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UNIVERSITY OF SOUTHAMPTON

FACULTY OF HUMANITIES

**IMPLEMENTING CHANGE: AN EXAMPLE OF ICT  
INTEGRATION IN AN ENGLISH LANGUAGE CENTRE  
(FOUNDATION YEAR), SAUDI ARABIA**

by

**Reem S. Al-Marwani**

A thesis for the degree of Doctor of Philosophy (PhD) in applied  
linguistics

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# ABSTRACT

University of Southampton

Faculty of Humanities

Thesis for the degree of Doctor of Philosophy (PhD)

Implementing Change: an Example of ICT Integration in an English Language Centre  
(Foundation Year), Saudi Arabia

By

Reem S. Al-Marwani

Integration of ICT is a crucial element in developing teaching, learning and educational outcomes. Saudi Arabia has developed an ICT plan to promote the use of technology in higher education institutions. Thus, the Ministry of Higher Education in SA has developed many national projects (Jusur VLE, NCeLDL, Saudi Repository, Excellence Award in E-learning) to encourage universities to adopt ICT in everyday instruction.

On the contrary, despite the above-mentioned projects, many studies have shown the less than effective adoption of ICT in education. Accordingly, this study sheds light on the actual implementation of technology in a Saudi University from EFL teachers', administrators', and policy makers' perspectives.

An effective integration of technology requires holistic and comprehensive investigation of teachers', administrators' and policy makers' experiences. The aim of this study is to investigate teachers' attitudes, utilization and overall experience regarding ICT adoption in language teaching. Teachers' attitudes, utilization and experience mirror and reflect the actual integration and highlight the limitations as well. Additionally, factors that affect teachers' use of ICT are discussed. In addition, the study examines administrators', and policy makers' point of views as well.

The context of the study is the English language centre (ELC) at Taibah University. To investigate ICT implementation, a qualitative institutional case study approach is adopted. The main tool of data collection is a set of interviews. These interviews are triangulated with other methods e.g. classroom observations, focus groups, document reviews and field notes. The findings show less than effective integration. Many factors that impede/enable teachers' integration of ICT are presented. Finally, the participants in the research project hope for comprehensive improvements in education i.e. change in ICT integration strategies. Additionally, a change in the curriculum, teachers' roles and pedagogical practices are recommended.

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## DECLARATION OF AUTHORSHIP

I, **Reem S. Al-Marwani** .....

declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

### **IMPLEMENTING CHANGE: AN EXAMPLE OF ICT INTEGRATION IN AN ENGLISH LANGUAGE CENTRE (FOUNDATION YEAR), SAUDI ARABIA**

.....

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed: **Reem S. Al-Marwani** .....

Date: December 2018

# Acknowledgements

*In the name of Allah, the Beneficent, the Merciful*

“Read in the name of thy Lord Who creates —Creates man from a clot, Read and thy Lord is most Generous, Who taught by the pen, Taught man what he knew not” (Al-'Alaq - The Clot, Chapter 96:1-5) The Holy Qur'an

Thank God for the completion of my PhD Journey. A journey that was full of worries, tears, hesitation, accomplishment, frustration, motivation, success and above all HOPE. Thank God for giving me a chance to better myself, a chance that I have chosen reluctantly, realizing that what God has Planned for me, is the best thing in my life.

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## **Abbreviations**

CLT	Communicative Language Teaching
CPD	Continuing Professional Development
CMS	Course Management System
DAS	Deanship of Academic Services
Dol	Diffusion of Innovation
EAP	English for Academic Purposes
EF	Education First Group
EFL	English as a Foreign Language
ELC	English Language Centre
ELT	English Language Teaching
EMI	English as a Medium of Instruction
ICT	Information and Communication Technology
IT	Information Technology
KACST	King Abdul Aziz City for Science and Technology
KSA	Kingdom of Saudi Arabia
KSU	King Saud University
LMSs	Learning Management Systems
NCeLDL	National Centre of E-learning and Distance Learning

PD	Professional Development
Prep-year	Preparation year
SA	Saudi Arabia
STC	Saudi Telecom Company
TU	Taibah University
VLE	Virtual Learning Environment

