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EFL Teachers Use/Non-use of ICT at a University
in Saudi Arabia

By

Nada Hussain Gamlo

A thesis submitted in fulfilment of the requirements for the degree of

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Dedication

This work is dedicated to my beloved husband Hisham and my sweet kids Samar and Suleiman, for their love, support, care, patience and prayers throughout the course of this thesis. If it had not been for them and their prayers, I would have not achieved my goal.

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Declaration

I certify that the material included in this thesis is my own work.

I confirm that no part of this thesis has been either published in another form or submitted for a degree at another university.

Nada Hussain Gamlo

Date: 05 /06 /2014

Abstract

This study describes and evaluates the reported use of Information Communication Technology (ICT) by teachers of English as a Foreign Language (EFL) at a university in Jeddah, Saudi Arabia. The overriding aim of the study was to understand how ICT was being used and to discover what limits and what encourages teachers to use ICT.

This was a mixed methods study using both quantitative and qualitative methods. Data was collected using questionnaires (152 EFL teachers – 92 females and 60 males), personal interviews (16 female and 8 male teachers) and observations (5 lessons of female teachers).

The study reports variable use of ICT, and three types of teachers were identified according to their use of ICT. Extended users were seen as emergent users of ICT; they allowed students to use of mobile phones in the classroom to capture pictures of projected slides or to record the lesson. They tended to prepare a greater of repertoire resources and experiments using ICT, such as blogs and online groups. Restricted users tended to apply limited use of ICT. They used ICT in routine practices as expected by their course coordinators; e.g. they used data projections to explain grammar rules or to facilitate revision, and played audio using computers in the classroom or mp3 with speakers. Non-users of ICT were those teachers were those who believed there was no reason, insufficient time allocated, or not enough reliable equipment, to use ICT.

It was found that most teachers perceived the use of ICT as beneficial to learning and teaching, in particular in reducing classroom teaching time and improving the monitoring of students' progress. Teachers also believed that ICT provided a greater variety of teaching and learning strategies, e.g. teachers created blogs to teach their students cooperative writing techniques, and encouraged students to upload useful learning applications on their smart phones. Teachers believed that students were more engaged when using technology, and that ICT helped the students to become more independent learners. It was found that teachers' beliefs and their

willingness to use ICT were the main motivators for students. However, there were several constraints on teachers; the most commonly perceived barriers to ICT use were related to lack of access, lack of confidence when using ICT, lack of belief in the value of ICT, unwillingness to make time to use ICT, and poor training.

This research contributes to an under researched area of ICT: that is the use of ICT in EFL teaching in the Arab world, i.e. Saudi Arabia. It sheds light on the perennial problem of ICT uptake and shows how unreliable access, limited time and irrelevant training limit ICT use, but that teachers' beliefs and willingness to use ICT when teaching EFL facilitate use. The researcher made an attempt to consider these constraints and barriers in theoretical terms, and the discussion drew attention to the value of a zoned approach to ICT. It has added to research investigating how gender differences affect the approaches of academic staff in Saudi Arabia, and has also illuminated the potential of female staff as effective educators.

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Abbreviations

Abbreviations	Meaning
ELI	English language Institute
CPD	Continuous Professional Development
ICT	Information and Communication Technology
IWB	Interactive White Board
SMT	Senior Management Team
ZPD	Zone of Proximal Development
ZPA	Zone of Promoted Action
ZFM	Zone of Free Movement

CHAPTER ONE: INTRODUCTION

The emergence of ICT has rapidly altered the nature of teaching and learning across all educational sectors around the globe; researchers have identified it as a promising tool, encouraging its use in the teaching of all subjects including EFL. As long ago as 1993 it was claimed that using computer technology was not only an advantage, but was also a required element of teachers' instruction (Chin and Hortin, 1993). In the same vein the use of ICT has been promoted by educational institutions and policy makers.

Computer technology has been used in language teaching since the 1980s (Vi, 2005) although of technology in a broader sense has always been present, with analogue technology representing an important phase in computer laboratory development. The implementation of ICT in English language teaching has made it possible for teachers and students to interact with one another in the classroom, and has also assisted them to enrich the learning experience through access to online material, authentic material and repeated practice (Meurant, 2011; Vi, 2005).

The value of technology use is hugely dependent on the way teachers use the technology and there has been considerable interest in both the uptake of ICT and its 'effective' use (e.g. Shigemitsu, 2004). As subsequently discussed in chapter five there have been several factors reported as encouraging or discouraging the use of ICT; these include access to computers and technical support, curriculum, time available, and training. It is necessary to research gender differences among academic staff in the Saudi context, to illuminate the potential for female staff to engage effectively in ICT education.

Although there has only been limited work previously on the uptake of ICT in Saudi Arabia, Hakeem (2007), in her study about ICT adoption in teaching English for specific purposes (at the university researched in this case study), argued that it is necessary when attempting to adopt a new idea from abroad to consider the impact of cultural and social forces and their appropriacy.

She argued that, despite the availability of technology and the government urge for reform, teachers and students were reluctant to adopt ICT. She attributed this to Saudi Arabia's reserved attitude toward technological presentation. One of the aims in carrying out this research was to understand how, and why, teachers use ICT, and to compare use in Saudi Arabia with elsewhere in the wider literature.

I was born in, and have lived most my life in, the Kingdom of Saudi Arabia. I studied in public schools and then worked at the case study university as an EFL instructor. In my experience the teaching of English in the country is traditional mostly using whiteboards and markers, with little utilisation of technology. In general non-traditional methods were limited to the use of data projections once or twice a week to explain grammar rules or to display grammar activities for revision purposes.

When I graduated from a Saudi university with a bachelor's degree in English literature and linguistics, I was appointed as a teaching assistant at the English language Institute (ELI). When I started teaching and saw the students looking at me expectantly, my experience of dissatisfaction as a language student came to mind. I promised to show my students how much I cared for them and for their progress in English proficiency, as well as to improve their learning skills. I taught them how to be active in class and interact with myself and their peers. Later I obtained an MA degree from Newcastle University and returned to Saudi Arabia to teach at the same ELI; as a consequence of my studies my teaching methods focused on student-centred instruction. I began to use technology to display teaching materials using data projections, and preparing an activities form for online websites at home, e.g. English club. I would ask my students to read before attending class, discuss the lesson topic with each other, speak more in class and create their own sentences, and present their work using the data projection. At that time (2002), there was no full access offered to computers or the Internet in the classrooms or offices, so I would take my students to the computer lab in the library to access computers and the Internet, in

order to teach them how to locate information about the topics of their presentations. I taught my students to use their computers at home to work on their assignments, and encouraged those who did not have computers or Internet access to go to the library and work there. When I discussed this with my colleagues, some of whom I knew were using some ICT in their classrooms, they told me that they were facing a number of challenges, including unmotivated students, poor access and heavy teaching schedules. This led me to question how the use of ICT could be improved. How ICT could be used to improve learning and teaching? How university management could support a wider use of ICT? My inquisitiveness in regard to wanting to know how and why ICT is used or not at the university was the catalyst for starting my study.

1.1 Purpose and Research Questions

The initial aim of the study is to explore English as a Foreign Language (EFL); it collects data on teachers' reported use of Information Communication Technology (ICT) in their teaching at a university in Jeddah, Saudi Arabia. The study also aims to explore both the constraints and the facilities enabling EFL teachers to use ICT. The study also intends to offer some recommendations to improve and extend the use of ICT for teaching EFL, to contribute to the wider theoretical debate regarding the uptake of ICT.

This general aim has been distilled into the overall research question of the study, which is: How and why do EFL teachers use/not use ICT at a university in Saudi Arabia? This overall aim was then reformulated to create the following four questions:

RQ1. What is EFL teachers reported use of ICT when teaching at the target university in Saudi Arabia?

RQ2. What do EFL teachers perceive as the benefits of using ICT for learning and teaching?

RQ3. What do EFL teachers perceive as enabling them to use ICT?

RQ4. What do EFL teachers perceive as barriers to using ICT in teaching?

1.2 Setting of the study

The study takes place in Saudi Arabia, which is the largest Arab country located in Western Asia. It is an Islamic country and it is also known as 'The land of Two Holy Mosques', referring to Al-Masjid Al-Haram in Makkah and Al-Masjid Al-Nabawi in Medina. Saudi Arabia's economy depends largely on oil. At present, it is classed as a rapidly developing country. Consequently, Saudi Arabia's educational system has experienced considerable transformation in recent years, one aspect of change has been the adoption of ICT for classroom instruction. Policy makers and institutional managers have promoted the use of ICT and a lot of new technological equipment introduced.

The (English Language Institute) ELI in a university in Saudi Arabia is the particular context of this study. The English Language programme was originated at the university and first established in 1975 by the British Council, eight years after it was founded. It was first called the English Language Centre (ELC), becoming the ELI recently. Initially it was created to teach English to male students at the colleges of Engineering and Medicine and the few female students enrolled in the college of Medicine at that time. By the end of 1980, the programme had expanded to provide 30 courses in English for specific purposes (ESP) to a growing number of male and female students at all university colleges. The ELC was still under the supervision of the college of Art and Humanities at the university at that time. In the Academic year 2007/2008, a foundation system was introduced, making English a prerequisite subject for all new admitted students. Students are currently required to complete six credits in general English successfully before joining any of the colleges at the university. Because of the growing responsibilities of teaching an increasing number of students, the ELC receives direct support from the office of the vice president of the university. In 2008, the ELC was renamed the ELI (English Language Institute) and has been recognised as an independent entity since that time.

At the time of writing, the ELI teaches general English to more than 12,000 male and female full time foundation year students annually across the men's and women's campus (ELI, 2012).

EFL classes are taught face-to-face, although there are some online classes for distance learning students (using EMES (E-learning Management Electronic System) and Centra as a distance learning programme). Students have different experiences of learning English when they enter the university; all will have studied English at school but some will have supplemented this with private lessons and overseas study. As a teacher myself, I have experience of the heavy work load, intensive teaching and highly structured curriculum with little room for flexibility that is imposed from above. Some of the satisfaction I have experienced has involved seeing my students' progress and their appreciation of the subject matter. Through participation in the life of the ELI, I have also found that my experiences are shared by at least some of my colleagues.

The ELI offers four English language courses, which are provided from beginners level to intermediate level during the foundation year. The students are taught each level and they are required to successfully pass an exam at each level in order to progress to the next level. The ELI uses Head Way Plus Special edition for middle east students as the textbook with every level having a separate textbook. Each module is covered in a six week period, and this is felt by many to be too short a time. As such teaching appears as rushed (a rapid change in levels) and the majority of teachers saw this as an obstacle to the use of ICT in their classroom instructions. Furthermore some teachers felt a lack of autonomy. They had not chosen the text book and for some it had drawbacks, for example they wanted a textbook with more activities, a clearer structure, and a text which was much more culturally relevant. However, some other teachers found the textbook as attractive for students, matched students' level of English, and had taken steps to appeal to a Saudi audience. It should be mentioned here that there are some taboos that cannot be crossed in teaching and learning. For example, textbooks should not include topics

about drinking alcohol or include pictures of girls wearing bathing suites. Therefore, Head Way Plus was introduced as a special edition to fit Saudi culture.

ICT is not required in classroom teaching on the English curriculum, except in the distance learning programme; however, teachers are expected to make as much use as possible of the technological resources at their disposal. The ELI invests heavily in making technological resources available to the faculty to optimise learning outcomes (ELI, 2012, p. 38). In most classrooms, there are data projections attached to single computers, and mp3 devices are provided to give listening instructions and for assessment purposes. For those classrooms that are not well-equipped, audio equipment and laptops can be checked out from the Administration Units across the campuses (ELI, 2012). However, there are no IWBs and no other computers in the classroom. On campus there are no computer suites, but nearly all students have their own computers and bring them to classes, when required, to present their work. Some parts of the campus have a wireless connection to the Internet but access in general is restricted. There is a university online service (On Demand University Services (ODUS)) that offers students and staff access to information, communication and administration data. The faculty offices are equipped with computers, printers, scanners and Internet connections.

Some teachers have made their own attempts to integrate ICT into their teaching. Inside the classroom they use Power Point to present concepts, provide additional exercises and enable students to present their work. In planning, they use the World Wide Web for accessing resources and email for sending students information about the curriculum, revisions, useful websites and feedback. Students are able to submit their assignments via email. Some teachers correct assignments and send feedback through e-mail. Teachers also use the Interactive CD ROM that comes with the textbook as a supplementary resource to assist students' learning. The teachers use of ICT is, however, limited.

1.3 English Teaching and Learning in Saudi Arabia

English language teaching was introduced in the school in 1925 (Liton, 2012). This was done in recognition of the value of English as a global language for communication, business and education. English has grown in importance in recent years. Hakeem (2007, p. 40) recorded that the Ministry of Education, out of recognition of the demand for English to deal with the requirements of twenty-first century life, gave English a special status as an educational subject. With international firms, banks and companies operating in English Saudi youths have no other choice than to master English.

However, English is not taught at primary schools in the Saudi public school system; it is first taught in the 7th grade, and teaching continues until the 12th grade when students graduate from school and enter university. Al-Asmari (2005) reported that the objectives of English language instruction in Saudi public schools is to aid students to speak, listen and produce simple correct sentences, and to write short correct English passages to be able to communicate with other English speakers. A decision was taken by King Abdullah, the King of Saudi Arabia (via the Ministry of education) to introduce English teaching much earlier to children.

At university level, all students are required to study English in their foundation year. The English language programme for foundation students is comprised of four levels of instruction, which match the common European framework of references for language (CEFR). It focuses on improving students' language skills by applying an integrated skill curriculum, which supports independent learning. All students are required to set a placement test after admission to the university to ensure they are placed at the relevant level. However, students are allowed to apply for an exemption from taking these courses by providing a TOFEL score of 32 or above or an IELTS band score of 4.5 or above. The English programme is intended to assist students to achieve an intermediate level of proficiency in the use of the English language. The course in the foundation year utilises a module system, and each module contains four modules, two in each

academic semester. Each module lasts seven academic weeks and there are 18 of teaching hours per week. The module covers one level of the programme and students must succeed at one level in order to proceed to the following level and begin another module (ELI, 2012, pp. 15-16).

1.4 ICT in Education and Language Education in Saudi Arabia

The rapid development of education in Saudi Arabia in the last century has required the recruitment of staff from other countries, generally from Arab countries (e.g. Egypt; Syria; Jordan). This has been necessary due to insufficient numbers of Saudi graduates. The contracted teachers tended to apply traditional modes of instruction, using texts and examinations relying on memorisation. According to Saudi government policy, Saudi graduates have now largely taken over, but unfortunately these teachers also typically apply old fashioned teaching methods, which fail to instruct students in analytical thinking or skills development (Al-Sulimani, 2010). As a result, it is important for the Ministry of Education to seek a solution that promotes forward thinking in the educational system. To achieve this, one goal of the Ministry of Education has been to integrate ICT into primary, intermediate and secondary schools' curricula (Ministry of Education, 2004).

ICT was first introduced as subject in a secondary boys' school in 1985; requiring the teaching of computer science, basic programming and training in information systems. There was also various computer programme training made available at secondary schools for students and teachers (Oyaid, 2009, p. 23). Oyaid added that the Ministry of Education aims to provide training for teachers in the use of ICT, 'first, to raise technological awareness among Saudi teachers; second, to increase the number of teachers trained to use ICT; and, third, to increase the number of Internet users among teachers and prepare them to make use of the electronic government' (Ibid, p. 25).

ICT has been used in Saudi schools for language education since the 1980s. Technology devices utilised in schools included audio and video tape players, TVs and overhead projectors. In addition, some audio labs were introduced in colleges that were fully equipped with headsets and dedicated to teach listening and speaking (Shaabi, 2010, p. 4).

Public access to the Internet was officially approved in Saudi Arabia in 1997 (CITC, 2007). In 2007 the CITC team conducted a project to understand the Internet's status and its progress in Saudi Arabia in all sectors (e.g. Health; business; education). Educators and IT heads from a number of different educational institutes were interviewed between 2007 and 2009. The project results indicated an increase in the number of computers for colleges and universities from 50% in 2007 to 79% in 2009; Internet connections have also been developed, progressing from dial-up connections to wireless. 93% of educational institutes now have broadband connection. This has resulted in an increase in the usage of computers and Internet among teachers (CITC, 2007; 5). The Ministry of Education introduced ICT as a compulsory subject in girls' schools and to primary level of education in 2003 (Oyaid, 2009, p. 23).

The higher education system in Saudi Arabia has devoted serious attention to support an information society. For example, huge budgets have been allocated to develop ICT applications and other educational methods like electronic learning, distant education and virtual universities (Oyaid, 2009, p. 6). The Ministry of Higher Education has also supported universities to establish their websites in both Arabic and English, and to provide electronic academic and administrative services for faculty and students. Moreover, some programmes aimed at preparing students at their area of specialization and enhance their ICT skills and personal skills have been introduced (*ibid*, p. 17).

University faculties have earned substantial recognition from the government to develop their professional skills. The Ministry of Higher Education launched the Creativity and Distinction Project for the faculty in 2006; this included a variety of training programmes, such as ICT and

using the Internet in teaching, teaching strategies, research and statistical analysis skills and assessment design and more (Ministry of Higher Education, 2009, p. 19). The head of the university also called for an electronic university model, to support all its academic and administrative transactions. The ELI applies ICT for instructional and administrative purposes. Instructors under its umbrella are encouraged to use ICT in their teaching and classes are equipped with computers and data projections. However, not all instructors currently integrate ICT into their teaching.

It can be seen that there has been a serious attempt by Ministry of Education and Ministry of Higher Education to support ICT in education in Saudi Arabia

1.5 Significance of the Study

This study aims to identify the reasons why teachers use or do not use ICT to teach or support teaching. Thus, this may be valuable for some reasons. It will assist future planners' use of ICT at the ELI in particular and at the university in general. It also aims to contribute to the wider literature on ICT adoption by providing a case study in an underreported context.

The majority of research into the field of ICT use in EFL teaching has focused on western countries, leaving knowledge about this area in the Arab world lacking, especially in relation to Saudi Arabia. This study will fill the gap in the research by providing information about the use of ICT in EFL instruction in a single university.

The study is significant, as it sheds light on faculty members' different use of ICT, and how this use can be encouraged to develop learning and EFL teaching at the university itself, and in Saudi Arabia in general.

1.6 Structure of the Thesis

This thesis is comprised of eight chapters. This chapter offers an overview detailing the purpose of the study and the case study context. It was also important to highlight the higher educational system and teaching English in Saudi Arabia as well as the introduction of ICT in relation to the study.

Chapter two provides an overview of the literature pertaining to the reported value of ICT in teaching and in language teaching in particular. Language teaching approaches and language learning strategies will also be reviewed, as will potential obstacles and opportunities.

Chapter three details the methods that were applied to answer the research questions. This is a mixed-methods study that includes both quantitative and qualitative methods. The mixed-methods approach was chosen for its ability to provide a means to compare and contrast findings. The methods of the study were piloted and the findings of the pilot study are reported in chapter three. In chapter three, the participants of the study, data collection and data analysis procedures are also described. Then some of the study's limitations were detailed.

In chapter four the findings from the quantitative data collection are presented. It was found that use was limited in general, but that the use of ICT at students' homes was widespread. The most frequent use in class was for data projection and with the CDROM accompanying the course book. Teachers use ODUS for administrative purposes. Gender was found to be significant, as female teachers showed more willingness to use ICT than male teachers. Male and female teachers agreed that ICT helped to make students more independent.

In chapter five, the data analysis and the findings from the qualitative data collection (interviews) are presented. It was found that use in general was limited. However, half of the teachers interviewed believed that ICT was effective for teaching and learning. Qualitative data drew

attention to enablers and barriers as perceived by teachers. It also pinpointed the different characteristics of the users.

In chapter six, data analysis and findings from the qualitative data collection (observation) were presented. Findings from lessons observations confirmed the issues raised in the interviews and the level of use in four lessons.

Chapter seven presents a discussion of the findings of the study in relation to the literature review. ICT use by teachers was discussed in respect to classroom use, as well as for preparing teaching materials and for home use, for administration and communication with students and in relation to encouraging ICT use beyond the classroom. It was found that teachers' use of ICT was limited in general except for the use of data projection, which was considered part of teaching routine. Data projection was only used in classrooms. ICT enablers and barriers are discussed as perceived by EFL teachers; these which were found to be in great match with wide literature. In part two of chapter seven, an integration of theories (Diffusion model, Technology Acceptance Model, Activity Theory, Community of Practice and the Three Zones theory) in relation to uptake or non-uptake of ICT is discussed.

Chapter eight concludes the study and provides a summary of the research findings, relating also how the thesis was organised. It explains how the research has contributed to an under research area of ICT, provides some recommendations for the use of ICT at the case study university and in other Saudi universities. It also suggests areas for future research.

The literature review now follows.

CHAPTER TWO: LITERATURE REVIEW

This chapter begins by introducing the literature review and describing the manner in which the study was conducted. It then looks at the contribution of ICT to language learning. This is followed with a discussion of enablers and barriers to ICT use, and a presentation of theories and models of ICT uptake in teaching and learning. The chapter concludes with some reflections on the literature.

2.1 Introduction

The main focus of the study was on exploring teachers' use of ICT when teaching of English as a foreign language (EFL) at one target university in Saudi Arabia. Thus, the most relevant literature concerns EFL teachers' use of Information and Communication Technology (ICT) when teaching in Saudi Arabia and the Arab world. However the literature is scarce. When I was writing my research proposal, I accessed my university library search engine to retrieve articles written about the use of ICT in Saudi Arabia and in the Arab world. I also accessed Warwick university library once I was registered as a student there. However I only found a few studies conducted in Saudi Arabia (Ageel, 2011; Al- Sulimani, 2010; Al-Wehaibi et al., 2008; Hakeem, 2007; Oyaid, 2010; Oyaid, 2009) and in other Arab countries (Al- Ammari, 2004; Albirini, 2006; Al-Senaidi et al., 2009). Therefore, I decided to access a wider range of literature including research on ICT use in teaching around the world both in secondary and higher educational (HE) settings. The school sector experience shares some similarities with HE, especially in regard to EFL classes, which are the focus of this study. The number of students is small in both settings, and teachers often follow similar teaching strategies, for example a blend of instruction, controlled and free practice and encouraging students to work in groups or pairs. The teaching

of English in HE contrasts with the teaching of other subjects, as it is characterised by lecture style and delivery to a large number of students.

While using systematic searches for key words on Warwick University's official search engine, I found subject related articles. When I read an article, I often looked at the references and then followed up on some of these up. Wellington (2000) calls this 'snowball searching' (p. 32) and it was a very useful strategy for my research. However, I also used the education search engine at Warwick University in a more systematic way. I accessed Warwick University electronic journals to find articles related to language learning and teaching. The ELT journal, NASSP Bulletin, Computer and Education, Journal of Technology and Teacher Education and TESOL Quarterly included some useful articles. Other online journals that I accessed were also beneficial, such as the TESL journal, and the Journal of Second Language Teaching.

Throughout the literature review I was alerted to difficulties with generalising the findings from one sector to another (e.g. school to HE), or from one cultural setting to another (e.g. Arab, Chinese, and western) or indeed from one language to another (e.g. English, Arabic, Turkish, Chinese) and one style of study to another (e.g. small scale to large scale setting). This remained a constant concern. However, it was reasonable to identify common issues across sectors and settings. A common theme across the literature was that the use of ICT was problematic. Therefore, I organised findings by considering the enablers /barriers that may face teachers in their path of integrating ICT into their teaching. Two comments are relevant here. The term enablers is combined at times with the term *encouragers*. In literature the word *enablers* is used widely to refer to factors that enable ICT uptake (e.g. Bullock, 2004; Goktas, 2009; Scrimshaw, 2004), and is often combined with ICT in reference to those factors that motivate and enable ICT uptake. In this study, *encouragers* are thought to be a more accurate term, as ICT is fully possible and only then has to be encouraged. For example, access to ICT is not always possible, but whenever access is available these factors serve to encourage use. Second, there is

more information in the literature on barriers, and this explains the lack of balance between enablers informing the use of ICT in teaching and barriers to ICT use in teaching.

2.2 ICT and its Contribution to the Teaching and Learning of EFL

Computer technology has been used in language teaching least since the 1980s and as such has generally been accompanied by optimism about its impact. There is some evidence that integrating technology in teaching and learning language results in desirable learning outcomes (Becta, 2010; Becta, 2007; Felix, 2003; Gray, et al. 2007; Oyaid, 2010; Oyaid, 2009; Smith et al. 2005; Vi, 2005; Zhu, 2010). Cononelos and Oliva (1993) noted that using ICT in a creative way when teaching a language can be very productive and satisfying for teachers and also beneficial for language learners; most EFL teachers have become aware of the opportunity to integrate computers into their teaching process (Chen, 2008). Zhu (2010) noted that the Higher Education Department of the Ministry of Education in China required English colleges to integrate multimedia, network technologies and new teaching methods into the English curriculum. The author stated that learners are also expected to learn English by making use of computers.

The opportunities that ICT provides are discussed at length in the literature. Vi (2005), in a paper that investigates the advantages and disadvantages of computer network technology in language learning, noted that the use of multimedia could enable language learners to improve their language proficiency and language skills (Vi, 2005, p. 62). Computer networks enable learners to communicate with one another, or even with speakers of English around the world (Warschauer & Healy, 1998). Stepp-Greany (2002) reported that ICT offers access to a rich body of useful resources and that students are often proactive in making good use of technology including making electronic pen pals, and engaging in threaded discussion. These students noted that their cultural knowledge, listening and reading skills, and their independent learning skills, were

improved by the use of these technologies. Learners, therefore, are already engaging extensively with technology and its use is increasingly expected in school (Becta, 2010, p. 3).

According to Becta (2010), Modern Foreign Language (MFL) teachers can take advantage of a vast body of ICT resources, designed to support teaching and student learning. In their study of four MFL teachers' practice of ICT in their classroom teaching in UK, Gray et al. (2007) found that three teachers spent sufficient time developing successful use of ICT. They prepared new teaching materials and 'developed projects using digital video, iPod, video-conferencing and podcasting' (p. 424). Hence, teachers' successful use of ICT boosted their own confidence in their ability to achieve teaching goals using ICT.

ICT is often seen as having an additional attraction, in the form of motivation. In Saudi Arabia, most secondary school students have positive attitudes and are confident in the use of ICT and feel that ICT supports significant progress in their education (Oyaid, 2010). Oyaid conducted a survey of 270 secondary school students from six secondary state schools in Riyadh to explore the students' use of ICT inside and outside the school. She found that 73% of students used the Internet to search for information for learning and other purposes at least once a month. They also visited discussion rooms and received emails. In general, students more frequently used word processing and Internet searching than other activities such as game playing, downloading and drawing.

In reporting to UK's schools, Becta (2010) suggested that MFL teachers could help students to learn the language in a more relevant context by providing students with access to native speakers and authentic language situations, by exchanging e-mails or using social networking sites such as *Thinkquest*, which can help students to make friendships and discuss issues. Teachers can also make use of authentic target language on the Internet using *Pequest* and *Momes*. Moreover, teachers can encourage students' independent learning by introducing applications such as *Glogster*, which helps students to create their own learning projects by posting their own

posters with video and audio. Students can also develop oral and writing skills using *Animoto* and *Voicethread*, with which they can create their own publications and animations. In addition, teachers can direct students to use the site *Language Online*, where they can work on different pedagogical activities. ICT can also be a great aid for teachers when planning lessons, creating materials and keeping updated. Teachers can exchange teaching ideas and work together through global community sites designed for teachers, such as *eLanguages*. *Taskmagic* and *Fun with Texts* are two sites that can help teachers create learning materials. In addition, teachers can use ICT for student assessment and to keep parents informed about their child's learning. Students can also use it to track their own progress (Becta, 2010). MFL teachers may also be able to use ICT to support professional development and Becta (2010) provided examples of online resources available to MFL teachers (e.g. *MFL Sunderland*, *E-Twinning*, *Languages ICT*, *Association for Language Learning (ALL)*, *Ictopus*).

In Western Australia, Mcloughlin and Oliver (1998) drew attention to the ways in which the Internet has been used to support a more communicative /interactive approach in higher education. In Mayer (2005) the Web and the Internet help teachers to manage class meetings, to integrate more communicative activities, and to introduce students to the authentic environment of the target language. Thus, it can efficiently provide students with high quality resources and meaningful information gap activities (Felix, 2003). Authentic EFL materials, such as songs, cooking recipes, radio/TV broadcasts, newspaper articles, and web pages are all important to support English language learning. They expose the learner to the real world of the target language and its applications in its own community (Kilickaya, 2004). Adequate use of authentic materials aids EFL learners to feel that they live in a world where English language is part of their context (Kelly et al., 2002). In addition, introducing learners to EFL culture boosts their understanding and increases their motivation to learn, which will result in greater confidence to use English (Kilickaya, 2004; Kelly et al., 2002).

ICT can also be used to support communication within a blended approach. Banados (2006) studied a communicative English programme using ICT at the University of Concepcion in Chile. The programme used a pedagogical blended learning (b-learning) model, which included '(a) learners' work with UdeC English online, software conceived as the backbone of the entire communicative English programme, (b) online monitoring, (c) face-to-face EFL teacher-led classes, and (d) conversation classes with native speakers of English' (p. 533). It was observed from the study that the implementation of the b-learning programme changed teachers' roles in the classroom. Teachers were more akin to supportive agents for their students, offering constant feedback and encouraging students' to work independently. They also designed language learning tasks. Moreover, teachers dedicated more time to their students as online tutors. They kept following up their students' learning progress, marked online assignments, encouraged students to complete their tasks and kept them motivated. Regarding students learning progress, Banados (2006) found a high level of satisfaction was reported among students regarding the use of the b-learning programme. They also recorded a significant improvement in terms of language skills. Banados also noted that the results of the study 'give us new hope to believe that teachers and students can succeed in their goal of teaching and learning English more effectively' (p. 544).

The Internet can also support collaborative tandem learning more fully. In tandem learning, two learners are each interested in learning the language at which the other one is more proficient (Vassallo & Telles, 2006). Tandem learning offers flexibility and autonomy in learning language and can be done with or without a language course, with or without guidance and over any period of time. It also promotes learning by encouraging learners to speak the target language in a communicative way. It also increases self-confidence as it is 'based on terms of free exchange of knowledge' (ibid., p. 29).

The interest in using technology can be expected to continue. At the time of writing there is a strong focus on the benefit(s) and role(s) of MOOCs (Massive Open Online Courses) in language teaching and learning (see for example Altbach, 2014; Balfour, 2013; Godwin- Jones, 2014; Stevens, 2013; Viswanathan, 2012). An example is a MOOC for learning English which is offered by the British Council (see Godwin- Jones, 2014. This MOOC offers a learning platform to support learners and teachers to improve their language and to provide support and assess practice for the IELTS exam (International English Language Testing System) (ibid, p. 14). MOOCs are seen as allowing greatly increased participation in language learning as they are often free to access and available to students worldwide online. MOOCs can make use of multimedia (for example digital clips and flash files).

Welsh and Dragusin (2013) further suggest that MOOCs may have particular value for students who would not otherwise be able to access learning, for example on ground of mobility, and are flexible. Some MOOCs provide students with productive feedback on their learning and greater control over pace and timing of learning. MOOCs however have several weaknesses including the lack of direct face to face communication, reliable accreditation, and tutor presence. As well reported dropout rates are often extremely high.

Some MOOCs are able to provide value added through videoconferencing. In fact this is another form of ICT which has grown in importance as high speed internet connections become increasingly available. In France Guichon (2010) conducted a case study, aimed at designing a desktop videoconferencing platform (DVC) for teaching French as a foreign language. Guichon (2010) found that teachers were able to plan online lessons, communicate with learners, monitor learning and give feedback to students effectively. More generally multimedia is becoming increasingly embedded in online learning (Terantino, 2011). For example online videos can be created to help encourage, motivate and attract students' attention and provide more authentic

contexts for learning the language. Students can be encouraged to create their own videos, either alone or with a group, in order to support free practice of the language.

Many writers such as Mcloughlin and Oliver (1998), have strongly associated the use of computers with communicative and socio-cultural perspectives on teaching and learning. Using technology learners interact with the learning process through peer interaction and by exchanging knowledge, which increases their learning and improves their problem solving ability. Learners can also access peer feedback and direct feedback from the teacher. According to Mcloughlin and Oliver (1998) teachers should encourage collaborative learning and create a communicative atmosphere to allow students to negotiate with each other and offer criticism during problem solving tasks. In a similar vein Zhu (2010) saw teachers take on a new role in light of ICT integration into FL learning. Zhu (Ibid) concluded that teachers should use multimedia technologies 'to arrange teaching content and class activities creatively, and scientifically, to create an atmosphere for students' active learning' (ibid, p. 67).

However new roles are demanding. In attempting to integrate blogs to improve the quality of the MFL learning experience Hourigan and Murray (2010) detailed the blog integration process and teachers activities when teaching 2nd year MFL students during the course of a 12 weeks module. From the findings of the study, the authors suggested that when using blogging as a tool to assist language learning, there should be enough time dedicated to the course to enable students to make use of the blog and to evaluate it as a technology tool, and to assist in language learning. Teachers should be aware of the administrative load they will encounter when integrating blogs into their teaching. This administrative load includes monitoring students' blogs at the beginning of the course. Teachers may need to give students technical and learning support. Teachers should also provide students with structured guidelines to refer to when they encounter any difficulties working independently. Teachers should expect different levels of ICT skills and be prepared to address different enquiries from learners that may require clarification.

Moreover, and most importantly, teachers should be aware that their pedagogical approaches when engaging in blogging activities should aim to direct ‘the initial inexperience of the learners from neophyte integrators to increasingly confident and informed learners through a learning scaffold’ (ibid., p. 222).

However, the association between constructivist and communicative teaching approaches should not be over emphasised. ICT has proved adaptive in terms of the pedagogic use to which it has been put. Old style language labs allowed considerable opportunity for self-access and learner independence, but were associated with behaviourist drill and practice approaches to language learning (Davies et al., 2005). In mean time there has been a distancing from core traditional stimulus/response/reinforcement models of language learning (Griffiths & Parr, 2001; Mayes & Freitas, 2004). Indeed, the extent of the influence caused by the emphasis on communicative language teaching (CLT) should not be overestimated. In China, the CLT approach has not always been characterised as providing positive results; Li (1998) and Yu (2001) noted that CLT faced resistance from both teachers and students. This negative view of the CLT approach resulted in a fading of its popularity, opening up the way for an interest in task-based language teaching (TBLT) as Kumaravadivelu (2006) noted.

In Saudi Arabia Oyiad (2010) found that most school students reported low and uninspiring use of ICT by teachers in the classroom, and reported that access to ICT at home rather was the norm in most schools. Indeed, it can be argued that many EFL students still favour traditional modes of teaching. For instance, Matsuura et al. (2001) examined feedback from Japanese university EFL students on classroom methodology. They concluded that despite EFL classroom trends toward a more student-centred environment, a vast number of learners preferred more traditional classes applying a teacher-centred methodology. Almost 81% of their 301 study participants supported a teacher-centred approach as an effective way to learn English. In addition, Fogal (2010) suggested that advanced level EFL students, who are preparing to

study overseas, are more engaged in the learning process when they are presented with materials in a teacher-centred methodology.

Today we take a more eclectic approach, and teachers are encouraged to adopt various teaching methods and approaches as required by learners' needs and styles (Griffiths & Parr, 2001). For example, they noted that 'learning from errors, developed from interlanguage theory, involves cognitive and metacognitive strategies' (p. 249). In support of teachers' crucial role in the language learning process, Griffiths and Parr (2001) concluded that some students are more successful when using learning strategies and therefore, that teachers should help weaker students to apply these strategies to enhance their learning. Meanwhile Oxford (2003) recommended that while there were no single language methodologies which could combine focus and form and offer a variety of methods. The link between teaching and learning is understood to be very strong in terms of activating the language learning process. Therefore adopting an eclectic approach can help to meet different students' needs.

In Indian schools, Akhtar and Rafi (2010) suggested that teachers should aim to blend their teaching strategies with learning strategies to help students to become independent learners. Skill blinding relies on various teaching methods, approaches in response to learners' unique needs, and styles (Griffiths & Parr, 2001).

We are in the midst of an eclectic age, and so we would expect ICT to incorporate instructional strategies (for example the IWB as a support for grammar /translation method) and be used as a communication support (for example the kinds of networks of learners described earlier). In support of using eclectic approach for MFL teaching, Murray and Hourigan (2008) discussed drawing at Second Language Acquisition theory, Expressivist and Cognitivist theories when establishing language blog writing tasks. They found that students, as they established their expressivist blogs, focused on their experiences as language learners, which helped them learn the target language while applying their own learning strategies. As the studying took place

abroad, this helped the students to reflect on their experiences of different cultures during their study at the institute.

What is perhaps more surprising is the low reporting of ICT use. Researchers and educators agree that the most important element in effective use of ICT is the teacher (Becta, 2003), but many teachers have difficulty ‘finding the most effective ways of using computers for learning’ (Fisher et al., 2004, p. 50), to say nothing about overcoming limits to curriculum access. In Saudi Arabia, Hakeem (2007) conducted a study to investigate the adoption of ICT in English language for specific purposes (ESP) teaching and learning at a key university in Saudi Arabia. She found that the integration of ICT in teaching and learning had advanced relatively little.

We now move on to consider what enables and what inhibits ICT use. As noted above the literature tends to focus more on barriers at the expense of enablers.

2.3 Enablers to the Use of ICT in Teaching

Many researchers (Bingimlas, 2009; Becta, 2004; Goktas et al., 2009; Hamzah et al., 2009; Lim & Khine, 2006; Scrimshaw, 2004; Veen, 1993) have discussed enablers to ICT integration into teaching, and this section draws out those factors deemed to enable the uptake of ICT in teaching in relation to access, training and support, time, planning, personal factors.

2.3.1 Access

Access can be a disabler when related to ICT use, but its presence is an encourager. In UK, Hammond et al. (2009) suggested that the level of access to ICT and technical support in the classroom is one of the most important factors supporting effective use of ICT in teaching. In Malaysia, Hamzah et al. (2009) also noted that Islamic education teachers have maintained the need for more computers in schools in order for them to incorporate ICT into their teaching. Access problems can be addressed creatively. In a study that examined the strategies employed by four Singapore schools seeking to overcome the obstacles to effective ICT integration, Lim

and Khine (2006) found that some teachers applied the concept of a station-based learning approach during their sessions.

2.3.2 Training and Support

As regards training, Teo (2008) suggested a need for teacher educators to provide a conducive and non-threatening environment to pre-service teachers to help them succeed when using computers with a view to allowing pre-service teachers to gain competence and confidence at using computers for teaching. In addition, Goktas et al. (2009) suggested universities and schools should develop specific units to provide technical support to help teachers with ICT tools and materials instruction, and to help reduce teachers' workload (p. 201). Similarly, Bingimlas (2009) mentioned there should be continuous technical support given to teachers. However, he recommended that teachers should depend on themselves to resolve technical problems that might occur during instruction. As an element of this technical support, schools must provide teachers with relevant ICT resources including hardware and software (Bingimlas, 2009; Lim & Khine, 2006; Scrimshaw, 2004). Thus, John (2005) suggested technical support is essential to improve teachers' level of competence and confidence when managing new hardware and software. Moreover, new ICT resources should be tested by faculty members before installation (Scrimshaw, 2004). Gray et al. (2007) argue that the most effective training meets teachers' needs to adopt technology in their teaching, translating their beliefs and enabling them to learn different ways of using technology to benefit teaching and learning.

Zhao and Cziko (2001) argued that teachers should have confidence that the use of technology will boost students' learning and improve their competence to use technology effectively. They should also be able to control learning outcomes. Effective training is an enabler of ICT use but teachers' attitudes and beliefs are not readily addressed (Ropp, 1999). It is suggested by some researchers that training should enable teachers to examine instructors and their beliefs about teaching, learning and technology (Ertmer, 2005; Marcinkiewicz, 1993). As noted by Pajares

(1992), 'Attention to the beliefs of teachers can inform educational practice in ways that prevailing research agendas have not and cannot' (p. 329). Furthermore, 'when (beliefs) are clearly conceptualized, when their key assumptions are examined, when precise meanings are consistently understood and when specific belief constructs are properly assessed, they can be the single most important construct in educational research' (ibid., p. 329). Subject related training is an enabler of ICT use. In MFL, Barnes and Murray (1999) discussed the principal factors that trainers should consider when providing mentoring for ICT and initial teacher training in ICT. The authors noted that trainees' target language competence, pedagogy, ICT knowledge and skills are interrelated prerequisites that should be considered throughout the programme. Moreover, for training to be effective, Barnes and Murray (Ibid) suggested that training should be 'appropriate', in terms of providing subject- specific training materials. This would then allow trainees to deliver their MFL teaching in relation to target language teaching and learning. For example, teachers should be trained to evaluate and decide on how to best to use ICT when teaching different language skills, and to be able to think pedagogically.

In Singapore, Lim and Khine (2006) suggested that teachers should be encouraged to attend workshops and seminars on effective use of ICT in the classroom. They also proposed that schools should establish ICT committees developed by teachers with high ICT competence, to help other teachers online with ICT, without the threat of face-to-face embarrassment. Bingimlas (2009) advised that teachers be open-minded about new ways of teaching. Moreover, he also suggested that teachers engage with technology supported by new pedagogical approaches. A personalised approach identifying the different needs of teachers is proposed (Birch & Burnett, 2009; Irani & Telg, 2002). In Turkey, Goktas et al. (2009), as is allocation of time and finance to in-service training. Baylor and Ritchie (2002) suggested that teachers should be enrolled in in-service training, specifically designed to meet teachers' needs and relative to their ICT skill level and experience. They also noted that one option considered by schools is that teachers access

professional development programmes outside school if there is a gap in the provision of training. Bingimlas (2009) suggested that schools need to provide training courses but that teachers may need to self-train or identify courses of their own in the absence of in-service training.

2.3.3 Time

In order to overcome the time barrier to academics' use of technology in teaching, Birch and Burnett (2009) suggested institutions allocate manageable teaching schedules to teachers. Lim and Khine (2006) suggested that teachers should have flexibility in their timetable to allocate more time to finish ICT-mediated lessons. They also needed sufficient time to plan such lessons. A collaborative approach could be helpful here and teachers might want to collaborate with each other during lesson planning and professional development to achieve economies of scale. It has also been suggested that the best solution to addressing the problem of not having adequate time for training is to provide non-teaching contact time during school hours (Becta, 2004). Bingimlas (2009) added that teachers be provided with enough time to integrate ICT into their classrooms and this can be accomplished by reducing teaching load or increasing daily lesson time. He also suggested that teachers be encouraged to develop time management skills, which will help them when conducting classes using ICT.

In Australia, Selwyn (2007) argued that university students and faculty members are not making sufficient use of ICT, regardless of the huge efforts expended on implementing ICT as a primary teaching and learning tool at the university level. This is because students are struggling with the academic requirements of their studies whether with or without computers. Teachers are also busy meeting their teaching demands. Thus, technology remains time and support on a scale that is not yet offered.

2.3.4 Planning

In the USA higher education, McGee and Diaz (2007) asserted that both students and instructors require constant support, and that institutions should consider infrastructure and design support to prepare faculty members and students to use new technologies effectively. The authors suggested additional tips to help with the successful implementation of instructional technology; these are 'the clear identification of an instructional problem of need; a review of available tools; an adoption strategy; the adoption process; continued support; and ongoing assessment' (p. 40).

2.3.5 Personal Factors

In the USA higher education, Becker (1994) identified possible factors in the teaching environment that are deemed to be likely to result in exemplary computer users. These factors are: harmony and collaboration among institution staff, constant institutional support for using computers for teaching and learning activities, availability of resources for staff along with technical support, and smaller class sizes. There are additional characteristics that distinguish expert computer users from other users. Becker (1994) suggested exemplary teachers spend more hours working on computers and undertake more formal training in teaching and learning computers. They also have more experience and personal interest when integrating computers in their teaching. Similarly, expert computer users were identified in a study at Bank Street College of Education, as teachers who are more intellectually advanced and able to bring their educational experiences into the classroom. They are also able to practice curricular goals, by encouraging students to use different computer software with all different programmes. In fact, watching students make progress in learning and resolving problems enhances teachers' self-esteem in reference to using computers (Hadley & Sheingold, 1993). Becker further (1994) found that teachers classified as exemplary computer users changed their coverage of curriculum topics more often than other teachers did. They introduced new topics to their courses and highlighted

certain topics more as a result of computer use. Becker (1994) suggested that computers can serve as powerful tools for reforming the academic curriculum. According to Becker (1994), low-level technology use tends to be associated with teacher-centred practices, while high-level use tends to be associated with student-centred ones. According to Becker (2000), computers can serve as a 'valuable and well-functioning instructional tool' in classrooms when teachers have technological skills, have appropriate access, hold personal beliefs to support student-centred instruction, and are paralleled with a productive pedagogy (ibid, p. 29).

In UK, Gray et al. (2007) studied four MFL teachers who had just started integrating ICT into their classroom teaching. All four learned the skills needed based on what benefitted their teaching and their students' learning. These teachers were considered as risk takers in reference to their use of ICT. They introduced ICT into their teaching carefully and employed a step by step approach according to their students' learning pace. Three of the teachers were very selective about using teaching materials and offered to create their own or use materials offered by colleagues. Thus, teachers were very attached to their own theories and practices, and only changed areas as needed without responding to pressure. Another of the teachers was encouraged to use the available materials online and did not spend time creating new ones. This matches what Becta (2003) states, i.e. that teachers need significant time to develop their pedagogy, as well as their ICT skills. Therefore, pressure to alter practices quickly may limit the possibility of successful ICT classroom integration (Gray et al., 2007, p. 410).

