزية للمرحلة الاعدادية				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٣	الكمبيوتر والإنترنت وخدماتها متاحة للطالب في المنزل والمدرسة .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٤	كفاءة ونوعية الإنترنت والكمبيوتر التي وفرتها الحكومة السعودية كافية لاستخدام الكمبيوتر والإنترنت في تدريس اللغة الإنجليزية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٥	يعتبر الكمبيوتر والانترنت مصدر للمعلومه وبالأخص في مجال تعلم اللغة الانجليزية للمرحلة الاعدادية				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

٦	ارحب بفكرة استخدام الحاسب الالي في تعلم اللغة الانجليزية وخصوصا للمرحلة الاعدادية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٧	المعلومات بشأن الانترنت واستخدامه بالمدارس متاحة وبالأخص للمرحلة الاعدادية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٨	تدريس اللغة الإنجليزية عن طريق الكمبيوتر والإنترنت يساعد على استئصال المشاكل التي تواجه طلاب الصف الثالث متوسط بالسعودية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
٩	تعتقد أن فرصة تعلم اللغة الإنجليزية عن طريق الكمبيوتر والانترنت تكون متاحة للأغنياء فقط أم أنها للجميع .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
١٠	لدي القدرة والمهارة على تدريس الإنجليزية لطلاب المرحلة الاعدادية باستخدام الكمبيوتر والانترنت .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة
١١	مُلم بمدى التفاعل عند تدريس اللغة الإنجليزية للطلاب عن طريق الكمبيوتر والإنترنت .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٢	يجب على الجهات المعنية توجيه المجهودات نحو توفير أفضل التقنيات (كمبيوتر ، انترنت) لتدريس اللغة الإنجليزية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٣	سيساعد الكمبيوتر والإنترنت معلمي اللغة الانجليزية في تعليم طلابهم اللغة .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٤	في نظرك ، بسبب النواحي الاقتصادية يجب استبدال تدريس اللغة الإنجليزية بالكمبيوتر والإنترنت بدلاً عن الطريقة التقليدية (وجهاً لوجه) .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٥	سيستفيد الطلاب من تعلم اللغة الانجليزية عن طريق الكمبيوتر والانترنت كونها مصدر للتعلم .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٦	يجب استبدال الطريقة التقليدية (وجها لوجه) بالطرية الحديثة التي تشمل الكمبيوتر والانترنت في تدريس الإنجليزية .				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٧	سينجح الكمبيوتر والانترنت بتزويد الطلاب الكميه الكافية من المعلومة وطريقة التدريس الناجحة والتي تكون في مستواهم للمرحلة الاعدادية .

	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٨	يحقق تعليم اللغة عن طريق الكمبيوتر والانترنت تفاعل ايجابي بين المعلم والطلاب.				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

١٩	تمكن نظام الانترنت المدرسي والكمبيوتر من ربط الطلاب بالمعلمين وساعد على ذلك.				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

٢٠	التعليم الإلكتروني ووسائله تخلق طريقة ممتعة لتعلم الطلاب اللغة الإنجليزية.				
	أرفض بشدة	أرفض	محايد	موافق	موافق بشدة

APPENDIX NINE: INTERVIEW (ARABIC)

المقابلات

النسخه العربيه:-

السوال الاول- هل تعتقد من الاهميه امتلاك حاسب الي بالفصل الدراسي ،لماذا؟ ولماذا لا؟

السوال الثاني - هل معلمي اللغه الانجبيزيه بمدينتك موهلين لاستخدام الكمبيوتر المساعد في تعليم اللغه الانجليزيه ؟ وما الذي يجعلك تعتقد ذلك ؟

السوال الثالث- هل ترغب باستخدام الحاسب الالي لتدريس اللغه الانجليزيه في الفصل الدراسي ، ما هي الدوافع التي تدفعك لذلك او تمنعك ؟

السؤال الرابع- لماذا يجب تدريب المعلمين على استخدام الحاسب لتدريس اللغة الإنجليزي ،مع برر ذلك ؟

السؤال الخامس- اذا كان وسبق لك استخدام التقنيه والحاسوب في تعليم اللغه الإنجليزية، هل من الممكن ذكر بعض النقاط الإيجابية لذلك ولا مانع من ذكر أي نقاط سلبيه في حال وجودها ؟

السوال السادس- با عتقادك سيكون تدريس الإنجليزية اكثر فعاليه باستخدام الكمبيوتر والتقنية مقارنتا باستخدام الطريقه التقليديه بالشرح ، لماذا سيكون فعال، ولماذا لا ؟

السؤال السابع- ما هي الاعتبارات التي تضعها وتشمل محاسن ومساوئ استخدام الحاسوب والتقنيه الحديثه بتدريس الانجليزيه بمدارس المرحله الإعدادية بالمدينه ؟

انتهى ،،

APPENDIX TEN: LETTER OF COMPLETED DATA COLLECTION

المملكة العربية السعودية
وزارة التربية والتعليم
(٢٨٠)
الإدارة العامة للتربية والتعليم
بمنطقة المدينة المنورة
(بنين)

وزارة التربية والتعليم
MINISTRY OF EDUCATION

الرقم: ١١٣
التاريخ: ٨ / ٢ / ١٤٢١هـ
المشفوعات: —

إدارة التخطيط والتطوير - البحوث والمشروعات التربوية

إلى من يهمه الأمر

نفيدكم بأنه تمت الموافقة على تطبيق إستبانة الباحث / تركي بن رباح بن قعيشيش المخلفي وذلك بناءً شرح مساعد المدير العام للشؤون المدرسية على إفادة الملحق الثقافي في إستراليا والمرفق صورة منه وقد أعطي الباحث هذه الإفادة بناءً على طلبه وذلك دون أدنا مسؤولية على الإدارة ، علماً بأنه قد أنهى رحلته العلمية.

والله الموفق ،،

مدير إدارة التخطيط والتطوير

Production Note:
Signature removed prior to publication.

حسن بن حامد الحازمي

قسم البحوث والمشروعات التربوية : سنترال (٨٢٣٥٠٥٢) تحويلة ٢٠٤

هاتف ٨٣٦٦٣٣٣ ٨٣٦٠٣٥١ ٨٣٦٠٣٥٩ فاكس ٨٣٦١٥٢٧

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