# Chapter 1: Introduction

## 1.1 Introduction

Saudi Arabia aims to transition to an information society and develop the sector of information and communication technology (hereafter) ICT in the Kingdom. The Kingdom looks forward to achieving this through the application of ICT in higher education (Al-Khalifa, 2010a; Al-maini, 2013; Alebaikan, 2010). Therefore, the Ministry has launched many projects to promote the use of technology in higher education institutions. One of the projects is the development of a long term developmental plan, 2029 “AAFAQ” (AAFAQ is an Arabic word means horizons). Additionally, the Ministry developed the Jusur Virtual learning environment VLE to be used by all Saudi universities. However, many studies have shown a less than effective integration of ICT in higher education institutions (Al-Jarf, 2007, 2009, Al-Khalifa, 2010a, 2010b; Al-maini, 2013; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Fageeh, 2011). They highlight the inconsistencies and discrepancies between the aims and current practices. Most importantly, many studies in different contexts (Iran, Turkey, China, Syria, India, Egypt, UK) have indicated the same problems i.e. the less than effective integration of ICT in higher education institutions (Albirini, 2006; Becta, 2004; Fageeh, 2011; M. S. H. Khan, Hasan, & Clement, 2012; Mumtaz, 2000).

Thus, the current study investigates EFL teachers' experience of technology implementation at Taibah University, English Language Centre (ELC) in Saudi Arabia. In addition, the study focuses on administrators' and policy makers' views and attitudes towards the implementation of ICT in English teaching. The major aim of this project is to investigate why technology is not integrated effectively and how it can be better implemented, investigating teachers', administrators' and policymakers' perspectives.

## 1.2 Personal Motivation for this Study

Throughout the thesis, the researcher prefers to use the passive voice, however now I will switch to the first person to talk about the personal motivation for conducting the current research project. I had a deeply rooted frustration about not using the language labs when I was in high school. To be more specific, fifteen years ago when I was in secondary school, we moved to a new building that was built by the Ministry of Education. The building was new and had state of the art facilities e.g. a lecture theatre, two language labs and two computer labs. As a language learner, me as well as most of my friends, were expecting that our English lessons would be conducted in the language labs. We were so happy and excited that we would go to the labs and listen to English audio and explore new ways of learning English. However, two weeks passed and we did not go to the language lab. We went to the teacher and asked her, and she replied “we will not use the language labs”. Socioculturally speaking, we (students) could not ask more questions, as there was a social distance between students and teachers. Although we had newly installed language labs, teachers did not use them and instead spent all the class-time explaining the rigid grammatical rules via lecturing. Additionally, I was bored with the typical classroom environment.

Similarly, seven years ago, at Taibah University English Language Centre (ELC) we (language teachers) were asked to integrate VLE into our teaching on an optional basis. However, only one teacher out of forty-two uploaded online materials. This teacher complained about the low level of participation by students and faculty members. This experience as a teacher echoed my experience as a student in high school with the common factor being poor integration of ICT in language teaching. Thus, the reminiscent feeling of frustration I had because of the poor integration of ICT in language teaching aroused my curiosity about issues that lead to poor ICT integration.

### 1.3 Statement of the Problem

The Ministry of Higher Education in Saudi Arabia has developed the AAFAQ project. AAFAQ is a long-term futuristic plan that promotes efficiency and effectiveness in Saudi higher education. One of the recommendations of AAFAQ projects is that ICT should be integrated in higher education institutions (Ministry of Higher Education, 2010). To achieve this recommendation, the Ministry of Higher Education established the National Centre for e-Learning and Distance Learning (NCeLDL) in 2006. The NCeLDL is publicly funded and since its establishment in 2006, many national projects have been developed to promote the use of ICT in higher education institutions (Jusur VLE, Saudi Digital Library, Saudi Repository, Excellence Award in E-learning) (National Centre for E-learning, 2013).

However, many studies have shown the less than effective integration of ICT, despite the national ICT projects. These studies highlight the ineffective adoption of the VLE and state that the VLE is used as an announcement tool rather than a learning tool (Al-Jarf, 2009; Al-Khalifa, 2010a; Alebaikan, 2010; Alebaikan & Troudi, 2010a; Asiri, Mahmud, Abu-Bakar, & Ayub, 2012b, 2012a; Fageeh, 2011). Other studies have shown the barriers that impede ICT integration in Saudi higher educational institutions (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; Alwani & Soomro, 2010; Bingimlas, 2009). On other hand, in 2012, the United Nations Conference on Trade and Development (UNCTAD) study demonstrated that Saudi Arabia ranked number one globally with the highest proportion of mobile phone users at 188% (ITP, 2012). Similarly, The Social Clinic Group (2012) conducted a study about the state of the social media in Saudi Arabia. The study indicated that Riyadh (the only Arabic city) ranked at number 10 globally among the cities with the most tweets, with a growth increase of 3000%. Also, Facebook is the third most visited site in Saudi Arabia. Supporting these claims, The Economist (2014) reports that 60% of Saudis are Twitter users and the country has the world's highest penetration of micro-blogging. In the same vein, according to Google's Our Mobile Planet report, Saudi Arabia ranked third globally in terms of the highest smartphone penetration. The report shows extensive use of many online social activities

such as using social networks, listening to music, playing video games, finding information...etc. (Google's Our Mobile Planet, 2013).