In Netherlands, Drent and Meelissen (2008), by examining factors which encourage and discourage the innovative use of ICT in Netherlands primary, secondary, teacher education and vocational education were able to summarise the characteristics of teacher educators who use ICT willingly. They were found to do so to retain extensive contact with colleagues and experts in the area of ICT for the sake of their own professional development (personal entrepreneurship), seeing and experiencing the advantages of the innovative use of ICT in his

education (ICT attitude and perceived change), and having a pedagogical approach which can be described as student-oriented, have a level of ICT competence to support this pedagogical approach (adapted from Drent and Meelissen (2008, p. 197).

It is important to add that personal factors are not fixed. Even in their study of two high-tech schools in California, which had been used to undermine the argument that ICT has a transformative potential, Cuban et al. (2001) found that of 21 teachers, 13 (62%) agreed their teaching had developed because as a consequence of the use of ICT. They also found that 4 of the 13 teachers stated using ICT in their teaching had changed their pedagogical focus and helped them become more student-centred in their teaching. Similarly, John (2005) found that teachers developed awareness of how to blend their pedagogy with the activities offered by technology and implemented it to fit with their teaching subject.

2.4 Barriers to ICT Use in Teaching

Much of the research related to ICT integration into teaching has focused on barriers to the use of ICT and classified these into different categories. In the USA, Ertmer (1999) divided barriers into extrinsic (first order) and intrinsic (second order). Extrinsic barriers include lack of resources, ineffective training, insufficient technical support and lack of time. Intrinsic barriers include teachers' beliefs regarding the use of ICT in their teaching, and views about teaching, learning and knowledge. Becta (2003) examined barriers, such as lack of teacher confidence, lack of access to ICT resources, lack of time, lack of effective training, technical problems, lack of personal access and teacher's age as having a significant impact on ICT integration. Likewise, a number of studies classified barriers to ICT integration in teaching into two categories: first-order or school-level barriers; these relate to the institution or school and second-order or teacher-level barriers, which relate to teachers. According to Ertmer (1999), first-order barriers to ICT use are obstacles that are extrinsic to teachers and these include lack of access, insufficient time and lack of administrative support. Conversely, she defined second-order

barriers as intrinsic to teachers and include teachers' beliefs about ICT and unwillingness to change.

The following sections address first order barriers, including: lack of access; lack of technical support; lack of time; lack of fit to curriculum; and, lack of effective training. This was then followed by a section on second order or teacher-level barriers: lack of teacher confidence; lack of teacher competence; resistance to change; age and gender differences; between teachers; and, teachers' perceptions of the value of ICT

2.4.1 Lack of Access

Lack of access to resources, including access from home, and shortage of machines at school, is an obvious barrier that may discourage teachers from integrating ICT into their teaching. Teachers need to have access to computers in order to prepare for lessons. In a study of Greek teachers, Fragkouli (2006) stated that lack of computers, and the location of computer labs, was the main reason for teachers choosing not to use ICT regularly when teaching. In a study conducted on student teachers in UK, Hammond et al. (2009) suggested difficulties in access to ICT were barriers to ICT integration, particular given the diffidence that some student teachers manifest when asking for access. Pelgrum (2001) found that the most common obstacle mentioned by teachers in their use of ICT was too few accessible computers. Similarly, Coogan (2005), in a New Zealand based study noted that while students had access to the Internet in the library, teachers needed access in their classrooms. In their study on the use of ICT in Malaysian smart schools, Hamzah et al. (2009) concluded that teachers complained about the shortage of facilities and computers in school classrooms. These computers were also old and slow. They also complained that a small number of the computer labs were far from classrooms and needed to be booked ahead of time. Moreover, Hennessy et al. (2010) stated that teachers in Africa identified unreliable equipment, electricity and access to the Internet as barriers to ICT use. Thus, there is a generally reported problem with accessibility. Hakeem (2007) found access and

lack of availability of enough computers for all the students in the lab a barrier to uptake, especially as the computer lab was not available most of the time for classroom use. Lack of hardware and software play a major role in teachers avoiding integrating technology into their teaching (Birch & Burnett, 2009; Jones & Kelley, 2003; Surry et al., 2005). In Saudi Arabia, Al-Wehaibi et al. (2008) conducted a cross-sectional survey with a sample of 504 faculty members at four Saudi universities, to examine the barriers to their adoption of the Internet. The authors found the major barrier reported by the faculty was limited access to the Internet, which included references to frequent disconnections and poor connection quality.

Baran and Cagiltay (2010) studied the possible motivators and barriers to the development of online communities of practice for pre-service teachers from different universities in Turkey. They referred to difficulties in accessing the Internet, and computer availability, as environmental barriers. This is a barrier that a teacher can do little to address. In some cases, access to ICT resources was available in the school or at the institute, but this was limited or of bad quality or not relevant to the teaching area. According to Becta (2004), inaccessibility of ICT resources is not always a consequence of non-availability; it may alternatively be a result of the poor quality of hardware and software programmes. Software may also not be appropriate or may not enrich the lesson activity. Mumtaz (2000) agreed that limited resources in schools are a huge impediment to the take-up of ICT. Lack of computers and software in classroom can seriously limit what teachers are able to in terms of using ICT. Having limited resources results in lack of computer integration, which in turn results in lack of sufficient computer experience for both pupils and teachers (ibid., p. 336). Similarly, in their study on the impact of ICT implementation in Malaysian Smart Schools on Islamic education, Hamzah et al. (2009) stated that teachers and students complained that the most significant problem facing the implementation of ICT was the software allocated to smart schools. They added that the software used in smart schools was insufficient for high quality learning according to both parents and teachers. In the MFL

teaching field, Singhal (1997) discussed the disadvantages of the nature of using technology in language teaching. Teachers can become frustrated when trying to access information or browse the Internet for a long time when lines are busy, due to too many users. Some institutions are also unable to offer an adequate number of computing systems in order to implement technology for teaching and learning purposes. Lack of reliable access to technology and slow download times are inhibiting teachers from using ICT in teaching (Birch & Burnett, 2009; Eastman & Swift, 2001; Smith, 2001). Teachers need up to date equipment and should not be expected to wait for websites to open, or to have to plan alternative lessons in case of failure to connect to the Internet (Bingimlas, 2009).

In putting questions of access into context, Cuban et al. (2001) found that even abundant access to technology did not adequately establish technology use in the classroom. Lack of access to technology may be a major barrier to use but is not in itself a cause of use failure.

2.4.2 Lack of Technical Support

Technical problems were found to be a major barrier to teachers in the use of ICT. Technical errors with ICT equipment potentially lead to reduced levels of ICT use among teachers. In their study investigating perceived barriers to adopting ICT in Omani higher education and especially at the college of Applied Sciences, Al-Senaidi et al. (2009) found that participants tended to agree that the major barrier to integrating ICT was a lack of technical support in the college. Equipment maintenance at institutes can also be a major obstacle as it results in either a delay in the use of ICT or abandonment of it. Becta (2004) stated that when there is a lack of technical support in a school, there is likely to be an increased number of technical breakdowns. Many of the participants in Becta's survey indicated technical problems might inhibit them from using ICT, and the experience of technical breakdown would inhibit teachers from using ICT. Snoeyink and Ertmer (2001) also found that teachers who had tried teaching with computers, but were unsuccessful due to technical problems, would then later avoid using computers for

quite some time. In higher education, lack of professional and reliable technical support was cited as one of the most common obstacles to the use of ICT in teaching, by a majority of academics (Birch & Burnett, 2009; Jones & Moller, 2002; McCorkle et al., 2001; Schifter, 2000).

2.4.3 Lack of Time

Using ICT in teaching often requires more time than engaging in traditional teaching. This concerns the time required to access the Internet, to prepare lessons, practice using technology, to deal with technical problems or to receive appropriate training (Becta, 2004). Coogan (2005) reported that teachers in the US, New Zealand and the UK frequently reported time to be a major barrier to ICT use in teaching. Similarly, in a study at a full-time faculty, Beggs (2000) found lack of time received top ranking as a barrier. The training of teachers to use ICT consumes considerable time, in addition to their teaching load. Time is a major inhibitor to the integration of technology into teaching and has a negative impact on academic workload (Birch & Burnett, 2009; Schifter, 2000). Teaching and integrating technology can be time consuming and result in teachers feeling overburdened. It also involves the need to develop technology skills (Birch & Burnett, 2009; Jones & Kelley, 2003; McCorkle et al., 2001; Weston, 2005).

According to Ageel (2011), busy schedules affect the application of ICT in Saudi Arabia. ICT lesson preparations require much more time than traditional ones. Similarly, in Canada, Sicilia (2005), stated that teachers consume much more time when designing activities that include the use of ICT than they do when preparing for traditional lessons. It can be argued that time can be an obstacle that would prevent teachers from using ICT; also that they may use it in teaching, but in a very limited way. In a study conducted in two Californian high schools, Cuban et al. (2001) concluded that time was a major obstacle affecting the limited and infrequent use of computers in classrooms. They found that teachers had no time to locate or evaluate teaching resources, and that technology training was offered at inconvenient times. Teachers emphasised that they did not mind working longer hours, but stated that they were concerned working for

extra hours would exhaust them. Al-Wehaibi et al. (2008) reported that lack of time to integrate the Internet into existing academic programmes was one of the obstacles reported by faculty members at four Saudi universities.

2.4.4 Lack of Curriculum Fit

Despite the rhetoric, the deployment and use of ICT in school contexts remains problematic. The common explanation for the lack of curriculum and classroom infusion is the varying levels of resistance offered by teachers and the subject sub-culture in which their practice is embedded (John, 2005, p. 496). John added that the inflexibility of curriculum is a tangible barrier to ICT that should be overcome prior to actual teaching. It can also be argued that the mismatch between assessment and ICT integration constitutes a barrier in higher education (Birch & Burnett, 2009). In schools in Malaysia Hamzah et al. (2009) found teachers and students were seeking to fit the use of ICT around a rigid syllabus and examination pressures. It was also found that teachers did not see the software provided in schools as a good fit with the textbooks from which they were teaching. This was significant because students were expected to answer exam questions based on the textbooks not on their experiences of software. Weston (2005) found that inflexibility of course content, which was taught over a period of years, was an obstacle for instructors to change in order to use new technological methods of teaching. Renata and Maddison (2008) found a relation between access to hardware and software, and teachers' willingness to integrate ICT into their teaching.

It can be argued that curriculum limitations can discourage teachers from using technology, but they might encourage others to continue using technology to be creative in finding solutions. In the USA, Bullock (2004) studied two pre-service teachers (Suzanne and Nancy). Suzanne (an English teacher) changed from having a sceptical attitude towards integrating technology into her teaching to having a supportive attitude during the placement experience. She re-interpreted access and training as enablers to the use of technology. In contrast, Nancy (a mathematics

teacher) was excited and confident about using technology in her teaching when she started the programme. However, later she became disappointed with the curriculum limitations, which she was unable to overcome.

2.4.5 Lack of Effective Training

Lack of effective training programmes relating to the use of technology was a further obstacle. Teachers seem to generally want to learn how to use technology in their classrooms, but lack of opportunities can hold them back (Bingimlas, 2009; Ropp, 1999). Lack of effective training and experience can be considered one of the main reasons why teachers do not use technology in their teaching (Jimoyiannisa & Komisb, 2007; Goktas et al., 2009).

Several studies have found that individuals' attitudes toward computers might improve as a result of instruction. Land (1997) stated that successful use of technology requires proficient teachers with technological skills. Pelgrum's (2001) study found that there was insufficient training opportunity for teachers to use ICT in their classroom practice and problems with training have been noted less often (Birch & Burnett, 2009; Gulbahar, 2007; Surry et al., 2005). In Iran, Afshari, et al. (2009) found most technology training stressed teaching technology at the expense of teaching with technology. Training needs to address personal circumstance. D. Lee (1997) pointed out many older teachers have had no technology education during their training. They may have needs that differ from those of younger /newer entrants to teaching. Veen (1993), long ago emphasised the need to personalise training skills according to need.

Becta (2004) noted there were deficiencies in teacher training in MFL teaching: they observed a lack of pedagogical training, lack of skills training and lack of initial ICT training for teachers. Lack of training in how to use ICT when teaching a specific subject was often neglected. Hamzah et al. (2009) found that teachers in Malaysia complained about lack of training when

addressing subject teaching, although some teachers complained that they had never been trained in computer literacy.

In a study conducted with physics and chemistry teachers in different schools in the Azores, Portugal, Gomes (2005) concluded that lack of computer training, lack of pedagogical training and limited information about how to use ICT for teaching were obstacles. Gumbo (1998) asserted that the major problem associated with the integration of technology in the educational system of developing countries was the lack of trained teachers and trainers.

In general, the skills and technical background required for effective use of new technology are absent or in short supply. In the field of MFL teaching, lack of training in the use of technology can make it difficult to integrate ICT into the language classroom. According to Singhal (2007), MFL teachers often experience anxiety about the use of technology, as they have little experience with computers. Singhal (1997) suggested school administrators should allocate sufficient proportion of their budget to teacher training. However, she admitted that this might be an issue for schools with limited funds seeking to implement technology.

However to put findings about training into a wider context, some studies have found that despite the availability of training for teachers, many were still unable to use ICT fully in the classroom. For example in UK, Cuckle and Clark (2002) found that although the student teachers were skilful in ICT use, they failed to transfer this ICT knowledge into their classroom practice.

Fraser et al. (2007) draw a distinction between teacher training and teacher continuous professional development (CPD). Training is designed to result in specific changes in teachers' professional knowledge, attitudes, behaviour, beliefs and skills that are regarded as enabling them to teach more effectively in the classroom. However what is 'effective' is usually defined top down. On the other hand, CPD covers wider changes in teachers' knowledge and understanding

of their role and can cover both formal and informal learning. Thus while an important part of CPD is training definitions such as Day (1999) stress that CPD consists of ‘all natural learning experiences and those conscious planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute, through these, to the quality of education in the classroom’ (ibid, p. 4). This suggests that CPD is a process rather than an event. CPD goes beyond training and can enrich the quality of the teaching experience. CPD provides an opportunity for teachers to develop the longer term career path and professional development needs to match future needs (Fraser et al., 2007, p. 157).

This suggests that the literature on ICT CPD, which is at present focused on training events, will need to address this wider perspective.

2.4.6 Lack of Teacher Competence and Confidence

Lack of confidence relates to a person’s ability to accomplish something well, and this also relates to a person’s self-efficacy; in terms of ICT, self-efficacy, is the belief in one’s capability to use computers (Compeau & Higgins, 1995). Lack of teachers’ confidence can be seen in a wider context, that of TPACK. The concept of Technology, Pedagogy, Content, and Knowledge (TPCK) draws on work by Shulman (1986; 1987). Shulman drew a distinction between content knowledge (which he defined as the theories, principles and concepts of a particular discipline) and pedagogical knowledge (which he described as knowledge of pedagogical principles and practice). At the intersection of the two lay PCK which was defined as knowledge of pedagogy relevant to particular content. Thus PCK can include knowledge of content and concepts and the place of concepts in a subject discipline, of teaching strategies, knowledge about students learning background and knowledge of how to make concepts easier to learn. PCK thus refers to teachers’ interpretation and transformations of subject matter knowledge for the purposes of facilitating students learning that it can be ‘effectively and flexibly used in communication exchange between teachers and learners’ (Angli &Valanides, 2009, p. 156). Koehler and Mishra

(2005) drew on this idea of pedagogical and content knowledge (PCK) and added a further element that of technology to create the concept of technological pedagogical content knowledge (TPaCK). For them TPaCK is the environment in which teachers integrate technology into their teaching. They define Content (C) as ‘the subject matter to be learnt/taught’; Technology (T) as ‘modern technologies such as computers, the internet, digital videos, and more commonplace technologies including overhead projectors, blackboards and books’ and Pedagogy (P) as ‘the collected practices, process, strategies, procedures, and methods of teaching and learning. It also includes knowledge about the aims of instruction, assessment and students learning’ (ibid, p. 133). For example a teacher may have strong content knowledge (C), say knowledge of how past tenses are formed in English, and strong pedagogical knowledge (P), say an awareness that students find certain irregular forms difficult and strategies for addressing these. However, the same teacher may have weaker technological knowledge and unable to use the IWB to provide interactive explanations for learners. In contrast, a teacher may have good technological knowledge (T) (for example is able to embed multimedia resources with web sites) but a weak understanding of the kind of misconceptions learners have (P). These teachers will share an underdeveloped TPCK but have different strengths and weaknesses. TPaCK is an important concept as it captures the relationship between teaching and technology. Technology is there to support the curriculum but also to change the curriculum as it alters what constitutes the subject and how it is best taught.

A review about the use of TPACK found that a strong relationship existed between teachers’ pedagogical knowledge and their self-efficacy beliefs towards technology (Fisser, et al., 2013). For example, some teachers may not be technology confident, but their pedagogical beliefs facilitate their use of technology, and lead them to develop their technological knowledge. In looking at TPCK, Angeli & Valanides (2009) conducted an empirical investigation with pre-service teachers enrolled in a mandatory course. These teachers were asked to design two

teaching tasks and develop technological skills in the process of doing so. The study showed that teachers progressively developed more sophisticated ways of thinking about technology and how to transform their teaching practice. It was concluded that ICT development should be embedded with pedagogical purposes, in other words training should develop TPACK not discrete technical skills. This finding explains why some teachers feel a lack of confidence to use technology when they have not developed TPACK competency.

Sam et al. (2005) in a survey that investigated undergraduates' computer anxiety, computer self-efficacy and reported use of Internet, found that participants with a weak belief in their ability to use computers showed poor performance when trying to complete tasks using computers; whereas, those with high computer self-efficacy could enhance success when using computers and carrying out computer tasks. Lack of confidence is a major barrier to the uptake of ICT by teachers in the classroom (Becta, 2004). Moreover, lack of ICT knowledge makes teachers feel anxious about using ICT in the classroom. Heinssen et al. (1987) found that college students with higher computer anxiety had lower self-confidence in their abilities and returned poorer performance than those with lower levels of computer anxiety.

Lack of confidence influences teachers' motivation to use ICT in the classroom. Beggs (2000) stated that teachers who were afraid to fail when using technology were unlikely to use ICT in their teaching. Using ICT can increase the level of teachers' anxiety if they have not had the technological training required to carry out lessons using ICT. Bingimlas (2009) stated that shortcoming in teachers' ICT knowledge makes them feel anxious about using it in the classroom. Becta (2004) also asserted that if teachers are not sure about their technological skills, they feel anxious about using ICT in front of students, as they fear their students may have more skills than them. Lack of ICT knowledge makes teachers feel anxious about using ICT in the classroom.

By examining more dates studies regarding teachers' confidence about using technology, Lerner and Timberlake (1995) found that most teachers who feel anxious about the use of technology know that they need to acquire more IT skills in order to effectively utilise computers. Lack of teacher confidence can also affect teachers' ICT integration, regardless of whether they have a positive attitude toward ICT use. Willis et al. (1999) stated that even though teachers might adopt a positive attitude toward the use of technology in education, they might still lack confidence in their capacity to use technology in their teaching.

Lack of ICT skills is a barrier to use of ICT. It relates directly to teachers' confidence considering the above (Becta, 2004). Goktas et al. (2009) stated that the reason for some teachers avoiding the use of ICT in teaching is lack of ICT skills or knowledge of technology. Similarly, in a survey of primary and secondary schools from 26 countries, Pelgrum (2001) found lack of ICT knowledge and skills a significant obstacle too. According to Pelgrum, in developing countries, lack of technological competence is a more pronounced barrier to teachers' adoption of ICT (Pelgrum, 2001). This is supported by a study undertaken in Syria by Albirini (2006), and a study of the level of ICT use among university teachers in Saudi Arabia prepared by Ageel (2011).

2.4.7 Resistance to Change and Negative Attitudes

The majority of the research looking at the use of ICT in education suggests a deep resistance to change among teachers (Becta, 2004). Nias (1996) suggests that teachers are often attached to their jobs because they feel obligated to their students, their teaching skills, and their personal relationship with other members of the institution or school staff. They also see their work as vocational. This judgment was made in the context of primary school teaching, but it is a general comment on teachers work; teachers feel a strong sense of personal commitment to teaching, and are unwilling to adopt strategies or approaches with which they do not agree. For example, in a study analysing the factors influencing how academics develop e-learning environments for distance learning students, Birch and Burnett (2009) reported some academics express doubts

about the benefit of educational technology for students. According to them, there were some pedagogical concerns associated with academics' development of e-learning, including the demand to improve students' learning processes and the need to challenge students with their learning. Some teachers are sceptical about the value of computers in education (Chin & Hortin, 1993), and will not use them unless they are expressly required to, and even then will use them sparingly.

Teachers are also unlikely to use ICT unless they are sure of its usefulness to their students' and feel that it will be easy to manage in the classroom. In their study of pre-service teachers, Wong and Hanafi (2007) noted that perceived usefulness and perceived ease of use relating to computers had strongly influenced the attitudes towards the use of ICT positively. In contrast, teachers with the belief that ICT offers no benefits to their teaching and their students' are likely to avoid using ICT (Hennessy et al., 2010). Similarly, Hamzah et al. (2009) found that many teachers in Islamic digital schools were sceptical of the impact of technological intervention and were happier with traditional modes of teaching. Hamzah et al. (2009) found that some teachers did not believe that the integration of ICT in teaching would improve the teaching and learning process, and also that they would not aid them in conveying a heavy syllabus and doing well in examinations. In fact, they claimed that technology did not make teaching smoother.

It can be argued that resistance to change and negative attitudes can vary to different degrees between teachers, according to their different teaching backgrounds. In a study of four teachers, French, English, Geography and History, Veen (1993) found that English teachers were the most unwilling to change, and had the most negative attitude toward the use of computers among all the other teachers. He also stopped using computers in his teaching because he felt that they did not benefit his students' learning. This English teacher had a fear of losing control over students if they used computers in the classroom. In a similar vein, Arndt et al. (1985)

explored the relationship between attitudes and computer use. They found that participants with positive attitudes became more engaged with computers than those with negative attitudes.

Birch and Burnett (2009) stated that late and non-adopters of educational technology may be less adventurous, more risk averse, less comfortable with change, less intrinsically motivated and less likely to try novel ideas (p. 122). Panic caused by changing to new teaching methods and doubts about the benefit of technology in the teaching and learning process also discourage some academics from adopting technology in teaching (Birch & Burnett, 2009; Hunt et al., 2004; Weston, 2005). Likewise, McCorkle et al. (2001) added that because of the limited budget for marketing colleges, some faculties feel that it is not worth utilising technology, as they do not receive enough reward, to compensate them for the amount of work that is expected.

Roberts (1998) emphasised that in the field of language teaching, teachers are more concerned about maintaining control over learning while introducing technology. They only practice activities that they are sure will work with their teaching plans. Hence, according to Banner and Rayner (2000), MFL teachers might be less willing to take risks than other teachers. Roberts (1998) suggested that teachers would use ICT as a solution for problems they had already identified in their own teaching practice (Gray et al., 2007).

2.4.8 Age and Gender Differences between Teachers

Age is considered another barrier to the use of technology. Czara et al. (1989) suggested that age differences when learning computer skills exist. They found that younger participants achieved better results than older participants. Hence, age had an impact on performance of computer-based work (Czaja & Sharit, 1993, p. 56). In their study of 65 women, ranging in age from 25 years to 70 years, Czaja and Sharit (1993) concluded that older women took more time to finish the tasks and made a greater number of errors. Elias et al. (1987) also stated that older people were able to learn basic word processing, but that they took longer and needed more help than

younger people. Age is an important barrier and has a relationship to one's motivation to the use of technology. Tillsley (1990) argued that, though noting the date of the study, older employees do not update their technology skills, and are not motivated to use technology. Likewise, in their recent study examining age as a moderator of employees' attitudes toward technology in relation to work motivation, Elias et al. (2011) found that older employees had lower motivation because they had less positive attitudes. However, when older employees had more positive attitudes toward technology, and had a high level of motivation and job satisfaction.

The introduction of ICT into the educational sector has created new social stereotypes and gender inequalities (Markauskaite, 2006, p. 1). Gutek and Bikson (1985) reported that males tend to have more relevant skills in this area than do females. In a study of college students, Busch (1995) concluded that males had significantly lower computer anxiety and higher computer confidence than females. These results supported the finding of Murphy et al. (1989) that male students report having more extensive computer experience in gaming and programming than female students do. Females also reported that they have less access to computers at home and are less encouraged to use computers by friends and parents. Moreover, female teachers tend to have a higher level of computer anxiety than do males (Bradley & Russell, 1997; Heinssen et al., 1987; K. Lee, 1997; Rosen & Weil, 1995). They also tend to feel less confident about using computers and usually blame themselves when technical problems occur (K. Lee, 1997). Men often have more extensive prior experience with using computers and are more likely to adopt computer use in their classrooms than women (Marcinkiewicz, 1993; Sutton, 1991).

On the other hand, other researchers have reported no significant relationship between gender and computer adoption. Markauskaite (2006) found no significant differences between the experiences of females and males in terms of ICT experience. While Mwalongo (2011) presents an example of developing the use of ICT in administration in Tanzania. Female teachers were more likely to do this than males. Similarly, in their study of factors that may influence attitude

towards computer in Nigeria, Adebowale et al. (2009) concluded that gender had no significant impact on computer self-efficacy and attitude.

2.5 Enablers and barriers to ICT: Reflection

When discussing enablers and barriers it is evident that one is the mirror image of the other (see Table 2-1). For example, access if present is an enabler, but if absent it is a discourager. It is also clear that some factors are perceived subjectively. For example, some teachers may focus on the shortage of technology, whereas others see ways around such shortages. Ertmer (1999) mentioned that teachers draw more attention to first-order barriers, which affect their own second-order barriers. Ertmer also suggested that the issue of little use of ICT by teachers can only be addressed when second-order barriers are tackled.

Table 2-1: Enablers and Barriers in ICT integration

Factor	To enable ICT	As a barrier
Access	Available machines Easy access to machines Reliable up to date machines Good Internet connections	Few machines Slow machines Slow access
Technical support	Relevant hardware and software Onsite support	infrequent /ineffective technical support
Time	Good personal time management Protected time for lesson planning Not overburdened by number of teaching hours	Content heavy curriculum Overburdened by teaching load
Curriculum	Availability of relevant software Assessment fits the use of ICT	Assessment ignores use of ICT Relevant software not available
Training	Training is personalised and addresses the needs and interests of teachers; trainers show awareness of teachers' different backgrounds Training covers pedagogy as well as technical issues Training is valued and rewarded by the institution	Training is one size fits all Training is focused on skills Training is not valued by the institution
Teacher confidence	Teachers are confident about using ICT and will continually develop ICT skills through practice	Teachers are anxious about using ICT and lack self-efficacy Teachers do not develop skills through practice
Teacher competence	Teachers have the pedagogical and technological knowledge needed to use ICT	Teachers lack sufficient pedagogical and technological knowledge

Change and attitude	Teachers view ICT positively Teacher open to new ways of teaching, teachers may have more learner centred approaches. Teachers are entrepreneurial in developing expertise	Teachers sceptical about value of ICT, teachers reactive in use Teachers may have 'traditional' teaching approaches and may wish to 'control' learning
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Although this review has considered barriers and enablers discrete categories, they are very often inter-related. Bingimlas (2009) suggested that some barriers, such as lack of teacher competence and lack of access to computers are more closely related to others. Lack of competence is one of the most important barriers to teachers' integration into ICT in education. It has a close relationship to other barriers, such as lack of training, lack of time and lack of technical support. Lack of teacher competence is also clearly linked to teachers' lack of confidence. For example, teachers with low ICT confidence may be reluctant to participate in optional training, due to their fear of committing errors in front of other trainees, and as a result, their competence in using ICT will not improve (Becta, 2004).

Factors affecting teachers do not operate at the causal level. Even when hardware and software are available, ICT might not be used. Use of ICT seems to require a mix of factors and a longitudinal perspective: skills and confidence might develop in the long term.

Teachers of the same subjects often share the same concerns about the use of ICT. In his study of secondary school teachers' in UK, John (2005) found that many respondents were concerned about the link between subject pedagogy and use of ICT. They indicated that the most important issue for them was to ensure that the pedagogy used, when blended with ICT, must match learning outcomes. For example, MFL and English teachers declared that despite the fact that they were using generic software rather than subject specific applications. They were able to match learning process with technology.

2.6 Theories and Models of ICT uptake in teaching and learning

One of the aims of this research is to identify factors that encourage and discourage the use of ICT, to guide the study. However, there is an awareness that some literature has produced more abstract characterisations of why people are taking up ICT and more abstract models for it. To the best of my knowledge, none of these models have been taken up specifically in the field of English teaching. This makes it more helpful to discuss these models in the discussion chapter to address this research gap, and to consider which models have potential advantages and why this potential exists.

Thus far, the research on the uptake of ICT has been reported in terms of encouragers /enablers of ICT use and the constraints /discouragers. However, at times writers have offered a more sophisticated approach to ICT use and sought to theorise this use in a more abstract fashion. These writers provide a more focused lens on ICT uses, and offer more integrated theories, often ones that relate more closely to wider social research. Such theories include the diffusion model (Al- Gahtani, 2003; Jwaifell and Gasaymeh, 2013; Rogers, 2003); TAM (Technology Acceptance Model) (Davis, 1989, Davis, et al., 1989, Leng, et al. 2011, Mathieson, 1991, Venkatesh, et al., 2003); Activity Theory (Blin and Munro 2008; Barab et al., 2004; Beauuchamp, 2009); Community of Practice (Lim and Khine, 2006, Kim, 2010; O'Donnell and Tobbell, 2007); and more recently, the Three Zones Theory (Blanton, et al., 2005; Goos, 2005; Harland, 2003; Kinginger, 2002; Valsiner, 1887; Valsiner, 1884; Turuk, 2008). In the section below I briefly introduce each.

The diffusion model has been widely used in education. Rogers (2003: 5) defines diffusion as the process by which a new innovation is extended across certain channels over time among members of a social system. The success or failure of innovation diffusion depends, according to Rogers (2003), on four elements; these are the innovation itself, communication channels, time (i.e. time to understand the innovation, for innovation decision) and the wider social system. For

Rogers (2003), innovations that are perceived by users as having advantages over previous ways of doing things, or as compatible with the values of people in the social context), are triable, observable and less complex, and will be adopted faster than other innovations. The Diffusion model has been applied in language teaching studies. For example in a case study conducted by Jwaifell and Gasaymeh (2013) the Diffusion of Innovation Theory provided a method for examining the level of adoption of IWBs by English teachers in Jordanian schools. The English teachers claimed that the IWB helped them attract students' attention and enabled them to present teaching materials in different ways leading to advantages over other methods of working. The teachers also felt that the IWB was compatible with their needs and beliefs, and easy to use. The IWB was testable and they were free to use it as many times as they wanted; its use was examinable and its usefulness could be observed.

TAM (Technology Acceptance Model) is one of the most widely used frameworks to understand the uptake of IT (ICT). It was originally introduced by Davis (1989) to explain computer uptake in general contexts, often business related. For Davis (1989), perceived usefulness and perceived ease of use were postulated to be the most important factors determining users' acceptance. Davis (1989) developed scales to measure these variables and presented two studies involving a total of 152 users and four application programmes in Canada. The study suggested that usefulness had a greater significance than ease of use. TAM grew out of an understanding of the Theory of Reasoned Action (TRA). TRA is a more general idea to explain all human behaviour, which suggests that behaviour could be determined by a person's prior intention and their beliefs about that behaviour (Davis, et al., 1989). In the context of technology TAM postulates that how the user perceived the usefulness (U) of technology, and their perception of ease of use (EOU), are the two main factors behind users' attitudes (A) which in turn impacts on computer acceptance and behaviour intention (BI).

Activity Theory is an umbrella term for research and theories in the social science aimed at comprehending human activity. It is a ‘big theory’, unlike TAM, and is not restricted to technology. However it was, at least for a time, a popular frame of reference for understanding uptake and use of ICT (Barab et al., 2004; Barab et al., 2002; Beauuchamp, et al., 2009; Blin and Munro 2008; Demiraslan and Usluel, 2008). Activity theory has roots in Vygotsky’s theory of social constructivism. It was developed by Engestrom (1987) to provide a framework to describe the activity of individuals as components in a whole social system. Activity Theory is concerned with understanding actions in this activity system; these include elements such as: subject (i.e. participants) that perform an object (i.e. target activity), tools which help to achieve an outcome (i.e. external or internal), the community (i.e. people who share the same objective), rules (i.e. regulations), division of labour (i.e. responsibilities, cooperation among people in the system) (Demiraslan and Usluel, 2008). Key to activity theory is awareness of tensions and contradictions within human activity. For example AT systems have been represented by a triangle and this draws attention to those parts of the system and its relationship to the system as a whole. Barab et al. (2002) noted that each element of an activity system is not independent, but rather has a sub-function within the system. The authors postulated that understanding the tensions that occur as a result of the emergence of a new activity can help anticipate the challenges to the disruption or transformation of a new activity.

Activity Theory highlights the tension between social and individual aspects of learning. It sees learning as a process of interaction between intra-personal (i.e. learner) and inter-personal (i.e. social) (Blin, 2005). Blin (2005) applied Activity Theory to address the tension between the individual and the social world in which he or she participates. The author postulated that learner autonomy cannot be activated by working alone in isolation from one’s social surroundings. For learning to take place, a learner should interact with other learners who have already developed learning, therefore it should be noted that learner autonomy is a form of interdependence.

Community of practice again offers a wider view of human activity and did not originate in formal teaching, or in the adoption of ICT (Lave and Wenger, 1991; Wenger, 1998). Again as a theory it has undergone change over the years but in essence it describes the importance of learning as participation; in particular it sees learning as a social participation. Learning does not happen in one's head, but in one's actions and in particular in the interaction and negotiated agreements that take place in social communities. Such participation shapes identities relative to these communities (Wenger, 1998: 4). Participation begins with a process of Legitimate Peripheral Participation (LPP). This describes the process by which a novice learner, or a newcomer, develops knowledge and skills to reach a certain level and become a full participant in the social community of practice (Lave and Wenger, 1991:29). It has been used widely to understand adoption of ICT and management of the barriers to adoption (e.g. Thirusellvan, 2013; Lim and Khine, 2006; Clarke, 2002). In one study (Lim and Khine, 2006) examined the work of four schools in Singapore, seeking to overcome the barriers to ICT integration, and ended up recommending four strategies to promote successful integration of ICT. The strategies that were recommended for schools were providing training for students to serve as ICT experts to help motivate their teachers to use ICT; developing showcasing (by either a teacher or a technology coordinator) who could search for relevant CD-ROMs, for teachers to be presented in a regular basis to help other teachers save time and find materials that are useful for their lessons; provide incentives to teachers to increase their motivation to use ICT and to develop a Community of practice between teachers and between schools to help with exchanging experiences and ideas. A Community of Practice model was seen as essential to overcome second-order barriers (e.g. teachers reluctant to change their teaching pedagogy, lack of competence and afraid to fail using ICT in the class). A community of practice can be further developed as teachers meet outside of teaching contact times to discuss ICT materials and exchange ideas and teaching experiences.

The three zones theory has its origins in the work of Valsiner (1984) and arose from an interest in Vygotsky. It was first applied in the context of child development and was concerned with understanding how the environment influences the possible actions that a child can perform in a given environment (Valsiner, 1984). In discussing meal times Valsiner (1984) noted that a zone of free movement (ZFM) can serve to inhibit the child's action. For example, the mother when feeding her child, uses a highchair to restrict the child's movement, or may further limit the ZFM by holding the child's hand (Valsiner, 1984: 70). The mother can promote acceptable behaviour (a zone of promoted action) in eating by modelling the use of cutlery and assisting with its use. However, any attempt to promote action will not be successful if it lies outside the child's ZPD (zone of proximal development) for example if the child lacks the motor skills or cognition of what is being promoted. The Zone of Proximal Development (ZPD), as taken from Vygotsky, (1978) refers to 'the distance between a child's independent problem solving capability and the higher level of performance that can be achieved under adult guidance or in collaboration with more advanced peer' (as cited in Goos, 2005, p. 37). Crossing a ZPD suggests a process of interaction and communication. For example, Turuk (2008) in the context of L2 learning sees learning as a process of collaboration rather than isolation (ibid, p. 251).

TAM and diffusion are more conventional models and more easily integrated, although activity theory also works in this way. Meanwhile, the three zones and community of practice are more radical and involve understanding how learners /agents act as well as what affects their behaviour.

2.7 Summary

This chapter has reviewed the relevant literature to address the needs of this study and to explain how the data was accessed and accumulated. It has discussed the contribution of ICT to language learning and noted the relatively limited use of ICT. It has defined some factors as enablers /barriers to the use of ICT. The enablers to the use of ICT in teaching have been

reviewed to provide teachers with access to ICT and technical support, through adequate training. A section about Theories and Models of ICT uptake in teaching and learning has been included, introducing the diffusion model; TAM; Activity Theory; Community of Practice; and the Three Zones Theory.

The following chapter focuses on the research methods used to design this study and to obtain data.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The aim of the study is to explore English as a Foreign Language (EFL) teachers' reported use of Information Communication Technology (ICT) in their teaching at a university in Jeddah, Saudi Arabia. The study also aims to examine the factors, which constrain and enable these EFL teachers to use ICT and, if possible, to consider these factors through the lens of some of the ICT take-up theories described in the previous chapter. The study did this by attempting to answer the overall research question of the study, which is: How and why do EFL teachers use/not use ICT at a university in Saudi Arabia? This overarching question raised four sub-questions:

- What is EFL teachers' reported use of ICT in teaching at a target university in Saudi Arabia?
- What do EFL teachers perceive as the benefits of using ICT for learning and teaching?
- What do EFL teachers perceive as enabling them to use ICT?
- What do EFL teachers perceive as barriers to using ICT in teaching?

3.2 The Mixed-methods Approach

This is a mixed-methods study that aims to both describe behaviour (how teachers use ICT) and arrive at an understanding of why people behave in the way they do (their perception of opportunities and constraints within an environment), along with the consequences of their actions (the perceived impact of using ICT). Thus, it aims to provide a more or less descriptive and objective measure of a phenomenon (albeit through the eyes of the participants themselves), but attempts to achieve an understanding of how teachers see their world, which belongs to a more interpretivist tradition. This kind of mixed approach (i.e. the belief that researchers can

both measure a phenomenon and understand the perceptions of actors) is becoming well established in social research (Hammond and Wellington, 2013).

A mixed-methods approach often employs both quantitative and qualitative data, and this approach empowers an inclusive sense of the research area. It includes both quantitative and qualitative methods. Wellington (2000) pointed out that qualitative and quantitative methods can exist side-by-side in an enquiry (p. 23).

The mixed-methods approach was meant to provide a means to compare and contrast findings and a form of triangulation. Chen (2008) suggested that including both quantitative and qualitative methods in research ‘takes the advantage of the strengths of one of the methods as a means of compensating for the weakness inherent in the other method’ (p. 1018). Triangulation is applied in order to achieve parallels between quantitative and qualitative data (Creswell, 2009). In order to assess the reliability of reported ICT use in the interviews, teachers conducted lesson observations to access more ‘live’ use of ICT.

Mixed-methods research employs six data collection procedures, as summarised by Creswell (2009). The sequential explanatory strategy is based on collecting and analysing quantitative data in the initial stage of the research, and followed by collecting and analysing qualitative data in the second stage. This procedure is known for its uncomplicated process, but requires spending more time on the data-collection phase. The second procedure is the explanatory sequential strategy, which starts by collecting and analysing qualitative data, then moves on to quantitative data. It is a straightforward strategy but again it needs a long time to complete the data collection, which is considered a disadvantage for both this and the previous strategy. The sequential transformative strategy relies on a theoretical aspect, framework or ideology to guide the study. It depends on collecting either qualitative or quantitative data first, followed by secondary data. One of the main drawbacks of this strategy is that little has been written about it,

which leaves researchers who wish to apply it in their studies without sufficient guidance as to how to plan their methods. The concurrent triangulation strategy is the most common one. Qualitative and quantitative data is collected in one stage, and equal importance is given to both methods. Both databases are then integrated in the discussion section, and it is then decided whether the qualitative findings match the quantitative ones. This strategy also has a weakness, in that it demands significant effort and skill from the researchers, and it may require the collection of extra data to overcome the problem of deficiency of findings when analysing the data. Another strategy is the concurrent embedded strategy, which is based on using one data-collection method (i.e. qualitative or quantitative) as an initial method, and puts less emphasis on the secondary method (i.e. qualitative or quantitative); this helps researchers to develop a wider perspective regarding the research. The last strategy is the concurrent transformative strategy, which is delivered using the guidance of certain theories (e.g. critical theory, theoretical framework) and the collection of both quantitative and qualitative data. This strategy shares some characteristics with the triangulation and embedded strategies and also shares their strengths and weaknesses (Creswell, 2009). In this study, a sequential explanatory strategy was applied. However, the analysis of data was not conducted until all the data collection had been completed.

3.3 Overview of the Study

The study, which began in October 2010, progressed through a number of different phases: a pre-study period in which the project was envisioned; a literature review; the forming of specific research questions and appropriate research methods; a pilot study; collecting data for the main study; analysing findings; reporting findings, discussing findings; and writing up and putting the thesis together for submission.

When the study was begun, it was with an awareness of the general direction the research would take and what it would involve, as I had reflected on my experience as a teacher in the ELI. In particular in this *pre-study period*, I decided to know investigate why my colleagues used ICT; for example, whether they had seen the same opportunities she me and had experienced the same kinds of constraints. This led me into the first phase of my study proper, which was to develop the *literature review* related to the study. This involved reading related articles in order to obtain an understanding of research studies that investigated the use of ICT in different countries, EFL teachers' perceptions regarding the use of ICT in teaching, and the barriers and precipitators to using ICT in teaching. The review made it possible to see how the questions had been discussed by others and what kind of evidence had already been accumulated. By reading and reflecting on the circumstances, it was possible to *formulate more precise questions and develop appropriate research methods*. These research questions have been given earlier, and it has been explained that this is a mixed-methods study that utilised surveys and interviews, albeit with further data collected through observations. In the next phase, *a pilot study* was conducted in July 2011. The purpose of the pilot study was to examine the research instruments and their validity. For example, the pilot study that was conducted in the ELI in the case study university in Saudi Arabia helped to refine the content of the questionnaire and to eliminate ambiguous, unclear and irrelevant questions. A full, detailed description of the pilot study procedure is given later in this chapter.

The next phase was *to collect data for the main study*. This took place in the period between November 2011 and February 2012. In this phase of the project, the various sets of data were analysed; for example, the survey data was aggregated and broken down by demographic factors of gender, age and amount of teaching experience. The data enabled the exploration of different types of teacher (i.e. non-users, extended users and restricted users of ICT). The interview data was coded around key categories of themes, and again, the responses were aggregated (see appendix E). Observation data was recorded using an open schedule, allowing flexibility in

recording teacher use (or non-use) of technology and the ability to comment on levels of resource (see appendix G). This was followed by the *reporting of data findings*. In a further stage of the project, *the data was aggregated and the research questions were addressed*, looking for consistency and contrast in the data. A form of external validation was reached by comparing the findings in this study to the wider literature. The last phase was *to write up and put together all parts of the thesis* for submission.

Table 3-1: Phases of study

Phase	Activities	Date
Pre-study period	Reflecting on my experience as a teacher in the ELI and collecting more information about my colleagues' experience in using/not using ICT	March-September 2010
The first phase of my proper study	Reading related articles in order to develop the literature review	October 2010-June 2011
Developing research questions and formulating research methods	Reading research in the field of ICT and research methods in social science	March 2010-June 2011
Pilot study	Questionnaires (16 females, six males) were filled in and interviews (four female teachers) were conducted. The pilot phase was done to examine the methods in order to eliminate any ambiguity in the questions and to increase the reliability and validity of the survey	July-October 2011
Collecting data for the main study	Data was collected from questionnaires (152 EFL teachers – 92 females and 60	November 2011-February 2012

	males), interviews (16 female teachers, eight male teachers), and observations (five lessons)	
Analysing and reporting of data findings	<p>The survey data was aggregated and broken down by demographic factors of gender, age and amount of teaching experience. Then all the findings were reported in a chapter for quantitative findings</p> <p>The interview data was coded around key categories of themes and again the responses were aggregated. Observation data was recorded using an open schedule. Then all the findings were reported in a chapter for qualitative findings</p>	March-October 2012
Discussion of findings	Research questions were addressed and compared to the wider literature	November 2012-April 2013
Writing up	Write all chapters and put together all thesis parts for submission	May2013-May 2014

3.4 Discussion of Methods

The discussion of methodology now moves on to consider the methods used in the study in more depth.

3.4.1 Survey

The overall research question of the study is: how and why do EFL teachers use/not use ICT at King Abdul Aziz University in Saudi Arabia? Very little is known about the use of ICT in this context, and for this reason a survey approach was taken in order to provide a broad picture.

The aim of the questionnaire survey was to assist in obtaining information about teachers and their use of ICT, their attitudes towards ICT, how they perceive ICT as benefiting teaching and learning and the barriers and enabling factors regarding its use. The questions were divided into sections covering demographic factors including gender, age, qualifications, teaching experience and sets of research questions about reported use, enablers, constraints and benefits. The full questionnaire used in the main study is included in (Appendix A). A summary of the questions in relation to the research themes is provided in Table 3-2 below:

Table 3-2: The relationship between the research questions and the questionnaires

Research Question	Examples of questions from the questionnaires
	Demographic background Section: About you What is your gender? What is your highest degree earned? For how many years have you been teaching?
What is EFL teachers' reported use of ICT in teaching in King Abdul Aziz University in Saudi Arabia?	Section: Use of ICT I use the Internet to prepare my resources I use PowerPoint or other presentation software in my lessons I use ODUS to post students' grades I use mobile phones to contact students about

	<p>lessons issues</p> <p>I e-mail my students</p> <p>I use the CD-ROM that comes with the textbook in class</p>
What do EFL teachers perceive as enabling them to use ICT?	Sections: access to computer/Internet and attitude sections can reflect both barriers and benefits to using ICT in teaching. For example, I have a computer in my office; I have access to the Internet in my teaching room; I do not have time to learn to use ICT; I have access to the training I need to use ICT; I like using ICT in my teaching
What do EFL teachers perceive as barriers to using ICT in teaching?	Sections: access to computer/Internet and attitude sections can reflect both barriers and benefits to using ICT in teaching. For example, I have access to computer support when I need it; there are too many things to do in class to use ICT; I do not know where to find ICT resources; ICT takes up too much time;
What do EFL teachers perceive as the benefits of using ICT for learning and teaching?	<p>Section: attitudes</p> <p>ICT helps me prepare better lessons</p> <p>Students learn more when using ICT</p> <p>Students are more engaged when using ICT</p> <p>ICT helps students become more independent learners</p> <p>ICT helps me teach in the way I want</p>

Part of the questionnaire asked demographic questions about the teachers' age, qualifications, teaching experience, training and computer ownership. There were questions about their access to computers, time spent on ICT use, curriculum and training on technology use. Other questions looked at teachers' beliefs regarding their ability to use ICT and their attitudes and perceptions with regards to ICT. Another section asked them about their use of ICT (see Appendix A; a draft questionnaire and Table 3-3, which links the questions to the research questions).

It was intended to acquire information from a larger number of teachers, which would be impossible to do through interviews and observations. The questionnaires allowed the generation of broad data on EFL teachers' use of ICT (Cohen et al., 2007; Groves et al., 2013; Guthrie, 2010; Punch, 2003). Questionnaires are useful in providing structured and numerical data which is often easy to collect and straightforward to aggregate using a programme such as SPSS.

Structured, closed questions were used in the study questionnaire; Cohen et al. (2007) noted that these kinds of questions can generate response frequencies that are open to statistical analysis; they can also allow comparisons to be made between different sample groups. They should additionally make the questionnaires more manageable for respondents and increase the completion rate. Structured, closed questions were applied in the study questionnaires because of the large study sample and due to the advantages conferred by these types of questions. The advantages of closed questions include being easier to code, straight to the point and more targeted than open-ended questions.

Some guidelines were taken into account in the design and layout of the questionnaire, as advised by Wellington (2000, p. 106):

- Give clear instructions on how to fill it in.
- Present it attractively with a clear layout.
- Make the typeface legible and the English readable.
- Do not go over the top with different typefaces.
- Sequence questions carefully, starting with the easier closed questions and leading up to more thorough questions.
- Say 'thank you' at the end.

- Always try it out before distributing to your sample; i.e. pilot the questions.

The questionnaires covered the factors identified in the literature review as influencing EFL teachers' use of ICT. Matrix questions formed the layout of the questionnaire because of their qualities; they enable the same kind of response to be given to many questions and help to save space. The study questionnaires were designed using the matrix layout, also known as Likert scale questions. The questionnaire was designed using five Likert-type scales, ranging from (1) strongly disagree to (5) strongly agree.

3.4.2 Carrying Out the Survey

Prior to commencing data collection, permission was obtained from the Dean of the ELI to carry out the research data collection at the ELI. The actual data-collection process began with a visit to the ELI to arrange several meetings according to teachers' schedules in order to introduce myself and the research topic to the teachers before asking them to fill out the questionnaire. As I am a staff member at the ELI, most of the teachers and administrators know me, so it was not difficult to arrange to meet with them, and most were willing to participate. Questionnaires were sent out to male teachers in the men's campus through a male teacher coordinator who was asked by the Vice Dean of the ELI to help distribute the questionnaires and collect them back in again once they had been completed. All the male questionnaires were sent to the ELI women's campus.

All 250 EFL teachers (150 females and 100 males) were asked to fill out the questionnaires. Questionnaires were sent by e-mail for the male participants to fill out and returned to the researcher via the same method. The questionnaires were e-mailed more than once in order to increase the response rate. Unfortunately, only a few teachers responded, so it became important to go and meet them personally in their offices in order to ensure that the questionnaires were completed. Some of the questionnaires were also distributed to teachers in their classrooms to be

completed and returned to myself during the data-collection stage. Male teachers received the questionnaires via e-mail due to the campus separation. Eight male teachers were suggested by the male Chief Coordinator to take part in phone interviews. A list of the male teachers' phone numbers was given to the researcher along with the most suitable timing to interview them.

The data-collection stage took place in the 2011-2012 academic year in the case study university, located in Jeddah city, Saudi Arabia. It was necessary for me to stay in Saudi Arabia for three months in order to carry out the data collection procedure. My visit lasted from 19th November 2011 until 19th February 2012. A visit to the ELI was made on 19th November, particularly to the Vice Dean, in order to gain her support, which was limited to arranging with the Human Resources office to provide a list of EFL teachers' names. Unfortunately, the list did not include phone numbers or e-mail addresses. At this point, a friend of the researcher who worked in the IT services department suggested that the questionnaires should be sent through the ELI mailing group. This friend also offered to e-mail it because I was not authorised to send messages, only to receive them. A copy of the questionnaire was posted to the ELI mailing group with an introductory message attached introducing the researcher and the research aims, giving some instructions about how to fill in the questionnaire and providing the return e-mail address. The questionnaire was included with a final section, which asked for consent to carry out a follow-up interview. Teachers were asked to provide their details in case they agreed to participate in the interview. 100 hard copies of the questionnaire were delivered to the Head of ELI in the male section, who promised to assign the Chief Coordinator to distribute the questionnaire to the male teachers. In order to increase the response rate, a list of teachers' names was kept in the Chief Coordinator's office so as to ensure that each male teacher signed before taking and after returning the questionnaires.

Disappointingly, only five female teachers emailed the completed questionnaire back to the researcher. Therefore, a reminder to fill in the questionnaires was posted on the ELI mailing list.

The Vice Dean was also asked to attach some encouraging words to remind the teachers of the importance of supporting the research done by a colleague, which would eventually benefit the teachers' use of ICT. Because the response rate was very low using the ELI mail group, it was important to carry out some follow-up procedures. First, 150 hard copies of the questionnaire were made. I visited classrooms and left 50 copies of the questionnaire for the teachers, who were asked to sign next to their names in the teachers' list. I also visited every open-door office and gave a copy to the teachers. Teachers were asked to return the questionnaires to the Chief Coordinator, who kept an envelope with the researcher's name written on it combined with the list of teachers' names in order to sign their names and ensure that all teachers had returned the questionnaires. She also offered to help distribute the questionnaire to the other teachers who had not had a copy, so an extra 100 copies were given to her. The reason for the choice of the Chief Coordinator to help collect the questionnaires was that she was a close friend, and because the teachers needed to visit her office almost daily to receive teaching instructions and for paper processing purposes. Finally, on 16th January 2012, a total of 87 questionnaires were returned from the female Chief Coordinator, which made a total of 92 completed questionnaires. A reminder phone call was made to the Chief Coordinator in the male section to request him to encourage the male teachers to return their completed questionnaires. A total of 60 completed questionnaires were then delivered through a male relative on 18th January 2012. It was not possible to request a further attempt to obtain more completed questionnaire because the university was closed from 18th January until 28th January 2012 for the mid-year break. A total of 152 questionnaires were completed out of 250, which is the total population, divided into 100 male teachers and 150 female teachers working in the ELI. This made an overall response rate of 60.8%.

The questionnaire data was analysed using the SPSS statistical software programme. Simple descriptive statistics provided data on, for example, the frequency of use of particular software, and this data was broken down by demographic and other variables.

The questionnaire was broken down into themes that clustered a group of questions under one theme before carrying out any statistical analysis. The themes used comprised gender, qualifications, experience as an EFL teacher, access to technology, use of ICT at home, disposition to seek training, attitude towards ICT use, expectations from teachers, confidence and competence in using ICT and teachers' different uses of ICT. As mentioned previously, the questionnaire was analysed using SPSS 19 for Windows. Descriptive statistics were used for the following variables: frequency of gender, qualifications, experience, access to technology, use of ICT at home, disposition to seek training, attitude towards ICT use, expectations from teachers, confidence and competence in using ICT and teachers' different uses of ICT. Gender was cross-tabulated in relation to three variables, which were highest degree, age and years of teaching. This was used to gain an understanding of the differences between males and females that were significant to the study analysis. In addition, the weighted mean, overall responses and priorities of teachers' different usage of ICT according to gender and qualifications were calculated. This enabled me, in a later stage of the research, to identify the top and bottom users of ICT, their gender and qualifications, confidence and competence in using ICT, attitudes and expectations. Some examples of findings indicated that the large majority of respondents (more than 60%) had access to computers and the Internet for administrative and teaching purposes in their offices, homes and classrooms. The majority of respondents did not have more than one computer in the classroom. Examples of findings related to ICT use indicated that both female and male teachers sometimes used PowerPoint or other presentation software in their lessons and the most frequent users of ICT were much more likely to be females than males.

3.4.3 Interviews

The purpose of interviewing teachers was to obtain more specific and accurate data about the participants; their beliefs, values, concerns and perceptions of teaching with ICT and its value in terms of teaching learning outcomes. Interviews have various strengths and limitations. Interviewing people can be entertaining work for a researcher. Wellington (2000) suggested that interviews are ‘enjoyable and integrating activities in a research study. Interviews can reach the parts which other methods cannot reach’ (p. 71). Interviews allow researchers to explore issues and obtain information that cannot be observed, and also help in examining interviewees’ beliefs, values and concerns about a social situation, unlike in a questionnaire, where closed questions are used (Hobson & Townsend, 2010; Wellington, 2000). Hence, interviews provide a ‘deeper view than is the case with other methods of data collection’ (Cohen et al., 2007). Another advantage of interviews over questionnaires is that the interviewer is able to clarify questions or difficult terms the interviewee may not have understood (Hobson & Townsend, 2010).

One of the limitations of interviews is that they lead to subjectivity and bias on the part of the interviewer (Cohen et al., 2007, p. 352). This can affect the validity of the data, as Hobson and Townsend (2010) suggested. These authors also addressed another disadvantage of interviews, which is the trustworthiness of interview data, as some respondents may not reveal the truth and may try to present themselves in a positive way, especially if it is seen to affect their social situation. Moreover, Hobson and Townsend (*ibid*) stated that interviews can be time-consuming and costly. Semi-structured questions were asked in order to encourage teachers to express themselves and their views about the integration of ICT in their language teaching. Teachers were asked about their background as EFL teachers, the satisfactions and difficulties they had encountered in their teaching careers, and the curriculum they were teaching, along with its strength and areas to be developed. There were also questions about ICT, which included questions about whether the teachers were using ICT; they were asked to give examples of their

use of it. In addition, questions were asked about ways of using ICT in lesson preparations, what encouraged them to and discouraged them from using ICT and the training provided for the use of ICT. Another question concerned the ideal lesson teachers taught or planned to teach (see Appendix B: an interview schedule).

At the end of the questionnaires, the participants were asked whether they would volunteer to participate in an interview. 16 volunteer female EFL teachers were interviewed as being broadly representative of the returned surveys; for example, both frequent and non-users of ICT were included. In order to familiarise the participants with the study, the aim of the interview was explained to them prior to the interviews. Each interview lasted for 40 to 45 minutes. Only female teachers were interviewed face-to-face due to access issues. Males (eight teachers) were interviewed by phone, as mentioned previously. It was important to check every group of completed questionnaires in order to compile a list of the names of teachers who had consented to participate in the interviews, and then call them to arrange the most suitable dates for the interviews to take place. Interviews were scheduled during the working day and in the teachers' offices. All interviews were audio recorded. The interviews were carried out by myself with 16 female and eight male teachers, and each interview lasted for 40 to 45 minutes, as described above. The interviews were conducted in English using the semi-structured technique, as mentioned previously; this was a very interesting procedure, because all the teachers who volunteered to participate in the interviews were personal friends. Therefore, the interviews proceeded smoothly and in a very friendly manner. As a researcher investigating my own professional context it was inevitable that I would know the people I was researching. In particular I had been working at the college for twelve years and I knew most of the staff there to some degree. This had advantages and disadvantages. An advantage was that I could easily understand interviewees' background and concerns and establish rapport, but on the other hand there was a danger that my colleagues might be wishing to present what I wanted to hear. I had

to try to address this problem by not appearing as a ‘techno enthusiast’ (in fact in my past work at the institute I had not had a particular responsibility for ICT) and to show equal encouragement to the interviewee to continue talking no matter what direction the interview took.

The interviews with the males had to be postponed until after the holiday break, because the completed questionnaires were delivered on the last day before the university closed. During the mid-year break, the questionnaires were sorted and a list of the male teachers who had consented to participate in the interviews was compiled. Text messages were sent to each teacher in order to introduce me to them and to obtain permission to call and arrange a date for the interviews. Some of teachers replied with the most suitable time for them to carry out the interviews, while the others failed to respond at all. Follow-up calls were made to those teachers who failed to reply. Eight teachers agreed to be interviewed after the university break. Mobile calls were made to each teacher by the researcher according to the dates of their preference. Some interviews lasted for 40 minutes and others for 30 because some teachers were not willing to speak for longer and had to be excused in order to fulfil other obligations. Male and female interviewees were asked the same questions, which included: How long have you been an EFL teacher? What led you to take this career path? What have been the satisfactions/difficulties? Do you use ICT in your teaching? If yes, can you tell me in what way and can you please give me some examples? In these examples what do you think is the value of using ICT? Can you tell me about ways in which you use ICT for preparing teaching? Who if anyone encourages you to use ICT? Can you think of reasons that stop you from using ICT?

The interviews were listened to numerous times and transcribed. Codes were formed, and then grouped under themes that had a direct relation to helping obtain more systematic analysis in order to answer the research questions; known as ‘fitness for purpose’, as noted by Cohen et al. (2011) (see Appendix E) . All transcripts were transferred into a large table that had all the

themes numbered, with the interviewee codes and responses (see Appendix F). Initial letters were used as codes for the interviewees to ensure their anonymity. A list of the interviewees' names with the initial codes was kept separately as a record in order to be able to attribute accurately. Qualitative data analysis is a process that includes different procedures in order to reach the level of 'making sense of the data in terms of participants' definitions of the situation, noting patterns, themes, categories and regularities' (Cohen et al., 2011, p. 537). Themes that were used included: experience of teaching, qualifications, reasons for teaching, satisfactions, dissatisfactions, curriculum, professional development, personal views of teaching, ICT use encouragement, ICT use discouragement, value of using ICT and teachers' use of ICT. At this stage, coloured highlighters were used to highlight the most impressive responses and repeated responses that could be of significance for the analysis and had potential to be used as quotations representing teachers' views.

3.4.4 Observation

The aim of using observation as a data collection method for the study was to explore the teachers' use of ICT in actual classroom practice and the level of their use compared to that declared by the teachers in the interviews. It was important to carry some observations for the study, as 'Observation has an advantage over other research methods in that it allows the researcher to gather 'live' data from a naturally occurring social situation' (Cohen et al., 2011, p. 456). Robson (2002) suggested that observation gives research the chance to witness the real situation in its entirety because people's real behaviour may differ from what they think or say they do. Therefore, in order to acquire some proof of what the teachers stated regarding their use of ICT in the interview, it was important to carry out some lesson observations. As with any data collection method, there were some difficulties in preparing for lesson observation. Getting in contact with teachers in order to set a date for observing their class was not easy, as most of the teachers were busy teaching or did not reply to the researcher's emails. Another obstacle was

some teachers' refusal to allow observation of their lessons because their classrooms were either not equipped or had no access during the particular module they were tackling. The timing schedules of lessons differed; for example, some lessons lasted for three hours and were taught by one teacher, while others lasted for 60 or 90 minutes because another teacher was sharing the teaching of the same group. It was therefore difficult to arrange to observe a shared lesson, because if one teacher agreed to allow the researcher to observe, the second teacher may still not have agreed.

The five lesson observations were chosen as a follow-up method to the interviews. It is important to note that none of the male teachers' lessons were observed due to cultural restriction reasons. First, the female and male campuses are separately located. As a female, I was not allowed to visit male classes, and was therefore only able to observe five female teachers' lessons. It was not possible to carry out more observations because the observation method took place after all the questionnaires were collected and the interviews conducted, which was towards the end of my field trip. Hence, I had to return to the UK in order to continue working on the data analysis with guidance from her supervisor. However, with more time, I would have carried out more observations. This may also have made it possible to obtain further clear understanding about the use of ICT among EFL teachers and its impact on learning and teaching.

Five non-participant lesson observations were carried out in the case study university-ELI in Jeddah in February 2012. During the research I did not participate in the class activities, but sat at the back of the classroom and took notes; Adler and Adler (1994, p. 378) stated that one of the characteristics of a traditional observation is that the researcher does not interfere in the lesson activity by any means or stimulate any change in the class environment. Each lesson was observed once for 60-180 minutes, depending on the actual scheduled class time. In addition to taking notes silently from the back of the classroom, the researcher also used her iPhone device to record the session, after obtaining permission from the teacher to do so. At the beginning of

each observed lesson, the teacher introduced me to the students as a researcher who would not interfere in the lesson.

Notes taken during observations were read and compared to each other in order to identify teachers' use of ICT, and recordings were listened to for the purpose of comparing students' interactions during the lesson.

3.4.5 Pilot Study

Wellington (2000) noted that a questionnaire, and the questions within it, can be developed from prior research methods, but the use of a pilot is essential (p. 105). Fink and Kosecoff (1998) stated that conducting a pilot study is essential to help the researcher carry out a reliable survey. Cohen et al. (2007) asserted that a pilot has several functions; principally 'to increase the reliability, validity and practicability of the questionnaire' (p. 341). Accordingly, a pilot study was conducted with some EFL teachers of the actual study population. 20 questionnaires were sent by e-mail to EFL teachers at the case study university who were selected by a teacher coordinator because they were teaching during the summer. Only 16 completed questionnaires were returned. It was claimed that teachers were very busy during the summer course as they were required to finish a lot of work in a short period of time. Four female teachers of different ages, qualifications and years of teaching experience were interviewed. Those teachers were chosen by the teacher coordinator and were happy to participate as the researcher was known by them; all of them declared that the topic of the study was very interesting, and predicted that it would be a useful contribution to developing the quality of English teaching and learning in the case study university. 20 male EFL teachers were sent questionnaires by email; however, only six responded. The questionnaires were sent to them more than once, and the low response rate was unexpected, the low level of cooperation by male teachers may have been due to the fact that I did not know them personally and to them being busy during the summer course, which is

usually very hectic. It was necessary to carry out the pilot study at this time, as the researcher had to return to the UK in September to arrange and finalise with her supervisor all the plans for the data collection for the main study.

3.4.6 Pilot Study Analysis and Results

Each interview was listened to more than once, and transcribed as soon as it was finished. All the interviews were then coded and clustered into units of relevant meaning in relation to the research questions. The teachers interviewed had various amounts of teaching experience; Teachers A and C have been teaching English for five years, Teacher B for 11 years and Teacher D for 20 years. The interview data indicated that all teachers believed that using ICT in teaching English is very important. Teacher C said: 'I believe that using ICT in teaching is not an option, it is an obligation.' The teachers also believed that ICT is beneficial for teaching and learning. Teacher B emphasised: 'I would say that ICT is very good in improving language teaching and learning.' Saving time, making teaching fun and more entertaining for students, increasing students' motivation, providing varieties of teaching strategies, increasing students' interest in learning grammar, vocabulary and all other skills and creating autonomous learners were the advantages of ICT use most mentioned by the teachers. Teacher D explained: 'drawing the attention of learners to visit some websites to learn grammar, vocabulary or any other skill can help in creating autonomous learners.' Teacher A described students' reactions to the use of ICT: 'Students are so enthusiastic about using ICT in the classroom.' Teacher B also assured that technology increases students' motivation to learn. She said: 'When it comes to technology, students become very motivated and involved... I think it plays a big role in increasing students' motivation and the learning accordingly.' This finding illustrates the fact that the teachers' perceptions of the use of ICT are positive, and that they seemed enthusiastic about the use of ICT.

In terms of ICT use, PowerPoint was commonly used among the four teachers, all of whom agreed used it regularly in the classroom to present new concepts, revise lessons and provide extra exercises. Teacher A explained how she prepared her lessons: 'I plan for my lesson by looking for websites related to the teaching topic; it would take two to three days, then I make a PowerPoint presentation.' In addition, Teacher B believed that PowerPoint was beneficial for learning and increasing students' attention. She said: 'I use PowerPoint a lot and find it very useful, especially when adding sounds, figures and pictures, as I think it plays a major role in students' motivation and learning at the same time.' Teacher D said: 'I often use PowerPoint to teach grammar rules and new vocabulary.' Teacher C believed that PowerPoint is useful for revising lessons, as it reinforces students' understanding, saying: 'I use PowerPoint as lesson revision because I believe it helps in emphasizing the points of the lessons.' The teachers also encouraged students to present on PowerPoint as part of their speaking assessments. Teacher B stated: 'I ask students to prepare PowerPoint presentations for speaking assessments.' As an experienced teacher, Teacher B was more creative in using ICT, and appeared to be more student-centred, mentioning that: 'I would prepare something on my computer... say a small exercise, and save it on my memory stick; then I have it projected in the classroom on the board.' She engages students in the learning process, and added: 'I have students work with me; I get the students to the front, so they can work themselves on the computer.' She suggested that this strategy makes students more motivated in learning as they become part of the learning process. This teacher talked about the advantages of engaging the students in the learning process. She said: 'It is always nice to call students to the front, so the students get some control... it gives them some learning ownership and somehow they like it.' Teacher D gave an example of her use of ICT: 'I log into a useful website and prepare worksheets for my students.' She believed that providing extra worksheets that relate to the teaching topics encourages students to work more and enhances their learning.

When the interviewees were asked about the constraints that face them in their use of ICT, a lack of Internet access in most classrooms was reported to be the most common obstacle. Technical support was reported to be a major obstacle to the use of ICT by one teacher. Teacher C reported: 'I spent a whole semester complaining that the computer wasn't working in my classroom, and no one fixed it until the finals.' Lack of access to a computer was an obstacle according to Teacher A, who was unhappy, saying that: 'The worst condition I would say is when the computer is not working.' These results show that lack of access and technical support were top of the list of barriers that would hinder the use of ICT in the case study university.

Training in the use of ICT was provided according to all four teachers. They reported that they had been trained on how to create their own webpage and update it in order to keep in contact with learners. Teacher C said: 'the university finance us to attend conferences about ICT.' Teacher B believed that the university encouraged the use of ICT by providing a lot of professional development workshops that include using technology and increasing the standard of the university among other universities. She proudly said: 'I think the standard is really excellent... I think they are getting the advantage of other countries' experience.'

The teachers believed that the use of ICT needs to be systemised and become part of the curriculum. Teacher D said: 'If learners' use of ICT is part of the curriculum, I think it will make a great change in the process of learning English.' Teacher A commented: 'ICT is my dream... students should not be deprived of this technology.' She believed that technology improved their learning, adding: 'Students should be on their toes with this technology.'

All the teachers concluded that using ICT in teaching English has become 'a must' due to its advantages. They suggested that the use of ICT increases the chance of producing autonomous learners, making learning more interesting and improving all language skills. For example, there are many online resources, such as BBC skills, English club and online dictionaries which

students can visit in order to increase their English learning, as indicated by Teacher B. The overall results of the qualitative data showed a positive attitude among all participants; although there was limited use of ICT on PowerPoint, memory sticks, iPods, mp3s and mobile phones. This could be a reason for the lack of Internet access that would allow EFL teachers to download work instantly in the classroom.

The reliability of the questionnaires used in this study was demonstrated in the pilot study. Cronbach's alpha was used to provide a coefficient of inter-item correlations (Cohen et al., 2011). Cronbach's alpha was calculated using SPSS 19. The results reveal that the questionnaire yields an alpha coefficient of 0.808, which indicates a reliable questionnaire (see Table 3-3).

Table 3-3: Reliability of the pilot study

Reliability Statistics		
Factors	Number of items	Cronbach's alpha
Attitudes towards ICT	21	0.698
Use of ICT	17	0.813
Scale	38	0.808

A few descriptive statistics were calculated, which included frequencies in particular. In the questionnaire, participating teachers were asked whether they have access to the Internet in their teaching rooms; the frequencies of the Yes/No responses are shown in Table 3-4. From the table, it can be seen that most of the respondent teachers (68.2%) did not have access to the Internet in their teaching rooms. This result supports the qualitative data results, as all four teachers interviewed claimed that access to the Internet was a main barrier to ICT use.

Table 3-4: Access to the Internet in the teaching room

Q: I have access to the Internet in my teaching room			
		N=	Percentage
Valid	Yes	7	31.8

	No	15	68.2
	Total	22	100.0

50% of the respondent teachers strongly disagreed that there was not enough time to learn to use ICT, and the same proportion of teachers strongly agreed that they like to use ICT in their teaching. Interestingly, half of the teachers agreed that students learn more when using ICT in teaching, whereas only two of the teachers disagreed. These results indicated a positive attitude towards using ICT in teaching and its benefits to students' learning (see Tables 3-5).

Table 3-5: Time to learn to use ICT; like using ICT in teaching; students learn more when using ICT

Statements	N=	Strongly Disagree	Disagree	Neither agree/ Nor disagree	Agree	Strongly agree
I do not have enough time to learn to use ICT.	22	11	9	1	1	
I like using ICT in my teaching.	22			1	10	11
Students learn more when using ICT.	22		2	2	11	7

From the frequencies and percentages, as shown in Tables 3-6, it can be seen that more than half of the teachers often used PowerPoint and encouraged students to use it while 6 teachers used PowerPoint and encouraged students to use it sometimes. These results illustrate the fact that more than half of the respondents used and encouraged students to use it, which indicates that PowerPoint is the most commonly used device by teachers.

Table 3-6: Using PowerPoint in lessons; Encouraging students to present tasks via PowerPoint.

Statements	N=	Never	Rarely	Sometimes	Often
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I use PowerPoint or other presentation software in my lessons.	22		4	6	12
I encourage students to present tasks via PowerPoint	22	1	3	6	12

The teachers provided feedback that allowed the researcher to develop a final draft of the questionnaire. The final version included changing the Likert-type question sequence to start from (1) strongly disagree to (5) strongly agree, as a result of feedback from the pilot study teachers, in order to avoid confusion.

3.5 Validity, Reliability and Triangulation

‘The validity of a study is an important criterion regarding the meaningfulness of the results and overall value of research’ (Hartas, 2010b, p. 74). Wellington (2000) defined validity as ‘the degree to which a method, a test or a research tool actually measures what it is supposed to measure’ (p. 30). Cohen et al. (2007) noted that ‘an invalid research is worthless’ (p. 133). All of these authors thus suggested that validity is essential for both quantitative and qualitative research. There are four types of validity that are common to the educational field of research: internal, construct, external and ecological validity (Hartas, 2010b, p. 74).

Wellington (2000) defined reliability as ‘a judgment of the extent to which a test, a method or a tool gives consistent results across a range of settings, and if used by a range of researchers’ (p. 31). It is also concerned with the notion of whether the results of a study are replicable (Hartas, 2010b, p. 71).

In an interview, the most important way to obtain validity is by reducing bias as much as possible (Cohen et al., 2007). Silverman (1993) suggested that the reliability of an interview can be

boosted by piloting the interview questions and using closed questions. He also argued for the importance of open-ended interviews in order to enable interviewees to express their ideas and beliefs about a situation. Hence, it can be argued that the application of a semi-structured interview is recommended. Hobson and Townsend (2010) noted that a semi-structured interview can help in covering a researcher's agenda and simultaneously enable interviewees to reveal their concerns and ideas.

Validity in questionnaires can be achieved by piloting the questions in order to refine the content, wording and length (Cohen et al., 2007). Reliability in questionnaires should also be taken into consideration. In the study, Cronbach's alpha in SPSS 19 was used to measure the degree of internal consistency of the questions in the questionnaires. It enabled the potential deletion of some questions in order to raise the level of reliability if needed. However, in this study, it was not necessary to delete any of the questions. According to Hudson and Miller (1997), a follow-up strategy should be developed in order to ensure the return of the questionnaires. As a result, reliability would be increased, according to Cohen et al. (2007). The study instruments were therefore piloted in the summer of 2011 back in Saudi Arabia, in the actual study setting.

During the observations, a descriptive validity was enabled by using an open schedule in which the factual accuracy of what took place during the observed lesson was recorded by the researcher (Cohen, 2007).

In the discussion chapter, all the findings from the questionnaires, interviews and observations were integrated and compared to the wider literature. This helped in gaining triangulation. According to Gorard and Taylor (2004), triangulation helps to combine qualitative and quantitative data into one structure. The authors noted that triangulation enhances validity and parallels of research, reduces bias and increases trustworthiness. Triangulation took place in the

study, as in most cases all the findings from the questionnaires, interviews and observations were consistent. However, there were some inconsistencies, which were explained. All points were covered in the discussion chapter.

3.6 Ethical Issues

Informed consent is at the heart of ethical research practice. It incorporates issues of clarity of purpose, trust, honesty and integrity (Lindsay, 2007, p. 118). Informed consent for participation was obtained from the participant teachers. E-mails were sent to the participants asking them whether they were willing to participate. The purpose of the research was explained to the participants, as well as the fact that they had the right to withdraw without any embarrassment. Cohen et al. (2007) asserted that ‘researchers have to ensure that volunteers have real freedom of choice if informed consent is to be fulfilled’ (p. 55). Permission to use a tape-recorder was obtained before interviews commenced. In addition, the anonymity of participants was assured. A few of the questionnaires were returned by male teachers using email, and each reply was treated as anonymous. A larger number were returned through the male Chief Coordinator in a sealed envelope to the researcher’s husband, who is an academic member of staff at the case study university. All data records used participant codes. The key for those codes was confidential and stored separately. The data was also controlled, and nobody had access to it. All data was also deleted at the end of the study. Participant contributions were acknowledged, and the participants received a thank you letter for their participation.

3.7 Summary

This chapter has presented the aim of the study and the research questions. The research paradigm has been introduced, along with an overview of the study. The data collection methods and the study population have been described. The data collection and data analysis have been

presented, and the chapter has also outlined the validity, reliability, triangulation and ethical issues.

CHAPTER FOUR: QUANTITATIVE DATA FINDINGS

4.1 Introduction

This section describes the analysis of the quantitative data. As discussed in chapter three, a questionnaire survey was conducted to explore EFL teachers' use of ICT. The questionnaires were delivered and the overall response rate was 60.8 per cent (N = 152). Structured, closed questions were used. The questionnaire covered those factors identified in the literature review as influencing EFL teachers' use of, and attitudes toward ICT, and there were also questions regarding teachers' access to computers, time spent on ICT use, curriculum, and training on technology use. There were additional questions that examined teachers' beliefs concerning their ability to use ICT and their beliefs about the impact of ICT on students' learning, and their general attitudes and perceptions of ICT. Another section of the questionnaire asked teachers about their use of ICT. The findings were reported in two sections, and covered use of ICT at home and use of ICT for teaching and learning. The raw overall findings are presented on the questionnaire itself (see appendix C).

4.2 Teachers and their access to computers

The distribution of the respondents in terms of: gender, age, qualifications and experience are given below. They show more (60%) of the respondents were females, as explained in the methodology chapter. This is not surprising given that I am a female researcher and so female teachers were more accessible to me (table 4-1). The majority of teachers (68%) were aged between 30 and 49 years old and most respondents had had more than four years teaching experience with a sizeable minority (32%) having had more than 15 years (table 4-2, 4-4). Almost half of the respondents (52%) held a Masters' degree, just over a third (36%) held a bachelor's degree, and around a tenth (11%; n = 17) held a doctoral degree (table 4-3). This shows that

most respondents held post graduate qualifications; and suggests that teaching staff were well educated and that there is good availability and support of academic study (my experience of this is discussed in the introduction).

Table 4-1: Breakdown of the respondents according to gender

Gender	N=	%
Male	60	39.5
Female	92	60.5
Total	152	100.0

Table 4-2: Breakdown of the respondents according to age group

Age	N=	%
22-29	29	19.1
30-39	54	35.5
40-49	49	32.2
50-59	16	10.5
≥ 60	4	2.6
Total	152	100.0

Table 4-3: Breakdown of the respondents according to qualification

Qualification	N=	%
Bachelors	55	36.2
Master	80	52.6
PhD	17	11.2

Total	152	100.0
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Table 4-4: Breakdown of the respondents according to teaching experience

Experience	N=	%
1-3	13	8.6
4-6	37	24.3
7-10	28	18.4
11-14	26	17.1
≥ 15	48	31.6
Total	152	100.0

4.2.1 cross-tabulation Tables

In the tables below are some cross-tabulations of gender against other variables.

Table 4-5: cross-tabulation of gender against age

			Age					Total
			22-29	30-39	40-49	50-59	>59	
Gender	Male	N=	5	18	23	10	4	60
		%	8.3	30.0	38.3	16.7	6.7	100.0
	Female	N=	24	36	26	6	0	92
		%	26.1	39.1	28.3	6.5	0.0	100.0

The table (4-5) shows that the female lecturers tended to be younger on average than the male lecturers were. The modal group of males were aged 40-49, and the figure was 30-39 for females. Over 50% of the females were aged below 40, while for males the figure was 38%.

Table 4-6: cross-tabulation of gender against qualification.

			Degree			Total
			Bachelor's	Master's	PhD	
Gender	Male	N=	18	33	9	60
		%	30.0	55.0	15.0	100.0
		% of Total	11.8	21.7	5.9	39.5
	Female	N=	37	47	8	92
		%	40.2	51.1	8.7	100.0
		% of Total	24.3	30.9	5.3	60.5

Proportionally more males were likely to have studied for a higher degree than females.

Nonetheless, a majority of females (59%) had also obtained a higher degree.

Table 4-7: Cross tabulation of gender against teaching experience.

			Years Teaching					Total
			1-3	4-6	7-10	11-14	>15	
Gender	Male	N=	2	12	15	11	20	60
		%	3.3	20.0	25.0	18.3	33.3	100.0
		% of Total	1.3	7.9	9.9	7.2	13.2	39.5
	Female	N=	11	25	13	15	28	92
		%	12.0	27.2	14.1	16.3	30.4	100.0
		% of Total	7.2	16.4	8.6	9.9	18.4	60.5

The modal of the groups for teaching experiences was > 15 years, for both males and females.

This reflected the unequal age group intervals. Nearly 50% of males had 1-10 years' experience of teaching; whereas, for females the figure was 53%.

4.2.2 Access to ICT

This section describes respondents' access to ICT (table 4-8). The table includes responses from Yes/NO questions (form About You section: Q 5, 6, 11, 12, 13, 14, 15, 17). Table (4-9) includes responses from Likert type questions (from attitude section: statement 38). A clear impression

was given that the large majority of respondents (more than 60%) had access to computers and the Internet for administrative and teaching purposes in their offices, home and classrooms. However, a constraint emerged in respect of question 14, which showed that the majority of respondents did not have more than one computer in the classroom, making computer based learning almost impossible. Of course, students were able to bring their own computers with them to the classroom, however a further constraint here was that there was no wireless connection.

The results for males and females pointed in similar directions. However, there were some differences, with females claiming slightly more access to ICT (see questions 6, 13, 14, 15, 16, 17) and statement (38). Nevertheless, males felt that they were more likely to have had access to the ICT resources that they needed. This might be because females were more concerned about access to ICT as they tended to be more willing to use ICT.

Table 4-8: Access to ICT a (figures broken down by gender)

Statement		Male		Female	
		N=	%	N=	%
5- Do you have a personal computer?	Yes	57	95.0	91	98.9
	No	3	5.0	1	1.1
6- Do you have access to the Internet at home?	Yes	50	83.3	91	98.9
	No	10	16.7	1	1.1
11- I have a computer in my office	Yes	50	83.3	81	88.0
	No	10	16.7	11	12.0
12- In my teaching room I usually have no computers *	Yes	16	26.7	15	16.3
	No	44	73.3	77	83.7
13- In my teaching room I usually have a single computer attached to an OHP	Yes	43	71.7	74	80.4
	No	17	28.3	18	19.6
14- In my teaching room I usually have a set of computers	Yes	14	23.3	4	4.3
	No	46	76.7	88	95.7
15- I have access to the Internet in my office	Yes	44	73.3	79	85.9
	No	16	26.7	13	14.1
16- I have access to computer support when I need it	Yes	39	65.0	74	80.4
	No	21	35.0	18	19.6

17- I have access to the Internet in my teaching room	Yes	21	35.0	49	53.3
	No	39	65.0	43	46.7

*The expected answer to this statement from these with access to ICT is in reverse to others.

Table 4-9: Access to ICT b (figures broken down by gender)

Statements	Gender	N=	Strongly Disagree	Disagree	Neither agree/ Nor disagree	Agree	Strongly agree	Weighted Mean
38- I can access the ICT resources I need for my teaching.	Male	60	1	5	16	26	12	3.72
	Female	92	0	15	26	41	10	3.50
	Male	%	1.7	8.3	26.7	43.3	20.0	
	Female	%	0.0	16.3	28.3	44.6	10.9	

4.2.3 Use of ICT at Home

Table (4-10) reports on two statements about whether teachers used computers at home, and if they used them for lesson preparation. The greater majority of teachers had computers and used them, with more females than males reporting such use.

Table 4-10: The use of ICT at home, broken down by gender

Questions		Male		Female	
		N=	%	N=	%
7- Do you use a computer at home?	Yes	54	90.0	92	100.0
	No	6	10.0	0	0.0
8- Do you use computers at home for preparation for teaching?	Yes	51	85.0	91	98.9
	No	9	15.0	1	1.1

4.3 Uses of ICT for Teaching and Learning

Table (4-11) reports on 17 statements about the use of ICT for teaching and learning and the rankings for use. Statements 40, 55, 54, 43 and 39 were ranked with the highest (1-5), as they referred to actions often carried out by teachers. Statements 48, 43 and 46 were ranked the lowest (17-16-15), as teachers rarely carried these out. Statements 47, 44, 50, 51 and 49 were middle ranked (14-10), as teachers sometimes carried them out. However, the overall responses for use of ICT for teaching and learning was 'sometimes' with a summated weighted mean of 2.96, and a standard deviation of 1.02.(See Appendix D)

Table 4-11: Uses of ICT for teaching and learning

Statements	Never		Rarely		Sometimes		Often		Weighted Mean	Std. Deviation	Modal Response	Rank
	N=	%	N=	%	N=	%	N=	%				
39- I use the Internet to prepare my resources	3	2.0	9	5.9	80	52.6	60	39.5	3.30	0.68	Often	5
40-I record students' grades, absences and other data on the computer	2	1.3	8	5.3	25	16.4	117	77.0	3.69	0.63	Often	1
41-I use PowerPoint or other presentation software in my lessons	6	3.9	23	15.1	67	44.1	56	36.8	3.14	0.81	Sometimes	6
42-I use ODUS to post students' grades	33	21.7	13	8.6	37	24.3	69	45.4	2.93	1.19	Sometimes	9
43-I use ODUS to send course information to students	52	34.2	27	17.8	37	24.3	36	23.7	2.38	1.18	Rarely	16
44-I use a mobile phone to contact students about lesson issues	29	19.1	33	21.7	57	37.5	33	21.7	2.62	1.03	Sometimes	13
45-I e-mail my students	15	9.9	27	17.8	52	34.2	58	38.2	3.01	0.98	Sometimes	8
46-I use an iPod in class to	52	34.2	26	17.1	26	17.1	48	31.6	2.46	1.25	Rarely	15

Statements	Never		Rarely		Sometimes		Often		Weighted Mean	Std. Deviation	Modal Response	Rank
	N=	%	N=	%	N=	%	N=	%				
play back listening tracks												
47-I receive students' work via e-mail	31	20.4	33	21.7	61	40.1	27	17.8	2.55	1.01	Sometimes	14
48-I send my corrected work via e-mail	39	25.7	47	30.9	43	28.3	23	15.1	2.33	1.02	Rarely	17
49-I recommend online learning resources for students to work on at home	8	5.3	34	22.4	72	47.4	38	25.0	2.92	0.83	Sometimes	10
50- I encourage students to present tasks using PowerPoint	13	8.6	31	20.4	79	52.0	29	19.1	2.82	0.84	Sometimes	12
51-I encourage e-mail exchanges between students	19	12.5	33	21.7	52	34.2	48	31.6	2.85	1.01	Sometimes	11
52-I encourage students to use testing and revision programmes online	8	5.3	26	17.1	63	41.4	55	36.2	3.09	0.86	Sometimes	7
53-I search out online resources to help improve my teaching	4	2.6	14	9.2	57	37.5	77	50.7	3.36	0.76	Often	4
54-I use the CD-ROM that comes with the textbook in class	8	5.3	14	9.2	43	28.3	87	57.2	3.38	0.86	Often	3

Statements	Never		Rarely		Sometimes		Often		Weighted Mean	Std. Deviation	Modal Response	Rank
	N=	%	N=	%	N=	%	N=	%				
55-I ask students to use the CD-ROM at home	5	3.3	14	9.2	43	28.3	90	59.2	3.43	0.79	Often	2
Total	327	0.13	412	0.16	894	0.35	951	0.37	2.96	1.02	Sometimes	

4.3.1 Breakdown of Respondents' Use of ICT According to Gender

Overall, the female teachers appear to make more use of ICT in teaching and learning than males, as seen in statements 40, 44, 46. This result shows that females use ICT significantly more.

Table 4-12: Use of ICT according to gender

Statements	Male			Female		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal Response	Rank
39- I use the Internet to prepare my resources	3.20	Sometimes	5	3.36	Often	4
40- I record students' grades, absences and other data on the computer	3.40	Often	2	3.88	Often	1
41- I use PowerPoint or other presentation software in my lessons	2.98	Sometimes	7	3.24	Sometimes	7
42- I use ODUS to post students' grades	2.55	Sometimes	12	3.18	Sometimes	8
43- I use ODUS to send course information to students	2.35	Rarely	14	2.39	Rarely	16
44- I use a mobile phone to contact students about lesson issues	2.28	Rarely	15	2.84	Sometimes	12
45- I e-mail my students	2.60	Sometimes	11	3.27	Often	6
46- I use an iPod in class to play back listening tracks	2.20	Rarely	17	2.63	Sometimes	14
47- I receive students' work via e-mail	2.48	Rarely	13	2.60	Sometimes	15
48- I send my corrected work via e-mail	2.27	Rarely	16	2.37	Rarely	17
49- I recommend online learning	2.88	Sometimes	9	2.95	Sometimes	10

Statements	Male			Female		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal Response	Rank
resources for students to work on at home						
50- I encourage students to present tasks using PowerPoint	2.62	Sometimes	10	2.95	Sometimes	10
51- I encourage e-mail exchanges between students	3.00	Sometimes	6	2.75	Sometimes	13
52- I encourage students to use testing and revision programmes online	2.98	Sometimes	7	3.15	Sometimes	9
53- I search out online resources to help improve my teaching	3.27	Often	4	3.42	Often	3
54- I use the CD-ROM that comes with the textbook in class	3.43	Often	1	3.34	Often	5
55- I ask students to use the CD-ROM at home	3.40	Often	2	3.46	Often	2
Total	2.82	Sometimes		3.05	Sometimes	

When comparing the frequency of use of ICT between genders it was found that the following uses of ICT gained a score of more than 3 for male teachers (sometimes or often):

Table 4-13: Breakdown of respondents' use of ICT according to males

54- I use the CD-ROM that comes with the textbook in class.	1	3.43
40- I record students' grades, absences and other data on the computer.	2	3.40
55- I ask students to use a CD- ROM at home.	2	3.40
15- I search out online resources to help improve my teaching.	4	3.27
39- I use the Internet to prepare my resources.	5	3.20
51- I encourage e-mail exchanges between students.	6	3.00

For female teachers the following gained a mean score greater than 3 (sometimes or often):

Table 4-14: Breakdown of respondents' use of ICT according to females

40- I record students' grades, absences and other data on the computer.	1	3.88
55- I ask students to use the CD- ROM at home.	2	3.46
53- I search out online resources to help improve my teaching.	3	3.42
39- I use the Internet to prepare my resources	4	3.36
54- I use the CD-ROM that comes with the textbook in class	5	3.34
45- I e-mail my students.	6	3.27
41- I use PowerPoint or other presentation software in my lessons	7	3.24
42- I use ODUS to post students' grades	8	3.18
52- I encourage students to use testing and revision programmes online.	9	3.15

4.3.2 Use of ICT According to Qualification

Table (4-15) shows the breakdown of use of ICT according to qualification. This shows that, overall, those with a Master's degree were likely to make more use of ICT (3.02). Respondents with Master's degrees had the highest score and gave the highest rank in respect of statements 40, 54, 55, 53 and 39. Statement 40 had the highest summated weighted mean and the highest rank by all groups of qualifications. Statement 55 had the highest summated weighted mean, and the second rank by respondents with a bachelor's and a PhD degree, with the highest summated weighted mean in respect of the PhD group.