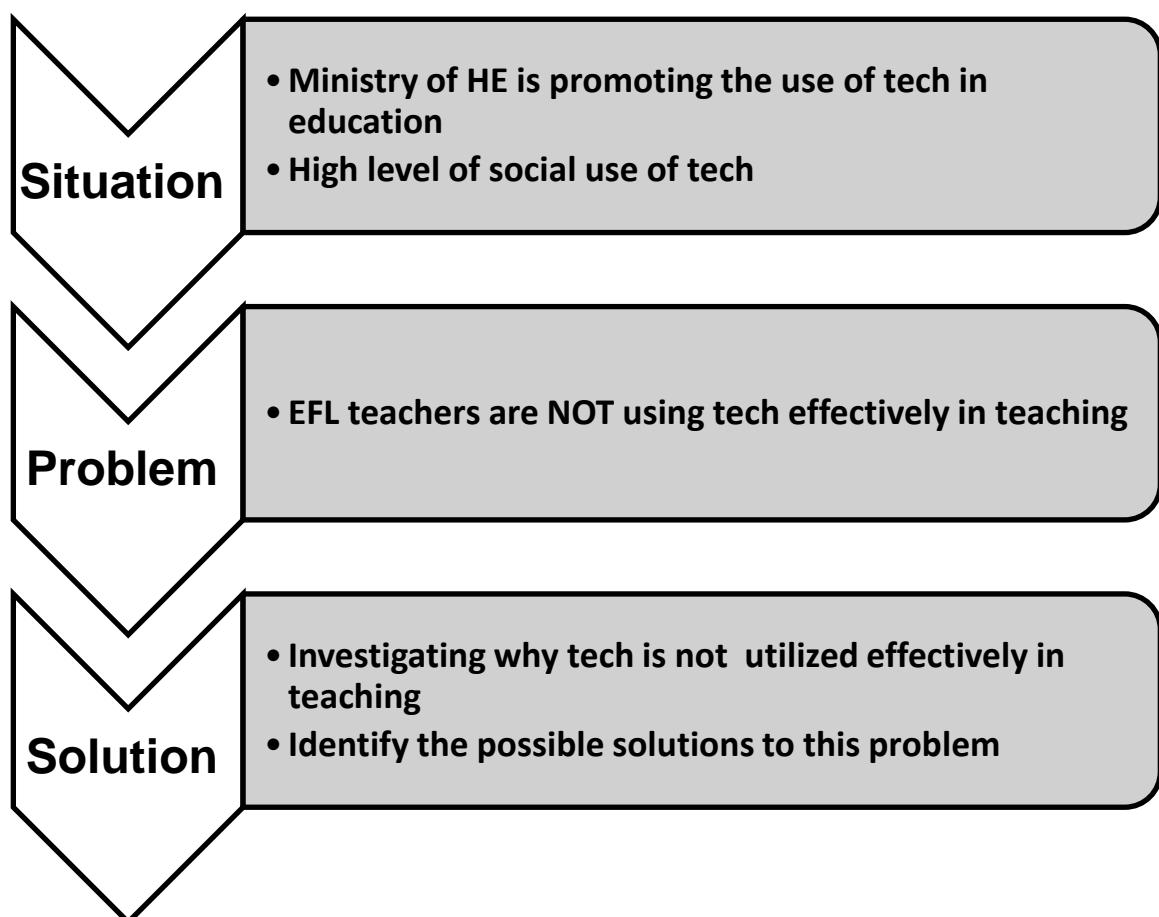
However, the report does not indicate any educational learning activities, although it states that smartphones have become an integral part of daily routines. These studies highlight the excessive use of ICT among Saudi nationals but as tools used merely for social purposes. These studies indicate the existence of soft skills among citizens and especially young nationals. Additionally, these studies reflect the accessibility of ICT devices among young nationals. However, why there is ineffective use of ICT in educational contexts? Why are the students' pre-existing soft skills not exploited sufficiently in educational institutions? These questions remain unanswered.