Table 4-15: Use of ICT according to qualification

Statements	Bachelors			Master			PhD		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal response	Rank	Weighted Mean	Modal response	Rank
39- I use the Internet to prepare my resources	3.36	Often	2	3.29	Often	5	3.12	Sometimes	6
40- I record students' grades, absences and other data on the computer	3.75	Often	1	3.65	Often	1	3.71	Often	1
41- I use PowerPoint or other presentation software in my lessons	3.15	Sometimes	6	3.11	Sometimes	8	3.24	Sometimes	5
42- I use ODUS to post students' grades	2.96	Sometimes	7	2.99	Sometimes	10	2.59	Sometimes	13
43- I use ODUS to send course information to students	2.36	Rarely	14	2.38	Rarely	17	2.41	Rarely	16
44- I use a mobile phone to contact students about lesson issues	2.62	Sometimes	13	2.65	Sometimes	14	2.47	Rarely	15
45- I e-mail my students	2.96	Sometimes	7	3.14	Sometimes	7	2.53	Sometimes	14
46- I use an iPod in class to play back listening tracks	2.25	Rarely	16	2.56	Sometimes	15	2.65	Sometimes	11
47- I receive students' work via e-mail	2.27	Rarely	15	2.73	Sometimes	13	2.65	Sometimes	11
48- I send my corrected work via e-mail	2.16	Rarely	17	2.44	Rarely	16	2.35	Rarely	17

Statements	Bachelors			Master			PhD		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal response	Rank	Weighted Mean	Modal response	Rank
49- I recommend online learning resources for students to work on at home	2.65	Sometimes	12	3.11	Sometimes	8	2.88	Sometimes	10
50- I encourage students to present tasks using PowerPoint	2.80	Sometimes	10	2.80	Sometimes	12	2.94	Sometimes	9
51- I encourage e-mail exchanges between students	2.69	Sometimes	11	2.93	Sometimes	11	3.00	Sometimes	7
52- I encourage students to use testing and revision programmes online	2.91	Sometimes	9	3.23	Sometimes	6	3.00	Sometimes	7
53- I search out online resources to help improve my teaching	3.33	Often	4	3.36	Often	4	3.47	Often	3
54- I use the CD-ROM that comes with the textbook in class	3.16	Sometimes	5	3.51	Often	2	3.41	Often	4
55- I ask students to use the CD-ROM at home	3.36	Often	2	3.44	Often	3	3.65	Often	2
Total	2.87	Sometimes		3.02	Sometimes		2.95	Sometimes	

Teachers with bachelor's degrees gave a score of greater than 3 (sometimes or often) for the following uses of ICT:

Table 4-16: Use of ICT according to those with Bachelor's degrees

40- I record students' grades, absences and other data on the computer.	1	3.75
39- I use the Internet to prepare my resources.	2	3.36
55- I ask students to use the CD- ROM at home.	2	3.36
53- I search out improve my teaching me teach better.	4	3.33
54- I use the CD-ROM that comes with the textbook in class.	5	3.16
41- I use PowerPoint or other presentation software in my lessons.	6	3.15

Teachers with Masters degrees gave a score of greater than 3 (sometimes and often) for the following uses of ICT:

Table 4-17: Use of ICT according to those with Master's degrees

40- I record students' grades, absences and other data on the computer.	1	3.65
54- I use the CD-ROM that comes with the textbook in class.	2	3.51
55- I ask students to use the CD-ROM at home.	3	3.44
53- I search out online resources to help improve my teaching.	4	3.36
39- I use the Internet to prepare my resources.	5	3.29
52- I encourage students to use testing and revision programmes online.	6	3.23
45- I e-mail my students.	7	3.14
41- I use PowerPoint or other presentation software in my lessons.	8	3.11
49- I recommend online learning resources for students to work on at home.	8	3.11

Teachers with PhD's gave a score of greater than 3 (sometimes and often) for the following uses of ICT:

Table 4-18: Use of ICT according to PhDs

40- I record students' grades, absences and other data on the computer.	1	3.71
55- I ask students to use the CD-ROM at home.	2	3.65
53- I search out online resources to help improve my teaching.	3	3.47
54- I use the CD-ROM that comes with the textbook in class.	4	3.41

41- I use PowerPoint or other presentation software in my lessons.	5	3.24
39- I use the Internet to prepare my resources.	6	3.12
51- I encourage e-mail exchanges between students.	7	3.00
52- I encourage students to use testing and revision programmes online.	7	3.00

4.4 Experiences of ICT Training

Table (4-19) reveals whether teachers have attended training courses or workshops about using ICT. More than the half of teachers had, with female teachers more likely to have undertaken training. However, the majority of teachers felt they could not access all the training they needed, with females feeling this more strongly than males.

Table 4-19: Experiences of training a: broken down by gender

Statement		Male		Female	
		N=	%	N=	%
9- Have you ever attended any training courses on using ICT for teaching?	Yes	35	58.3	63	68.5
	No	25	41.7	29	31.5
10- Have you ever attended any workshops on using ICT for teaching?	Yes	38	63.3	68	73.9
	No	22	36.7	24	26.1

Table 4-20: Experiences of training b: broken down by gender

Statements	Gender	N =	Strongly Disagree	Disagree	Neither agree/ Nor disagree	Agree	Strongly agree	Weighted Mean
21- I have access the training I need to use ICT.	Male	60	8	18	11	15	8	2.95
	Female	92	4	27	32	20	9	3.02
	Male	%	13.3	30.0	18.3	25.0	13.3	
	Female	%	4.3	29.4	34.8	21.7	9.8	

4.5 Attitude to ICT

In this section, the responses concerning attitudes to ICT use are presented. Those who were most positive about ICT should have agreed with statements 10, 13 and 19 and disagreed with the other statements. It is striking that both male and female teachers appear to be positive about the use of ICT with the majority agreeing with statements 10, 13 and 19: I like using ICT in my teaching, ICT helps me prepare better lessons, and ICT helps me teach in the way I want. In most cases respondents neither agreed/nor disagreed with statements 2, 14 and 15. Female teachers appeared to be more positive about ICT as they answered ‘disagree’ to statements 1 and 20: I do not have enough time to learn to use ICT /it is easier to find relevant teaching materials in the textbooks than online, as opposed to the males who neither agreed/nor disagreed. The overall impression remained one of a strongly positive attitude toward ICT, although with some contextual constraints, such as related to time and pressure from other work.

Table 4-21: Attitudes toward ICT: broken down by gender

Statements	Male			Female
	Weighted Mean	Modal Response	Weighted Mean	Modal Response
18- I do not have enough time to learn to use ICT.*	3.02	Neither agree/Nor disagree	2.16	Disagree
19- There are too many things to do in class to use ICT.*	2.98	Neither agree/Nor disagree	3.05	Neither agree/Nor disagree
27- I like using ICT in my teaching.	3.78	Agree	4.11	Agree
28- I will not try something new out in my teaching unless I'm sure it will work.*	3.37	Neither agree/Nor disagree	3.40	Agree

Statements	Male			Female
	Weighted Mean	Modal Response	Weighted Mean	Modal Response
30- ICT helps me prepare better lessons.	3.77	Agree	4.08	Agree
31- ICT is used too much in teaching.*	2.97	Neither agree/Nor disagree	2.97	Neither agree/Nor disagree
32- ICT takes too much time.*	2.97	Neither agree/Nor disagree	2.99	Neither agree/Nor disagree
36- ICT helps me teach in the way I want.	3.77	Agree	3.76	Agree
37- It is easier to find relevant teaching materials in textbooks than online.*	3.10	Neither agree/Nor disagree	2.53	Disagree
Summated Weighted Mean scores*	3.30	Neither agree/Nor disagree	3.23	Neither agree/Nor disagree

*Most modal responses were Neither agree/Nor disagree. The expected answers to these questions were in reverse to the other questions ie those with a positive attitude towards ICT would show lower scores to the other questions.

4.6 Perceptions of the Impact of ICT Use on Students' Learning

Teachers were asked about their level of agreement or disagreement in regard to three statements on the impact of ICT; in this case those with positive attitudes about ICT were expected to agree with all three statements. As shown in table (4.22), both male and female respondents reported a positive perception regarding the impact of ICT on students' learning, and the summated weighted mean for female teachers was 3.80 and a slightly higher 3.81 for male teachers, with some small variation in the importance males and females attributed to the statements.

Table 4-22: Teachers' perceptions of the impact of ICT use on students' learning: broken down by gender

Statements	Male			Female		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal Response	Rank
29- Students learn more when using ICT	3.77	Agree	3	3.86	Agree	1
34- Students are more engaged when using ICT	3.82	Agree	2	3.77	Agree	2
35- ICT helps students become more independent learners	3.85	Agree	1	3.76	Agree	3
Summated weighted mean	3.81	Agree		3.80	Agree	

4.7 Respondents' Expectations Concerning ICT Use

In this section, the respondents were asked if they were expected, or encouraged to use ICT in their teaching. If the respondents felt they were subject to such an expectation they were expected to agree with the following statements: I am expected to use ICT in my teaching and my institution encourages me to use ICT. The table (4- 23) shows that both males and females did feel this although female teachers were slightly more aware of this expectation. This indicates that teachers were aware that ELI SMT (Senior Management Team) was 'pushing' the use of ICT.

4.8 Teachers' Confidence and Competence In Regard To ICT Use

In this section, the responses of the respondents regarding their confidence and competence in regard to the use of ICT are presented. Table (4.24) shows summated weighted mean scores of 3.26 for male teachers and 3.08 for female teachers. This indicates that males are more positive about their confidence and competence when using ICT. However, the differences between genders are not large.

Table 4-23: Teachers' expectations regarding ICT use

Statements	Male			Female		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal Response	Rank
20- I am expected to use ICT in my teaching	3.48	Agree	1	3.63	Agree	2
33- My institution encourages me to use ICT	3.42	Agree	2	3.70	Agree	1
Mean expectation	3.45	Agree		3.66	Agree	

Table 4-24: Teachers' reporting of their confidence and competence to use ICT: broken down by gender

Statements	Male			Female		
	Weighted Mean	Modal Response	Rank	Weighted Mean	Modal Response	Rank
22- I am able to use ICT appropriately in my teaching	3.68	Agree	1	3.62	Agree	1
23- I have the technical skills I need to use ICT in my teaching	3.60	Agree	2	3.55	Agree	2
24- I feel confident of fixing things that go wrong in classroom while using ICT.	3.28	Neither agree/Nor disagree	3	3.02	Neither agree/Nor disagree	3
25- I don't know how to use ICT resources*	2.83	Neither agree/Nor disagree	5	2.43	Disagree	5
26- I don't know where to find ICT resources*	2.93	Neither agree/Nor disagree	4	2.79	Neither agree/Nor disagree	4
Mean score for confidence and competence	3.26	Neither agree/Nor disagree		3.08	Neither agree/Nor disagree	

*The expected answer to these questions are in reverse to other questions.

4.9 Exploring the Most /Least Frequent Users of ICT

The data was broken down according to gender, age, qualifications, years of teaching, training, access, attitude, expectation and confidence. These categories were drawn from the bank of questions presented on the questionnaire. Gender, age, qualification, years of teaching were the demographic questions (1, 2, 3 and 4). Training (CPD taken up/not taken up) related to questions (9, 10 and 21). Access (low access/mid access/high access) was covered by questions (5, 6, 11, 12, 13, 14, 15, 16 and 17). Attitudes (positive attitudes/less positive) were covered by statements (attitude section). Confidence (more confident and less confident) was covered by statements (22, 23, 24, 25 and 26). Expectation (low sense of expectations/high sense of expectations) was covered by statements (20 and 33). I became interested in exploring the top and bottom levels of users of ICT. To do so, I aimed to identify the top and bottom quartiles. The top 38 teachers represented the top quartile, the lowest 38, the bottom quartile. From within this quartile we also wanted to consider the very top users and the least likely to use ICT and took the top and bottom 9 users from each quartile.

The data were explored and broken down relative to variables of gender, age, qualification, years of teaching, training, access, attitude, confidence and expectations. In order to deal with the relatively small sample size I needed to compact these variable. For example, years of teaching were divided into 'newish', which extended from 1-6 years of teaching, 'mid-career' from 7-10 years of teaching and later career, from 11 to more than 15 years. Age was also divided into two categories; younger and older. Younger respondents were aged from 22-39 and older respondents from 40 to over 59. For training, access and attitudes I used summated mean scores to derive categories of high, medium and low access; positive and negative attitudes, strong and weak perceptions of the expectation to use ICT.

Table (4-25) shows that the most frequent users of ICT were more likely to be females; whereas, the very lowest users were more likely to be males and the lower quartile were more likely to be male. The top users were much likely to be younger than older; the upper quartile was more likely to contain younger teachers. Whereas, the very lowest users were more likely to be older respondents, and the lower quartile was also more likely to be older respondents. The top users were much more likely to be the newish teachers than teachers in their mid and later career. The upper quartile users were more likely to be mid-career. The very bottom quartile users were more likely to be in later career. BA, MA and PhD degree holders were represented in both the top and bottom quartiles. However, the upper quartile was more likely to comprise MA degree holders than BA and PhD degree holders. The lower quartile was more likely to be BA degree holders than MA and PhD degree holders. It was important to note that these were raw figures and only 17 teachers held PhD degrees (n=17) in comparison to a greater proportion of MA degree holders (n=80) and BA degree holders (n=55).

In respect to training the very top users were more likely to agree to have experienced training as were those in the upper quartile. The very lowest users were more likely not to have undertaken training were those in the lower quartile.

In respect to access, the top users are more likely to agree that they had access to ICT as well as those in the upper quartile. Whereas, the very lowest users are more likely to agree that there was low access to ICT and the lower quartile are more likely to agree that they had low access to ICT.

In respect to attitude, the very top users were more likely to have a positive attitude towards the use of ICT in teaching English, as were teachers in the upper quartile. The least frequent users were more likely to have a less positive attitude toward the use of ICT in teaching English. The lower quartiles were more likely to have a less positive attitude toward the use of ICT in teaching English. However, there was no major difference between top and bottom users in relation to confidence. The most frequent users were more likely to have high expectations. The very lowest

users were more likely to have low sense of expectation, as well as lower quartile was more likely to have a low sense of expectation.

Table 4-25: Comparing top and bottom users of ICT

	Most frequent users (n=9)	Top quartile of users (n=38)	Least frequent users (n=9)	Bottom quartile of users (n=38)
Gender				
Male	1	15	7	21
Female	8	23	2	17
Age				
Younger	6	22	1	20
Older	3	16	8	18
Qualification				
BA	4	12	4	19
MA	4	23	3	15
PhD	1	3	2	4
Years of teaching				
Newish	4	11	2	14
Mid	1	8	1	4
Longer/Older	4	19	6	20
Training				
CPD taken	6	24	4	18
Not taken up	3	14	5	20
Access				
Higher	5	20	1	10
Mid	3	10	3	12
Lower	1	8	5	16
Attitude				
Positive	7	25	4	15
Less positive	2	13	5	23
Confident				
More confident	6	22	5	23
Less confident	3	16	4	15
Expectation				
High sense of expectation	7	24	4	13
Low sense of expectation	2	14	5	25

4.10 Summary

The data in table 4-25 reveals that ICT use was differentiated, but that most teachers were often able to: use the Internet to prepare resources; record students' grades, absences and other data on the computer; search out online resources; use the CD-ROM that came with the textbook in the class; and, ask students to use the CD-ROM at home. ICT was also widely used for communicating with students and for presenting work to students in the class. Most of the teachers used ICT at home and prepared lessons using ICT.

As regards access, most had access to computers at home and the majority had access for administrative and teaching purposes in their offices and classrooms. However, the majority of respondents did not have more than one computer in the classroom.

There were differences in terms of gender. More female teachers than males found time at home to work with computers for teaching purposes. Male teachers were slightly more confident about using ICT. Teachers with Master's degrees tended to use ICT 'often'; certainly more than of those with bachelors and PhD degrees.

As regards training, although most had attended training courses many teachers did not feel they could access the training they needed, females felt this more strongly than males. The overall mode for all the statements about confidence and competence in regard to using ICT was 'Neither agree/nor disagree'.

The most frequent users of ICT (the top ten percent and upper quartile) were more likely to have a positive attitude towards the use of ICT, than the least frequent users of ICT. They were also more likely to report greater access to ICT; and were more likely to have experienced training and to have a higher sense of expectation that they should use ICT.

CHAPTER FIVE: QUALITATIVE DATA FINDINGS (INTERVIEWS)

5.1 Introduction

This chapter presents the findings from the interview data collected from EFL teachers. As described in the chapter on methodology, interviews were carried out with volunteer teachers (n=24; 16 females and 8 males). In the interviews, the teachers were asked around 8 questions designed to cover a number of themes about their teaching experience. These included: (1) their reasons for teaching; (2) aspects that gave them both satisfaction and dissatisfaction in their teaching career; (3) what course they teach and how much it meets their students' needs; (4) their use of ICT and its value to the teaching and learning process; (5) the elements that encourage, or discourage, them to use ICT.

The interviews were transcribed and read through carefully more than once. A coding scheme (including themes and sub coding themes) was developed by reading through the data and noting issues relating to the use of ICT in the wider literature. For example, F/NO stated:

If the classes weren't well prepared or they don't have all the material or equipment that helps. It will be hard to carry all this stuff with you, so this may be the only thing that will stop me from using ICT. If all equipment is available and working, then it's very helpful.

This raises the issue of the availability of hardware and software (she needs to have “the right material”) and it was interesting to note that she felt a responsibility to address shortages by “carrying what was needed herself”, and that she felt a responsibility for addressing problems. However there was “only so much you can do”.

These open codes were condensed into more general categories, which in this case related to the use of ICT, i.e. discouragement and the sub themes concerning lack of access to computer/not operated computers/not operated data projections. (The themes are shown in Appendix E). While developing the coding, I was open to the possibility of raising new issues that had not

been previously covered in depth in the literature, but which appeared to be of importance. For example, questions concerning teachers' satisfaction provided a perspective on their perception of their role as teachers. This went into more detail than the more well researched topic of teachers' beliefs. Satisfaction later appeared as a factor in encouraging teachers to use ICT, as it explained teachers' concern for autonomy and creativity, both associated with the use of ICT. Satisfaction with teaching was associated with motivation. One teacher (F/SY) said she was motivated when:

my students' response and feedback is positive. I can tell how much I am doing and how much they are learning and gaining from me and this satisfies me a lot.

This was coded under the theme of 'satisfaction' with the sub theme 'seeing impact'.

The findings in respect to ICT are reported in two sections: the first focuses on the encouragers and discouragers in relation to ICT use, and the second focuses on its use and perceived value of its use. In order to understand the teachers and the context in which they work, along with the nature of their work, a number of general themes are first explored.

5.2 About the teachers and teaching

This section examines the findings in respect to the teachers themselves (i.e. their teaching experience and background qualifications), along with their motivation for, and satisfaction with, both their roles as teachers, and the curriculum.

5.2.1 About the Teachers

The teachers were first asked about their *teaching experience* and how long they had been teaching English in the ELI. Of those who answered this question (n=18), the longest teaching experience (F/M) was 13 years, and the majority were between 2-6 years. Most teachers had more than 10 years' teaching experience, and a number had taught at other institutions. For

example, F/D had been teaching for 20 years, but she had only been a teacher in ELI for 4 years. Some had long teaching careers: M/K had been teaching for 27 years and F/SN for 20 years. Both had taught for a number of years in the ELI. They appeared to take pride in their extended teaching experience and presented themselves as knowledgeable.

Both older and younger, and more and less experienced teachers were using ICT. However, some older or more experienced teachers had developed teaching routines that could be hard for them to break. This was not the case for all experienced teachers and some (both males and females), demonstrated a high level of interest in using ICT. For example: F/D, M/S and M/T had been teaching for 20 years, yet they were very familiar with ICT and viewed it as having impact on students' learning outcomes. M/T talked about ICT as something he used a great deal in his teaching:

Nowadays we have to use a different technique to educate them and help them and most of the time is really helpful and students like it. It is the technology that they like most and I use it a lot in the classroom.

On the other hand, some newer teachers had more recent ICT experience as learners. They held high expectations concerning the online tools they felt should be available in ELI, along with the ways in which classrooms and offices should be equipped with the latest technology. Some teachers had wider experience of using ICT during their time teaching at other schools or institutes, and they also had background and knowledge skills they could transfer to ELI. However, this transference was not to be taken for granted. For example, F/HN (who had experience of teaching in a private school for 2 years, where she had used the interactive white board and the Internet) found the lack of Internet access and technical support inhibiting her use of ICT in ELI.

All the interviewed teachers were qualified to teach English. A number had been awarded a BA in linguistics or literature and linguistics combined, or an MA or PhD. The majority of teachers of both genders held MAs, but only males (n=2) had a PhD. This demonstrated diversity among the interviewees.

M/K and M/S held PhDs. They had considerable teaching experience and both held strong views concerning the importance of using ICT as a support for learning and teaching. They felt that ICT had a value at a number of different levels, and that it was a means of attracting students' attention to the teaching material. It also motivated students to learn. This was viewed as particularly important when it came to learning the English language, which was not considered a subject that motivated the majority of Arab students. M/S suggested that:

if you want your students to recall some information, you should use more visual learning. Using technology and data projection presentations and all will make it easier to remember in the future.

Teachers gave some vivid examples of their use of ICT in teaching, as discussed below in a later section.

Teachers with MAs also discussed the importance of using ICT in teaching, as they were aware that they were dealing with a generation familiar with technology. F/H stated:

It's an IT generation, so they are so into this stuff. Now, occasionally you'll get one or two students who don't have an email account or are ignorant about technology. It's good exposure for them to see this.

Teachers who held bachelor degrees shared their colleagues' views concerning the value of ICT. For example, F/N felt her students preferred to use ICT and that sometimes when she displayed work on the board they asked her if they could take a picture of it to save time. She also stated that they showed her:

applications on their iPhone about language, and how to learn English, for speaking and dictionaries. Sometimes I help them more and I give them names of more applications that help.

It was difficult to discern how much these qualifications impacted on the decision to use ICT. The researcher concluded that teachers who held MAs, and who had acquired their degrees in UK or USA, were likely to have wider experience of the use of ICT. They also appeared to make more use of ICT in their classrooms than those who obtained their MAs in Saudi Arabia. In practice, however, teachers with different educational backgrounds demonstrated high interest in ICT, although those teachers who pursued their degrees in UK or USA (i.e. F/LY and F/SN) did offer some particularly creative examples of the use of ICT. F/LY believed that creativity and bringing new material to her class would be attractive for her students.

5.2.2 Teaching and the Motivation to Teach

Teachers were questioned about their motivation for teaching. Some responses were detailed at length (e.g. F/SY, F/SM, F/R), whereas others were brief (e.g. M/K, F/NO, F/SN) or equivocal (e.g. F/A). Responses were transferred to nine codes, which were then regrouped into (1) intrinsic; (2) extrinsic; and (3) altruistic motives for being EFL teachers. Three males and thirteen females favoured *intrinsic* motives; four males and five females favoured *extrinsic* motives, and two males and seven females favoured *altruistic* motives. However, it should be remembered that motives also overlapped, i.e. even if a teacher's motivation was altruistic, they would not undertake the work without being paid. Females were more likely to give intrinsic reasons, perhaps fulfilling a cultural norm that females tend to be more emotionally attached to what they do. It was not always easy to pinpoint from where the intrinsic reasons originated, but three female teachers appeared to have followed a form of apprenticeship in the language. For example: F/R had lived in the USA since she was very young and had easily picked up the language and accent; F/SM had an inspiring teacher who was a model teacher for her; F/SY had

acquired her love for English from her father, who had been an idealised figure in her life. She stated:

honestly, my father was an inspiration to me and he was a master in English. He was also a generalist, and he used to write letters and articles in English. He used to watch English movies and somehow I, like, inherited the love of the English language from him.

School experience was an important element in developing a motivation to teach. Teachers talked about being ‘fast learners’; having an inspiring language teacher or a parent; a passion towards language; and an enjoyment of learning and an opportunity to socialise with students and teachers. F/SH had enjoyed language since she was young:

honestly speaking I was very interested in English language since I was very, very young and I always wanted to study more and more in English and improve myself in English.

M/M believed that his interest in teaching was based in his:

Guts and abilities to teach especially English language, so I've always wanted to become English teacher, so it is in my instinct to teach English.

Extrinsic motivations were based on having a qualification and ‘needing work’. For example, M/T became a language teacher because language teaching was in demand, although he would have preferred to teach literature:

The demand in the market is to teach language. People want to learn language and are not interested in Literature. However, I am a literature person, but I'm a language teacher now.

The extrinsic motivation was cited by others, due to the fact that it was the only work available. For example, three other teachers in particular did not appear to like the job, and would have preferred to teach literature, (e.g. M/T, F/H and F/LY).

Finally, some teachers (both females and males) appeared more *altruistic* in their desire to contribute to society and assist students in learning English. F/R lived in the USA and wished to help Saudi students to master English. She said:

I felt I should make use of my knowledge in English and teach it to my fellow Saudi sisters, to help them to be able to do well in English too.

Teachers were asked about what satisfied and dissatisfied them about their teaching career. This was related to the previous section concerning their motivation for teaching, so that establishing a relationship with students appealed more to teachers with intrinsic motivations to teach, and was less important for teachers with extrinsic motivations. The majority of those satisfied and dissatisfied fell into three themes: relational, institutional and a sense of vocation.

5.3 Satisfiers and Sources of Dissatisfaction in Teaching

5.3.1 Sources of satisfaction

The major sources of satisfaction expressed by the teachers are illustrated in the table below and cover **relational, institutional and vocational** factors.

Table 5-1: Sources of satisfaction in teaching

Themes		Males	Females
Relational aspects of teaching	Seeing impact on learning	4	13
	Students' motivation to learn, including showing punctuality	4	2
	Teaching in the HE sector		4
	Creating good relationships with students	1	3
	Empathy: close in age to students/graduated from the same university		1

Institutional motivations to teach	Financial benefits	1	
	Exercising teacher autonomy		3
	Well-equipped classrooms/offices	1	3
	Rewards from authority		1
Sense of vocation	Enjoying what I'm doing	1	2
	Succeeding in meeting a challenge		
	Having a job	1	5

These themes are now illustrated in more detail:

The majority of both males and females raised **relational satisfaction** about teaching, and were clear that the greatest satisfaction they received was when *they saw an impact on learning*. This was evidenced for them in students receiving improved marks in exams, using language, or imitating the teacher in her/his pronunciation or using her/his words. For example, M/AH felt that he as a teacher was responsible for helping his students to move from one level to a more advanced level. He noted that his students began the module:

with a weak level of English and then they became better at the end of the module. Then I noticed the difference and the progress and that they were doing well. Students' improvements gives me great deal of satisfaction, let's say.

A similar satisfactory experienced was shared by F/SM, who managed to help a weak class:

I had been given a class which was very, very weak the English language, and okay, it was a challenge for me. Then I did a good job with them. I was really happy because they soon began to learn and they all got 'A's in the exam... It was for the first time in the history of school that every single student in a class got an 'A'.

F/N was worried that she might not receive the same kind of satisfaction with university level students, but:

it does make a difference, especially when you are examining them and they are speaking to you, you see them using your own pronunciation, your own style of speaking. You get to see these satisfactions... it is a really nice feeling ... I felt I can teach university level students, it is challenging for me.

A number of teachers were particularly pleased with the level of motivation, punctuality and general leaning habits of their students. M/T felt that students in the ELI had a desire to learn English. F/K was also satisfied with her most recent group:

I'm really so happy about the section I am teaching this module...my students so much motivated, they are very responsible and they want to learn.

Some teachers preferred to teach science students, as they felt they were more motivated than art students (e.g. M/H, M/M, F/M).

Female teachers were more likely to talk positively about students from all backgrounds. For example, F/D said that she enjoyed teaching girls because:

When it comes to female students here, it is much better to teach them as they are more intelligent. It is easier to teach them as the majority of them want to learn. This is what I love so much about the girls.

Teaching in the HE sector was a source of the satisfaction for some females. F/M was glad to teach university level students:

I tried to teach elementary school students, but I failed. I don't have the patience to deal with little children, but dealing with adults was easier for me. I liked teaching them. The older they are the better, because they become more mature... I guess I can't deal with immature students.

A number of other teachers raised similar issues: for example, F /L thought of teaching HE students as a 'blessing'.

Building *good relations with their students* gave teachers satisfaction, and some viewed this as building ‘friendship’ (e.g. M/T and F/HU). In contrast, F/M enjoyed a close, but professional, relationship. She said:

I have a good relationship with my students where they feel that I am in authority, and they respect this authority...so this is important.

One of the newer female teachers (F/HU) felt particular empathy with her students because she was *closer in age to them and had graduated from the same university*. This helped in establishing a kind of trust between her and her students, which made it easier for her to have an impact upon them.

When it came to **the institutional factors to teach**, teachers raised four factors. These were: (1) *financial benefits* (e.g. M/K) (2) *teacher autonomy* (e.g. F/HU, F/D, F/M); (3) *equipped and maintained offices and classrooms* (e.g. F/H); and (4) *reward from authority* (F/SM). The majority of respondents did not discuss the issue of salary in depth, with only M/K expressing his satisfaction concerning the salary and the amount of overtime payments. The most cited factor was the exercise of autonomy (even though this was seen as having been higher in the past). F/HU said:

What I call the golden time here in the ELI is when I started teaching: I had the freedom to be a full teacher in the classroom.

She went on to say that during that time she could use all her own material, create exams and correct them, and also bring creativity and fun to her class. Other teachers viewed ELI as being provided with well equipped classrooms and offices. F/HB said:

buildings are much better now, you can say they are much more sophisticated ...We have offices and computers, printers. We also had Internet access recently this year in classrooms, which was not the case before.

One teacher talked about having a reward for their achievement that made them wish to give more to their students.

The **sense of vocation** for teachers was about being comfortable in the role of teaching, and being passionate about it (*enjoying what I am doing*), knowing that it was the right career and committing themselves to it. Teaching could be enjoyable as long as it was undertaken with passion. M/M found teaching a most interesting job. Similarly, F/SY said that she had a passion for teaching because:

teaching is wonderful and I wish that as long as I am living I can continue doing that. Even when I am an old woman, I will continue as long I can do and even when my family will be sick of me, they will give me some students to teach.

Many teachers would sacrifice a great deal just to feel a sense of fulfilment of *meeting a challenge* (e.g. F/K, F/M, FN, F/SY, F/SH). F/M felt that working with students was very tiring and requires a great deal of efforts, but for her “it is worth the hassle”.

F/SY is an example of a teacher who felt that she was born to be a teacher:

I had an aptitude for language. I was more of a person who would be more imaginative, very expressive and used more words than natives and talk, talk and talk and I had all the germ of becoming a teacher. So I'm a product of all that. The satisfactions lies in that I did something that I like to do, not just to make money out of it. And I try to work to the my best of my capacity, and definitely nobody is perfect, but I do have a passion for it.

Finally, one male teacher mentioned the importance of financial benefits. (M/AH) spoke with the same emotional warmth about his work. This was perhaps a cultural norm as in Arab society males are expected to care more about *getting a job*, to make living, regardless how fulfilling that job might be.

5.3.2 Sources of Dissatisfactions

The major sources of dissatisfaction according to teachers were illustrated in the table below and again cover **relational, institutional and vocational** factors.

Table 5-2: Sources of Dissatisfactions

Themes		Males	Females
Relational	Unmotivated and reluctant students	6	4
	Weak English and study backgrounds	5	10
	Lack of student discipline	5	
	Lack of punctuality	4	
	Lack of student progress/surface learning	4	3
	Inappropriate assigning of students to classes /mix of abilities in class	2	1
	Poor relationship between the students and the teacher/lack of trust	2	
Institutional	Lack of opportunity for training	2	1
	Lack of teacher autonomy		3
	Rigid guidelines/inflexible scheme of work guide	2	2
	Lack of communication between teachers and authority		1
	Monotonous teaching		3
	Rapid curriculum change		3
	Module too short	3	5
	Excessive teaching load and work demands		5
Sense of vocation	Lost motivation to teach		2

The most important sources of dissatisfaction were **relational**, and *unmotivated and reluctant students* in particular. Lack of motivation was often described as passivity, i.e. not taking responsibility for their learning and not doing homework, or avoiding studying. Some teachers

concluded that many students were not interested in learning. For example, M/AB found this affected his motivation to teach:

sometimes it is contagious to the teachers as they become less motivated... As we come to the class and the students are sitting and looking at you and giving you indirect message that we don't want any more.

Some teachers saw arts students as having less motivation than science students (e.g. M/H, M/M and F/SH). M/M founds arts students:

less motivated and they will find it difficult to complete different kinds of activities and then we have to go slower in our teaching style according to the level... sometimes it is boring.

Art students were also mentioned by F/SH as being more likely to be reluctant to speak and having *a weak level of English*. She felt repeater students were often art students and that she, as well as her colleagues, were struggling with them because their level was very weak. Another teacher, M/MU, experienced teaching a class of level one that shocked him as:

They were very... very weak, I felt I must teach them ABC and some of them, they don't understand what you are saying. They need to study English but they don't have the ability and they are not familiar with the language.

Different explanations were put forward for poor performance. Some teachers were more sympathetic to students and thought they might be shy and afraid to make mistakes and also that they might become embarrassed in front of their peers (e.g. F/D, F/HA, F/R and F/SY). F/SY, for example, found that when asking students to speak:

some of them would easily respond and some of them would shy away and shrink back and simply drop their heads and wish if they were not there.

F/R saw this as related to Saudi culture:

Saudis are shy to speak English, so it is hard to push them to speak it. Well, they are not very confident in using English, they are shy and this is a cultural problem, which I think need to be worked on intensively.

Male teachers were more likely to view students as having a *lack of 'discipline'* and being 'careless' (e.g. M/AB, M/MU, M/S and M/T), or unpunctual (e.g. M/AB, M/AH, and M/S). F/AB was dissatisfied about the students' lack of respect for their teachers. He felt that students sometimes:

were trying to do something that would make the teacher get bothered and sometimes some of them were very rude and were trying to make the teacher get mad.

He was not satisfied with students' punctuality and absence:

students don't come to class for the first two weeks. Then, I tell them come one we should start seriously.

Moreover, teachers complained that some students were 'sleeping' or "playing with their smart phones in class" (M/T).

Teachers became dissatisfied with students' *lack of progress* (e.g. M/AB, AH, M/H, M/S, F/HU, F/HB, F/N). For example, M/AB said:

At the beginning of the module you feel that they haven't improved, you just tell them to write there ID number and their names and to write about their holiday or any simple topic.

F/N explained that it was frustrating to find students not improving, but she felt she should think positively in order to prevent herself from becoming depressed, so that she will keep on helping them. She said:

I get dissatisfied at the end of the day when you, for example, are marking and grading and they made a mistake and you told them in the class and taught them this and this and they repeat it again and again.

But I try to look at the brighter side of the things, so I don't get depressed. Some of them, they don't know how to write, but you try your best to help them as much as you can.

Some teachers put students' lack of progress down to their school experience, where the English teaching is weak (e.g. M/MU, M/T, F/SH and F/SY). For example, F/SY said:

they all come from governmental schools and they don't have a solid foundation in language.

F/HB thought that students brought poor learning habits with them:

When you teach the girls a certain grammatical rule, for example, and this is how they were taught English in schools, they would compare the order of the adjective and noun in Arabic with the order of the adjectives and nouns in English. It's simply the other way around, but I can't keep doing that, they just can't keep doing it. They can't keep recalling grammatical rules in Arabic, I can't just give them an equivalent in English or giving a certain word in Arabic. They over generalise things and they end up lost.

Many students had only *surface learning* strategies. Similarly, M/AH felt that students' only interest was in passing the course.

A further issue affecting progress was having *mixed ability* classes. This was seen as making it difficult to deal with each student's needs (M/AH, M/M and F/HB). F/HB had a mixed class of both very weak and advanced level students and it was hard for her to:

balance the pace between those who are extremely low and those who know it all and want you to skip ... both are in the same classroom.

In addition, some teachers were concerned at *not being able to develop good relationship with their students and a general lack of trust*. They justified this as not being given the authority in class, as F/M stated:

Students are not satisfied too! You feel there is no relation between students and the teacher because you feel like a dummy.

Sources of dissatisfaction in relation to ELI as an **institution** included: *lack of training, lack of autonomy and problems in communication between teachers and authority*. Others felt that there was a considerable amount of pressure at work relating to *long teaching hours, rigid schemes of work and short modules*. Teachers also discussed difficulties related to *rapid curriculum change and monotonous teaching*.

Lack of autonomy was mentioned by a number of teachers, with autonomy being viewed as having been higher in the past. F/HU was frustrated about not having the freedom to plan her own syllabus, as she was instructed what she should teach by the administration. She felt that anything related to the curriculum should be discussed with teachers, since they understood more than the administration about the difficulties with a particular class. F/LY wanted to have some freedom to be creative with her students. She mentioned:

one of difficulties I'm facing is with the system because I am a free bird and don't like to follow a certain system and have many emails in my inbox every day with instructions ... the regulations are the big issue.

Lack of autonomy in teaching was related to receiving instructions about teaching without having a say in how decisions were reached (*lack of communication*) (e.g. F/HU, F/LY and F/M). For example, having to *follow a rigid scheme of work*, or teaching students for a short module of six weeks. As F/HU said despairingly:

I even used to remember my students' names but I don't remember their names now, there is not enough time. If I could remember their faces that would be great.

Similarly, F/M felt teachers were only receivers of instructions, and that this was one way communication. She explained that the situation had become worse when the foundation system had been introduced in ELI:

The entire headache has started when we started the foundation year. Not being able to know anything about our teaching. First of all, everything was coming from the administration. Not knowing what was going to come. Not having a say in any exams as a teacher. Not knowing what is going on as a teacher. Looking like an idiot in class... for me all this was dissatisfying... it was really bad.

Teachers wished for both challenge and support. In some cases there was a low level of challenge because teaching had become monotonous and teachers were teaching the same things. For example, F/A said that “teaching the same course can become very boring”. F/HB looked at teaching English negatively, due to the fact that the teacher kept on teaching the same structures, even if books were different or students’ level was variable:

Teaching English as a foreign language has become something monotonous after a while, because we found ourselves doing the same thing over and over again. This situation must change.

However, what they did not want was high challenge and low support. F/HB (along with other teachers, e.g. F/HN and F/SM), complained about *rapid curriculum change* and the fact that she had taught five different curriculums in the past ten years:

When you start getting the feel of a certain curriculum, they change it and you have new books and you have to prepare again. And of course we end up with plan A, Plan B or C and the old plan and God knows all these things. And I find these things quite annoying, to be honest.

F/HN felt that changing the curriculum rapidly made it difficult for her to prepare ICT materials in every module:

during the last few years they changed the curriculum three times which made it difficult to prepare new ICT materials for every module as it needs time.

This was a normal complaint from teachers who cared about providing students with ICT materials. Those who wished to be creative in their classes were also dissatisfied with a rapid change of the curriculum, due to the fact that it led to more work and was time consuming.

Other teachers found the *teaching load excessive* in terms of what should be covered in the time allotted to teach it (e.g. M/AB, M/S and F/HU). They believed that the scheme of work was difficult to follow unless covered superficially. M/S added:

here at ELI they believe in work coverage ... I hate this word!! What does it mean? Flip pages and just cover as much as you can in the class... They just want us turn the pages and say we have covered what we had to cover according to the pacing guide.

One major point raised was that teachers did not have the time to be creative or add any external materials (*excessive teaching load and work demand*) (e.g. M/M). It also meant teachers were forced to rush students through the units (*Module is too short*). F/HU complained that:

we are squeezing ourselves and the students and we are running... running. We feel as if we are in a marathon. We just need to finish this and that and give them this test.

Teachers were required to keep portfolio task of all students' work, which needed to be graded every week. This was an effort to reinforce learning useful for students' progress. It helped in ensuring students became more punctual, because they had to come to class to undertake the portfolio task to ensure they did not lose marks, as this work contributed to their final grades (M/S). However, because of the time limitation, teachers were not happy about the portfolio approach, as it required considerable time and effort. Some teachers further believed that in order to achieve the full benefit they needed to give students constant feedback, but there was not enough time to undertake this (e.g. F/HU).

In addition, some teachers were discontented with long *teaching hours*. F/A believed that the work load placed considerable pressure on both teachers and students. She felt that teachers needed to

check students writing portfolio, keep attendance reports and meet deadlines, alongside their teaching duties (e.g. F/H). F/H complained, along with other teachers (e.g. F/HN and F/SH), that lessons of four hours were exhausting and boring for both teachers and students:

The long hour classes are not a positive thing! I see my students tired and bored, I am myself exhausted and I can't do anything else when the students want to leave... they feel it's enough for them and they want to leave now... it is over for them. Four hours is a lot.

Excessive demands were related for one teacher (F/A) to the issue of teaching large classes (the example was a class of 40 students).

Loss of motivation to teach was mentioned by a small number of teachers. F/HU said:

I used to teach even more difficult things to my students, but at that time I was really motivated and it was really hard work. I wanted to do more and I wanted to invest my time in teaching, but now I feel like I'm scattered doing this and that. I am not focused.

Similarly, F/HB lost the motive to teach because she does not like teaching grammar. She explained:

I don't like teaching grammar, I don't like teaching simple past, present and perfect every year. To me the best class I give is reading or listening and speaking, but the grammar and writing are too boring for me.

5.4 The Curriculum

In order to understand more about the context in which teachers work, questions about the curriculum were covered. All teachers were using the same books ('New Headway Plus') and most taught all four levels. Teachers were required to keep a 'portfolio of tasks' of students' work which they had to assess. M/S explained this as:

It keeps a record of all the class activities and writing assignments in a file for each student and the teacher must review it and grade it.

A number of the teachers thought keeping the portfolio was very useful for following students' progress and keeping them busy learning (e.g. M/H, M/K, M/S, F/A, F/H, F/N, F/SM, F/SY). However, others found it stressful for the students, because it was graded. It was also time-consuming for teachers as meant a large amount of corrections and grading (e.g. F/HU).

The weakness and strengths of the curriculum, particularly the course book, are summarised in Table (5-3).

Table 5-3: Weakness and Strengths of Curriculum

Weakness	Males	Females	Strength	Males	Females
Focus on one skill	6	6	Attractive materials		5
Exam-oriented	2	1			
Non-academic		1	Integrated all skills/comprehensive	3	11
Did not meet students' needs	2	6	Relevant to students needs and English level	3	6
Insufficient	4	4	Culturally relevant	3	7
Culturally irrelevant	1	1			
Inauthentic	2	1			
Insufficient time/Rigid scheme of work	8	13			

5.4.1 Weakness in the Curriculum

When teachers were asked about balance with regard to the strengths and weaknesses of the curriculum, the majority raised negative points. They felt that it (1) *focused on one skill* and needed to better mix skills; (2) was *too exam oriented and non-academic*; (3) *did not meet students' needs*; (4) *that it*

was insufficient; (5) was culturally irrelevant; (6) that it was too compact and too rigid scheme of work; (7) allowed insufficient time.

Regardless of the fact that the curriculum has been integrated, a number of teachers believed that it did not give the same weight to all skills (*Focus on one skill*) (e.g. F/HB, F/HN). For example, a number were of the opinion that there was too much stress on grammar (e.g. M/A, M/S, M/T) and not enough on spoken activities (e.g. F/H), vocabulary activities (e.g. M/M) or structured step-by-step writing (e.g. M/T, M/H, F/M, F/N, M/S). M/S stated that:

The grammar is overwhelming and it is a negative point. Teaching grammar should be done indirectly through reading and the teacher should ask students to underline the verbs and let them find out what is common between those verbs.

According to some teachers, the curriculum was *exam oriented* and teachers were mainly expected to prepare students to pass exams. This was seen as a weak point of the curriculum (e.g. M/AH, M/S and F/HB). Teachers were told to put more emphasis on the parts that might be in the exam. For example, grammar was the main component of any examination and M/AH regretted that he had to:

teach lots of grammar for the sake of the exam and forget about teaching listening or speaking, because they are not important when we talk about midterms or finals”.

F/LY felt that the curriculum was not suitable for university students (*non-academic*) as she believed it is not sufficiently academic and taught only general English. According to her, university students need to be introduced to:

topics related to different departments, things like how to present and how to build confidence and how to survive your BA years, and these kind of stuff. That is not included in our books, it's just general English. I am looking for more academic English.

In order to improve the curriculum she suggested:

I would keep Headway for 101 and 102 just because they are still weak and need something colourful. For 103 and 104, who are the pre-intermediate and intermediate students, we should use more academic books. We had the 'North Star', I taught it for one term and it was better. Personally, I found it more academic. Maybe it was not colourful, but the topics are academic.

Similarly, F/M argued that the new general English curriculum did not meet students' need to be taught ESP in a manner that encouraged them to become more focused and interested. She explained that she liked the old ESP curriculum:

Students were learning and were interested because they were finding what we were giving them in other subjects and finding immediate benefit, so there was a goal. Now it is just general English and they have to go back and do ESP again after they finish.

The majority of teachers agreed that the books did not give enough activities for students (*insufficient in itself*), to practise speaking, grammar or writing, etc. and needed extra materials (e.g. M/AH, M/H, M/M, M/T, F/H, F/HB, F/M, F/N). F/M liked the curriculum, but believed that it needed more material in order to help students practice and to be able to learn. She said:

You need to add outside sources because students are very weak. They barely touch on grammar. For example, I have to always bring extra grammar exercises. For example, they would bring three major grammar points in the book one after another, but no exercises no explanation... it is just there. So I need to bring some supporting materials from outside. So, I just go and scan from another resources and give the girls exercises just to make them understand. The vocabulary is good, the topics are nice, but still I always need to fill the gaps.

Moreover, some teachers felt that the presentation of skills was not structured, which was confusing for both teachers and students. It also made it difficult for the teachers to find extra

materials (M/H, M/T, F/M, F/N). F/M did not like the general presentation of the skills, as it made her job difficult:

the writing is not structured and it's kind of – you know - just general and again I don't like that, I want the writing to be structured, I want them to know the rules and styles, so I try to find some stuff outside. Speaking again is not structured. It's a kind of a general approach.

M/T and F/R felt the textbooks were not related to Saudi culture (*Culturally irrelevant*), which made it, as far as they were concerned, difficult for students to comprehend some of the expressions, topics or even to recognise some of the characters. F/R said:

I myself not familiar with those foreign places or characters, so I have to google them and bring pictures to the classroom.

M/T also found teaching books not designed specifically for Saudi students was an obstacle. He stated that:

When you get books from some other countries, from America and from Britain, and the content is different, teachers are not familiar and the students are not familiar too with the content. It is a kind of obstacle to learning the language. This book doesn't fulfil the needs of Saudi culture and it is written in the background of Britain and not all students been to Britain, and if the students don't have good idea about that culture and its values, it is very hard for them to understand.

Some teachers felt the curriculum was not authentic, and did not relate to students' daily lives, even if the textbook was a special edition for Middle Eastern students (e.g. F/N). According to M/AH, this resulted in students being less motivated. In contrast, however, M/H felt that English should be taught in a target language cultural context:

I believe that learning English should be authentic and it should be taught as an international topic, and it should be taught as a foreign language not to be adopted to the culture because it is English. They will want to use it when they are abroad, won't they?

One major point brought up by the majority (if not all) of the teachers was the issue of teaching a short module of only six weeks, which meant limited time. This had given the teachers a great deal of stress and made the curriculum challenging for both teachers and students. Teachers were following a pacing guide schedule during each module, which they termed 'rigid'. It did not give the teachers chance to be creative or add any external materials (e.g. M/M). It also did not enable teachers to ensure that students are learning, as they have to rush to ensure that they have completed two units a week. F/HU complained that:

we are squeezing ourselves and the students and we are running... running. We feel as if we are in a marathon. We just need to finish this and that and give them this test.

F/HB felt that she was not doing her job as a teacher (i.e. making students learn) because she and her colleagues were simply teaching a rich curriculum with tough instructions in the pacing guide and with very limited time. She said sadly:

I hope that it would stop about being about running and just trying to catch up with the curriculum and catch up with the pacing schedule, and to be about actually teaching those girls something that will be beneficial. I want to walk away out of a module.

F/HU also suggested that they should go back to the older system (when they used to have two semesters a year), but teach the new books, as she thought the books were good for the students and students would benefit if they were given longer time.

5.4.2 Strengths with the Curriculum

A number of teachers saw strengths in aspects of the curriculum. The textbook was seen as having *attractive materials* by some female teachers (e.g. F/D, F/HB, F/N, F/NO, F/R). For example, F/R thought the book was not like any textbook, being rather:

like a colourful magazine, even the people in the book look nice, so it grabs students' attention very well, even if you want to use it on the PowerPoint it is easy because it is colourful and not in black and white. It is a very attractive book.

F/NO also thought that the contents matched students' interests. None of the male teachers had found the book attractive, possibly because they were not attracted by colours or because they cared more about the content.

The majority of teachers thought the curriculum had *integrated all the skills* and could keep most students engaged both in class and at home (e.g. M/K, M/T, M/AH, F/A, F/D, F/H, F/HN, F/HU, F/K, F/M, F/N, F/NO, F/R, F/SY). For F/A the e Head Way Series also had:

a lot of support material interims of a workbook, writing booklet and audios and the pacing guides.

In addition, the majority of teachers thought that the curriculum was *relevant in terms of students' levels and needs* (e.g. M/M, M, MU, M/S, F/H, F/D, F/K, F/N, F/S, F/SY). F/S stated that:

the objectives are set based on the student level and –you know – there is a placement test at the beginning of the year and the students are placed into different levels according to their level of English.

Moreover, some teachers thought that the curriculum was well matched with Saudi culture (e.g. M/M and F/D). M/M felt the new book was:

designed perfectly well, the book has been recently changed according to the culture and values for this country. The pictures, the reading passages, and the vocabulary is changed.

A number of teachers (e.g. F/D, F/HN, F/N, F/NO) were concerned that, even though writing skills were not well developed, ELI had developed a writing booklet that taught students step by step writing. F/HN declared that:

the writing part in the book was not helpful last year since it doesn't teach the students how to write. Therefore, the curriculum committee worked hard to develop a writing booklet for students which teaches them how to write step by step.

Moreover, some teachers thought that the curriculum was well matched with Saudi culture (*culturally relevant*) (e.g. M/M, M/MU, M/S, F/H, F/D, F/K). M/M mentioned that he preferred the new modified addition to the one from the previous year, because the new book was:

designed perfectly well. The book has been recently changed according to the culture and values for this country, the pictures, the reading passages, and the vocabulary are changed.

5.5 Teachers' use of ICT

The interviewees shared some of their experience and their views about what teaching should offer in relation to different teaching strategies, teachers' relationships to students and ways of helping students to learn. Most also spoke of the need for increased use of ICT in teaching in effective ways, and to be more selective when applying it in class. They talked about what they needed as teachers in order to have an integral academic atmosphere, including freedom in teaching (e.g. F/HU, F/LY). In addition, some teachers gave some suggestions on the ideal teacher and/or lesson. Opinions on the ideal lesson were varied. Some thought it dependant on students learning and which also met objectives (e.g. M/K, M/R, M/SM). Some believed it comprised of interactivity and enabling students to gain autonomy (M/MU, M/T, F/H, F/SN). F/A argued that a traditional lesson was the most effective for her students. Teachers' use of ICT is summarised in Table 5-4.

Table 5-4: Teachers' use of ICT

Theme	Males	Females
Data projection/scanner	6	13
Range of computer hardware	7	14
Use of the Internet	4	9
Use of Email	1	6
Use of Blogs		2
Online messaging groups	1	1
Teachers' websites		5

Most teachers had used *data projection* in some form in the classroom to present grammatical rules, pictures, videos and activities (e.g. M/AH, M/H, M/M, M/MU, M/S, M/T, F/A, F/D, F/H, F/HU, F/K, F/LY, F/M, F/N, F/NO, F/R, F/SH, F/SM, F/SN). For example, M/AH used data projection to display pictures in a grammar class. He stated:

I bring them some pictures and I display them with the projector to make comparison. For example, what I did was I gave them a picture when I was young and when I am older and told them to make sentences about the past and the present and they get it in that way. It was interesting.

M/M mentioned that he found having to write on the board exhausting, so he used data projection to project students' work in order to give clear feedback. He explained:

Sometimes it is a lot of work to write everything on the board. I put up students' work using the projector on the board and I highlight errors into different colours so they can see the mistakes and learn at the same time.

F/H used the data projection in different way, displaying the activities in the CD that came with the textbook for her students to use as revision. She said:

The textbook has a very good CD that has worksheets and practices for each unit. So, I can say that I use it every week or twice a week on the projector, just to review all the lessons we took during the week. I noticed that the students are much more excited when we do this because it is more fun.

F/M used the data projection in writing classes by grouping the class into 5 writing groups:

I like to make my life easier instead of correcting 40 papers I corrected only 5. I made them think and use their imagination and I told them I don't want you to just copy and paste whatever in the book. They came up with great ideas and they fixed it and each group wrote a paragraph. I typed it up immediately and it was right in front of them on data projection. It was useful because they saw different ideas and saw mistakes and how they could be corrected. Their writing has improved because they did better in the test.

The scanner was used also to help in projecting the textbook pages (e.g. M/MU, M/S, F/HU, F/LY). F/LY said she wanted “all the students to be following and it made discussion easier in the class”. M/S liked to use the data projection in his teaching, so he scanned reading passages from the book and projected them for the students. He explained:

I scanned all the reading passages and changed it into PowerPoint to be more manageable for my students, because I noticed whenever they look over all the text in the pages they feel frustrated. So I divided these long piece of text into small parts and I underlined the difficult words and wrote them in different colours to make it motivating to them, and it worked well.

Teachers' use of ICT took in different hardware and software and different pedagogical uses. Using ICT covered a *range of machines*, including desktop, laptop or iPad, smart phones and speakers (e.g. M/AH, M/M, M/MU, M/T, F/H, F/HN, F/M, F/N, F/NO, F/K, F/R.) For example, F/NO used the desktop in her office to prepare her lessons because computers were available. She said:

for my lesson preparation, I'm just using the word office in my computer in the office to type summaries and prepare exercises for students. I do a lot of exercises- you know - with Microsoft Word Office, like matching or games and sometimes I add pictures from a paper or a magazine or from the Internet.

Others preferred to use their own laptops, as stated by M/AH: *'I use my own laptop to prepare lessons and use it in the classroom'*. F/K also depended fully on her laptop in the classroom:

I have everything in my laptop ready before I come to the class. For example, if I have to teach grammar, what I do is summarise all the rules in a form of a PowerPoint presentation and have it saved in my laptop to display to my class. The same with vocabulary, with of course added colours and pictures, which can be more interesting for the students. Also for writing. For listening, I also downloaded the listening CD to my laptop.

Others preferred to use their iPads. F/HN used:

my iPad to read some topics or search about some information regarding my lesson or different ways of explaining a grammatical rule for instance.

F/R also used an iPad in class to play sound files for her students when the equipment in her class was not working.

Smart phones, too, were used by teachers for teaching purposes, or to communicate with students (e.g. M/H, F/D, F/LY, F/NO, F/R). F/D felt some of her colleagues used their smartphones to contact their students:

some teachers they use their blackberries mobiles, they have created group on the blackberries and they can chat with students in English...but I haven't reached that level.

F/LY used her iPhone to email her students in case of an emergency. She explained:

I once had to change the classroom because the air condition was not working, and there were some students who were late and stayed in the original classroom. So, I emailed those who had iPhones from mine and they all came quickly.

F/R also used her Smartphone for playing sound files:

The book comes with a CD that includes listening tracks, which I download to my iPhone or iPad, so I can use any in the classroom in case one did not work or I forget to bring one to the class.

F/NO said:

I told them to get a spelling check application in their smartphones to write well spelled words and learn at the same time. They are adult and they should make use of technology to work on their weak points by themselves.

She also allowed students to use their smartphones classroom for learning purposes. She said:

Sometimes students ask me if they can take pictures of the slides using their smartphones. I allow them to do so.

Speakers were used by teachers during listening classes in order to make the sound clear for all the students. Some teachers carried their own speakers to the classroom to use with the either the computer, laptop, mp3 player, iPhone or iPad (e.g. M/AH, M/H, M/MU, M/T, F/A, F/HN, F/K, F/N, F/NO, F/R, F/SN). For example. F/HN had used two speakers connected to an mp3 player to play listening tracks in the class. M/H used the speakers with the iPhone in the listening class. He said: 'I have all the listening CD's uploaded to my iPhone and I have very little tiny speaker which I use them to make the listening sessions loud and clear enough'. F/R used wireless speakers. She said:

I have my wireless speaker to make the students hear well. I used to have a speaker with a cord but that was noisy. The wireless speaker works smoothly. You know, every year there is a new device around that we can make use of.

Some teachers had their material for teaching saved onto memory sticks. F/H said:

because I don't have Internet access in my class, I download videos on my memory stick and show it to the students in the next class.

F/M also searched the Internet for extra material at home and saved it onto her memory stick. She said:

as I told you, the book needs to fill in the gaps with supporting materials, so whatever I find something useful in the Internet, I save it to my memory stick and prepare to fit it into the lesson and have it ready to bring it to the class.

The Internet was widely accessed by teachers in order to enrich their lessons (e.g. M/H, M/K, M/M, M/MU, F/H, F/HB, F/HU, F/N, F/NO, F/R, F/SH, F/SN, F/SY). They used the Internet to prepare their lessons. F/H said:

every time I prepare for my lessons, I use my laptop to search the Internet for activities, videos or pictures. It makes class more fun.

M/K also used the Internet for lesson preparation and for learning skills. He said:

At home, I always prepare video clips for teaching grammar, vocabulary, reading and to look for tips to teach the students how to learn to develop their learning skills.

Most of the teachers who used the Internet, primarily used Google (e.g. M/H, M/K, M/M, M/MU, F/H, F/HB, F/K, F/N, F/NO, F/R, F/SY). For example, M/H, M/K, M/M and F/H searched Google for images to clarify the meaning of vocabulary for students. M/H said:

I search Google for pictures for teaching vocabulary. All these pictures are handy, I just need to put it in the data show slides and display them for the students.

Other teachers searched Google for general information about teaching (e.g. M/K, F/NO, F/SY). F/NO searched Google to educate herself about some topics. She said:

Sometimes, as a teacher, you need to know extra information in case you've been asked some questions in class, so I google them.

In addition, some teachers used Google to search for topics about English skills. For example, F/N said:

I google information about writing skills, like what is writing and what are the steps for writing a first draft, what is topic sentence, verb spilling table, things like this.

Teachers also searched Google for topics that related to the lesson. For example, F/SY shared an interesting experience in class when she was teaching a lesson about traditional meals. She said:

I signed in to the Internet using my password in the classroom and searched Google for Saudi meals. There was a lot of information and a long list of food that even the girls didn't know. All that happened in very short time. The girls wrote a paragraph about Saudi meals.

Moreover, teachers searched for listening tracks using Google (e.g. F/HU). M/MU also searched Google for 'educational games'.

Some teachers also searched YouTube for video clips (e.g. M/K, M/M, M/T, F/A, F/H, F/LY, F/N, F/SH). F/LY downloaded videos from YouTube to use as a 'warm up' at the start of the lesson to "keep them awake". She said:

I begin the class with a video clips from YouTube to make the students active. Sometimes if I find them energetic, I don't play the video until they are sleepy or bored just to engage them again.

She also said that she used the video posted by her friends in her Facebook account to share with her students in class. M/T searched for videos to teach grammar and saved them onto his memory stick to display in the classroom. He said:

when I teach grammar, I first teach some grammatical points and then from my memory stick, I display a short video clip of a teacher teaching the same grammatical rule or a clip about people talking using the same grammatical structure. It helped my students' learning.

Some teachers visited websites like TESL, ESL, English Club, British Council and the BBC (e.g. M/M, M/S, F/D). For example, M/S said:

most my worksheets are from a website called ESL. This website is very rich with different browsers and a teacher can find everything he needs for a lesson. You can find grammar to match with what we are teaching and vocabulary, reading passages. I like it very much.

F/D visited BBC news most of the time, even from the classroom. She found it a very useful site for teachers. F/K also said that she referred her students to some learning websites where they could do extra exercises to enforce learning, as with English Club. She said '*they can find all the levels of activities that can match their needs.*'

There were a few teachers who accessed the Internet to use online dictionaries (e.g. M/K, F/D, F/NO). For example, F/D had become familiarised with online dictionaries when on a translation course, which she used with her students. She said:

I'm applying one look dot com in class, which has all dictionaries that you can imagine in all fields. I showed them how they can easily find synonyms. I'm using it because I want my students to think in English not in Arabic.

F/R stated: *'when they seem confused about a certain point in the book, I tell them to Google it'*. She also said that they should work independently, taking advantage of the technology available to them.

M/AH shared the same view of working on their own at home. He said:

It is much better to have them work at home, let's say send them some work by email and have them work on a topic and search for it online. By this they can practice and learn while they are at home.

However, some teachers believed that teachers should direct students to find appropriate websites, as F/SY suggested: *'you could refer them to a good website to work at home and learn more'*.

Some teachers recognised the importance of *exchanging emails* with their students, and received students' assignments through email, along with emailing students feedback on their assignments, and instructions (e.g. M/M, F/A, F/D, F/HB, F/HU, F/K, F/LY). F/A felt that the ELI management had encouraged teachers to keep students emails and exchange emails, which made communication between them quicker. She said:

We are bound to keep the students' emails and their contact details. I email them instructions about the course. I also send feedback for them or ask her to come to my office if I need to explain more difficult points like grammar. Personally, I contact them through email and we do that on regular basis. Interactions have been increased through engagement between students and teachers.

F/K used email in case of emergency. She said:

In each class, we have a representative, so if I have an emergency and I'm not coming to class or I'll be late, I email her, and she responds immediately and sends the message to the whole class instead of waiting for the next day. So I found it very helpful.

She also sent them work to do at home and sent feedback. She said:

I encourage my students to do extra work at home. I send them emails and even for writing, they do a first draft in class and I ask them to send me the second draft to my email. I mark them and send them back. And they like it this way and all of them respond.

She also encouraged students to email each other using the English language. Moreover, she sent her class presentations after she had explained them in class for learning reinforcement. She said:

I also email my Power Point presentation after class to my students, so they can refer to it when they study for the exam. They find it helpful.

F/R mentioned that after she had taken a workshop on how to create a blog, she created one and used it to post a writing topic for student to post on. She said: 'I asked them to send me their writing tasks on my blog.' As the students were not familiar with a blog and how to use it she gave them directions:

I took my iPad with me to the class and had to show them and explain to them how to do it and I told them that they have to check it every day to follow my instructions or any tasks or feedback that I may post.

A few teachers invited students to their messenger group to communicate with them (M/H). F/M created an online group specifically for her students to keep all classwork, their marks, and instructions. She said:

I made a Yahoo group for only my students. I call it 'ELI girls' and I encourage them all to join the group because it is easier to -mail the group not each and every one. So whatever, we take in class I upload it in the group and I don't have to make photocopy, so it is always there. They have it there from the beginning of the term to the end of the term, and it was really helpful for me and whenever they asked about anything they found it in the group: their marks, messages, date of exams, date of submission. ... Everything in the group. Stuff that we did in class, like collaborative writing, the stuff that I did in class, I also upload it for them in the group.

F/M encouraged her students to use ICT, then created online group for them:

I encouraged them to upload work on the group, but not all of them did. Sometimes they did at the time, but mostly they shy away and ask to send me work to my email, so I'm like, yes you can send me anything that you want.

Some teachers created *their own website* to post their contact details, teaching schedules, instructions for students, activities, presentations they had previously used (e.g. F/D, F/LY, F/M, F/N, F/SY). F/LY said 'I post some materials in my website.' F/N had posted work in her website but in a creative way. She said:

Sometimes I link the PowerPoint presentation to exercises on the Internet, so basically when I'm in class and I want to do an exercise I just click on it and it opens the page and if the girls like it and I found it beneficial, I post it in my website as a favourite. It saves time, instead of going and googling it again they can find it and use it to study.

There were positive advantages in using ICT mentioned by the teachers that made them convinced of its benefit and gave them the view that ICT should be integrated into teaching.

5.6 Summary of the section

It is clear that the context offered both opportunities and constraints. On the one hand, it offered the opportunity to develop relationships with students, which created the greatest level of satisfaction for the teachers. On the other, there were limitations on what teachers could do in class, and it was, overall, viewed as a constrained place to work in terms of time limits and also, to some extent, the students themselves were viewed as a constraint on motivation and innovation. The institution was seen as (to some extent, at least) placing blocks on creativity and professional development, but at the same time offering generous opportunities for studying at postgraduate levels. There was a mix of motivation to teach related to intrinsic and extrinsic

reasons. This pointed to the key factor of satisfaction, which is relational and the key factor to dissatisfaction, which is institutional and mostly related to teachers perceived lack of autonomy.

5.7 ICT Use Encouragers and Discouragers

This section addresses the key research question of factors that both encouraged and discouraged the use of ICT in the university. Encouragements and discouragements were found to be two faces of one coin. Access to the Internet, when it was present, was an encourager. However, they are dealt with separately and **encouraging factors** are considered in terms of access; support; environment; training and personal factors (as in table 5-5).

Table 5-5: Encouraging factors

Theme		Males	Females
Access	Availability of computers and data projection	6	9
	Reliable equipment		2
	Internet access		5
	Technical support	1	6
	Student support in class (fixing computers)	2	2
	Clear guide to using ICT	1	
ELI Management	Support for professional development	2	2
	Specific training events	5	12
	Reward for using ICT		1
Personal factors	Self confidence in using ICT	1	2
	Willing to use own initiative in respect to ICT	3	5
	Ability to make time for ICT use		3
	Interpretation of impact of ICT		5
Environment	Everyone is using ICT		3
	Help from colleagues	1	3
	Encouragement from coordinators to use ICT	3	1

	Curriculum allows the use of ICT	2	1
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Access not only related to the availability of computers for users, but how teachers found ways to access computers in order to use ICT. Some teachers would bring in their own laptops, iPads, mp3 players or wireless Internet devices to enable them to use ICT in their teaching (e.g. F/H, F/K, F/R). They had seen colleagues who were not willing to use computers or data projection, either because of ‘laziness’ or because they did not believe in the benefits of the technology (M/K, M/MU). The majority of teachers taught in classrooms with a *computer and a projector*, both of which they used for teaching (e.g. M/AH, M/H, M/M, M/MU, M/S, M/T, F/A, F/D, F/HB, F/LY, F/M, F/N, F/R, F/SH, F/SY). M/T was appreciative of this investment in technology:

we did not had full technology in our classrooms before 2006, but now we have fully equipped classrooms.

We can feel the change and the increase in using technology and it is very good change.

F/SY also felt that the ELI had become ‘very generous’ as she noticed that:

they have put a lot of effort and money in providing every office with computers, printers and every classroom has a computer and a projector.

M/AH added that ‘*teachers are provided with laptops and recorders. Whatever you ask for or need, you get here?*’. F/R commented that the ELI provided speakers and mp3 players for teaching listening.

Some teachers believed that it was *reliable equipment* in classrooms that had enabled increased use of ICT in teaching (e.g. F/D, F/M) For example, F/D said:

All computers this year were upgraded. We got new computers and data projection in the classrooms that work very well. We are in the age when using ICT has become a must, not a choice, for teachers.

F/M was encouraged more to use ICT because:

all classrooms are equipped and all equipment is working well; for me this is a great support from the university. Things are now moving smoothly concerning technology.

Some female teachers noted that most classrooms now had *access to the Internet* (e.g. F/D, F/HB, F/M, F/R, F/SY). For these teachers, Internet access in all classrooms increased the use of ICT. As F/M noted:

It makes life easier. For example, if I forget my stuff, my USB, I just log in to my email account and I have all the material there, or I check my website. I also show students how to find topics for presentation. I show them how to google and they find hundreds of topics. I'm using it more.

Teachers were questioned about the support they received, with their responses revealing different levels of support (e.g. M/H, F/A, F/LY, F/M, F/NO, F/R, F/SY). For example, F/R explained that in order for teachers to obtain a systematic technical support for any fault that might happen to any of the equipment in the office, the teachers were required to fill out a form for the technical department that indicated the nature of the fault, along with the building and office number. She also mentioned if they had a technical problem in the classroom they could:

call the mobile of the technician responsible for that building and all the contact details are posted on the computer in the classroom. We call them and they are very helpful.

F/LY said that:

last year I would complain about the technical support, but this year technicians are available. I had two incidents that happened where the computers did not work and I called them and they came in minutes, and that happened in two different buildings.

Teachers might receive some *support from students* if the computers or the data projections were not working in class (e.g. M/AB, M/K, F/HB, F/SY). Teachers believed that students were

acquainted with technology and were able to resolve some of the technical problems, and therefore found students very supportive. For instance, F/SY did not worry about technical problems:

because everyone is willing to help. In class, I would ask any students to check the computer. They are very good and I don't shy away from them as long as things will be working.

Teachers could also receive *guidance* from administrators or coordinators on how to use ICT (e.g. M/T). M/T felt it was time for all teachers to use ICT, as the resources were available and 'Coordinators and administrators are giving some instructions on how to use ICT in classroom'. However, F/A expressed the view that teachers were not receiving personal support in using ICT, particularly older teachers:

Older teachers need time and support to use ICT, I'm one of them. We need guidance, I would need some personal help, someone to walk me through. If I'm given a link and somebody helps me with the link, okay I can use it then.

In respect to the **ELI management**, the majority of teachers also talked about *the training* provided by the ELI in using technology (M/AH, M/AB, M/H, M/M, M/T, F/D, F/HU, F/HN, F/HB, F/K, F/LY, F/M, F/NO, F/R, F/SH, F/SM, F/SY). To develop teachers' skills in using ICT, ELI had funded training and workshops to educate teachers in the use of technology. For example, M/AB said:

the ELI is funding the use of technology. There is a lot of training. We had training on how to use data projections. There was one workshop on how to manage technical problems in using computers and software, it was short but very useful.

M/M appreciated that the ELI had encouraged the use of ICT by training teachers to enable them to develop good teaching using ICT. Teachers also had had training on how to create a website (F/M, F/SM, F/SY). F/M said:

We had some training on how to create our websites two years ago, I guess, and it was a step by step process on how to create your own website and upload files and pictures on it.

Some teachers also were encouraged to present training workshops. For example, F/R talked about a workshop training she attended, which was presented by one of her colleagues. She said:

I attended a workshop on how to create your own blog and to have collaborative writing in class. It lasted for two hours and was very motivating and even encouraged me to start my own blog and I'm using it already with the girls.

ELI offered opportunities for teachers to attend workshops and conferences outside the university, and even outside the country. For example, F/R had the chance to attend a TESOL conference in Dubai. She added that the university allowed teachers to attend even during teaching days, but not during exams. F/SY added that because she was always willing to learn and develop her skills as a teacher, she was allowed by the university to attend a training course run by the British Council about the new strategies of teaching. She said:

It was kind of a revival or refresher course of thing, that I've already known or things that I am doing so far, but that was good to keep me in tune with what is going on in EFL teaching.

M/S also had been to workshops held by a Cambridge publisher in Jeddah city.

For some teachers, going abroad to study for an MA or PhD, was a chance for them to benefit from training and workshops. For example, F/LY had some training on Microsoft Office, SPSS and courses, but she said: *'all came by practice, but I feel that tried to help myself and I feel that I know some things that I need for my career'*. F/SN had attended two terms of ICT courses while she was doing her MA degree in the USA.

Teachers talked about the *encouragement provided by the ELI management* for using ICT. Some teachers talked about how the ELI was increasing the quality of teaching by hiring teachers who

were professionally developed and willing to bring technology into their career (e.g. M/S, M/T, F/LY, F/SY).

Some teachers mentioned that there were regular teacher evaluations by coordinators, as M/T stated:

Coordinators report everything in the class and the way we teach and if we don't use computers and data projection, we receive negative evaluation.

Key **personal factors** also encouraged the use of ICT. First was *self confidence in using ICT*, which encouraged teachers to use ICT (M/AH, F/HN, F/M). M/AH was proud that he made considerable use of ICT as:

I'm confident myself to use technology and new devices, which allow me to introduce ICT in my classes and my students always love it. I myself am familiar with new trends in teaching.

This was also the case with F/M, who believed that training did not add to her knowledge about using ICT in teaching. She said:

I know how to use ICT without training. ICT is easy for me. It has become part of our daily lives as teachers.

Another factor that teachers mentioned was *willingness to use their own initiative* to use ICT. Teachers who believed in the benefit of ICT in teaching and learning, appeared to make more effort to use it (e.g. M/K, M/M, M/MU, F/H, F/M, F/N, F/NO, F/R). For example, F/M said 'I enjoy ICT and I'm using it out of my initiative. I was not asked to use it.' M/MU said "I'm not using ICT to impress someone or to show people I'm using it, I'm doing it for the benefit of my students". F/H stated that she loved ICT, She found her way to using it by:

reading many books about using ICT in teaching English or with the help of the Internet and the benefit of it. That way I become more convinced that I must use in my teaching.

Teachers sometimes went to considerable lengths to get round problems of access. A few teachers brought a special Internet connection stick (i.e. a Dongle) to work (e.g. M/H, F/K, F/N, F/R). F/K stated:

I use my own Internet connection device (Dongle) to show videos, images or activities to my students in the classroom. I'm using my own facilities to help make my class more interesting. I found it very helpful.

In addition, Teachers used memory sticks to save all the extra materials that they searched for On the Internet, because they did not have Internet access in class.

Teachers were aware of the importance of developing their teaching career and sought professional development in different directions. Some found informal opportunities by directing themselves to external resources, such as online skill development. Others had learnt by trial and error, or by seeking informal support and collaboration with peers (e.g. M/AH, M/AB, M/M, M/MU, M/T, F/H, F/HB, F/HU, F/LY, F/M, F/N, F/SH, F/SM, F/SN, F/SY). Some found professional development in formal training outside the ELI, for example by attending training or teaching courses in the British Counsel or abroad. The university also encouraged teachers to seek personal development outside the university, including sending teaches to attend conferences (e.g. M/S, F/LY, F/R, F/SN, F/FY). Some female teachers took part in helping colleagues to develop teaching strategies by presenting workshops (e.g. F/D, F/H, F/N). In addition, some teachers had received training in the use of ICT either inside or outside the university (e.g. M/H, M/T, F/HB, F/HN, F/HU, F/K, F/M, F/R, F/SH, F/SM, F/SN).

Professional development was for some teachers a natural process, and one that they could pursue by themselves. They were able to use trial and error strategies, for example trying out software without attending training workshops (F/LY). F/N revealed that teachers could not depend on formal training by itself as:

there are other things that teachers can get by practice and by experience and even if they might come across some hard points, they can google, and by this they can learn more.

Other teachers suggested that online courses were available, for example F/M had had undertake many online courses for her own self development since 2005:

It works well with me, it saves time and made me realise that I should make my students learn that having things accessible to them online saves time and work.

Some other teachers consulted books on how to teach English using ICT in order to develop their teaching strategies (F/H).

Users of ICT were willing *to make time* in the middle of their busy day (e.g. F/M, F/H, F/R). F/M said ‘*time is available*’ and F/H said ‘*there is time to use ICT. It is the teacher who should fit it in her teaching.*’ F/R felt the time in class is too limited to search the Internet, so:

I do that during my office hours or at home and bring the material to the classroom saved on a memory stick.

Finally, and the theme is extended later in looking at *perception of ICT*, teachers’ interpretation of the impact of ICT was a motivation to use it more in teaching. For example, some teachers thought their students enjoyed ICT and asked for more of it, and were more engaged when they used ICT (e.g. F/K, F/N, F/SY). F/N liked the feeling that her students liked ICT although ‘*it kills you preparing, but it’s worth it. The girls appreciate that you use it. They are more engaged.*’ F/R noted that ICT attracted her students and “grasped their attention most and motivated them to learn”. Moreover, F/SY concluded that because of the positive impact of ICT on students: ‘*I want to use it more effectively and more frequently.*’

Some teachers talked about using ICT more frequently in teaching as an essential step to helping students’ achievement (e.g. M/AH, M/M, M/T, F/H, F/SH, F/SY). Some teachers also noticed

that using ICT impressed students and were convinced that they should apply ICT more as long as students like it (e.g. M/T, F/HU, F/LY, F/N, F/NO, F/R). In addition, some teachers felt that students should be encouraged more to use ICT for learning (e.g. M/AH, M/T, F/M, F/N, F/NO, F/R).

Some teachers believed that focusing on using ICT in teaching had become part of their duty as teachers, particularly as educational institutes had promoted the use of ICT. For M/AH: “we are moving in a new era with new technological devices where we can use more in our classes to benefit from”. F/H said ‘*I’m learning all the new stuff about ICT because I want to introduce more of it to my students to make them learn more*’. ICT should be used widely as M/M stated:

We have some technology that we should all use extensively. Books to teach as a start, but if we have to give a better start with students, we should use technology more.

This discussion now turns to the wider **environment** in which ICT was used. As an encourager of use, teachers felt that *everyone at work was using technology*, including students and this had encouraged them to use ICT in teaching (e.g. F/LY, F/M, F/SM). F/SM thought a teacher could not disregard using ICT because: ‘*she would look as if she is from some other age. The encouragement comes from the surrounding. Everyone is using technology.*’ F/M said that:

the whole age is different. We’ve become different people. Everyone is using the Internet because everything is there. It is encouraging.

Moreover, teachers were supporting the use of ICT by *helping each other* and exchanging ICT resources (M/M, F/HN, H/HU, F/SY). For example, M/M thought he and his colleagues gathered and discussed the quality of video clips they showed to their students and exchanged useful websites. He recalled that:

For the last module, we did not have enough soft copies of the textbook, so a group of teachers worked hard on it and downloaded some units and made copies for teachers who did not have a copy, in order to teach using data projection instead of teaching from the book.

This cooperative spirit among some the ELI teachers encouraged other teachers to use ICT more, as F/HN said: *'my friends and colleagues encouraged me to use ICT.'*

Some teachers stressed the importance of sharing ideas and experiences with other colleagues during professional development. They either exchanged teaching materials, activities and exams and consulted each other if they encountered difficulties (M/AB, M/AH, M/M, M/MU, F/HU, F/SM). For example, M/M mentioned that he and group of his colleagues had created a discussion group where they could *'share information, use ESL website and post topics for discussion.'* He also added that he and his colleagues had valuable discussions about the kind of clips or activities they could bring to class:

if I want to show a clip to my students, I watch it many times and discuss it with a colleague to make sure it doesn't affect the cultural values here.

F/HB revealed that when she came across a grammatical rule that she did not know how to explain to her students, she had to:

run it by some of the people who are more in command of grammar and teaching grammar, I run it by them to make sure this is correct before I pass it out for students. They lots of times come up with lots of questions about rules, like why do we use this rule, da da da da. Then I say I don't know, I'll ask and get back to you, so I ask those who are more experienced.

Some teachers were willing to help other teachers learn. For example, F/SN thought teachers could always learn from each other and that *'I do teach teachers who come to my office how to use ICT in their teaching.'*

Teachers were also *encouraged to use ICT by the coordinators* (e.g. M/A, M/S, M/T, F/SM). M/T said *‘if the teacher is using ICT, coordinators will like it.’* A few teachers also believed that the curriculum allowed the use of ICT (M/H, M/S, F/HB). For example, F/HB thought there was a period of time when she had not used ICT, but that:

Just recently I’m using ICT again with the new book because it has a lot of interactive exercises where you can log on to the website and find similar exercises to bring to class.

A few teachers were encouraged to use ICT because *the curriculum allows using ICT*. F/HB said:

Just recently I’m using ICT again with the new book because it has a lot of interactive exercises where you log on to web sites on the net.

Table 5-5 below summarises the **factors that discouraged** the use of ICT. It can be seen that these also fall into the themes of access, management, the environment and personal factors.

Table 5-6: Discouraging factors

Themes		Males	Females
Lack of access	Lack of access to computers and data projection	2	8
	Unreliable equipment	4	2
	Lack of Internet access	3	5
	Lack of technical support	4	2
	Lack of guides to using ICT		1
ELI managements	Lack of training	4	3
	Lack of reward for using ICT	1	1
Personal factors	Lack of self confidence	3	2
	Reluctance to commit to ICT	3	2
	Lack of computer skills	4	1
	ICT use as time consuming	5	1

	Students attitude	3	1
	Results in losing control over the class		2
Environment	Lack of time/rigid scheme of work	6	9
	Lack of encouragement from coordinators to use ICT	2	
	Intensive curriculum		3
	Unpunctual students	3	2

When it came to **access**, a number of teachers complained about the lack of (or late) *technical support* that might discourage them from using ICT (e.g. M/H, M/K, M/M, M/T, F/HN, F/SH). M/K revealed that the university had a lot of facilities but *'we are not making use of them because of the lack of support or maintenance'*. F/HN also said that some of the reasons that stopped her from using ICT was when:

I prepare a PowerPoint presentation for the students and I get disappointed when the computer or the data projection is not working, and I have difficulty communicating with IT.

A delay in fixing technical problem constrained teachers from using ICT, as M/M noted: *'I would say late technical support is another reason for not using ICT.'*

In respect to the **ELI management** some teachers talked about how some of the *training* they had was inapplicable because some of the devices they needed were not available, such as the white smart board (e.g. M/AB, M/H, M/MU, M/S, F/H, F/HB, F/HU, F/SM). Some teachers found workshops were too 'theoretical'. For example, M/AB said:

we just sit for three hours listening, doing nothing, no activities involved,, we have not done anything. That was a funny waste of time.

Some teachers forgot what they had been trained in because, as F/SM said:

I only remember that the lady who gave us the training was very skilful, she made thing so easy, but because we have no practice because of course we have not seen the equipment yet, we have not touched it, we forgot it.

In addition, a major discouragement in the use of ICT use that there was a *lack of reward and appreciation* for using ICT (e.g. M/S, F/SM). This was in comparison to previous posts, in which a reward was offered (e.g. SM). Some teachers talked about prior work experience when they had been rewarded for being successful in developing students' learning (F/SM). She suggested that if ELI encouraged teachers to provide ICT resources to encourage other teachers to use ICT more especially if the teacher as she said:

received a letter of appreciation and your name posted on a board to say that that this teacher has contributed with this number of slides, videos or presentations to our ICT library, and your name will be on your work as a kind of keeping copyright.

Some teachers were assured that there was no appreciation given to teachers from the ELI management. M/S revealed that:

we all want appreciation for our work, you put lots of efforts in teaching and bring interesting work, videos, PowerPoint presentations, but there is no appreciation or word of thanks from your coordinators. Everyone needs to see his work rewarded. It will give teachers motivation to do more, but your work is not appreciated on the part of students and or the part of coordinators.

In respect to personal factors, *lack of self-confidence* was mentioned by some teachers as a discouragement to the use of ICT in teaching (e.g. M/AB, M/K, M/MU, F/A, F/HB). M/AB believed that teachers who did not have computer skills were:

teaching by some old traditional ways, they don't even want to try. Some of them do not have personal computers. The lack of confidence of some teachers and resistance to try made those teachers not want to take the chance to use ICT when that they might fail to use it correctly in front of the students.

A number of teachers accepted that they did not like to use ICT because they did not have computer skills. F/A explained: *'most of us hardly use the computers. I'm one of them'*. Others also talked about older teachers who did not have computer skills (e.g. M/AH, M/AB, M/H, M/M). F/A accepted that she herself did not have computer skills. M/M called older teachers who did not use ICT *'old fashioned teachers'* and M/H suggested that ELI *'should bring new blood. We need to mix the ability of staff not only older teachers'*.

Some teachers were *reluctant* to put more effort into bringing ICT to their classes, either because they were unsure of its learning benefit (e.g. M/MU, F/HB) or they were *'too lazy'* to use it (e.g. M/H, M/K). In a related thread, teachers explained that using ICT was *time consuming* (e.g. M/AH, M/AB, M/H, M/M, M/S, F/SM). For example, teachers complained that ICT consumed a considerable amount of time, particularly M/M and M/AB. M/M revealed that when he searched the Internet for video clips to show to his students, they watched the videos many times to *'make sure they don't affect cultural values'*. M/S added that they were teaching 3 to 4 hours a day, they needed many hours in return *'to prepare for an ICT based lesson. It needs lots of time and effort'*.

Non users of ICT often perceived *students attitudes* as not particularly positive towards the use of ICT. M/S felt his students were not motivated to learn even when he used ICT, and that he did not have to make the effort:

the technology is deep into them, still technology is not motivating them in class. Sometimes, you feel you are working hard preparing and sitting for hours in front of your computer and when I go to class, I see that I'm working for the wrong audience, sometimes I cannot generalise. You end up feeling frustrated.

A few teachers were also concerned that they might *lose control* over their students when using ICT (e.g. F/A, F/R). For instance, some teachers had noticed that while they were busy working on the computer, students lost attention and did unrelated activities in the class, such as using

their mobiles (F/A). F/R said that she did not like her students to ‘lose focus while searching the Internet or start talking in class’.

In respect to the wider **environment** a few teachers mentioned curriculum as one of the environmental discouragers (e.g. F/A, F/SH, F/SY). They believed that the *curriculum was intensive*, there was not the *time within the scheme of work* to permit the use of ICT (M/AH, M/H, M/K, M/M, M/MU, M/S, F/A, F/HB, F/HU, F/N, F/NO, F/R, F/SH, F/SM, F/SY). F/SH said:

what keeps me from using ICT in the classroom is the curriculum, because it is long and we have a short module.

F/A thought the curriculum did not allow creativity. She said:

due to the rigidity of the curriculum itself, there is not much scope for creativity. We are rushing, because of this students’ portfolios consume a lot of time. ICT has become like a side issue in this environment, so if we can just step out from our curriculum then ICT is still attractive.

F/HB felt *limited time* had prevented her from using ICT, rather than that ICT was too time consuming to prepare:

I’m crushed with that pacing guide schedule that requires you to finish this and that, it is a lot. Everything is available, but time is not supported.

Some teachers also felt students were a discouraging factor when it came to the use of ICT (e.g. M/A, M/AB, M/S, F/HB, F/SY). For example, F/SY was annoyed with *unpunctual or absent* students:

when I prepare a whole lesson of PowerPoint presentation and a video to display in class, but a large number of students are absent. The effect of the lesson is lost.

M/S said:

the students are not helping here, we hardly bring them to the class because they are not serious.

In addition, a few teachers revealed that a number of *coordinators* did not believe in using ICT, which deterred some teachers from using it (e.g. M/AH, M/S). For example, M/S revealed that the teaching techniques followed in class was done according to the coordinators, because they were evaluating the teachers. He said:

Unfortunately, it depends on the coordinators, who don't have a unified criteria of evaluation. Some of them are against technology and have been trained traditionally and of course the teacher doesn't want to get negative evaluation because he used ICT.

M/AH suggested that the students needed creativity in teaching:

to get them out of their chairs. When you suggest that once and ten times and there is no encouragement, you just stick to the rules.

Still, some teachers thought students' attitudes would discourage them from using ICT (e.g. M/MU, M/S, M/T, F/N). For example, F/N said that her students attitudes when they refused to pay attention or did not progress in learning, made her: '*become demotivated. Students' attitudes don't help sometimes.*' M/T felt that he should stop using ICT every time his students '*were not listening or watching or taking it as way to escape from learning*'.

5.8 Pedagogy

Before looking at the value of the use of ICT, this section begins with a short overview of teachers' style of teaching. Some teachers feel that teaching should be done more implicitly. For example, M/S mentioned that teaching the past simple tense should be done indirectly through:

a short story and the teacher should ask the students to underline the verbs and ask them again what was common between those verbs, then ask a student to narrate a story that happened to him, so the other students can learn the simple past indirectly.

For most teachers, teaching should use a combination of different strategies and techniques, depending how these are suited to students' needs and class content. All of the male, and a proportion of the female, interviewees put forward the view that teaching should be undertaken interactively (e.g. F/D, F/HB, F/K, F/LY, F/N, F/SH, F/SM, F/SN). M/S explained that a teacher should be very skilful and sensitive to be able to switch between activities in class:

I use variable ways in class. It is not enough if I want to teach them, for example, the word 'apple'. I use the translation, but if I give them a picture of an apple or bring a apple and maybe I allow them to touch it, smell and taste it ...the more senses you will involve and the more the students will learn.

He also suggested that teachers could switch to doing more fun activities even if they did not relate to the lesson when students were bored and not able to concentrate anymore:

It is no use teaching and keeping on teaching when they are not following and not responding, and sometimes you go for a short game, video clip and sometimes you give them a short story.

Similarly, F/SH felt:

when I teach writing, I group them into pairs and ask them to brainstorm about the topics and discuss with their friends in the group. I found it very useful and students like it, it breaks the routine of the class.

F/K, had tried using ICT because she believed that:

students are a technology generation and they are fond of it. In fact, they do better than we do. When I use it in class, they enjoy it, so I always use ICT to motivate them and to get them engaged in their learning and to be active in the class.

Nearly all teachers wanted ICT to be used ‘effectively’ to obtain a proper balance between ‘other activities’ and felt that teachers should be selective in finding appropriate materials when using ICT (e.g. M/AB, M/S, F/SY). It was believed that it was the teachers’ job to judge when to use ICT in teaching and when to use other teaching materials. According to M/S, using ICT all the time leads to the students becoming bored:

technology is there in every classroom, but it needs a skilful teacher who knows how to use it in the right way. Sometimes, if ICT is overused or sometimes is not used at all, that might be negative. Overusing it will be boring.

F/H shared a similar same opinion:

I’m a type of teacher who uses PowerPoint presentations a lot in the class and I noticed when I overuse it, students do feel bored and sometimes ask me to stop and go back to traditional teaching, but not always.

Therefore, using ICT should depend on context, as stated by F/R:

I think every teacher should use ICT in class by her own way, whenever it is needed and according to her students’ needs.

F/SY said ‘*the teacher has to choose, so use your own creation... use your own wisdom when using ICT.* Teachers should be selective in choosing ICT materials. M/AB revealed that when he found moving image clips from the Internet, he watched them many times over. He said ‘*I let my wife watch them to tell me her opinion before I take them to my students.*’. He did that because he felt using Internet was:

a big responsibility. I want something that relates to our culture and something ethical. With ICT we need to be highly selective.

F/SY agreed that teachers should be very careful to select appropriate videos from YouTube because ‘*there is a lot of trash in it*’. For her, all visual materials that she brought to her class had to be very interesting for students to be able to learn from them.

Not many teachers felt that they were using traditional ways of teaching, apart from F/A who said:

That is very personal: I like teaching without ICT. All those young students we are meeting since morning, they cannot do anything without face-to-face teaching.

F/D saw face-to-face instruction as important for highlighting errors when dealing with students’ assignments. She stated that:

I don’t receive homework via email because face to face conferencing is the best thing when it comes to students mistakes. Because I just want my students to see their errors and teach them why it is an error, I receive assignment in the class.

Hence, M/S was surprised to notice that student learning was better 15 years ago, when he had taught by traditional methods:

There was a time when I taught classes using the board and markers and there were no computers, no CD players in those days. That was the situation and we used to manage and to my surprise the output of our students was better.

Teachers talked about the importance of their role in the student learning progress. For example, they could inspire students to learn and help them become confident in speaking English (e.g. M/MU). They could also be friendly with them in order to break the ice between them (e.g. F/SY). They could also be assertive to keep them working (e.g. F/M).

M/MU believed that the teacher was the inspiration for students. For him, learning depended on a teacher who could make the students confident in speaking:

I'm sure the teacher can make learning better or not and can make it sufficient or not: it is still on the part of the teachers.

He saw this as especially so with weak students:

It is for you to get them involved in the discussion, they should be asked to talk about something they know to make them participate like other students, to get the confidence to speak more.

5.9 The Value of using ICT

ICT was seen by educators as a powerful method in the teaching and learning process. According to the response from the majority of EFL teachers, using ICT was considered a contribution to learning, and for some a very important contribution to learning.

Table 5-6 below summarises ICT benefits according to the teachers. In terms of the frequency with which ICT benefits are mentioned, it can be seen that female teachers were more likely than males to discuss different benefits that ICT had brought to teaching.

Table 5-7: Value of using ICT

Themes		Males	Females
ICT Benefits for teachers	Add variety in teaching	3	11
	Saves time	4	9
	Helps in organises teaching materials/Makes teaching more convenient	2	6
	Trendy	1	4
Benefits of ICT for students' learning (cognitive)	Helps meetings learning objectives	4	9
	Enforces learning	2	5
	Visual materiel enhances learning	3	3
ICT Benefits for students' learning	Students pay greater attention	5	9
	Students are more motivated to learn	4	6

(affective)	Teachers who use ICT appeal to students	1	1
	Students think ICT is new/up to date	1	
ICT benefits in classroom environment	Enjoyable/killed monotony in class	5	12
	Allow interactivity	2	7
	Manage the class		1

ICT had benefits for teachers. It *adds variety* irrespective of its impact on student learning, and this made the teachers' job more interesting (e.g. M/A, M/M, M/T, F/M, F/N, F/NO, F/R, F/SM, F/SN). For example, F/SN mentioned that using ICT in her teaching helped all students to learn:

By using ICT I can reach all students. What I mean is that, as you know, we learn differently. Some learn better through listening, some through seeing and some through experience. When I use ICT, I'm aiming all different learners.