On the other hand, many studies have shown many problems that impede the development of English language teaching in Saudi Arabia. The studies raised issues of big classes, excessive use of the L1, poor ICT materials if any, a teacher-centred approach, exam-oriented teaching, students' English low levels, inadequate materials, inadequate EFL teacher preparation programs and the lack of language labs despite the claims of adopting audio-lingual methods (Al-Hajailan, 2003; Al-Hazmi, 2003a; Al-Jarf, 2005; Al-Mohanna, 2010; Al-Nofaie, 2010; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 1999; Batawi, 2006; I. Khan, 2011b, 2011c; Liton, 2012; Ryhan, 2014; Shah, Hussain, & Nasseeef, 2013). Therefore, many studies recommend a better integration of ICT tools to develop English language teaching (ELT) in Saudi EFL classrooms (Al-Jarf, 2005, 2007, Al-Seghayer, 2005, 2011; Al-Shumaimeri, 2008).

In summary, there are many efforts in implementing ICT in both the tertiary and the public education sectors, although the actual integration is less than effective. Thus, the question that has not yet been answered is: why is the implementation still below the optimum level? Interestingly, there is excessive utilization of ICT among Saudi citizens in general. In contrast, in educational institutions there is less effective utilization. Therefore, the summarized problem

needs investigation and the better adoption of ICT is urgently needed in typical Saudi EFL classrooms. Also, not much research has been conducted regarding EFL teachers' utilizations of technology, especially in the chosen context. Additionally, it is worth noting that studying teachers' experiences of ICT integration is essential to different stakeholders. Their experiences, attitudes and usage are like a mirror that reflects the extent of effective implementation. This study aims to examine teachers' experiences of technology implementation in ELC, Taibah University.

Figure 1 Summary of the Research Problem



## 1.4 Research Rationale

There is a global trend in many countries to adopt ICT in education, and especially in higher education institutions.

However, many studies in different contexts (Turkey, China, Saudi Arabia, Iran, Thailand, Egypt, UK, Canada, India, Spain) have shown that despite the potential benefits of ICT, teachers' integration is ineffective (Al-Dosari, 2011; Al-Jarf, 2007; Al-Shahrani & Al-Shehri, 2012; Albirini, 2006; Alebaikan, 2010; Alebaikan & Troudi, 2010b, 2010a; Becta, 2004; Fageeh, 2011; M. S. H. Khan et al., 2012; Mumtaz, 2000). Specifically, many studies have shown that VLEs were used as a content repository and as an announcement tool in educational institutions (Alebaikan & Troudi, 2010; Alebaikan, 2010; Al-Jarf, 2009; Al-Khalifa, 2010a; Asiri, Mahmud, Abu-Bakar, & Ayub, 2012a, 2012b; Becta, 2003; Fageeh, 2011; JISC Digital Media, 2013; Weller, 2007). Thus, examining teachers' current practices and viewpoints can better our understanding of the reasons for the current poor adoption of ICT.

The reviewed literature indicates that most of the current studies fall into two categories; experimental and teacher-level (attitudes and perception) studies. On the other hand, studying teacher-level factors led to incomplete focus i.e. did not indicate the contextual factors that might affect teachers' utilization of ICT such as the following studies (Al-Dosari, 2011; Al-Shahrani & Al-Shehri, 2012; Albirini, 2006; Alebaikan, 2010; AlMulhim, 2013, 2014; Alwani & Soomro, 2010; Arokiasamy, 2012; Bingimlas, 2009; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Sang, Valcke, Braak, & Tondeur, 2010). Teacher-level studies usually focus on surveying incidental personal factors, whilst ignoring the significance of contextual and sociocultural factors. These studies exclude teachers' current practices i.e. did not examine the pre-existing sociocultural context. Also, these studies exclude important stakeholders (administrators, policy makers). Addressing different stakeholders when examining phenomena enhances the understanding of the research problem. Supporting this view, the

British Educational Communications and Technology Agency (Becta) (2004) has published a literature review report about teachers and ICT, and in their review they state that:

*It is important to note that the majority of the qualitative studies reviewed here are based on evidence given through interviews and questionnaires from classroom teachers; while this is likely to give a clear picture of the barriers to ICT as perceived by teachers, it will not help in giving an overview of the barriers as perceived by other groups of interested parties, such as head teachers and other managers and leaders. It is possible that these groups may have different opinions about the barriers which most affect teachers' uptake of ICT (p.6).*