F/R mentioned that she used ICT to bring different techniques of presenting the material of her lesson in the classroom. She explained:

When it is a writing class, I use the projector to display the writing assignment for the students, especially when I see students facing difficulties in applying the rules correctly. I do that to make them see different styles, structures, different vocabulary. They would see different mistakes and learn at the same time.

Saving time was a value of ICT mentioned by teachers (e.g. M/A, M/AB, M/M, M/S, F/A, F/HB, F/K, F/M, F/N, F/NO, F/R, F/SM, F/SN). For example, F/K mentioned that using the projectors saved her time in class because:

instead of giving each student a hard copy of exercises, I could have them projected and they could use the time working together.

F/M revealed that preparing a lesson using ICT could take time *‘but it saved time in class instead of writing, it saved something like 15 minutes writing’*. In addition, F/R mentioned that after she had created the blog, she saved a lot of her teaching time. She said:

The blog saved a great deal of time. Instead of repeating the same comment to each student in class or sending each student an e-mail, I just post information and they can all have access to it.

Only a small number of female teachers said that using ICT in class *helped in organising the teaching materials* (e.g. F/A, F/M, F/N). For example, F/M mentioned that she used the board and the data show in the class, but: *‘I always feel that I need to use the electronic whiteboard more because it is nicer and neater’*. F/N also used the PowerPoint presentation in her teaching because *‘the PowerPoint slides are more organised than writing anywhere on the board’*.

In addition, some teachers mentioned that ICT was a ‘trendy’ teaching method that they ought to apply in teaching (e.g. M/M, F/A, F/D, F/HB, F/SM). F/SM said that “by using ICT we are introducing a new method”. M/M also mentioned that the ELI should focus on using ICT because *‘it is one of the newest ideas used in teaching and learning in all other universities around the world’*.

F/D said that she hated to keep her students behind because:

ICT is the latest language in the world of education, so I don’t want many students here in the ELI to not be not equal to all students in other universities in all over the world. They have to be updated.

F/AS said that in order to be up to date with the new trends of teaching *‘ICT should be used. Certainly ICT is the marvel of our age’*.

In respect to cognitive benefits ICT as it *helped students meet learning objectives* (e.g. M/K, M/M, M/MU, M/T, F/A, F/H, F/HB, F/K, F/LY, F/M, M/R, F/SH, F/SM). For example, M/M noted that his students responded in the class more when he used ICT. It was also noticed every time the students were interested of what the teacher presented especially if it included the use of ICT, students learn better. M/T said:

when I play some video clips or play some audios, the students are much interested and pick up information faster and they show great interest in using technology in class. It did help my students learning.

F/K added:

students are learning, their level is getting better. If students are paying attention and are with you when you are explaining which means they got the message or the idea, then that means they have learnt something.

ICT did not only help in meeting new learning objectives, but it *enforced previous learning*, as some teachers mentioned (e.g. M/K, M/S, F/LY, F/M, F/NO, F/SM, F/SY). F/NO noticed that her students were able to recall grammatical rules when she used PowerPoint presentations:

I use PowerPoint presentation for revision to help students to remember, I noticed that they did better in the exam, even if there were harder grammatical rules. They did learn the point that I used it in the Power Point presentation. It has big value in students' learning.

In addition, teachers saw ICT as offering a more *visual learning approach* to teaching (e.g. M/AH, M/AB, M/S, F/HB, F/R, F/SY). F/SY mentioned that visual learning had a '*much longer effect than all printed work*'. M/AH added: '*students prefer to see and watch rather than to listen only*'. M/S said the more senses you involve in class, the more the students learn".

5.9.1 In relation to students learning (affective)

The majority of teachers believed that using ICT *increased students' attention* in class (e.g. M/AH, M/M, M/MU, M/S, M/T, F/A, F/H, F/HB, F/HU, F/K, F/LY, F/N, F/R, F/SH). M/S said it was the teacher who should try to use technology in class because '*it helped in bringing students' minds in class and motivating them*'. F/K also felt that, because the students were young, it made them more attracted to technology. She said: '*because our students were teenagers, most of them were 18 or*

19 years of age, they loved ICT, it grabbed their attention'. F/H also noticed that her students learnt more when she used coloured PowerPoint presentations in class:

When I display coloured PowerPoint presentations, I could see my students more active in the class and excited. So being active and excited was one good benefit of applying ICT in class. I can engage them all in the activity and as long as they were awake, interested, excited and active, it meant they were learning.

F/NO also said that her students became interested in the class when she used ICT. They felt that the teacher *'is like them and she is cool. They got motivated'*. F/HU said she tried to use some kind of ICT because *'my students enjoy PowerPoint presentations, they like to see pictures'*. Similarly, F/R noticed that students admired teachers who used ICT, she said: *'they respect you if you know how to use these things. They feel their teacher is cool'*. She was also assured that the main reason for using ICT was because her students enjoyed it and wanted more of it: *'if students do not like it, I definitely won't use it, and this will never happen'*. A number of teachers noted that, due to the fact that ICT attracted students and made them paid more attention in the class, it also enhanced their motivation to learn (e.g. M/H, M/M, M/MU, M/S, F/A, F/K, F/LY, F/M, F/NO, F/SH). For example, F/SH found that using ICT in teaching had a benefit in motivating students, which could not be ignored. She said *'integrating ICT into our lesson is a must because it helps students to become engaged and more motivated and this is what a teacher wants'*. Some teachers also mentioned that because their students were teenagers, *teachers used who ICT appealed to them* and were seen to be 'cool' (e.g. M/H, F/NO). M/H said:

my students always see me as a cool teacher because I use my iPad in teaching, it actually helps in motivating them. I also created invitations to my email messenger to motivate them more.

F/NO also felt her students became interested in ICT and felt that she was like them. She said:

my students like ICT and feel like our teacher is like us and knows about technology. Our teacher is cool. They get really motivated.

Students viewed ICT as an updated way of teaching and they appreciated it. For M/MU, using ICT motivated students because it was a new way of teaching. He said:

ICT made students loved to learn. It gave them the power and the motivation because they find it something different.

ICT had benefits for the class environment in different ways. The majority of teachers stated that it *made the class hours more enjoyable and prevented monotony* (e.g. M/K, M/M, M/U, M/S, M/T, F/D, F/H, F/HB, F/HN, F/HU, F/K, F/LY, F/N, F/NO, F/R, F/SH, F/SM, F/SY). F/HN felt using technology like laptops, iPads and smartphones for teaching purposes made the class pleasant:

using ICT in teaching made the learning process much more enjoyable and beneficial, it kept students engaged all the time.

For some teachers, ICT broke the routine of the everyday class because it involved variety of presenting the lesson material. For example, M/K found that *‘using ICT kills boredom in the class’*. F/SM also said about ICT that:

it keeps the students interested in the lesson and it breaks the monotony of the traditional class and that would be of a great value to students’ outcomes.

In addition, some teachers felt *ICT allowed interactivity* in the classroom (e.g. M/AH, M/MU, F/A, F/HU, F/K, F/LY, F/R, F/SH, F/SM). For example, F/R noticed that using ICT in her teaching increased interactions among students. She said:

I bring everything to my class. I google the topic at home, I save it to my memory stick or my iPad to engage students more during the lesson. It keeps them alert and makes them interact more with me.

S/SH also said “it creates a dynamic environment in your class makes your class alive”. F/HU noted that her students liked the PowerPoint presentations because: “it gave us more space in the class for discussion and for interactions”.

Moreover, one female (F/N) teacher found that using ICT in the classroom improved her ability to *manage the students* while doing activities. She said:

I prefer to have all the activities projected for the students because if a student shares a book with her friend, they might get busy talking about other topic and don't work, so having the material projected helps me control the class. It helps class management.

5.10 Summary of this section

The previous sections examined three aspects. Firstly, there was an exploration of the encouragers and discouragers of ICT use in teaching, related to access, ELI managements, personal factors and environment.

Secondly, different forms of teachers' use of ICT were reviewed, including: data projection/scanning; range of computer hardware; use of the Internet; use of email; use of blogs; online messaging groups and teachers' websites

Finally, there was an examination of the values of ICT for teaching. Teachers discussed the benefits of ICT in relation to teaching, for students' cognitive and affective learning, and for the classroom environment.

CHAPTER SIX: QUALITATIVE DATA FINDINGS (OBSERVATIONS)

6.1 Introduction

As detailed in the methodology chapter, observation was used as a data collection method to allow me to examine teachers' use of ICT in practice, to triangulate the data gathered in interview and from the questionnaires. However, conducting observations was challenging. The teachers were busy teaching and I only had a restricted time frame within which to collect data. However, five non- participant lesson observations were carried out. No male teachers' lessons were observed for reasons of cultural restriction.

A simple pro forma was used to note my reflections on the lesson, and no structured observation of student activity was carried out (see table 6-1).

Table 6-1: Actions observed

Themes	Actions observed
Use of ICT	<p>Computer and data projection:</p> <p>Displayed scanned pages from the book using the CD that comes with the textbook (3 slides)</p> <p>Scanned pages from the writing booklet that had exercises about (writing a descriptive essay) and used it as PowerPoint slides then saved it on memory stick to use in class (4 slides)</p> <p>A table of regular and irregular verbs was displayed using data projection (1 slide)</p> <p>Scanned exercises from the book that had gaps (2 slides)</p> <p>One case of Internet use: searching Google for activities on the use of the present simple and WH questions (why, what, where, etc.)</p>

Flow of the lesson	<p>Settling the class, registration; warm up activity; presenting lesson objectives, and logging on to the computer (10- 15 minutes);</p> <p>Instructing (e.g. explaining grammar rules; writing structure) (25-30 minutes).</p>
Lay out of the room	<p>Number of students: 20-30. Desk and chair in front at the left side of the class for the teacher. Students are seated at desks in two rows with an aisle. No interactive whiteboard/the teachers used a marker pen and whiteboard.</p> <p>One computer operated by the teacher who logged in at the beginning of the lesson.</p> <p>One projector operated by the teacher</p> <p>A pull-down projector screen.</p>
Use of pair work /group work	<p>Students worked in pairs to answer the questions on the handouts, Speaking activities.</p> <p>Students worked in groups of 5 to match pictures to the conversation form the listening dialogue (every dialogue presented an activity and students matched it with a picture form showing several pictures – this was given to them by the teacher).</p>
Teacher role	<p>Supporting and checking understanding</p> <p>Encouraging students using friendly phrases (e.g. very good, excellent)</p>
Students activities	<p>Listening to the teachers when explaining; answering teacher's questions; asking teacher question; talking to peers when doing the activities on the handouts.</p> <p>Listening to native speaker dialogues.</p> <p>Reading the textbook when doing exercises.</p> <p>Reading exercises; they read a paragraph in the textbook and answer questions.</p> <p>Writing the exercises in the book. Handouts for tasks</p>
Resources	<p>Textbook; CD that comes with the textbook; Listening tracks were uploaded onto the teacher's iPad from the website for the book; Handouts; the Internet was used to search for some grammar activities; Flash memory (memory stick)</p>

6.2 Reflections on Lessons Observations

6.2.1 Lay Out Of the Room and ICT Equipment Available

The *layout* of all five classrooms included a desk and chair in front and at the side of the classroom for the teacher to use. There was no interactive whiteboard in any of the classrooms, and the teachers used a marker pen board to write on a traditional whiteboard. There was a pull-down projector screen. Students were seated at desks in two rows with an aisle. The number of students in each class ranged from 20-30. All classrooms had limited ICT resources. There was one computer and one projector operated by the teacher who had to log in. All five teachers started the lesson by greeting the students then settled the class, conducted registration and presented the lesson objectives. Three teachers presented the lesson objectives with the support of data projection, and also used PowerPoint software for this (teacher M, N and SH). The other two teachers wrote the lesson objectives on the whiteboard (teacher A and R). One teacher (teacher R) explained her non-use of the computer and data projection on the reasonable grounds that the classroom was situated in a new building and the projection equipment had not yet been set up.

6.2.2 Flow of the lessons

Lessons times ranged from one hour and half an hour to two hours. I observed lessons for an hour to 80 minutes in order to observe the general activities in the lesson and most importantly the use of ICT. All the lessons were EFL lessons, and I had previously observed similar lessons in the university as a student and as an academic staff member. For example, as mentioned above, all lessons started with settling the class, registration, a warm up; logging on to the computer; the setting of learning objectives (10-15 minutes); explanation of grammatical rules and writing structures (25-30 minutes); and, playing listening tracks of native speakers dialogues (10-15 minutes, controlled practice (30-40 minutes). There was not usually integration of all skills

in a single lesson; for example, one lesson covered presentation writing, listening, speaking but not reading and another covered reading, listening and speaking skills but not writing. However, two case study students had the chance to use all skills, they took turns to ask each other questions in one of the activities; they wrote their answers, they read from the textbook; and then, they listened to audio tracks with native speakers dialogues.

Although many of the lessons were concerned with accuracy practice, there were activities that seemed to be influenced by a more communicative approach. There were several examples of information gaps activities and group work and/or pair work was used in three lessons. For example, Teacher R encouraged students to practice speaking with each other, using a context that would enable the students to practise grammatical structures that she had explained at the start of the lesson. Student A asked student B to prepare questions about future plans (for example what are you going to do this evening /weekend?). Students A and B took turns taking the role of asking /answering questions. Students were then asked to present their dialogues in front of the class. In another example, Teacher N had started the lesson with a warmer activity that lasted ten minutes, where she encouraged students to talk in pairs about their favourite hobbies, movies, food, countries and so on. This was a free practice activity but led to some discussion of grammatical points, and the use of different tenses in English. In a third example, teacher A asked students to work together filling in gaps in a cloze test exercise they had been given.

6.2.3 ICT Resources Used

However, there were some differences between teachers in terms of use of ICT resources. For example, teacher R and teacher N used iPads and wireless speakers to play sound files during the lesson. Four teachers scanned pages from the textbook [Headway Plus, special edition, 2011] and transferred these slides to PowerPoint in order to explain grammar or writing structures.

Two teachers (M, N) prepared their own PowerPoint slides, either to back up explanations of grammar structures or for controlled practice. For example, teacher N displayed two slides to show examples of the use of definite articles (the, this, that, these, those) and students were encouraged to give more examples based on the ones she had shown. Teacher M prepared a PowerPoint with times of the day and images of activities. As she clicked on the time of day, this activity was demonstrated. For example at 7 o'clock there was a picture of a shower. This was a prompt for practicing the sentence 'at seven o'clock I had a shower' i.e. practice of the past tense. There were some information gap exercises prepared, which the class did together with some directed questioning for each student. There was a cloze gap activity related to everyday actions.

Teachers used the projection as a whiteboard. For example when the students were asked to answer questions (for example to spell a word or use it in a sentence) the teacher used the keyboard and displayed the answers directly on the screen.

Aside from the data projection there was little other use of ICT during the lessons. However, some teachers encouraged the students to visit their own websites in order to access the resources that had been prepared for them; for example, these sites had archives of quizzes and other support materials. One teacher showed she used email to communicate with students, by referring to these emails at the start of the lesson. Teacher N recommended that students visit her portfolio within the university website to work on a quiz she had posted and asked them to e-mail their responses to her. Teacher A also e-mailed her students weekly lessons plans. This suggests that teachers were using technology to extend and enhance their classroom practices, and were seeking to address shortages in equipment by asking students to use their own equipment.

Comparing the five lessons with the interviews I had carried out with the same teachers, the observations provided confirmation of the level of use in four cases (teachers A, M, N, SH).

However, teacher R was not properly represented in the observation, as the data projection in her classroom was not yet operational. The level of ICT use in the other four lessons varied, but these variations were in line with what was covered in the interviews. For example, teacher SH used four PowerPoint presentation slides to support her teaching of the form and usage of the perfect tense and modal verbs. This teacher explained the value she placed on the use of PowerPoint in interview but made no mention of the use of multi-media or still images. One explanation she gave for this was that the Internet was not accessible in the classroom. This was true, but did not explain her unwillingness to prepare slides with images before the lesson. In contrast, Teacher M used images in her PowerPoint presentation slides to support her explanation of regular and irregular verbs and colour coding to heighten patterns in structures. As explained in her interview this teacher had all her work saved on a memory stick in order to circumvent lack of access to the Internet. Teacher N in contrast did try to use the Internet, but struggled to obtain access. She kept trying during the lesson until she had access, and then searched Google for activities on the use of present simple and WH questions. One purpose was to demonstrate to students the range of support material available. She displayed relevant sites and asked each student to come to the front to use the computer and type their answers on screen. Other students were asked to help their colleagues if required. Teachers N explained in the interview that she did not use the interactive whiteboard because it was not available in all classrooms. She also believed that regardless of whether Internet access was available, it was always worth trying to use it, as it could support the use of a variety of activities and resources in the classroom. She explained that in general the Internet was more reliable than was observed during this lesson.

Although teacher A used email to communicate with students before the lesson, she did not use ICT very much during the lesson. She believed that ICT alone did not help teaching and learning

and did not want her use of ICT to ‘replace traditional teaching’, in which a teacher instructs her pupils directly.

In term of teaching and learning the five lessons illustrated why the teachers felt they had suitable subject knowledge to explain grammar or writing structures within the class. Their explanations were accurate and seemed appropriate. They used English as the medium of classroom instruction, although very occasionally Arabic was used to translate some words when the meaning in English was not understood. There was evidence that they had formed strong relationships with their students, and there were no examples of inappropriate behaviour by students. The students seemed willing to ask and answer questions, and in some cases to perform dialogues in front of their peers. Of course, at times their attention became distracted and some appeared more passive than others. All the teachers were comfortable teaching the observed classes and it might be assumed this was one reason I was granted access. All the teachers were positive in their feedback to students and encouraged participation using words/phrases like excellent, very good, well done girls. For example, teacher A, every time she asked a question smiled at the students and said ‘let me see hands of good girls up’. Similarly, teacher R encouraged students by using phrases like ‘yes you can do it, very good, try again’. Teacher SH also said ‘excellent’ every time a student gave a correct answer. Teacher M showed that she was pleased with the whole class’ performance by saying ‘well done girls’ to encourage them. Teachers also addressed questions to different students.

In term of support and checking understanding, I noticed that all five teachers gave support to students by moving around the class to monitor how successfully their students were completing tasks and help those who needed it. For example, teacher M checked students’ understanding of the simple tense, regular and irregular verbs, and also how to form question. She would question students while they were working on practice questions. Teacher N also moved around the class and helped students and prompted answers. She would ask her students ‘is it clear girls’?, if not

she worked with the individual student with a concern. Likewise, teacher SH explained the perfect tense, which was not easy for the students; she asked if the students understood and when they did not she rephrased her explanation. She also gave feedback on oral practice.

It is difficult to see how the use of more ICT in these lessons had changed teaching and learning to any great degree. The flow of the lessons in which ICT was used closely matched the lesson in which it was not used. Even if there were more computers in the room it is, on this evidence, highly likely that the flow of the lesson would remain the same (with cycles of instruction, practice and feedback) even if a greater variety of materials might be used. It might be argued that the use of projection devices provided the stimulus for teachers to ask students to come to the front to show their answers to their peers. My overall impression is that students welcomed the use of ICT and teachers certainly reported this was the case. In one example, the use of ICT stimulated students to speak at once and this, while welcomed by the teacher, also caused a temporary worry about classroom management. The more important impact of technology may lie in out of class use. It has altered patterns of communication between teacher and students and extended the learning experience. Of course, students could find their own materials themselves, but do appear to need the direction of the teachers to access these sites.

6.3 Summary

Thus, we find from the observation data, that there was only a computer and projector operating in the classroom, with one class having no functioning equipment. Data projection was used in all cases where it was possible. The use of the projection covered the writing of learning objectives, links to resources, prepared by both teachers and other providers. The lessons flowed around patterns of with cycles of instruction, practice and feedback. Two teachers used iPads and a wireless speaker for sound files. There was observed use of information gaps activities, warm up activities and some examples of group work and/or pair work. The use of ICT for

accessing further material and for communication with teachers was encouraged outside of lessons.

This chapter presented the findings from the lesson observations. A reflection on the five lessons was given. The findings confirmed the issues raised in the interviews and the level of use in four lessons.

CHAPTER SEVEN: DISCUSSION OF FINDINGS

7.1 Introduction

This chapter summarises the findings of this study with respect to the research questions outlined in Chapter Three. In addressing each question, the findings from each method of data collection are compared, drawing attention to consistency, contrast and complementarities. These separate findings are integrated and compared to the wider literature. The main research objective of the study was to examine how and why do EFL teachers use/not use ICT at a University in Saudi Arabia. To this end, the study posed the following questions:

- What is EFL teachers reported use of ICT in teaching in a University in Saudi Arabia?
- What do EFL teachers perceive as the benefits of using ICT for learning and teaching?
- What do EFL teachers perceive as enabling them to use ICT?
- What do EFL teachers perceive as barriers to using ICT in teaching?

A mixed methods approach was used to determine the answers to these questions. Questionnaires were distributed to male and female teachers, of which 152 questionnaires were returned. Of these, 92 questionnaires were filled in by female teachers and 60 by male teachers (Chapter Four). Semi- structured interviews with 16 female teachers and interviews with eight male teachers were carried out by the researcher through a long-distance mobile phone call (Chapter Five). Five lesson observations of female teachers were carried out (Chapter Six). This is an example of a sequential mixed method study in which survey data were first collected, followed by interview data and some observations. Whilst informal comparison of data was made throughout the study, the three sets of findings were only integrated and compared to the wider literature in this subsequent phase.

The three different sources of data serve to address triangulation. Triangulation is a problematic concept in that it is often taken for granted that consistency is a 'good thing'. Whilst effort was made to allow for this, it was nonetheless found that in most cases the three sets of findings tended to point in the same direction. For example, as will be described, all three sets of findings showed that the level and nature of ICT use tended to be restricted, with some extended use occurring. However, some inconsistency arose between data. For example, one teacher described herself as a confident user of ICT and stated that she very often used ICT in her teaching. However, when her lesson was observed, she did not use ICT a great deal (see page 146). The obvious explanation for this discrepancy was that the equipment in her classroom was out of order at the time of the observation. When reference is made to the interviews, this teacher gave detailed examples and evidence of ICT use. It was concluded that her account was convincing enough to address the counter-example of the absence of ICT use during the observation. However, this example shows the challenge of triangulation and that the integration of findings is a best-fit process rather than an exact science. The findings are now examined in-depth with respect to the three research questions.

7.2 Question One: What is EFL teachers' reported use of ICT in teaching at a University in the Saudi Arabia?

Findings from all three sets of data suggest that for the most part the use of ICT **in the classroom** was limited, except in the case of *data projection*. The survey data showed that the use of data projection was widespread, with both male and female teachers often projecting materials from the textbook CD. Both male and female teachers occasionally used PowerPoint or other presentation software in their lessons (see page 72, 73). Most teachers interviewed said that they used data projection, and many examples of such use are given in the interview data (pages 181, 119).

In the interviews, teachers gave examples of using their own PowerPoint slides, the textbook CD ROM, scanned pages from textbooks, picture and short film clips. This was done in the context of grammatical explanation, vocabulary items and revision topics. A further use of projection involved the display of students' writing, which was projected with errors corrected interactively using a colour-coded system. A few teachers used the projection system to play sound files from an iPod. While, as reported earlier, the observation data was carried out during a period during which access to ICT was problematic, four of the teachers used data projection to support their explanation of grammar rules and of writing structures. In one example, a teacher also scanned pages from a textbook. In addition, two teachers prepared tailored, animated PowerPoint presentations, supported with pictures and moving images, to support the explanation of grammatical structures, which led into controlled practice. Three teachers projected the lesson objectives at the beginning of the lesson.

The wide use of data projection can be attributed to several possible factors. The most obvious explanation is access: all classrooms are equipped with a data projector attached to a computer. Next, as part of teachers' professional development, teachers are *trained* to use data projection to create materials for teaching (see page 123). Teachers are also *expected to use* data projection in their teaching - even though the whiteboard itself remains on site - and if it is not used during an inspection, one teacher noted that has been commented on by the coordinators as a point that merits development (see page 124).

In many ways, the use of projection was not disruptive to teachers' 'normal teaching' or to the routines they had developed over the course of their career. Projection could be adapted to support the 'traditional' role of instructor and explainer, which is important from the teacher's view of pedagogy (pages 133, 136-138). Roberts (1998) argued that in the field of language teaching teachers only tend to adopt what they are sure would work with their teaching plans, a finding which appears to be reinforced by this study. In addition, the technical demands posed

by projection devices were not considered excessive, and teachers had the technological skills to integrate projection devices into their daily teaching. This is a point made by Zhao and Cziko (2001) and indeed matches a general argument that ICT tends to be used when teachers have confidence that the use of technology will boost students' learning, are competent at using technology effectively and have control over learning outcomes.

Teachers in this study were not alone in seeing projection as having an impact on learning. In a review of the literature on the introduction of IWBs in schools in UK, Heather et al. (2005) looked at the benefits of IWBs for teaching and learning. Some of the cited benefits of IWBs for teaching were 'flexibility, multimedia, efficiency, support planning and the development of resources, modelling ICT skills and interactivity and participation in lessons' (p. 92). Teachers in this study tended to agree these were benefits of data projection but, as seen earlier, the impact of was limited as only projection devices rather than fully functional IWBs were used.

Heather et al. (2005) and other researchers also have listed a number of drawbacks in the use of ICT; data on their impact is lacking. Higgins et al. (2007) concluded that although literature on IWBs suggested that they have a number of benefits in terms of students' motivation and developing the teaching environment, there was no statistically significant evidence of their impact on students' attainment. However, teachers in ELI tended to focus on the benefits of integrating IWBs into their classroom teaching and expressed disappointment regarding the unavailability of IWBs in classrooms.

Many teachers made use of the Internet when using projections. This included use of YouTube video clips as warm-up activities, some projected websites (for example the BBC) for learning English and some sound files. A few online dictionaries were accessed in class in order to assist with translation into English and to find different synonyms for items of vocabulary. However, survey data showed that access to the Internet was problematic (see pages 69, 70).

This was confirmed in the observation data, as only one teacher was observed accessing the Internet in the classroom, searching on Google for extra activities relating to the teaching of the present simple tense form and (WH) questions. However, she was only able to do this after repeated login attempts. Despite Zhu's (2010) recommendation that teachers should integrate multimedia technologies in their FL teaching, many participants in this study were only able to do so reliably by downloading files in advance or by using their own Internet connection stick (dongle).

In addition to the use of projection, another highly used aspect of ICT observed in both the survey and the interviews involved the *preparation of learning materials* at home. Nearly all teachers interviewed used home or office computers to do this. Some teachers used desktop computers and some preferred to use their own laptops that they took to the classroom, whilst a few preferred to use an iPad. Both male and female teachers used the Internet in preparation for their lessons. However, female teachers tended to do this more often than male teachers (see page 75). They often searched for online resources to help them feel better prepared (see page 77). They also searched the Internet for resources that students could self-access and to obtain advice on teaching. Some teachers searched YouTube specifically for video clips and online material relating to TESL and ESL, English Club, BBC and the British Council.

The use of ICT for preparation again rested on the belief that it would result in a more engaging recourse and a smoother lesson delivery and that there were appropriate sites for both teachers and learning. These views are in line with a widespread assumption within the literature (for example Becta, 2010).

The survey data suggest that whilst male and female teachers used ICT for **administrative** purposes, this was not covered in the interviews and observation data. In the survey, teachers reported keeping records of the students' grades and absences on the computer. ODUS (On Demand University Services) was also used to communicate course information and instructions,

to send and receive assignments and emergency messages via email and to communicate with students regarding lesson issues via mobile phones. There was an expectation that teachers would do this; in some cases this was a contractual arrangement that was an integral part of teachers' duties. Teachers were required to keep records of student registration and progress, which were then submitted to the coordinators. Whilst teachers were not expected to post the grades in ODUS, some did so.

7.2.1 Differentiating ICT Users

There were very few examples of teachers who did not use ICT. Non-users believed they had neither the time nor access to reliable equipment (see pages 130, 132). Very rarely did teachers view ICT use as 'bad' in itself; rather, non-users doubted that its value would outweigh the time and effort put into learning to use it.

Conversely, restricted users, who formed the majority of EFL teachers in the study, routinely used ICT during their teaching (projecting slides, filling in portfolios) when expected to do so and as long as equipment was provided. Some restricted users prepared their own materials at home but were less willing to give up time to do so. They complained that there was insufficient time to use ICT very often, teaching loads were too heavy, schemes of work too 'crowded' or that modules were too short. A few of the teachers interviewed were extended users of ICT. For example, a few created blogs to post writing topics for students to support learning outside the classroom (see page 119). This suggests that these teachers were aware of opportunities for collaboration amongst students and saw further benefits in archiving discussion and resources. ICT could help students become more independent learners. Some created their own websites to post their contact details, teaching schedules, instructions for students, activities and some presentations used in previous classes (see pages 119, 120). Some were developing uses based upon what John (2005) termed recognition of how to facilitate their pedagogy with the activities offered by technology and putting them into practice to fit in with their teaching subject.

Vi (2005) and later Becta (2010) recommended that MFL teachers could enrich their teaching by ensuring greater access to authentic material through the Internet and to enable interactivity through e-mail exchange, social networks, collaborative working and discussion forums. Warschauer and Healy (1998) also noted that ICT enabled learners to communicate with other learners or speakers of English around the globe. Whilst extended teachers used ICT in this respect, in many cases extended users were still limited in the use they made of ICT. They were emergent users; for example, they were experimenting with creating blogs or online groups but had not developed this as routine practice. They welcomed the use of mobile phones in the classroom, for example to allow lesson recording or capturing picture of the projected slides. Extended users were more likely to create online groups and to invite students to Yahoo! or Windows Live Messenger (see page 125). A few teachers extended their use by creating chat groups on Blackberries, sending emails from their smartphones, and creating online groups such as Yahoo! groups, which invited students to chat about learning issues. Observation data showed an example of sending out of lesson plans.

7.2.1.1 What are the reasons for the differentiated use of ICT?

One of the most striking findings and a recurrent theme of the research is that female teachers tended to be keener and showed more initiative in the use of ICT. These findings contrast with Markauskaite (2006), who found no significant difference between males and female teachers' use of ICT. Earlier literature suggested that females were less likely to use ICT and that female teachers tended to have a higher level of computer anxiety than males (Bradley & Russell, 1997; Heinssen et al., 1987; K. Lee, 1997; Rosen and Weil, 1995). They also tended to blame themselves if any technical problems occurred (K. Lee, 1997). In contrast, male teachers have been found to have had more prior experience of using computers and were much more likely than female teachers to adopt computers into their classroom (Marcinkiewicz, 1993; Sutton, 1991). There are various explanations for why this might be the case. Female teachers in this

study tended to be younger and more exposed to technology than male teachers, for whom the reverse applied. Females tended to see technology as supporting human communication, which matched the greater importance they put on developing relationships with students (see pages 114, 118). They were more interested in mobile technology (for example iPads and iPhones) than in desktop computers. Female teachers seemed more emotionally attached to their students and would spend more time building stronger relationships with them.

In United Arab Emirates (UAE) a study was conducted by Almekhlafi and Almeqdadi in (2010) of forty females and sixty male teachers, investigating their perceptions of their technology skills and integration at UAE K-12 schools. The authors found all teachers regarded their technology integration competences as high, although computers, visual projections, CDs, videos and the internet was used more by female teachers. Sang et al. (2010) also carried out a survey with regard to the impact of gender on teachers' self- efficacy and attitudes toward ICT integration at universities in three cities of China. This showed no significant association with gender. The first study is in line with my study, the second not in line with but is not a countervailing example either.

In this study, there was evidence of some association between age and ICT use, although this finding should be interpreted with caution. Czara et al. (1989) argue that age differences in learning computer skills are important. They found that younger participants used technology more than older teachers and that age had an impact on working behaviour (Czaja and Sharit, 1993, p. 56). In their study of 65 women, ranging in age from 25 to 70 years, Czaja and Sharit (1993) concluded that older women took longer to finish their tasks and made a greater number of errors.

A study based on the national survey of postsecondary faculty was conducted by Meyer and Xu (2009) which looked at the outlining factors which affected technology integration in the United States of America's higher education sector. The authors established that as the teachers' age

increased, their integration and use of technology decreased. Technology was less likely to be used by older teachers. However, it was not found that gender had a direct impact on the way technology was used for the faculty within Community Colleges. Nevertheless, male teachers used technology more than their female colleagues within research universities.

A similar survey was conducted in Turkey in a primary school by Mumcu and Usluel (2010) in which teachers' use of ICT was explored in relation to their age, level of education and how accessible technology was to them. The findings of the survey identified that the teachers' age had a significant influence on how they used ICT for managerial, instructional and personal purposes. Younger teachers tended to use ICT a lot more than their older colleagues. It was recorded that ICT was more likely to be used by teachers as their level of education increased or when access to ICT was a feature of the teaching and learning environment. What this study demonstrates is the degree to which digital literacy can vary according to age and exposure to technology in different generational groupings.

Elias et al. (1987) also stated that whilst older people were able to learn basic word processing, they took longer and needed more help than did younger people. Male teachers often have more prior experience of using computers and are much more likely to adopt computers into their classroom (Marcinkiewicz, 1993; Sutton, 1991). Gutek and Bikson (1985) found that males tend to have more relevant skills at work than do females. In a study of gender differences in college students, Busch (1995) concluded that males had significantly less computer anxiety and higher computer confidence than females. The study also indicated no significant gender differences in computer self-efficacy, although there were strong gender differences with regard to complex tasks. However, other studies have found no significant relation between gender and computer adoption. For example, in a study of factors influencing computer attitude in Nigeria, Adebowale et al. (2009) concluded that gender had no significant influence on computer self-efficacy and computer attitude.

In relation to teaching experience, it was found that the very top users were much more likely to be the relatively new teachers (those with one to six years' experience) compared to the mid-career teachers (seven to 10 years' experience) and established teachers with more over 11 years of teaching experience. The upper quartile users were more likely to be mid-career (seven to 10 years). This is consistent with the findings of Czaja and Sharit (1993) and Elias et al (1987), who found that older people took longer to learn how to use a computer and needed more help compared to young people. Some of the teachers described their younger colleagues as digital natives and thus more adept at using ICT.

The survey showed that there was no significant difference terms of top and bottom users in relation to teachers' qualifications. However, the upper-quartile users of ICT were more likely to be MA holders than Bachelors and PhD holders. This can be attributed to two notions: that the majority of teachers had Master's qualifications and/or teachers with a Master's Degree might have obtained this recently and thus been introduced to modern methods of EFL teaching including ICT implementation. This finding is supported to some extent by Law and Chow (2008) who found that the highest percentage of teachers using ICT were more likely to be found in the ranks of those holding a Master's degree or above. All extended teachers were females who held a Master's Degree gained from either the UK or Saudi Arabia, and those who acquired their MA degree in Saudi Arabia had all lived in UK or USA in the past.

Some teachers who were interviewed (for example M/AB, M/H, F/D, F/H, F/K, F/LY, F/M, F/N, F/NO, F/R) and took part in the survey were considered extensive users of ICT, as they sought to integrate ICT into their classroom teaching as often as they could. For example, they were more likely to communicate with their students through emails and mobile phones and to use email to send course instructions, lesson presentations, and information on administrative matters. Chinnery (2006) argued that mobile phones should be encouraged in language learning as they enable learners to study or access information anywhere and at any time. They are also

less expensive than standard computers. This was supported by Stockwell (2010), who recommended that teachers find the time and make the effort to use mobile phones. Even if processing speeds are slower, mobile phones are much more portable and flexible and may be used irrespective of time and location.

Teachers who were extended users shared some characteristics with the exemplary technology teachers described by Becker (1994). Becker suggested that using ICT in teaching might appeal to a certain kind of teacher who wants to develop a more social constructivist approach in the classroom. Exemplary computer users created a social network by working with other computer-using teachers. They used computers to bring consequential activities to the learning environment, such as games or activities that relate to students' everyday life. In the classroom, exemplary teachers were flexible in the use of different software and in allowing students to have choice between different software. They spent hours working on computers and learnt their skills through personal instruction rather than through formal training. They also had more experience and personal interest in integrating computers into their teaching. Becker (1994) concluded that exemplary teachers 'teach in an environment that helps them to be better computer-using teachers; they are themselves better prepared to use computers well in their teaching; and, in fact, they have allowed computers to have a much greater impact in how and what they teach. At the same time, exemplary teachers make greater demands on available resources and face problems that other computer-using teachers are less likely to face' (pp.314, 315).

Drent and Meelissen (2008) further developed this point by suggesting that those who are more disposed to using ICT and report greater use of ICT are more 'entrepreneurial' in terms of addressing their own professional development. They are more willing to keep extensive contact with colleagues and experts in the area of ICT for the sake of their own professional development (personal entrepreneurship), perceive more clearly the advantages of the innovative

use of ICT in education, and adopt student-oriented pedagogy and establish a fit with a pedagogical approach (Drent and Meelissen, 2008, p. 197).

McLoughlin and Oliver (1998) stated that technology-mediated learning has some features that have influenced the paradigms of learning and teaching. The authors suggested that computers offer communicative and socio-cultural perspectives on teaching and learning. Learners interact with each other through peer interaction and exchanging knowledge, which increases learning and problem-solving ability. Learners also appreciate peer feedback more than direct feedback from the teacher (p. 133). To a large extent, this seems to match the findings relating to high ICT users in this study. Extensive users encouraged activities that may be considered more student-centred (noticeably forums and blogs), developed more interactive teaching and were entrepreneurial in their use of ICT. They were particularly proactive at trying out ideas, sharing ideas and seeking examples from others. These teachers established a fit between pedagogy and use of ICT. However, their general pedagogical approach could best be described as a balanced one rather than a radical student-centred one (see pages 143, 144, 145) and should not be overgeneralised as 'social constructivist'.

Extended users were more likely to be proactive and more likely to value their autonomy. They were critical of following the rigid scheme of work and experimented with new ways of teaching.

7.3 Question Two: What do EFL teachers perceive as the benefits of using ICT for learning and teaching?

Findings from all sets of data suggest that most teachers perceived the use of ICT as beneficial or very **beneficial for teaching**. The survey showed that teachers agreed that ICT helped them prepare better lessons and to teach the way they wanted to. Generally speaking, these teachers viewed ICT use as positive, a finding which is not unusual. For example, in a survey of 109

lecturers at a public university in Vietnam, Hue and Ab Jalil (2013) concluded that the lecturers with more positive attitudes towards ICT made more use of it in their teaching.

The majority of teachers agreed that ICT was *helpful for them as teachers*. Even if ICT consumed time during lesson preparation, it saved a great deal of class time as the teacher was able to prepare all the teaching material in advance. It also helped teachers cover more teaching material and to introduce extra activities. These reported benefits have been noticed by others, for example Smith et al. (2005), who found that the use of the IWB could make the lesson pace faster and lead to a smoother shift between activities. In the long term, material could be reused, meaning that less time need be spent in creating resources in the future. In the context of language teachers, Gray et al. (2007) noted that whilst ICT created an additional burden in terms of teachers' preparation, this had pedagogic advantages. Similarly, Gray et al. (2007) studied the use of ICT in classrooms by four MFL teachers in UK. It was found that three of the teachers invested time in ICT as part of their commitment to students' learning and desire to bring a variety of materials and resources to their teaching practice; to conclude, it seemed worth the effort.

The second most cited reason for the belief that ICT was an aid to teaching was that it provided a greater variety of teaching and learning strategies. This was seen in the examples provided by interviewees (see page 136). The ways in which teachers used ICT included creating blogs to teach cooperative writing, playing video clips in the classroom; playing listening tracks of native speakers' dialogue, projecting pictures to teach vocabulary, posting classroom materials, exam timing and course information on teacher websites, encouraging students to create PowerPoint presentations and receiving students' writings and sending feedback via email.

Finally, in line with the findings of Li and Walsh (2013), teachers at ELI wanted to be 'up-to-date' in their teaching style.

ICT made the classroom a more varied, enjoyable and interactive place. As well as teaching satisfaction, students' motivation and encouragement was also an important factor.

With regard to student learning, both surveys and interviews suggested that the majority of teachers believed that the objective of the use of ICT was to improve students' learning. Survey data showed that both male and female teachers agreed that students learnt more when using ICT, were more engaged, and that ICT helped students to become more independent learners. Female teachers ranked the claim that students learnt more when using ICT as the greatest benefit of ICT, while male teachers ranked the claim that ICT helped students become more independent learners as the greatest benefit.

About half of the teachers interviewed believed that using ICT reinforced learning. There is considerable support for this proposition in the literature (for example Becta, 2010; Stepp-Greany, 2002; Warschauer and Healy, 1998; Vi, 2005). The majority of teachers believed that using ICT increased students' attention. Half of the teachers interviewed believed that using ICT enhanced students' motivation to learn. One explanation for this is the use of multimedia. As Zhu (2010) suggests, teachers should use multimedia technologies to 'to arrange teaching content and class activities creatively, and scientifically, to create an atmosphere for students' active learning' (p. 67). Many of the teachers surveyed would agree with this proposition. Felix (2003) suggested that the world wide web and the Internet help teachers use class meetings to integrate more communicative activities and to provide their students with an authentic environment for use of the target language.

Most teachers believed that ICT came easily to students and was desirable culturally for them. This is consistent with Oyaid (2010), who found that in Saudi Arabia most secondary school students had positive attitudes, were confident in the use of ICT and felt that greater use of ICT would result in significant progress in their education. Students are likely to retain these attitudes

when they enter higher education. Oyaid (2010) found that in Riyadh 73% of students used the Internet to search for information for learning and other purposes at least once a month. They visited discussion rooms and received emails.

7.4 Question Three: What do EFL teachers perceive as enabling them to use ICT?

This section presents the findings regarding factors that enable the use of ICT: access, ELI management, teachers' personal factors and teaching environment.

7.4.1 Access

Findings from all sets of data suggested that access to ICT in general enabled its implementation in teaching. The survey showed that the majority of male and female teachers had access to computers and the Internet for administrative and teaching purposes in their offices, homes and classrooms. A few teachers said that the ELI provided them with laptops, MP3 devices and speakers for listening lessons. A few teachers said that they carried their own devices (for example laptops, iPads, MP3 players, speakers and wireless Internet devices) to enable them to use ICT in their classrooms. About half of the female teachers interviewed said that they had access to the Internet in most classrooms. Both the top users of ICT and the upper quartile were more likely to agree that access to ICT was high, which suggests that the perception of access was important as access itself.

The observation data confirmed that all teachers, with the exception of one classroom, had access to a computer. Four classrooms were equipped with a computer and data projection, with teachers using PowerPoint presentations. Four classrooms had Internet access, although this was unreliable. One teacher managed to use the Internet, albeit after delays.

This finding suggests that providing access to ICT enables the use of ICT, although this alone is not sufficient. In China, Li and Walsh (2013) found that access to computers and the availability of the Internet for teachers' use in offices and classrooms motivated teachers to use ICT in language teaching. Hammond et al. (2009) suggested that for student teachers to become 'good ICT users' they had to access ICT easily and have the support to follow procedures such as 'booking' equipment and receiving technical support in the classroom. In a survey of pre-service teachers in schools in Turkey, Goktas et al. (2009) found that providing access and technical support for teachers was essential for ICT use. It was suggested that universities and schools should develop specific units or train individuals to provide technical support to help teachers with ICT tools and materials in instruction and to help reduce teachers' workload (p. 201).

Access needs to be supported. Bingimlas (2009) noted that teachers should receive continuous technical support. As part of this, schools must provide teachers with relevant ICT resources, including hardware and software (Bingimlas, 2009; Lim and Khine, 2006; Scrimshaw, 2004). John (2005) suggested that technical support is needed to improve teachers' level of competence and confidence in managing new hardware and software. Moreover, new ICT resources should be tested before they can be installed (Scrimshaw, 2004). Hamzah et al. (2009) also noted that Islamic education teachers maintained the need for more computers in schools in order for them to incorporate ICT into their teaching. As Buabeng-Andoh (2012) states, 'Effective adoption and integration of ICT into teaching in schools depends mainly on the availability and accessibility of ICT resources such as hardware, software, etc. Obviously, if teachers cannot access ICT resources, then they will not use them. Therefore, access to computers, updated software and hardware are key elements to successful adoption and integration of technology' (p.143).

7.4.2 ELI Management

Survey and interview data suggest that most teachers were aware that the ELI management was 'pushing' the use of ICT. Both the very top users of ICT as well as the upper quartile users were

more likely to be aware of this expectation. These users were also more likely to agree to have undertaken CPD. Interview data showed that the majority of teachers agreed that they were provided with training in the use of ICT. A few teachers said that the ELI management had encouraged them to develop professionally and to create their own websites. A few teachers felt that being rewarded for the use of ICT would provide them with further encouragement. It was noted that ELI provided training and workshops in the use of ICT. Teachers were also allowed to attend conferences and to receive training outside the workplace.

Training was a crucial factor in the use of ICT, a finding which is in line with the wider literature. For example, in a study examining of four Singapore schools, Lim and Khine (2006) suggested that teachers should be encouraged to attend workshops and seminars on the effective use of ICT in the classroom. In the same country, Teo (2008) found that exposure to computers during training led teachers to adopt a more positive attitude towards computers. With regard to in-service training, Goktas et al. (2009) argued that teachers should be provided with in-service training on the integration of ICT. It was also suggested that teachers should receive financial support in order to motivate them to take up such training. Similarly, Baylor and Ritchie (2002) suggested that teachers should be enrolled in in-service training that is specifically designed to meet their needs and is appropriate to their ICT skill levels and experience. Mahmud and Hj. Ismail (2010) found that teachers who had formal training and more than six years of teaching experience had the highest ICT skills. It was suggested that older and experienced teachers should be given special training courses and workshops to equip them with productive ICT skills in order to enable them to fully and effectively integrate ICT into their teaching.

Becta (2004) suggested that teachers should be provided with non-teaching contact during school hours to tackle the problem of lacking adequate time for training, which could have been of considerable support for teachers in the study. Additionally, Buabeng-Andoh (2012) argued that training should be designed to address teachers' beliefs and awareness of the importance of

ICT for classroom practices. A number of researchers, such as Bingimlas (2009), Birch & Burnett (2009) and Irani and Telg (2002) suggested that teachers should engage in the examination of new pedagogical approaches and that institutions should identify the different needs of academic groups in order to provide appropriate support and training. In Turkey, under the guidance of the Council of Higher Education, Hismanoglu (2012) conducted ICT training to train prospective EFL teachers to use ICT in planning and delivering lessons.

7.4.3 Personal Factors

Survey and interview data suggested that female teachers had greater confidence and were more competent in the use of ICT, which enabled greater use of ICT. Female teachers tended to take more time to learn how to use ICT and found it easier to access relevant material online, whereas male teachers were more ambivalent. Interviewed teachers showed how self-confidence, initiative and making time to plan ICT use encouraged them to make greater use of ICT. Interview data show many examples of the proactive nature of the methods used to overcome access problems. For example, one teacher used her own iPad and speakers to play listening tracks to overcome the problem that her classroom equipment was not working (see page 114). This suggested that the higher ICT users were convinced of the notion that ICT has the power to improve their classroom teaching and thus take the time to extend their use of ICT.

Personal factors are important, as teachers have particular views on resources such as time, access and training. Those that use ICT are more likely to be entrepreneurial. Ertmer (2012) conducted a case study to examine the pedagogical beliefs in technology use by K-12 teachers. It was found that teachers rated their attitudes and beliefs as enabling factors in the use of ICT. Five out of the 12 teachers surveyed indicated that their 'inner drive and personal beliefs' were factors that empowered them to dedicate time and effort to the use of technology in teaching. It was suggested that in order to encourage teachers to use ICT, it is important to develop their knowledge and skills, which may result in a change to teachers' beliefs and attitudes. These

findings suggest, as argued by Ertmer (2012), that first-order barriers (for example access, technical support and training) are more easily overcome than are second-order barriers (teachers' knowledge, attitudes and beliefs).

Extended users mainly used ICT on their own initiative. They were willing to put more effort and time into offering their students ICT-oriented lessons out of their belief in its effectiveness in teaching pedagogy and students' learning. As seen earlier these teachers to some extent matched those described by Becker (1994). Buabeng-Andoh (2012) also argued that a positive attitude on the part of teachers towards the integration of ICT into teaching can encourage the adaptation of ICT into teaching and learning. Same thing of this was seen in my study; a positive attitude towards the use of ICT in teaching led some teachers to develop a passion for ICT and a willingness to spend time applying it in their lessons.

7.4.4 Environment

Interview data suggested that the working environment enables the use of ICT. A few female teachers mentioned that 'all' faculty members and students were using ICT, which encouraged its use. A few teachers said that the cooperative spirit among colleagues in the ELL, support from coordinators and the nature of the curriculum were factors that encouraged them to use ICT (see pages 127, 128).

In a study of the factors that provide incentives for teachers' successful implementation of ICT in Canada, Granger et al. (2002) found that teachers preferred to gain information from a colleague to learn during the school day through informal conversation. Formal learning from students in the classroom and cooperation between teachers through discussing and exchanging teaching resources were also cited by teachers as factors encouraging the use of ICT. Mumtaz (2000) also noted influence of collaborative relationships between colleagues, whilst Lim and Khine (2006) reported that all four schools in their study had ICT committees that supported the

use of ICT. The committee helped teachers create ICT-mediated lessons and to share some of their own prepared lessons.

The ELI curriculum to some extent supported the use of ICT, with a particular textbook having a large number of CD-ROM based interactive exercises that could be backed up with similar examples from different websites. This supports the findings of Bullock (2004), who argued that the curriculum could be an enabler of technology integration. However, as will be described later, the inflexibility of the curriculum was seen as a barrier to the integration of ICT in teaching.

7.5 Question Four: What do EFL teachers perceive as barriers to the use of ICT in teaching?

This section presents the findings regarding barriers to the use of ICT. These concern access, ELI management, personal factors and the environment.

7.5.1 Lack of Access

Interview data suggested that access to ICT was a barrier to the use of ICT in teaching. About half of the female teachers and a few male teachers considered the unavailability of computers or data projection in some classrooms as a constraint to ICT use. One male teacher mentioned that a remote control for data projections was not available, which made it difficult to present material. A few teachers said that unreliable equipment prevented them from using ICT. Some female teachers said that a lack of Internet access or unreliable access was an obstacle to the use of ICT. Additionally, about half of male teachers interviewed and a few females considered the lack of technical support or late support as a barrier. One female teacher said that the lack of guidance was discouraging, particularly for 'older' teachers, as she described herself and for those who did not have the necessary IT skills (see page 130).

The observation data confirmed that access to computers and data projection was a barrier. In one classroom, the equipment was not working and the teacher used her own equipment in the lesson.

It became apparent through observation that no computer technology was provided by the institution apart from the projection device in the classroom. The idea of asking students to turn to computers did not arise. Interviews showed some use of devices brought in by either the teacher or students. It is worth noting that teachers are strongly discouraged by the Vice Dean of the ELI from asking students to bring their own laptops or iPads to classes, and many would feel they are simply not allowed to do so. This is due to issues of equity, as some students do not own laptops for financial reasons. Some students have also complained that laptops are too heavy to carry around the university, particularly while moving from one building to another. Smaller devices, such as iPads, iPhones and tablets, would be more portable but are often more expensive. However, some students used these devices in the classroom, for example to take pictures of projected slides or to record the lesson (an example of this was given on (see page 115). This could be described as compensation for the lack of computers in the classroom and taking steps to integrate mobile learning.

The problem of lack of access is in line with the wider literature. In a study of Greek teachers, Fragkouli (2006) found that limits on computer availability was the main reason for teachers not using ICT regularly in teaching. Similarly, in Syria, Albirini (2006) found that EFL teachers had insufficient computers, which was one of the major obstacles to ICT integration. Unreliable access to technology, including slow download speeds, were factors found to inhibit teachers from using ICT (Birch and Burnett, 2009; Eastman and Swift, 2001; Smith, 2001). In a study of factors affecting the adoption and integration of ICT in teaching, Birch and Burnett (2009) reported that inadequate hardware and software played a major role. Becta (2004) argued that the inaccessibility of ICT resources is not always due to non-availability; it may be a result of poor-

quality hardware and software programmes. Software may also not be appropriate or may not enrich the lesson activity in any way. Mumtaz (2000) argued that limited resources in schools acted as a considerable impediment to the take-up of ICT. A lack of computers and software in the classroom can seriously limit what teachers are able to do with ICT. Having limited resources results in a lack of computer integration, which in turn results in insufficient computer experience for both pupils and teachers (p.336).

The lack or unreliability of Internet access in this study seems to match the connectivity problems reported in a cross-sectional survey of 504 faculty members in four Saudi universities by Al-Wehaibi et al. (2008). Limited Internet access, including frequent disconnection and a bad quality connection, was found to act as a major barrier to Internet integration in teaching and other academic work. Al-Asmari (2005) also found that limited Internet access was an obstacle reported by EFL teachers at one of the Saudi colleges. Similarly, in schools, Coogan (2005) noted that most New Zealand classrooms did not have access to the Internet. Teachers and their students needed to access the Internet through the library, rather than classrooms and teachers considered this as the main barrier to the integration of ICT. In earlier literature, in the modern foreign language (MFL) teaching field, Singhal (1997) found that teachers can become frustrated when facing delays in trying to access information or browse the Internet. Some institutions are also unable to offer the number of computing systems required to implement technology for teaching and learning purposes.

The absence or inappropriate timing of technical support are also well covered in the literature. In a study of the perceived barriers to the adoption of ICT in Omani higher education, particularly at the college of Applied Sciences, Al-Senaidi et al. (2009) noted that participants found the lack of technical support discouraging. Equipment maintenance can be a major obstacle that can result in either a delay in the use of ICT or to the abandoning of its use altogether. Many of the participants in a survey by Becta (2004) indicated that technical problems

might prevent them from using ICT in their classroom teaching as they were afraid of anticipated technical breakdown during a lesson.

A lack of support and guidance in the use of ICT from an institute's governing body is a further common obstacle. In a study of the use of ICT by EFL teachers in China, Li and Walsh (2010) found that teachers were prepared to use ICT if they were provided with technical and leadership support. In Saudi Arabia, Wehaibi et al. (2008) indicated that most universities failed to provide basic technology to their academic staff, such as personal computers in their offices.

To sum up, access was a significant barrier to the integration of ICT in this study, a finding which is in line with the literature.

7.5.2 Lack of Support from ELI Management

Interview data showed that a few teachers found that the ELI management did not support the use of ICT, whilst others said that training did not address their needs. One male and one female teacher said that lack of reward for using ICT was an obstacle. This was confirmed by the literature. A lack of effective training is one of the main obstacles to the integration of ICT in teaching (Bingimlas, 2009). In a survey of primary and secondary schools in 26 countries, Pelgrum (2001) found that there were not enough training opportunities for teachers to stimulate the use of ICT in classroom practice. The lack of significant and continuous training in both the use of technology and the understanding of how to effectively integrate it into the curriculum has negatively affected the adoption of ICT into teaching (Birch and Burnett, 2009; Gulbahar, 2007; Surry et al., 2005). D. Lee (1997) noted that many older teachers had no technology education during college. Their needs might not be met, which reflects the comment of a teacher in this study. Without training in the use of ICT to support subject teaching, the use of ICT will be discouraged, which was found to be the case in this study. This is again part of a wider

picture. Hamzah et al. (2009) noted that teachers complained about a lack of training addressing the needs of teaching Islamic studies and found this to inhibit take-up.

In the field of MFL teaching, Singhal (2007) found that MFL teachers often experience anxiety about the use of technology as they have little experience with computers and note the absence of appropriate training. Singhal (1997) suggested that school administrators should allocate sufficient funds from their budget for teacher training. In a study of physics and chemistry teachers in different schools in Azores, Portugal, Gomes (2005) concluded that the lack of computer training, lack of pedagogical training, guidance on how to use ICT in the classroom as well as the lack of training in using technology for physics and chemistry were obstacles to using new technologies in the classroom.

In a review of the research studies on the factors affecting teachers' decisions on the use of ICT in classrooms, Afshari et al. (2009) found that most technology training stressed the teaching of technology rather than teaching with technology. In this study, teachers were not satisfied about the content of the training and felt that training was not applicable. This is in line with the findings of a study in Saudi Arabia by Al- Sulimani (2010) on the use of ICT in science teaching in mixed intermediate schools and the factors affecting teacher training. Al-Sulimani (2010) found that teachers thought the training programmes were limited and that they did not have sufficient time to attend due to teaching responsibilities. Furthermore, the content of in-service teacher training material was inappropriate and teachers had more knowledge than the trainers. Oyaid (2009) conducted a study of Saudi secondary school teachers' perceptions and attitudes towards the use of ICT in Saudi Arabia. In examining the barriers affecting teachers' integration of ICT into their lessons, Oyaid (ibid) found that pre-service teachers received insufficient training, which affected their capabilities as teachers. There was no training for teachers on how to integrate ICT into classroom practice or to develop their technological skills. The least that can be said is that training appears to be a widely reported issue that is very difficult to 'get right'.

In this study, training was found to encourage ICT use, as did the opportunity to study abroad. However, in-service training sometimes appeared as undifferentiated and too technically focused. Lack of reward was mentioned by two teachers as a barrier to the use of ICT in teaching. Rewards for using ICT can act as an incentive and failure to provide such reward was considered a barrier to its use. Miller et al. (2000) noted that universities did not provide adequate reward for faculty members who incorporated technology into their teaching. It was suggested that rewards should be given by leadership to faculty members who contributed to the development of teaching and learning.

To sum up, training was rarely seen as relevant and adapted to teachers' needs. The literature highlights the importance of training in general and sets out relevant guidelines. For example, training needs to encompass both pedagogy and technical dimensions, lead to action in the classroom, be varied and rewarded. This highlights the extent of training as a constraint in this study.

7.5.3 Personal Factors

Survey and interview data suggested that teachers' lack of technical confidence was a barrier to the use of ICT. Survey data suggested that male teachers were less confident in their use of ICT and in interviews a few teachers said that lack of self-confidence in using ICT acted as an obstacle. Half of males and one female teacher said that a lack of computer skills and age were obstacles to the use of ICT. Uncertainty about the value of ICT acted as a break on its future development and on the willingness to innovate or 'try things out'. Two female teachers said that they did not like to lose control over the class while using ICT, which reduced their interest in continuing to use ICT. ICT was found to be time-consuming for the majority of male and female teachers. More male than female teachers said that students' attitudes and a lack of motivation discouraged the use of ICT.

Again, these factors are extensively covered in the literature. A lack of confidence has been seen as a major barrier to the uptake of ICT by teachers in the classroom (Becta, 2004). Beggs (2000) also found that teachers who are afraid of failure when using technology are unlikely to use ICT in their teaching. In a survey of computer anxiety, computer self-efficacy and reported use of the Internet amongst undergraduates, Sam et al. (2005) found that participants with a low belief in their ability to use computers might show poor performance when trying to complete a task using computers, whereas high computer self-efficacy could enhance success in using computers and carrying out computer-based tasks. Whilst a lack of self-confidence may result from poor or inadequate training, it also appears to be internal state of mind. Pelgrum (2001) found that lack of ICT knowledge and skills was a significant obstacle to adopting ICT in schools. Similarly, Bingimlas (2009) stated that shortcomings in teachers' knowledge of ICT led them to feel anxious about using it in the classroom.

Some teachers were reluctant to use ICT as they were sceptical about its benefits for teaching and learning. In a study of four teachers, whose respective subjects were French, English, Geography and History, Veen (1993) found that the English teacher was the most unwilling to change and had the most negative attitude towards using computers. He also stopped using computers in his teaching as he felt that they did not benefit his students' learning process. The English teacher feared losing control over students if he used computers in the classroom. Similarly, Hamzah et al. (2009) found that some teachers did not believe that integrating ICT into teaching would improve the teaching and learning process and were of the opinion that it would not help them teach the heavy syllabus or help with examination preparation. These teachers claimed that technology did not make teaching any easier. Some students seemed to share this scepticism. In this study, three male teachers and one female teacher were discouraged from using ICT as it seemed to encourage some students not to pay attention, particularly when a video or audio material was played. It is argued that negative attitudes towards ICT can be

attributed to a strategic focus on exam preparation. This is in line with Hamzah et al. (2009), who found that students in Smart Schools did not think that ICT helped them pass examinations; instead, they wanted teachers to focus on classroom examination preparation rather than take risks in introducing technology.

Negative attitudes towards ICT remove the drive to overcome barriers. In a study of pre-service teachers, Wong and Hanafi (2007) found that the perceived usefulness and ease of using computers strongly influenced teachers' attitudes towards the use of ICT. Arndt et al. (1985) explored the relationship between attitudes and computer use. It was found that participants with positive attitudes were more engaged with computers than those with negative attitudes.

Making time to use ICT was cited as a major barrier by the majority of male and female teachers. (see pages 131, 132). As argued by Becta (2004), using ICT in teaching meant finding time to access the Internet, prepare lessons, practice using technology, deal with technical problems and receive appropriate training. Integrating technology into teaching is time-consuming and the resulting high workload is a burden for teachers. Time is needed to develop technology skills and to consider the consequences of implementation (Birch and Burnett, 2009; Jones and Kelley, 2003; McCorkle et al., 2001; Weston, 2005). Cuban et al. (2001) concluded that time was a major obstacle that helped explain the limited and infrequent use of computers in the classroom. Similarly, in Saudi Arabia, Al-Wehaibi et al. (2008) reported that a lack of time to integrate the Internet into academic work was one of the obstacles reported by faculty members in four Saudi universities. In this study, teachers already had a heavy syllabus, which made curriculum time a further pressure. As Hamzah et al. (2009) found, ICT could not be easily accommodated within a rigid syllabus and examination schedules. The need to dedicate a large amount of time to the preparation of material relating to the lesson topic was reported by teachers as being a barrier to the use of ICT. This corresponds to the findings of Lim and Khine (2006), who reported on case studies of two primary schools and two junior colleges in Singapore. The teachers surveyed

stressed that they spent a long time preparing for computer-based lessons, which included searching the Internet for relevant resources. The lack of off-the-shelf CD-ROM courseware, particularly for junior college teachers, is a major problem (Lim and Khine, 2006: p.110).

Interview data suggest that the working environment acted as a barrier to the use of ICT by teachers. Most teachers said that having to abide by a rigidly paced curriculum was an obstacle to the use of ICT. (See pages 131, 132). Two male teachers interviewed said that a lack of encouragement from coordinators to use ICT was an obstacle. (See pages 132) A few interviewed teachers said that a heavy curriculum was a constraint to the use of ICT. In addition, a few teachers said that students' lack of punctuality was a barrier to the use of ICT. (see pages 136, 140)

Most teachers were not satisfied with the short module system - six weeks - which put them under a lot of pressure to follow a rigidly paced pattern of teaching. This left little time for teaching using ICT. Time became even more of a pressure if students' attitudes were negative and if a lack of punctuality was a problem, as cited by a few teachers. Similarly, Lim and Khine (2006), in study of teachers at junior colleges in Singapore, found that teacher had difficulty finishing their lesson with ICT when following a strict teaching timetable. In Saudi Arabia, Al-Oteawi (2002) found that time pressure and all the obligations that teachers need to fulfil at school and home make it difficult for them to find more time to use ICT for lesson preparation.

A lack of encouragement from coordinators was seen in this study to act against the integration of ICT into teaching. In the literature, coordinators have been found to have an important role. For example, in a study of coordinators in primary schools in Flanders, Devolder et al. (2010: 1654) argued that that the role of coordinators may be classified into a hierarchy of importance as follows: firstly, planning and monitoring the integration of ICT; secondly, administering the budget for integrating ICT into the classroom; thirdly educating and training teachers in using

ICT in the classroom; and finally technical management and maintaining equipment as well as the willingness to be accessible for enquiries about technical problems.

The inflexibility of the curriculum is a tangible barrier to ICT use in schools (John, 2005) and in higher education (Birch and Burnett, 2009). Weston (2005) found that the inflexibility of course content and failure to reinvigorate both content and delivery was an obstacle on new technology.

However, most of the discussions with teachers were about ICT in teaching. There were only a very few examples in which ICT was used to promote more independent learners, for example encouragement to access online resources. In contrast, whilst the literature presents several ways in which ICT can be seen as supporting a change in pedagogy, these were not taken up.

7.6 Summary

The main research objective of the study was to examine how and why EFL teachers use or do not use ICT at a University in Saudi Arabia. It was found that they did use it. Most used ICT for data projection, with one teacher using it for lesson preparation and routine administrative tasks. However, some teachers were extended users of ICT and used it for additional communication, providing resources, creating their own resources and developing the expected use of ICT. A number of reasons why teachers use ICT were determined. Access and support were available, training was provided, the curriculum supported certain types of activities, there was an expectation that ICT would be used and a belief that ICT would have a positive impact on student learning and improve teachers' jobs. For example, data projection was widely used by teachers when it was available; there was an expectation that it would be used, and a belief that data projection was useful. It also supported the traditional role of the curriculum and was not disruptive.

Reasons why ICT was not used included a lack of access to computers and the Internet in some cases, unsuitable training, insufficient time, a lack of support, an inflexible curriculum and an absence of a belief on the part of teachers that ICT was important for teaching and learning.

The most noticeable finding of this study is the belief of extended users in the impact of ICT; they were proactive, cared about their relationships with students and found the time to use ICT. This gave them greater confidence and competence to use ICT, which made its use worth the effort for them.

Finally, younger female teachers tended to use ICT more did males and older teachers. This was probably due to the fact that female teachers tended to be younger, had a slightly different view of pedagogy and had a better relationship with their students. However, it is important to not overgeneralise as male teachers and older teachers were also able to use ICT.

7.7 Theories and Models of ICT Uptake in Teaching and Learning

Much of the work in the field of take up of ICT is dominated by a 'factors approach' as discussed earlier (e.g. page 29). For example, Becker (1994), Ertmer et al. (1999) and Ertmer et al. (2010) have drawn attention to associations between variables, such as ways in which teaching styles and beliefs about learning characterise teachers who use ICT (or exemplary users), and the conditions in the teaching environment that contribute to the development of exemplary teachers, such as cooperation between teachers, training, institutional support for using computers and smaller class sizes (Becker, 1994). Other studies, such as Afshari et al. (2009), Al-Senaidi et al. (2009), Al-Wehaibi et al. (2008), Beggs (2000), Bingimlas (2009), Ertmer et al. (2009; 1999), Hamzah. et al. (2009), Larner and Timberlake (1995), K. Lee (1997), (Mumtaz, 2000), Pelgrum (2001) and Schifter (2000), have described the factors that appear to enable teachers to use ICT or prevent them from doing so. These include access to computers and the Internet; technical support, time, curriculum fit, effective training, teachers' confidence and competence,

attitude; age and gender. Whilst these studies are clearly useful, they are not ‘theoretical’ in the sense of providing a transferable conceptual framework that makes connections with a wider world of social science. The fact that studies have generated a great deal of empirical evidence but not a theoretical framework for the take-up of technology acts as a limitation on their use. This study looks at examples of theoretical models that have been applied. Theories come in different shapes and serve different purposes. Widely used theories in respect to the take up of ICT are discussed below. A common function of nearly all theories is to draw attention to the important elements within the context of the study. One way, which is suggested here, is that a theory provides a perspective on learning or behaviour, drawing attention to what is important. Rather than specifying the actual situation, or the whole situation, it provides a perspective on what is worth looking at and makes it easier to compare situations using the same concept. With regard to the take-up of ICT, a theory aims to capture something of significance in terms of participants, their values, culture, and perhaps the environment. Theories help understand the elements of a study and their relation to each other.

In looking at this wider framework, some obvious points of reference should be noted: For the diffusion model, the following studies are relevant: Al-Gahtani (2003), Jwaifell and Gasaymeh (2013), Rogers (2003), The TAM (Technology Acceptance Model), is described by Davis (1989), Davis et al. (1989), Leng et al. (2011), Mathieson (1991) and Venkatesh et al. (2003). Activity Theory is described by Blin and Munro (2007), Barab et al. (2004) and Beauchamp (2009). Community of Practice is described by Lim and Khine (2006), Kim (2010) and O’Donnell and Tobbell (2007). More recently, the Three Zones Theory has been put forward by Blanton et al. (2005), Goos (2005), Harland (2003), Kinginger (2002), Valsiner (1984) and Turuk (2008).

7.7.1 Diffusion of Innovations

A recurring point of reference to explain the adoption of ICT is Rogers’s theory of the diffusion of innovations. Rogers (2003: 5) defines diffusion as the process in which a new innovation is

extended across certain channels over time among members of a social system. Rogers (2003) argues that the success or failure of the diffusion of innovation depends on four elements: the innovation itself, communication channels, time (namely time to understand the innovation, for innovation decisions) and the wider social system. For Rogers (2003), innovations are perceived by users as having advantages over previous ways of doing things and as compatible with values of people in the social context, are triable, observable and of lower complexity, which means they will be adopted faster than any other innovation. This work was originally carried out in business settings. In a survey of technology adoption in workplace in Saudi Arabia, Al-Gahtani (2003) argued that these five attributes of Rogers's theory (perceived advantages of technology, being triable, observable, compatible with teachers' teaching and learning beliefs, lower complexity) can be used to understand the readiness technology adoption. The model can help understand the shortfall in adoption and points of rejection. Innovators can use the model to better plan for increased acceptance (Al-Gahtani, 2003). The model has been widely used in education. For example, in a case study by Jwaifell and Gasaymeh (2013), the diffusion of innovation theory provided a way of examining the level of adoption of IWBs by English teachers in Jordanian schools. The English teachers claimed that the IWB helped them gain students' attention and enabled them to present teaching materials in different ways that had advantages over other ways of working. Teachers also felt that the IWB was compatible with their needs and beliefs and was easy to use. The IWB was testable, with teachers free to use it as many times as they wanted. Its use was examinable and its usefulness could be observed. In contrast, Hakeem (2007) used the diffusion of innovation model in a study examining the adoption of ICT in ESL classrooms. Hakeem (2007) found that resistance to ICT adoption was rooted in teachers' belief that ICT did not provide clear advantages for students' learning.

The diffusion of innovations model is a fairly close fit with this study in that it highlights that technology must have value of use. In the case of teachers, technology must have advantages in

the teaching and learning environment, which was the case in this study. Those that used technology drew attention to its perceived value in producing better teaching materials, efficiency savings in the classroom, support and enforcement of learning and motivation of students. In contrast, those that resisted the use of technology could not see the advantages. However, it is worth stressing that these were *perceptions* of value. Rogers's theory seems to imply that there are more or less objective criteria against which the use of technology can be tested. However, for teachers in this study the process was a more subjective one, with any calculation of impact closely linked to wider beliefs about what was important in teaching and learning. In fact, Hakeem (2007) also found that judgments about the value of ICT were to some extent based on beliefs about teaching in that teachers felt that the use of technology was not compatible with teacher-centred classroom teaching.

A different but further problem with applying the model is it makes adoption appear more as an individual choice. In this study, the context is important as teachers do not have personal control in decision-making, but are rather subject to heavy constraints.

7.7.2 TAM (Technology Acceptance Model)

TAM (Technology Acceptance Model) is one of the most widely used frameworks to understand the uptake of IT (ICT). It was originally introduced by Davis (1989) to explain computer uptake in general contexts, again often business-related. For Davis (1989), perceived usefulness and perceived ease of use were postulated to be the most important factors determining users' acceptance. Davis (1989) developed scales to measure these variables and presented two studies involving a total of 152 users and four application programmes in Canada. It was suggested that usefulness had a greater significance than did ease of use. TAM grew out of an understanding of the Theory of Reasoned Action (TRA). TRA is a more general idea to explain all human behaviour. It suggests that behaviour could be determined by a person's prior intentions and their beliefs about that behaviour (Davis et al., 1989). In the context of technology, TAM

suggests that the way in which users perceive the usefulness (U) of technology, and their perception of ease of use (EOU), are the two main factors behind users' attitudes (A). This in turn has an impact on computer acceptance behaviour intention (BI).

TAM has undergone a number of refinements over time, although the basic idea remains that U and EOU influence A and BI (Davis et al., 1989). The implications of such a model are varied, but one suggestion is that to gain acceptance of technology, use should be made as straightforward as possible. For example, EOU can be addressed by providing users with reliable equipment, getting help from colleagues, being able to exert control over the class and lesson material and providing proper training (Cox et al. 1999). Another implication is that innovators need to work on explaining the perceived usefulness of ICT. For example, potential users should be shown how ICT can be useful in teaching and personal use by making lessons enjoyable, more motivating and more varied (Cox et al. 1999).

Davis et al. (1989) examined the relationship between EOU, U, A and BI in the context of the use of WriteOne software. Computer use by business school students at the University of Michigan was investigated. It was found that TAM can be used to predict users' behaviour. It was concluded that intentions can be determined from the perceived usefulness of computers and from the perceived ease of use.

As with the diffusion model, TAM has an obvious value in understanding the data on adoption obtained in this study as it again highlights the importance of beliefs. However, it does this by offering at least some sense of context in the notion of ease of use. Ease of use was a factor in the uptake of ICT in this study (for example see the section on access and support). However, EOU is a more complex term than would first appear. For example, in this study EOU was a subjective concept – extended users saw the environment as supporting use while non-users stressed the difficulties of finding support or even access. This makes TAM less relevant to this study. Again, TAM does not stress the wider institutional context or the fact that some users felt

that the ELL management was not supportive enough for the use of technology. TAM is perhaps too a deterministic model and suggests that if U and EOU are established a behavioural intention will follow. However, U and EOU are subjective constructions in the minds of teachers and the relationship of one to the other is more complicated.

7.7.3 Activity Theory

Activity Theory is an umbrella term to describe research and social science theories aimed at understanding human activity. Unlike TAM, it is a ‘big theory’, and is not restricted to technology. However, it was, at least for a time, a popular frame of reference for the understanding of the uptake and use of ICT (Barab et al., 2009; Barab et al. 2004, Beauchamp et al., 2009; Blin and Munro 2008; Demiraslan and Usluel, 2008). Activity theory has roots in Vygotsky’s theory of social constructivism. It was developed by Engestrom (1987) [cited in Barab et al. (2004) and Demiraslan and Usluel (2008)] to provide a framework for describing the activity of individuals as an entire social system. Activity Theory is concerned with understanding actions in the activity system that includes elements, the subject (participant) that performs an object (target activity), tools which help to achieve the outcome (external or internal), the community (people who share the same objective), rules (regulations), division of labour (responsibilities, cooperation among people in the system) (Demiraslan and Usluel, 2008).

Demiraslan and Usluel (2008) applied the Activity Theory to the examination of the ICT integration process in classroom teaching in two Turkish schools. It was concluded that a model of Activity Theory could be used to describe the changes in the school community that took place through ICT use in teaching. This was apparent in cooperation between teachers, school support and the changing roles of teachers and students along with access problems and a rigid timetable. Demiraslan and Usluel (2008) argue that activity theory helped understand the culture and context of the learning environment and the contradictions that occurred in ICT integration within this context. It was suggested that the integration of ICT as a tool of teaching and

learning led to changes in the traditional behaviour of teachers and students. This in turn led to change in and between systems (subject, object, tools, rules, community, division of labour and outcomes). Demiraslan and Usluel (2008) concluded that activity theory helped form a framework for the clarification of the associate arrangements of ICT integration and its connection to learning and the entire social setting. It helped understand the changes encountered by using ICT in the learning and teaching environment. However, it did not help provide a means of achieving effective use of ICT.

Key to Activity Theory is an awareness of tensions and contradictions within human activity. For example, the Activity Theory system is represented by a triangle which draws attention to the parts of the system and its relationship to the system as a whole. Barab et al. (2004) noted that each element of the activity system is not independent, but rather has a sub-function within the system. It is suggested that understanding the tensions that occur as a result of the emergence of a new activity can help anticipate the challenges to the disruption or transformation of the new activity.

Activity Theory highlights the tension between social and individual aspects of learning. Learning is viewed as a process of interaction between the intra-personal (learners) and the inter-personal (social) (Blin, 2005). Blin (2005) applied activity theory addressing the tension between the individual and the social world in which he or she participates. It is also suggested that learner autonomy cannot be achieved by working alone in isolation from the social surroundings. If learning is to take place, a learner should interact with other learners who have already developed learning. It should therefore be noted that learner autonomy is a form of interdependence. In practice, the parts of a system are often in conflict. Blin and Munro (2008) argued that the system is not disrupted, as parts of it are in tension with the goal of a wide-scale shift in pedagogic practice.

Activity theory is important in understanding the nature of teaching and learning, in particular highlighting the obstacles and resistance to technology adoption at a system rather than individual level. The authors stated that, ‘When introduction of a new tool, such as a VLE (Virtual Learning Environment), results in serious alterations of the internal structure of teaching activity system, we can infer that this disruption is expansive’ (p: 477). On the contrary, if the new technology is not welcomed and faced with rejection, this means that the activity has not been ‘disrupted’; instead, ‘disturbed’ or interrupted teaching practices remain unchanged.

The case study by Blin and Munro (2008) has a strong overlap with the present study. In this study, there were a number of barriers to ICT use that can be traced back to elements of an activity system. These included lack of access to the Internet (tools), inflexibility of the curriculum, a lack of training to meet teachers’ needs (division of labour), the pressure of preparing students for examinations (rules) and the community (teachers, students, coordinators, and the administration).

However in Blin’s more recent work a greater emphasis to agency is given within the Activity Theory approach (e.g. Blin, et al. 2013 a; Blin et al. , 2013 b; Blin and Appel, 2011). For example Blin and Appel (2011) looked at the use of computers for supporting collaborative writing. The study set out to explore and examine the development of collaborative writing practices among foreign language distance learning students, studying English at the Open University of Catalonia. Students did not meet their teachers or other students directly face-to-face, rather it was within the virtual classroom that all communications, assignments and learning activities were carried out. The students were also expected to work together in a group of four students, and within a 13 weeks period to improve their English language skills, collaborative work, and ICT skills. They describe the agency of the students but see learners’ goal oriented actions’ as mediated by teachers and artefacts engineered by the design and teaching team. Blin and Appel (2011) suggest that the structure gives students opportunities for cooperation and

communications thus enabling them to reflect on their language. The role of the teacher is that of a facilitator and co-ordinator. Activity Theory captures learners self direction in a context of collaboration and support.

However, this does not present the whole picture. One concern with the framework is the focus on the system as a whole. In this study, the different reactions to innovation were reflected for example in the types of users: extended users, restricted users or non-users. In this study, the objective of some teachers, in particular extended users of ICT, was to acquire a high level of ICT use in their teaching regardless of the challenges and obstacles they faced in the teaching environment. Extended users of ICT believed in the benefit of integrating ICT into teaching and learning practices and therefore were strongly motivated to initiate the use of ICT by and for themselves. For example, they would bring their own devices to the classroom to overcome the problems of access. They would also take the time out of their busy teaching schedule to plan and prepare ICT resources and to help other colleagues by exchanging resources with them. Even if the activity system is constrained, extended users can use ICT transformationally (or through a kind of expansive learning). While activity theory is useful for considering systems, the present study had a greater focus on individuals and the variation in ICT use.

7.7.4 Community of Practice

Community of practice (COP) again offers a wider view of human activity and did not originate in formal teaching or in the adoption of ICT (Lave and Wenger, 1991; Wenger, 1998). Again, whilst as a theory it has undergone change over the years, in essence it describes the importance of learning as participation and regards learning as social participation. Learning does not happen in one's head, but rather in one's actions and in particular in the interaction and negotiated agreements that take place in social communities. Such participation shapes identities in relation to these communities (Wenger, 1998: 4). Participation begins with a process of Legitimate Peripheral Participation (LPP). This describes the process in which a novice learner or a

newcomer develops the knowledge and skills to reach the level necessary to become a full participant in the social community of practice (Lave and Wenger, 1991: 29).

Community of practice has been widely used to understand the adoption of ICT and managing the barriers of this adoption (for example Thiruselvan, 2013; Lim and Khine, 2006; Clark, 2002). Lim and Khine (2006) used the efforts of four schools in Singapore to overcome the barriers to ICT integration to recommend four strategies to promote the successful integration of ICT. These were geared around developing a community of practice between teachers and between schools to help exchange experiences and ideas. A Community of Practice model is seen as essential to overcoming second-order barriers (for example teachers' reluctance to change their teaching pedagogy, lack of competence or fear of failure when using ICT in the classroom). A community of practice can develop as teachers meet outside of teaching contact times to discuss ICT materials and to exchange ideas and teaching experience.

It is of course accepted that a community of practice among teachers could have led to greater adoption of ICT and would have been very helpful to teachers in this study. There were indeed some tentative moves towards the creation of a community. For example, a minority of teachers did manage to overcome the obstacles of a heavy teaching workload and other obligations in order to meet with others and to exchange teaching materials and ideas. However, the overall picture is of an absence of community of practice and little opportunity for teachers to manage a heavy teaching load. Whilst Community of practice is a useful concept that can be used to explain outcomes by its absence, it stops short of describing the context in which teachers worked.

7.7.5 The Three Zones Theory (ZPD, ZFA, ZPA)

The three zones theory has origins in the work of Valsiner (1984) and arose from an interest in Vygotsky. It was first applied in the context of child development and a concern with

understanding how the environment influences the possible actions that a child can perform in the same environment (Valsiner, 1984). In discussing mealtimes, Valsiner (1984) noted that a zone of free movement (ZFM) can serve to inhibit the child's actions. For example, a mother feeding her child uses a highchair to restrict the child's movement or may further limit the ZFM by holding the child's hand (Valsiner, 1984). The mother can promote acceptable behaviour (a zone of promoted action) in eating by modelling the use of cutlery and assisting with its use. However, any attempt to promote action will not be successful if it lies outside the child's ZPD (zone of proximal development), for example if the child lacks the motor skills or cognition of what is being promoted. The Zone of Proximal Development (ZPD), as taken from Vygotsky (1978), refers to 'the distance between a child's independent problem solving capability and the higher level of performance that can be achieved under adult guidance or in collaboration with more advanced peer' (as cited in Goos, 2005: p. 37). Crossing a ZPD suggests a process of interaction and communication. For example, in the context of L2 learning, Turuk (2008) regards learning as a process of collaboration rather than isolation.

An interesting aspect of the three zones theory is its growing use to explain the uptake or non-uptake of ICT (for example Borthick et al., 2003; Galbraith and Goos, 2003; Goos, 2005). For example, in a study of newly qualified teachers, Goos (2005) sees the three zones as forming a scheme for the organisation of the active relationship between the restrictions and possibilities of the teaching environment, teaching action and the progress of beginner teachers' pedagogy. The ZFM depicts environmental hindrances that might confine freedom of action and the thoughts of pre-service or beginning teachers. The ZFM contains a number of elements, including access to hardware, software and laboratories, access to teaching material, support from colleagues (including technical support), curriculum and assessment requirements and students (perceived abilities and behaviour) (Goos, 2005, p. 40). The ZPA 'represents the efforts of a teacher educator, supervising teachers, or more experienced teaching colleague to promote particular

teaching skills or approaches' (Goos, 2005, p. 38). ZPA factors that might affect technology usage are 'pre-service education, practicum/beginning teaching experience, professional development' (Goos, 2005, p. 40). Goos (2005) also argues that in order for teaching with technology to be developed, ZPA - actions promoted by an expert guide - should overlap or be consistent with ZPD (what can be achieved) and what is in the zone of free movement. This has been examined in several case studies. For example, a school that was not well-equipped with technology and where mathematics teachers had little interest in it appeared as a very limited ZFM. Where a mentor or school supervisor did not use technology or model its use, this again offered a weak ZPA. However, despite these conditions a teacher could have a developed ZPD based on the skills acquired from pre-service training or outside experience.

The zones theory is a fluid framework. It stresses that teachers perceive the environment selectively, perhaps through the lens of pedagogical belief, and can alter the environment. For example, Goos (2005) reported that a teacher was able to design and integrate a technology-based activity with his numeracy class and to reshape his teaching environment (ZFM) to enable him to use technology. However, activity was more likely to be channelled into the use of technology when ZPA and ZFM overlapped.

The findings of this study fit quite well into a zones framework. There is a zone of free movement consisting of access to tools, training, support of others, a curriculum that has to be taught and workloads. This zone can be characterised as heavily constrained with respect to teaching and curriculum demands but as offering opportunities to use technology.

In this study, a weak zone of promoted action can be observed in that teachers were offered encouragement to use ICT, but this did not translate into effective CPD and in-class support (ICT use encouragers and discouragers, pp. 120-132).

In terms of ZPD, teachers' perceptions of ICT integration, their technological knowledge and their personal and pedagogical beliefs that can form the ZPD varied. Some teachers had prior

experience of using ICT which provided them with the stimulus and knowledge to use ICT at ELI. However, many teachers had very little knowledge of ICT in the classroom and were at a very different point within a ZPD.

ELI may be regarded as offering an ambiguous ZFM; with a weak ZPA and a differentiated ZPD, it is therefore of no surprise that for the most part teachers' use of ICT was 'channelled' into infrequent use. This was most obvious in terms of the teachers who had prior experience of ICT and came into ELI with higher expectations of continuing to use it. However, faced with a restricted ZFM and weak ZPA they often followed the restricted practice of colleagues. In contrast, the majority of teachers used data projection to display teaching materials (pictures, scanned pages from textbooks, grammar tables, lesson objectives, vocabulary and exercises) to the whole class. The wide use of data projection may be due to two possible reasons. Firstly, almost all classrooms were equipped with a data projector connected to a computer (the ZFM allowed for materials to be displayed). Secondly, teachers are trained to use data projection to create materials for teaching (ZPA) in an organised way. The expectation among both colleagues and leaders was that the projector would be used; their use was inspected by coordinators. Where data projection was not available, the limitations within the ZFM overrode a ZPA. It may therefore be inferred that the use of data projection did not fall outside the teachers' ZPD. Most understood how to use the technology (the technical component of training) and all could see the value of using it for everyday classroom teaching (the pedagogical component).

The zone framework exists to explain activity but should not be treated in a deterministic fashion. Tensions exist within elements of the framework and teachers have the opportunity to make choices and to use technology for new purposes. In particular, extended teachers were able to exploit their ZFM, for example by creating blogs or online groups and preparing a greater repertoire of resources. They also extended their ZFM by communicating with students by email

or chat messages. Students were allowed to use mobile phones for learning purposes; they brought their own equipment with them.

7.8 Summary

This section has examined ways of understanding the adoption of ICT through widely used theoretical frameworks. The strengths and weaknesses of each framework are summarised in Table 7.1 below:

Table 7-1: Value and shortcomings of theories

Theory	Value	Shortcomings
Three Zones	<ul style="list-style-type: none"> • Flexible loose framework • Allows for the agency of teachers and the wide differentiation in agencies • Proposes that learning is a social process does not happen in isolation. • Understands the relationships between barriers and enablers in the teaching context, which could shape teachers' pedagogy. • Highlights the differences in use of technology. 	<ul style="list-style-type: none"> • Requires a longer timeframe and greater amount of data to enable the theory of zones to be tested different situations and to introduce a different structure for the components that comprise each zone. • It does not predict the outcomes in a context.
Diffusion of innovation	<ul style="list-style-type: none"> • Offers five attributes for the systematic study of technology adoption. • Understands readiness and rejections of technology adoption. 	<ul style="list-style-type: none"> • It pays attention to individual choice. • It does not consider the context.
Activity theory	<ul style="list-style-type: none"> • Analytical tool for modifying the design of an activity in social science. • Helps decision makers or designers to clarify the challenges that hinder activity introduction. • Helps understand the activity system in the light of Engestrom's elements and their functions and interactions 	<ul style="list-style-type: none"> • Emphasis on the element of human motivation and consciousness. • A context full of constraints can decrease the motivation of the subjects within the system. • Focuses on the system as a whole and does not stress individuals' different reactions.

	within the activity system.	
TAM	<ul style="list-style-type: none"> • Explains computer uptake in different contexts. • Helps authority and computer integration planners to explain the usefulness of computer to develop the behavioural intentions of users. 	<ul style="list-style-type: none"> • It does not account for the context of teaching. • Users' use of computers is determined from their perceived usefulness of computers and from perceived ease of use. • U and EOU are determined by users A and IB.
COP	<ul style="list-style-type: none"> • Manages barriers to ICT adoption. • Helps exchange experiences and ideas within the community. • Explains outcomes of adoption under developed communities of practice. 	<ul style="list-style-type: none"> • It is not considered as a regular activity due to context and timetable. • Does not describe the context in which teachers work.

Arguably, there is no right or wrong framework; rather, each draws attention to different elements within the data.

The conclusion of this study is that in understanding why people perform actions such as adopting ICT, both the context in which teachers work and their own beliefs and exercise of personal agency need to be considered. TAM and diffusion lean towards seeing decisions in terms of what is in one's head (traits of personality) rather than the context in which people behave. It is assumed that what people believe to an acceptable degree is fairly measurable and fixed. In contrast, COP tends to see actions as social; we are what we do with others. AT also views the activity system as a whole rather than looking at the individuals within it. The zones framework helps examine patterns of behaviour as well as differences in behaviour and is particularly appropriate for this study. The zones framework is as particularly useful as it assists with understanding the active relationship between inhibitors and enablers of ICT in the teaching environment, teaching activities and differences in teachers' pedagogy in using ICT. However, it is not without problems. Use of the theory is at an early stage, and this study invites further exploration of a difficult concept.

CHAPTER EIGHT: CONCLUSION

8.1 Introduction

This chapter concludes the thesis. It begins by providing a summary of the work, the main findings, its purpose and the methods applied to address the research questions. This is followed by a discussion of how this study has contributed to wider research in term of knowledge and integration of ICT in language teaching and learning. Strengths and limitations are highlighted, followed by a section of recommendations for teachers, leaders, policy makers and future researchers in the area of ICT use in language teaching. An overall conclusion is given.

8.2 Summary of the Thesis and Main Findings

The study explored English as a Foreign Language (EFL) teachers' reported use of Information Communication Technology (ICT) in their teaching at a single university in Jeddah, Saudi Arabia. Examining the differences between male and female teachers' perceptions of ICT use in teaching was one of purposes of this study; the other was to understand what constrains and encourages EFL teachers to use ICT. The study began with a literature review of topics relevant to the area of ICT integration in teaching and learning. This was a review of language enablers supporting the use of ICT in teaching; teachers' perceptions of ICT; barriers to ICT use in teaching (first and second orders barriers). A mixed methodology was utilised to answer the research questions of the study, which were: how and why do EFL teachers use/not use ICT at the target university in Saudi Arabia? It also endeavoured to answer the following four sub questions:

RQ1. What is EFL teachers reported use of ICT when teaching at the target university in Saudi Arabia?

RQ2. What do EFL teachers perceive as the benefits of using ICT for learning and teaching?

RQ3. What do EFL teachers perceive as enabling them to use ICT?

RQ4. What do EFL teachers perceive as barriers to using ICT in teaching?

The methods (described in chapter three) were adopted to answer the research questions. These included a survey questionnaire for the teachers to provide a broad picture of their use of ICT and interviews to obtain in depth data on teachers' ICT use. A few lesson observations with female teachers were also carried out. A mixed-methods approach was chosen to provide greater trustworthiness as it allowed comparison and contrast between different sets of data. The methods for the study were piloted and the findings of the pilot study were given in chapter three.

The findings of the study, which were reported in chapters four and five, addressed all the research questions. In addressing the first research question, it was found, from all data sets, that the use of ICT was limited. However, teachers' use of data projection to present teaching materials was widespread and the survey data showed that teachers used the CD ROM that accompanied the textbooks in their projection of learning materials to students.

In respect to preparing teaching materials, it was found teachers prepared materials at home and that female teachers used ICT more than their male counterparts did. The survey data showed that teachers used the On Demands University System (ODUS) for administrative purposes and the mail function for posting students' grades. All sets of data suggested communication with students was carried out more by female teachers, and the use of ICT was limited among male teachers. Communication was mainly achieved by emailing students course information and weekly plans. Some female teachers communicated with their students using their mobile phones. Both females and males rarely sent students' work with feedback via email. The findings enabled the construction of different kinds of users according to the level of use of ICT. There were non-users of ICT who felt that they were surrounded with obstacles, such as insufficient time and unreliable equipment, which they could not overcome.

However, the majority of teachers were divided into two kinds; extended users of ICT and restricted users of ICT. Extended users saw opportunities to use ICT in situations that other teachers did not and developed resilience when overcoming difficulties. They initiate use even when access is not readily available; i.e. they seek to extend use by bringing their own devices into the classroom. Restricted ICT users were the majority among the study participants. Their use was seen as routine, for example the use of projection devices and the recording of grades using ODUS. They would use ICT when expected, but tended not to seek out resources, or get round access and other difficulties.

There were some 'demographic factors' which seemed to play a role in ICT use: age, gender, qualifications, and years of teaching. Female teachers showed more initiative to use ICT and were willing to use their own devices in the classroom more often than male teachers did. Extended users were female. They also tended to be younger and here an interesting side issue was that female teachers happened to be younger than male teachers on average. The upper quarter of users tended to be MA degree holders. While the top users were newish teachers (1-6 years experience). Age and qualifications were important considerations when taking up ICT but were not determining factors; at a personal level beliefs and willingness to adopt ICT seemed key. These may be overlapping considerations. For example, younger females who held MA degrees may have had their belief in the value of ICT strengthened by greater exposure to modelling of ICT in teaching.

When addressing the second research question, it was found that most teachers perceived the use of ICT to be very beneficial for teaching, for the classroom environment and for students learning and motivation. Teachers believed, also, that ICT helped them to prepare better teaching materials, as it enabled efficiency when presenting materials, fostered variety in teaching and learning strategies, and saved time in the classroom, as teachers were able to prepare their materials in advance. In the classroom environment, most teachers felt that ICT made classroom

time more enjoyable and facilitated interactivity. Regarding the benefits of ICT for students' learning, the survey data showed that both male and female teachers agreed that students learnt more when using ICT, were more engaged, and that ICT helped students to become learners that are more independent. About half of the teachers interviewed believed that ICT was effective and helped to reinforce learning.

The third and fourth questions referred to what EFL teachers perceived as enablers and barriers to the use of ICT. The elements that enabled the use of ICT were seen as a mirror image of the barriers (this was predictable from the earlier literature review) so that what were perceived by some teachers as barriers were perceived by other teachers as enablers. For example, access was seen by 'non users' as unreliable and limited their use of ICT in their teaching, whereas extended users saw that access to data projects were available in most classrooms and this provided opportunities for actions which non users had not seen. In the same way, many saw the curriculum as inflexible and a barrier to the use of ICT, whereas others saw an opportunity to use, for example, the CDROM to support classroom teaching of the established curriculum.

Enablers and barriers were found in: access, ELI management, teachers' personal factors and teaching environment. The most cited barrier was access, which manifest in the unavailability of computers and data projectors in some classrooms, the unreliability of computers and Internet access, and problems related to technical support. Lack of relevant training was also considered a barrier. Lack of confidence about using ICT, lack of belief in the value of ICT and unwillingness to make the time to use ICT were additional reasons why some teachers did not use ICT or restricted its use. The wider environment was not conducive to ICT use: many found the curriculum inflexible and teachers had little flexibility to act autonomously, as there was too much curriculum to be covered in too short a time. Course coordinators were not seen as encouraging of following through on the use of ICT. The clearest enablers for ICT use were a belief in its efficacy, a proactive stance on professional development, and resilience in

overcoming barriers to the use of ICT. At the wider level, routine users felt enabled to use ICT when given positive messages about technology and offered training, even if at times training was also cited as a constraint; i.e. it was limited and sometimes irrelevant to teachers' personal needs.

Thus, the overall research question of the study is 'how and why do EFL teachers use/ not use ICT at a university in Saudi Arabia?'. Key to understanding the take up of ICT is teachers' perceptions of their environment. Perceptions cover their sense of self-efficacy in the use of ICT, their attitudes towards technology, their beliefs, their awareness of opportunities and constraints. Compared to the very precise use of perception in the field of psychology or neuroscience, perception is used in a much more general sense. This is characteristic of discussion of the take up of ICT. For example, Hutchison and Reinking (2011) look at teachers' *perceptions* of ICT cover: teachers' understanding of obstacles, their beliefs about teaching and technology, orientation to pedagogical development and so on. A similar approach was taken here. Perceptions can be reinforcing – for example if a teacher sees the technology as difficult to use, they will focus on the difficulties and end up not using it. In contrast a teacher with a positive perception of ICT will, as seen, overcome barriers and will filter out these barriers and interpret the environment as an enabling one. What is considered an obstacle for one teacher can be seen as an enabler for other. For example, an inflexible curriculum was seen as an obstacle to ICT integration by most teachers, whereas a few teachers perceived the inflexible curriculum as challenge and were spurred on to overcome inflexibility by creating blogs, online groups and using email. This suggests that perceptions are fixed and to some degree they seem difficult to shift. However perceptions can and do change for example if perceptions were always fixed there would have been no use of ICT in the first place.

8.3 How the thesis was organised

This thesis was composed of eight chapters. Chapter one introduced the thesis, providing an overview of the purposes of the study and where it was carried out. It described the higher educational system in Saudi Arabia and the place of teaching English in the Kingdom. It briefly introduced ICT into education.

Chapter two gave an overview of the literature on the reported value of ICT in teaching and in language teaching in particular. Language teaching approaches and language learning strategies were briefly covered, but the main discussion was focused on a review of the obstacles and opportunities affecting ICT uptake.

Chapter three addressed questions of methodology and method. This was a mixed-method framework that included both quantitative and qualitative methods. The strengths and weaknesses of each method were discussed. This chapter also provided an overview of the context of the study and discussed a pilot study. Some of the study limitations were given.

In chapter four, findings from quantitative data collection were given. It was found that use was limited in general, but that use of ICT at home was widespread. The most frequent use was data projection and the CDROM accompanying the course book. Teachers use ODUS for administrative purposes. Gender was found to be a significant factor, as female teachers showed more willingness to use ICT than male teachers. Male and female teachers agreed that ICT helped make students becoming more independent. Differentiation in the use of ICT was shown and described.

In chapter four, data analysis and findings from the interviews were presented. It was found that ICT use in general was limited. However, half the teachers interviewed believed that ICT was effective for teaching and learning. Interviews allowed pinpointing of enablers and barriers to

ICT use; this was preceded by a more general discussion of the teachers and attitudes towards teaching.

Chapter six includes the data analysis and findings from the lesson observations. Findings from the lessons observations confirmed the issues raised in interviews and the level of use in four of the lessons.

Chapter seven offered an integration of the findings and a comparison of the literature as presented earlier. Data were largely consistent and the use of ICT was again discussed in relation to classroom use, preparation of teaching materials and home use, administration and for communication with students encouraging ICT use beyond the classroom. The depiction of restricted use was not unusual when compared to the literature and enablers and constraints were well ones that had been well covered in the literature. The second part of this chapter returned to the more theoretical models raised at the end of the literature review and the Zones framework was seen as the most suitable model for this study. The context was described as offering ambiguous zones of free movement and a weak zone of promoted action.

This chapter (eight) has concluded the study. It has provided a summary of the research findings and explained how the thesis was organised. It will now draw attention to the strengths and limitations of the study, before offering some recommendations for the use of ICT across the university studied and the wider context of other Saudi universities. It will also suggest areas for future research and discuss the personal significance of the work.

8.4 Strengths of the Study

The research has contributed to an under researched area of ICT: that is the use of ICT in EFL teaching in the Arab world, in this case Saudi Arabia. It was found that the concepts developed in more generalised literature were useful for providing an understanding of the Saudi context. There were also some interesting issues associated with the local situation. The study also threw

light on the perennial problem of ICT uptake, revealing once again that unreliable access, limited time and irrelevant training can limit ICT use, while teachers' beliefs and willingness to use ICT in teaching will enable use. The study also made a concerted attempt to explain what extended use of ICT would look like and how extended users were able to overcome some of the limitations in their environment. An attempt was made to consider the constraints and barriers faced in theoretical terms and the discussion drew attention to the value of a zones approach as one lens through which to view the use of ICT. While this was a tentative contribution, it was an important one, as little attempt has been made to date to go beyond the listing of barriers and constraints when considering teacher's uptake of ICT.

Thus, the study has added to literature on EFL teachers and their perceptions about ICT integration in the classroom, or the factors enabling and hindering their use. This could enrich research investigating reasons to limit or encourage successful integration of ICT. This could then have a practical value for those planning ICT implementation in education. It also adds to research investigating gender differences amongst academic staff in Saudi Arabia and sheds light on females and the importance they place on the relational aspect of teaching, as well as on their changing relationship to technology.

As a study it has several strengths:

- It collected detailed sets of data: the survey had a respectable uptake and interviews were representative;
- It explored demographic factors in depth throughout the thesis;
- It drew on insider knowledge of the country and the context and showed an awareness of what is culturally sensitive;
- It drew on observational data even if that data was limited;
- It employed triangulation between datasets, which increased validity and trustworthiness;

- It drew on a wide range of literature, for example going beyond that pertaining to MFL teaching;
- It followed systematic approaches to data analysis, which included the use of SPSS for quantitative data and thematic analysis for qualitative data;
- It raised a discussion as to the role of theory going beyond that normally covered in the literature.
- The research related to the practitioner as well as the academic audience at whom it was aimed.

8.5 Limitations of the Study

Despite the study's strengths, some limitations were present. The study was limited to EFL teachers' use and beliefs of ICT in teaching process, and did not directly address the value of ICT, rather only perceptions of its value. Male EFL teachers were interviewed on the phone, so this limited the interactivity of the interviews. Data collection was carried out in Saudi Arabia over a period of three months. Therefore, time was a constraint. With a longer time, I would have had the opportunity to observe more lessons, which would have enriched the study and provided insight into teachers' use of ICT in the classroom. The study could also have introduced a longitudinal element given more time.

8.6 Recommendations for Practice

First, there is an overarching question as to the value of ICT. This thesis has presented a wide range of literature to suggest that ICT can have an impact, and that teachers who use ICT are positive about its contribution to teaching and learning. Thus, we cannot say that ICT should be adopted, but we have solid grounds for suggesting that its use should be considered beneficial as a learning tool.

Thus, it is recommend that the ELI as an institute might:

- Provide workshops to demonstrate the use of ICT and its possible contribution to learning. Ask teachers to attend these and if they do not use ICT then at least they should learn to make informed decisions about ICT use.
- Consider how ICT can best support transition from CPD events into classroom practice, for example by supporting teacher collaboration.
- Offer continuous and systematic support to help teachers use ICT.
- Provide reliable technical support from well trained technicians located in all teaching buildings.
- Invite experienced speakers to train teachers and give workshops on the latest techniques used in language classrooms with technology.
- Provide pre-service training for academics to develop a wider use of ICT.
- Offer greater freedom and autonomy to teachers to manage their classrooms and support more extensive ICT use.
- Assign ICT coordinators to assist teachers' use of ICT and discuss ICT resources that relate to teaching topics.
- Rearrange the plans for modules and timetables, to overcome the problem of curriculum inflexibility and time limitation.
- Introduce smart boards and ask extended users to give feedback on IWB use.
- Provide personalised training, in particular some training geared towards teachers who lack confidence in using ICT.
- Support collaboration between staff, to produce ICT resources to share with other teachers.
- Teachers should also develop their skills knowledge to overcome obstacles that occur during their use of ICT.

Teachers, however also have a responsibility to develop their ICT use and might consider:

- Using mobile learning with their students including the use of smart phones.
- Searching for more ICT resources online and sharing these with students.
- Providing their students with more authentic materials such as magazines articles, recipes, movies, educational websites.
- Developing time management skills to cope with ICT preparation of materials and the curriculum and examination load.
- Overcoming the problem of access to ICT by using freely available resources such as Blogs and encouraging students to use their own mobile devices.

Students should take advantage of access to smart phones and try to contact their teachers via email in English and their friends.

- Proactively searching out relevant resources.
- Helping teachers to overcome technical problems during teaching.

8.7 Personal Significance

This has been a learning journey for me, which was carried out in a foreign country, alone and far away from my family. This experience gave me strength and confidence in two senses. First, it has strengthened my confidence as a Saudi woman from a culture that has its own restrictions. It has given me confidence to know that I can negotiate a different culture and be welcomed and respected in the area surrounding the university and where I lived. Secondly, I gained confidence in my skills as a learner and researcher. I was able to present all that I have learnt about the field of ICT from reading and from my supervisor who made every effort to support me and direct me. It has been a privilege to study here. In relation to my research, this experience has given me a different view regarding the use of ICT. I have discovered more ICT was being used that I had

anticipated and I came to understand the reasons why some teachers are reluctant to adopt ICT. Finally yet importantly, living in UK has been a privilege for me and has always brought me pleasure time. I was married in Edinburgh and had my daughter there, and also pursued my MA degree in New Castle. The UK has become my second home.

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APPENDICES

Appendix A: Questionnaire

I am a colleague at the ELI, and at present, I am conducting doctoral research. My research area is ICT (Information and Communication Technology) and I am asking if you could help me with my research by completing the attached survey. I believe that my research may help the ELI to develop a strategy for using ICT. The questionnaire asks about your teaching background and your use/non-use of ICT. The questions are all multiple choice.

Please be assured that all your responses will be kept strictly confidential and used for research purposes only. Your participation is voluntary and you can withdraw from participation at any time without penalty or loss of benefits.

I would like to thank you in advance for completing this questionnaire.

Sincerely,

Nada H. Gamlo

Research Title: How and why do EFL teachers use/not use ICT (Information and Communication Technology) in an ELI at a University in Saudi Arabia?

Please circle the appropriate answer for the following questions.

About You

1. What is your gender?	Female <input type="radio"/>		Male <input type="radio"/>		
2. How old are you?	22-29 <input type="radio"/>	30-39 <input type="radio"/>	40-49 <input type="radio"/>	50-59 <input type="radio"/>	Above <input type="radio"/>

3. What is the highest degree you possess?	Bachelors <input type="radio"/>		Master <input type="radio"/>		PhD <input type="radio"/>
4. How many years have you been teaching English?	1-3 <input type="radio"/>	4-6 <input type="radio"/>	7-10 <input type="radio"/>	11-14 <input type="radio"/>	15 Or More <input type="radio"/>
5. Do you have a personal computer?	Yes <input type="radio"/>			No <input type="radio"/>	
6. Do you have access to the Internet at home?	Yes <input type="radio"/>			No <input type="radio"/>	
7. Do you use a computer at home?	Yes <input type="radio"/>			No <input type="radio"/>	
8. Do you use computers at home to prepare for teaching?	Yes <input type="radio"/>			No <input type="radio"/>	
9. Have you ever attended any training courses on using ICT for teaching?	Yes <input type="radio"/>			No <input type="radio"/>	
10. Have you ever attended any workshops on using ICT for teaching?	Yes <input type="radio"/>			No <input type="radio"/>	

Access to computer/Internet

11. I have a computer in my office	Yes <input type="radio"/>	No <input type="radio"/>
12. In my teaching room I usually have no computers	Yes <input type="radio"/>	No <input type="radio"/>
13. In my teaching room I usually have a single computer attached to the OHP.	Yes <input type="radio"/>	No <input type="radio"/>
14. In my teaching room I usually have a set of computers	Yes <input type="radio"/>	No <input type="radio"/>
15. I have access to the Internet in my office	Yes <input type="radio"/>	No <input type="radio"/>
16. I have access to computer support when I need it	Yes <input type="radio"/>	No <input type="radio"/>
17. I have access to the Internet in my teaching room	Yes <input type="radio"/>	No <input type="radio"/>

Attitude

	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree/Nor disagree	Agree	Strongly Agree
18. I do not have enough time to learn to use ICT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. There are too many	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

things to do in class to use ICT					
20. I am expected to use ICT in my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I have access to the training I need to use ICT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1 Strongly disagree	2 Disagree	3 Neither agree/Nor disagree	4 Agree	5 Strongly Agree
22. I am able to use ICT appropriately in my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I have the technical skills I need to use ICT in my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I feel confident about fixing things that go wrong in the classroom while using ICT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. I don't know how to use ICT resources	<input type="radio"/>				
26. I don't know where to find ICT resources	<input type="radio"/>				
27. I like using ICT in my teaching.	<input type="radio"/>				
28. I will not try something new in my teaching unless I'm sure it will work	<input type="radio"/>				
29. Students learn more when using ICT	<input type="radio"/>				
30. ICT helps me prepare better lessons	<input type="radio"/>				
31. ICT is used too much in teaching	<input type="radio"/>				
32. ICT takes up too much time	<input type="radio"/>				
33. My institution encourages me to use ICT	<input type="radio"/>				
34. Students are more	<input type="radio"/>				

engaged when using ICT					
	1	2	3	4	5
	Strongly disagree	Disagree	Neither agree/Nor disagree	Agree	Strongly Agree
35. ICT helps students become more independent as learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. ICT helps me teach in the way I want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. It is easier to find relevant teaching materials in textbooks than online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. I can access the ICT resources I need for my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Use of ICT

	Never	Rarely	Sometimes	Often
39. I use the Internet to prepare my resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. I record students' grades, absences and other data on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. I use PowerPoint or other presentation software in my lessons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. I use ODUS to post students' grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. I use ODUS to send course information to students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. I use a mobile phone to contact students about lessons issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. I e-mail my students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. I use an iPod in class to play back listening tracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Never	Rarely	Sometimes	Often
47. I receive students work via e-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. I send my corrections of work via e-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. I recommend online learning resources for students to work on at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. I encourage students to present tasks via PowerPoint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51. I encourage e-mail exchanges between students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. I encourage students to use testing and revision programmes online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. I search out online resources to help improve my teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

54. I use the CD-ROM that comes with the textbook in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. I ask students to use the CD-ROM at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Could you please write your details here if you are willing to participate in the interview stage of my research?

Appendix B: Interview schedule

Interview schedule:

1. Introduction.
2. Explain purpose of interview, likely length and ethical checks.
3. General scene setting.
4. How long have you been an EFL teacher? What led you to take this career path? What have been the satisfactions /difficulties?
5. Which courses do you teach? Do you think that the existing curriculum meets the needs of students - to what degree /what are the strengths and areas to develop? What do you feel are the underlying principles behind the courses you teach?
6. About ICT.
7. Do you use ICT in your teaching? If yes, can you tell me in what way, and can you please give me some examples? Based on these examples what do you think is the value of using ICT? Can you tell me about ways in which you use ICT for preparing teaching? Who if anyone encourages you to use ICT (provide prompts if necessary e.g. other teachers, university, training providers, students etc.)?

8. Can you think of reasons that stop you from using ICT? (Prompts do not see the point, lack of support, training, nature of the curriculum.)
9. Do you think that the university encourages the use of ICT in teaching?
10. Have you had any training in the use of ICT ? When, where, for how long?
11. Would you like to comment further?

Appendix C: Raw Finding/Data from Questionnaire

About You

1. What is your gender?	Female 92			Male 60	
2. How old are you?	22-29 F24- M 5	30-39 F36- M20	40-49 F26- M21	50-59 F6-M10	Above F0-M4
3. What is the highest degree you possess?	Bachelors F 37-M 18		Master F 47-M 33		PhD F 7-M 9
4. How many years have you been teaching English?	1-3 F 10-M 2	4-6 F 25- M 13	7-10 F 14- M 15	11-14 F 15- M 10	15 Or More F 28-M 20
5. Do you have a personal computer?	Yes F 91- M 57			No F 1- M 3	
6. Do you have access to the Internet at home?	Yes F 91- M 50			No F 1- M 10	
7. Do you use a computer at home?	Yes F 92- M 55			No F- M 5	
8. Do you use computers at home	Yes			No	

to prepare for teaching?	F 91- M 51	F 1- M 9
9. Have you ever attended any training courses on using ICT for teaching?	Yes F 63 – M 35	No F 29- M 25
10. Have you ever attended any workshops on using ICT for teaching?	Yes F 68- M 38	No F 24- M 22

Access to computer/Internet

11. I have a computer in my office.	Yes F 81- M 50	No F 11- M 10
12. In my teaching room I usually have no computers.	Yes F 15- M 17	No F77- M 43
13. In my teaching room I usually have a single computer attached to an OHP	Yes F 75- M 43	No F 17- M 17
14. In my teaching room I usually have a set of computers.	Yes F 4- M 13	No F 88- M 47
15. I have access to the Internet in my office.	Yes F 79- M 44	No F 13- M 16

16. I have access to computer support when I need it.	Yes F 75- M 40	No F 17- M 20
17. I have access to the Internet in my teaching room	Yes F 48- M 20	No F 42- M 40

Attitude

	1 Strongly disagree	2 Disagree	3 Neither agree/Nor disagree	4 Agree	5 Strongly Agree
18. I do not have enough time to learn to use ICT	F 24- M 9	F 43- M 17	F 11- M 10	F 12- M 15	F 2- M 9
19. There are too many things to do in class to use ICT	F10- M 6	F 27- M 16	F 14- M 12	F 30- M 25	F 11- M 1
20. I am expected to use ICT in my teaching	F 3- M 2	F 11- M 8	F 23- M 16	F 36- M 26	F 19- M 8
21. I have access to the training I need to use ICT	F 4- M 8	F 27- M 19	F 31- M 11	F 21- M 14	F 9- M 8
	1 Strongly	2 Disagree	3 Neither	4 Agree	5 Strongly

	disagree		agree/Nor disagree		Agree
22. I am able to use ICT appropriately in my teaching	F 1- M 3	F 13- M 5	F 18- M 12	F 48- M 28	F 12- M 12
23. I have the technical skills I need to use ICT in my teaching	F0- M0	F 13- M 13	F 29- M 11	F 36- M 23	F 14- M 13
24. I feel confident about fixing things that go wrong in classroom while using ICT	F 8- M 3	F 24- M 14	F 26- M 17	F 26- M 15	F 8- M 11
25. I don't know how to use ICT resources	F18- M 7	F 34- M 20	F 24- M 16	F 14- M 10	F 2- M 7
26. I don't know where to find ICT resources	F 13- M 7	F 28- M 15	F 19- M 17	F 29- M 17	F 3- M 4
27. I like using ICT in my teaching	F 3- M 1	F 0- M 7	F 16- M 12	F 38- M 24	F 35- M 16
28. I will not try something new out in my teaching unless I'm sure it will work	F 7- M 8	F 23- M 6	F 11- M 13	F 28- M 22	F 23- M 11
29. Students learn more when using ICT	F 0- M 0	F 6- M 6	F 25- M 17	F 37- M 22	F 24- M 15

30. ICT helps me prepare better lessons	F 1- M 2	F 2- M 3	F 14- M 18	F 47- M 21	F 28- M 16
31. ICT is used too much in teaching	F 5- M 6	F 22- M 13	F 44- M 24	F 10- M 11	F 10- M 6
32. ICT takes up too much time perceived	F-8 M 7	F 25- M 16	F 25- M 16	F 28- M 14	F 6- M 7
33. My institution encourages me to use ICT	F 4- M 2	F 4- M 10	F 25- M 17	F 42- M 23	F 17- M 8
34. Students are more engaged when using ICT	F 2- M 1	F 5- M 3	F 19- M 16	F 52- M 26	F 14- M 14
	1 Strongly disagree	2 Disagree	3 Neither agree/Nor disagree	4 Agree	5 Strongly Agree
35. ICT helps students become more independent learners	F 1- M 0	F 5- M 2	F 21- M 18	F 53- M 27	F 12- M 13
36. ICT helps me teach in the way I want	F 0- M 0	F 7- M 4	F 21- M 16	F 51- M 30	F 13- M 10
37. It is easier to find relevant teaching materials in textbooks than online.	F 8- M 6	F 44- M 12	F 27- M 17	F 9- M 20	F 4- M 5

38. I can access the ICT resources I need in my teaching	F0- M 1	F 15- M 5	F 26- M 16	F 41- M 26	F 10- M 12
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Use of ICT

	Never	Rarely	Sometimes	Often
39. I use the Internet to prepare my resources.	F 2-M 1	F 4-M 5	F 45-M 35	F 41-M 19
40. I record students' grades, absences and other data on the computer	F 1-M 1	F 2-M 6	F 4-M 21	F 85-M 32
41. I use PowerPoint or other presentation software in my lessons	F2-M 4	F 13-M 10	F 39-M 29	F 38-M 17
42. I use ODUS to post students grades	F 14-M 19	F 6-M 7	F 21-M 16	F 51-M 18
43. I use ODUS to send course information to students	F32-M 19	F 13-M 14	F 26-M 11	F 21-M 16
44. I use mobile phone to contact students about lessons issues	F12-M17	F16-M17	F39-M18	F25-M8
45. I e-mail my students	F3-M12	F15-M12	F28-M24	F46-M12
46. I use an I pod in class to play back	F28-M24	F13-M13	F16-M10	F35-M13

listening tracks				
	Never	Rarely	Sometimes	Often
47. I receive students work via e-mail	F15-M16	F19-M14	F46-M15	F12-M15
48. I send my corrected work via e-mail	F22-M17	F30-M17	F24-M19	F16-M7
49. I recommend online learning resources for students to work on at home	F6-M2	F21-M13	F37-M35	F28-M10
50. I encourage students to present tasks using PowerPoint	F4-M9	F16-M15	F53-M26	F19-M10
51. I encourage e-mail exchanges between students	F12-M7	F25-M8	F29-M23	F26-M22
52. I encourage students to use testing and revision programmes online	F2-M6	F18-M8	F36-M27	F36-M19
53. I search out online resources to help improve my teaching	F1-M3	F6-M8	F38-M19	F47-M30
54. I use the CD-ROM that comes with the textbook in class	F 5-M 3	F 9-M 4	F 28-M 15	F 50-M 38
55. I ask students to use the CD-ROM at home	F 3-M 2	F 10-M 4	F 21-M 21	F 58-M 33

Appendix D: The Weighted Mean

The calculation of the weighted mean requires each response showing a specific weighting reflecting its importance. Thus, responses to each statement are weighted as follows:

Likert fifth scale		Likert 4-point scale	
Weight Mean	Response	Weighted Mean	Response
1.00	Strongly Disagree	1.00	Never
2.00	Disagree	2.00	Rarely
3.00	Neither agree/Nor disagree	3.00	Sometimes
4.00	Agree	4.00	Often
5.00	Strongly Agree		

Appendix E: Coding Categories

1. Experience of teaching:
 - a. General
 - b. In the ELI
 2. Qualifications:
 - a. First degree
 - b. MA
 - c. PhD
 3. Reasons for teaching:
 - a. Lived in English language environment
 - b. Qualified to teach
 - c. Pragmatic (e.g. it is a job)
 - d. Enjoy language, competent, quick learner
 - e. Interpersonal/intrinsic
 - f. Contribute to society (altruistic), help students' learn
 - g. Positive experience of being a learner/inspiring language teacher
 - h. Enjoy teaching career/teaching is the most suitable job for me
 - i. Socialising/being in contact with students and other teachers
 4. Satisfaction
-

- a. Seeing impact; grades, they learnt, using language, imitate teacher, reward from authority, students attend classes
 - b. Positive feedback/students' reactions/motivated/punctual
 - c. Intrinsic/enjoy what I am doing
 - d. Financial benefits
 - e. Teaching in HE sector/teaching mature students
 - f. Freedom given to teacher/authority given to teacher
 - g. Equipped classrooms/offices
 - h. Good relationship between students and teacher/students respect teacher
 - i. Challenging/succeed in a challenge
 - j. Female students are more intelligent and eager to learn
 - k. Reward from authority
 - l. Closer age to students/makes it easier to influence them
 - m. Graduated from the same university/knows the policy
 - n. Cooperation between teachers in teaching process/discussing activities, exams
5. Dissatisfaction:
- a. Unmotivated students/male students have low levels of motivation
 - b. Lack of discipline from students
 - c. Reluctant /Weak English level/weak speaking skills
-

- d. Unpunctual students
 - e. Lack of training for teachers
 - f. Lack of students' progress/improvement/achievement/superficial learning
 - g. Lack of teacher freedom/no room for creativity
 - h. Rigid instructions/inflexible/rigid pacing guide
 - i. Lack of communication between teachers and authority
 - j. Monotonous teaching (repetitive)
 - k. Rapid curriculum change
 - l. Doesn't enjoy teaching language/lose motive to teach
 - m. Students' learning experience in school/poor English learning in governmental school
(bring poor prior habits)
 - n. Students are placed at an inaccurate level/inadequate level/mixed abilities in class
 - o. Lack of relationship between students and teacher/no trust
 - p. Large number of students in class
 - q. Short module (6 weeks)/time limitation/not enough to work on students' weakness
 - r. Too much work/pressure/following students marks/attendance
 - s. Long teaching hours/exhausted/boring
 - t. Low financial reward for teachers
6. Nature of teaching:
-

- a. Context specific
- b. Focused
- c. Lack of freedom/controlled
- d. Time limitation
- e. Flexibility
- f. Teaching writing/writing booklet
- g. Teaching students to think in English

7. Curriculum:

- a. Integrated
 - b. Focus on one skill/grammar
 - c. Exam oriented
 - d. Rigid paced and guided schedule
 - e. Non-academic
 - f. Attractive
 - g. Comprehensive
 - h. Challenging for both teachers and students/more work
 - i. Insufficient/need more activities/extra material/need more speaking activities
 - j. Short module (6 weeks)
 - k. Not related to culture/culturally irrelevant
-

- l. Inauthentic
 - m. Relevant; culturally, students' level, good/students' needs
 - n. Portfolio task/stressful for students/no time to give feedback
 - o. Unstructured presentation of skills/writing, speaking, grammar
 - p. Irrelevant to students' level/doesn't meet students need
 - q. Students are not requested to do speaking presentation assessment
 - r. Extra writing material/writing booklet
8. Professional development:
- a. Informal (trial and error) strategies
 - b. Online skill development/self-directed/external resources
 - c. External training /British Counsel/UK
 - d. University allow teachers to seek personal development outside the university
 - e. Presenting workshops
 - f. Informal support and collaborations with peers
 - g. Attending training/workshops in the use of ICT in the university
 - h. Attending training/workshops in the use of ICT outside the university.
9. Personal view of teaching:
- a. Active/creative/interactive/authentic/integrated skills/visual material/challenging/involve different teaching technique/proactive
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- b. Traditional teaching in old days/traditional teaching is boring.
- c. Freedom/teachers need freedom to teach
- d. Should motivate students/increase students' interest/Push students to learn/give them confidence make learning easy
- e. Being fully prepared in class/proactive/internal locus of control
- f. Should use technology extensively for better results
- g. Continuous self-development/learning from other colleague/students/workshop/courses/be updated/exchanging ICT materials with colleagues
- h. Provide extra time outside the classroom for students/direct contact with students.
- i. Peer support/good students help weaker ones
- j. Be selective when using ICT/find appropriate videos/images /topics
- k. Using ICT effectively/know when to apply it and when to stop it/balance between traditional and ICT
- l. Using ICT more frequently to help learning/focus on using ICT
- m. Up to date teacher/traditional teaching has no place/knows how to use technology
- n. Practice to enforce learning
- o. Encourage students to use ICT for learning/students should practice speaking using .ppt presentation/do homework with help of Internet
- p. Show students how to use ICT/refer them to useful website to work more at home.

- q. Using ICT to impress students/they like teachers who use ICT more
 - r. Using ICT as long as students like it
 - s. Ideal lesson is measured by students' achievement of learning outcomes/meets objectives
 - t. Interactive lesson is ideal /students share in the teaching process/interaction helps students to improve/focus on learner autonomy/let them speak
 - u. Face to face teaching is the best
 - v. Ignorant teachers don't know how to use Internet/they don't want to learn/don't want to use ICT
 - w. ICT should be should be integrated in the curriculum
10. ICT use encouragement:
- a. Availability of equipment/computers/data show/laptops/speakers/labs
 - b. Internet access
 - c. Technical support
 - d. Reliable equipment
 - e. Self-competence/efficacy/confident to use technology
 - f. University support/training/workshops/update teachers about external workshops/funds
 - g. Everyone is using technology/colleagues are using it/whole environment, motivate use.
 - h. Own initiative
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- i. Enough time
- j. Encouragement from coordinators to use ICT/evaluation
- k. Colleagues' support/exchange resources/exchange ideas/discussion group
- l. Students' support in class/fix computers
- m. Students' positive reactions towards ICT/attracts them/motivates them/appreciate teachers who use it more/ask for using it
- n. ELI demands teachers who are professionally developed/university encourages teachers to create own websites
- o. Curriculum/allows interactivity/has interactive excises/allows the use of technology
- p. Clear guides/instructions about using ICT
- q. Seeing its impact/help learning/saves time
- r. Reward from using ICT/letter of appreciation/copyright

11. ICT discouragers:

- a. Lack of access to computers/no smart white board/labs/unavailability of latest technology and resources
 - b. Non-operational equipment /computers/data show
 - c. Lack of Internet access
 - d. Insufficient time to use ICT/rigid pacing guide/short module
 - e. Time consuming to prepare for ICT lesson/look for culture related materials/takes time to use it
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- f. Lack of technical support/delay in fixing technical problems in class/late technical support
- g. Intensive curriculum/portfolio task/short module
- h. Unpunctual students/less number of students attending the class
- i. Lose control of class/students lose focus
- j. Unreliable equipment/Internet access/no remote control for the projectors
- k. Insufficient ICT training/not applicable
- l. Old teachers/do not want to put in an effort
- m. Students' attitude/low level/Not motivated
- n. Lack of teachers' computer skills/ICT knowledge
- o. Lack of guidance on the use of ICT
- p. Teachers' reluctant to use ICT/not sure of ICT usefulness or effectiveness/lazy about using it
- q. ICT is not integrated into the curriculum
- r. Large number of students in class
- s. Lack of students' access to computer in class
- t. Coordinators do not believe in using technology
- u. Lack of reward.

12. Value of using ICT:

- a. Attracts students/helps them pay attention
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- b. Organises teaching materials
- c. Supports learning and teaching
- d. Motivates students
- e. Saves time/saves efforts (does not waste paper)
- f. Communication between the teacher and her students
- g. Enjoyable/interesting/fun/breaks monotony of the class/reduce boredom
- h. Trendy
- i. Allows interactivity in class/students are active
- j. Long term learning effect/enforce learning
- k. Engages students
- l. Providing different learning styles/structured/variety
- m. Easy/quick/convenient
- n. Updated information
- o. Visual learning help learning
- p. Authentic material
- q. Helps control the class/class management

13. Teachers use of ICT:

- a. Using the Internet to search for materials/topics/pictures/Google/Facebook

- b. Using memory stick/download work from Internet at home or office and saves on memory stick
 - c. Videos/You Tube
 - d. Blog
 - e. Create own website/post work on website
 - f. Online group/yahoo group/mail messenger
 - g. Projector/power point presentation/display pictures/display the CD that comes with the book
 - h. Email students/email work to students/instructions/receive their work via email.
 - i. Using Internet for lesson preparation
 - j. Scanner
 - k. Using teaching/learning websites/ESL/British council/BBC/authentic websites.
 - l. Online dictionaries/Onelook.com
 - m. Speakers/wireless/listening CDs/audios
 - n. iPads/laptops
 - o. Own Internet connection device (dongle)
 - p. Using the Internet in classroom/office at home
 - q. Using smart phones/iPhones/Black Berries
 - r. Use computer to prepare work for class
 - s. Smart white board
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Appendix F: Interviews Analysis

5q	<p>F/HU: And one more thing now that, I don't like, is this quarter or module system may be the integrated books are not working well, because may be it would be better if we had a longer time.</p> <p>and we don't have them for long time to make them improve.</p> <p>It would be better experience to teach for a longer semester not short modules. I don't know why we could not use the same method we had before, in the old system. For example, they could take 1 O 1 and 1 O2 n the preparatory or foundation year and the other two levels in the second or third year. In this way, students achieved a better English level by the time of graduation, instead of having it all in one year then they have all subjects in Arabic; they will lose the language because they are not practicing it.</p> <p>F/HB: the time just too little. The time is too little for the amount of work you are asked to do in addition to all of the teaching which you need to do inside the class room. It is too much for the students...it's very hard to absorb two units in a week... it is just hard for them!</p> <p>F/LY: I would like to have more time to either - we have to teach six weeks, full weeks, or a whole semester of 14 weeks like before, but with 3 weeks of teaching and 1 week off teaching for exams and again 3 weeks It's just a mess.</p>
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	<p>F/N: I don't think 6 weeks is enough to help them learn how to write well. If we have two levels combined in one and we had a longer term, it would be great. Specially combining 101 and 102. Or we have second book for writing.</p> <p>F/SM: Of course another difficult situation we came across is that sometimes I think it consumes our energy and time more than it should of course because of this quarterly or module system. It is only 6 weeks of teaching and what happens is that we get to know our students and by the time we get to know them, the module is over. That I would say is not a very helpful thing because when the teacher knows the students well, only then can she work on the weaknesses, so it is bad that the module is gone without her understanding them. That is something that does affect our work.</p>
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9e	<p>F/Ly: I cannot blame the system because they know I'm in the class, they give me the guide lines and everything, but and if I have the time and an smart enough to manipulate it I will do - instead of sitting the whole day blaming the system because this is reality and I have to live with it. Otherwise I will be this numb</p>
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dumb teacher in the class

F/M: The idea is to come to class prepared that is an ideal lesson. They feel it... students feel it that you are prepared and you know what you are doing and because you are well prepared, you can strike up a discussion, make jokes and it will be fun. When you are not prepared, it shows up and it will be a boring class. Being very prepared knowing the whole story and having exercises in hand. And moving from the presentation to the application - this is very important. Even this is like accelerated learning if you just present . . . present . . . present and not apply, that means learning is not going happening.

F/N: and it would be better if we have speakers built inside the computers. And that why we carry our speakers with us. For me I carry everything in case the equipment in the class won't work.

It is heavy to carry my stuff around and sometimes I ask myself - why am I doing this?, but it is just I feel like I want to do it and that is who I am and I need to do it.

There were times when I was saying why am I doing this? Why don't the girls care or why are they not appreciating things? And they feel it is just extra efforts, but then you feel as I told you I'm like this and I have to do it. But later on when students see that other teachers are not doing it, they think you are blessing. Nothing would stop me and I hope this is so forever, but sometimes I do get demotivated by the student's attitudes as these do not help sometimes. If the

	<p>equipment for example is not there, I bring mine. It does take a lot of time but in the end I learn something.</p> <p>F/R: I bring everything to the class, I Google the topic, I save it to my memory stick or my iPad to engage them more during the lesson. It makes their eyes open wide and makes the interact more with you.</p>
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11C	<p>M/H: We can use it all in the classroom, except there is a one little problem, which has already been solved in some buildings, but not all buildings - that the Internet is not working sometimes.</p> <p>M/K: At the university, the wireless is inside the classrooms but the Internet connection can't be established.</p> <p>M/MU: Now one of the things we don't have is Internet access in most classes.</p> <p>F/HU: Not all the classrooms have Internet access. They are not connected and even if I get access I cannot guarantee that I can access the site or that it will be always available.</p>
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	<p>Internet access not available in all classes if I want to use it.</p> <p>F/HN: I don't mind trying the same lesson, but what stops me is that access to Internet is not reliable and we don't have a smart white board, which would make big difference in our teaching.</p> <p>F/H: there is no Internet access in my classroom.</p> <p>F/K: Not all classrooms have Internet access.</p> <p>F/NO: here there is no access to Internet in my class, although the girls would love it a lot ... would love to have more technology.</p> <p>I would like to have an access to the Internet in my class, as it would be more interesting ... it would be like something new.</p>
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13n	<p>M/AH: I use my own laptop.</p> <p>M/H: I also use my iPad to show pictures. Pictures which are related to the context</p> <p>F/HN: I also use my iPad to read or search for some information regarding my lesson or different ways of explaining a grammatical rule for instance.</p> <p>F/K: For preparation, for example, we have some lessons on grammar, what I do is</p>
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	<p>summarise everything on my laptop in the form of a power point presentation to display to my class. And the same thing with vocabulary, with of course colours and pictures and things that would be interesting for students. Also for the writing I do it on Power point and listening I let them listen to listening parts from the CD ... I have everything on my laptop before I come to class.</p> <p>F/N: Of course, I carry my speakers and my iPod to the class.</p> <p>F/R: The book comes with a CD, which I download, to my iPad and iPhone, so I can use any in class. If one didn't work or I forgot to bring one to class.</p> <p>They are not familiar with blog and how to use it, that why I take my iPad with me to the class and had show them and explain to them how to do it and I tell they that they have to check it every day to follow my instructions or to any tasks or feedback that I may post.</p>
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Appendix G: Observation Analysis

Name of the of the teacher M

The lesson

The lesson lasted for 1 hour and 30 minutes. I observed the class throughout.

The lesson aims were:

- To introduce the structure and the use of the simple past tense.
- To introduce the difference between regular and irregular verbs and the changes of the spelling of verbs when they have one syllable and when they end with one consonant and a vowel, and if they end with a Y.
- Introduce how to form questions in simple past form.

The environment

Number of students: 30

Students' level: 2

Computer resources: One computer operated by the teacher who logged in at the beginning of the lesson.

Data projection: One projector operated by the teacher.

Lay out: Desk and chair in front at the left side of the class for the teacher. Students are seated at desks in two rows with an aisle.

Whiteboard: There was no interactive whiteboard, but the teacher used a standard whiteboard.

Pull- down projector screen.

Structure of the lesson

1. Settling the class, registers and presenting lesson objectives, logging onto the computer.

This was supported by the use of the data projection (1 slide). (5 minutes)

2. Instructing

The teacher had a page projected on the board about the simple past tense. It was scanned and transferred onto 3 slides.

She explained the simple past tense from the slides and ask students to give examples. She also wrote on the side of the board more explanations to enforce the structure of the simple present. While doing this she asked students questions. For example, when do we use simple past?

Explained regular and irregular verbs and shared this with students by asking them to give examples. [The teacher used PowerPoint presentation a table with different colours (2 slides)].

She explained how to make questions in the simple past tense. [The teacher used another PowerPoint presentation to guide the instruction/colourful text and pictures of actions happened in the past (2 slides) (25 minutes)

3. Controlled practice:

Asked the students to open the textbook and do exercise in pairs [Head Way Plus]. She said read the first paragraph for a few minutes and then answer the questions. Then after 10 minutes, she asked students if they were ready. She called names for answers, but all the students were active and wanted to answer; the teacher selected some students. (17 minutes)

She also asked students to do another exercise as pairs. The exercise was in the textbook and required full answers to some questions in the simple past. She asked them to write the full answer in the space provided in the book or on a piece of paper/as they wished. Then she called

names and each pair of students answered; one asked the question and the other one answered. (20 minutes).

4. Further controlled practice:

The teacher distributed handouts on a single page with different exercises on tenses and jumbled words and asked them to work together as groups and answer. Then the students answered in desk order. [She asked two students to help her distribute the sheets]

She prepared a power point activity /colourful/with animated clock with questions for the students to do. There were some gaps to be filled in with regular or irregular verb. Asked students to answer and spell the verb and the teacher wrote the information directly on the board. (23 minutes)

Generic Teacher Action

5. Supporting and checking understanding

The teacher asked students each time she explained the simple tense, regular and irregular verbs, and how to form question if they understood. The students' level was good and the information was clear to them. The teacher did enough reinforcement activities to check the students' understanding. Moved around the class to see how the students were doing the tasks. She helped some of those who needed help.

6. Encouraging

She was friendly and laughed with the students. She kept on encouraging the students using words/phrases like 'very good, excellent, well done girls' when they gave correct answers.

She encouraged the students to correct their peers' mistakes and to speak and participate. She also encouraged students to work in pairs and groups.

Students 'activities

Listening to the teachers: when she was explaining the grammar, and answering questions. The learners were very active and knew most answers. They answered loudly but the teacher wanted one student to answer at a time.

Talking to peers when they worked on the handouts and performed other exercises.

Listening to a text x

Reading textbooks when doing the exercises.

Reading exercises; they read a paragraph in the textbook and answered questions.

Writing: doing exercises in the book. Handouts and tasks

Resources

Textbook was used for a PowerPoint presentation

Reflections

This kind of lesson differed from the classes I took seen as a student in school or at the university. The lesson in my view was well prepared, the PowerPoint slides were clear and colourful, which made them more attractive to the students, the students appeared to be attentive and motivated to work and participated throughout the teacher's explanation of the grammar, carrying out the activities in the textbook or the hand out sheets. The students was better than average for their level. Their relationship with the teacher was friendly as a result of her being friendly to them. In comparison with a more communicative approach, there was several uses of information gap activities, whether from the book, slides or hands out sheets. There was use of group work and pair work. There was limited use of ICT. Comparing this lesson with the interview I carried out with this teacher provided confirmation of the issues

raised and the level of use. For example, the teacher explained that she used PPT slides in the interview but did not use the Internet. One explanation she had for this was that the Internet access was not available on campus and that every time she tried to use it, it failed her. She has therefore stopped using the Internet because she believes that trying to logon to the Internet when there are weak signals or no signals was a waste of her and her students' time. In terms of teaching and learning, the lesson illustrated the teacher was able to help the students learn and had formed a good relationship with the students. It was noticeable that the students were attracted to the teacher's way of teaching. This may suggest that this balance between the use of computer, data projection, oral presentation, marker pen and whiteboard, and carrying out different activities in class had helped create a better learning and teaching environment. However, it is difficult to predict that more use of ICT would produce better learning and teaching outcomes.