This highlights the fact that in order to have a profound picture of teachers' uptake of ICT, different stakeholders should be investigated. Additionally, Hismanoglu (2012) points out that "more qualitative studies should be directed to explore how prospective language teachers perceive ICT integration in language instruction" (p.191). Qualitative studies should reflect and show the sociocultural and contextual factors that might affect ICT integration. Furthermore, some studies have merely focused on identifying ICT barriers (AIMulhim, 2014; Alwani & Soomro, 2010; Assareh & Hosseini Bidokht, 2011; Bingimlas, 2009). In Saudi Arabia, many studies have shown the less effective integration of ICT, despite the national ICT projects. These studies highlight the ineffective adoption of the VLE, and state that the VLE is used as an announcement tool rather than a learning tool (Al-Jarf, 2009; Al-Khalifa, 2010a; Alebaikan, 2010; Alebaikan & Troudi, 2010a; Asiri et al., 2012b, 2012a; Fageeh, 2011). Other studies have shown the barriers that impede ICT integration in Saudi higher educational institutions (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; Alwani & Soomro, 2010; Bingimlas, 2009).

Examining ineffective ICT incorporation, many studies point out the factors that enable or hinder teachers' integration of ICT. The factors were grouped into two categories: teacher-level (attitudes, ICT competence, lack of time) and

institutional level factors (lack of resources, inadequate infrastructure). The above reviewed studies did not reflect actual experiences based on natural contexts. Natural contexts provide first-hand data where the participants report the enablers as well as the barriers based on real life experiences. These real life (natural contexts) experiences are usually rich (detailed) and holistic in nature (Cohen, Manion, & Morrison, 2011; Creswell, 2009, 2012, 2013; Dörnyei, 2007). Furthermore, the reviewed studies mainly focused on teachers' views about ICT and hardly any studies included different stakeholders like administrators or policy makers. Additionally, experimental studies (Al-Jarf, 2005; Al-Mansour & Al-Shorman, 2012; Alqahtani, 2010) were mainly based on artificial settings where the participants could not reflect on or report their actual experiences of ICT integration. Limited artificial settings are significantly different from real life contexts. Supporting this view, McBride & Schostak (1995) identify that "many qualitative researchers have long criticised laboratory based research as 'artificial' and noted that people react differently in other contexts. There are also criticisms about those researched being influenced by the researchers so that conclusions are not sound, especially when compared to research in 'natural' settings" (para.7).

## 1.5 The Significance of the Study

There are many governmental initiatives in today's digital era that encourage the adoption of ICT tools in educational institutions. The growth of online websites, multiple sources of learning, e-learning objects and online repositories reshapes views of learning and teaching. The easy access to huge amounts of online knowledge necessitates new skills for students. However, despite the advantages of current ICT tools in education, many studies have shown less

than effective approaches to ICT in education (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2010a, 2014; Bingimlas, 2009; Cuban, 1993; Fullan, 2007, 2013; Mumtaz, 2000; Weller, 2007). Thus, the focus of this research is to investigate the reasons for less effective ICT integration. Consequently, this study seeks to supplement previous research by focusing on ICT integration in language teaching in Saudi Arabia. Further, the study will also enrich our understanding of ICT integration as an example of implementing change in educational institutions. Most importantly, not many studies have considered ICT integration as an example of disseminating change in education. Moreover, the qualitative design of the study will help to capture sociocultural issues in educational settings, in other words, enhance our understanding of the cultural pedagogy of ICT integration strategies. Thereby, it is anticipated that it will make a valuable contribution to ICT integration strategies, implementing change and ICT and pedagogy. More specifically, many ICT integration studies have adopted a survey based approach (Al-Dosari, 2011; Al-Harbi, 2011; Al-Khalifa, 2010a; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albalawi, 2007; Albirini, 2006; Ali, 2015; AlMulhim, 2013, 2014, Asiri et al., 2012a, 2012b; Mumtaz, 2000). The quantitative positivist approach does not usually reflect the complete picture and does not focus on the observation of the research context. Thus, there is a need to examine teachers' pedagogical practices along with investigating the sociocultural factors of the research context. The small number of qualitative studies that examine ICT integration closely has motivated the researcher to undertake this research project. More importantly, the review of the studies has shown that a substantial number of studies have focused on teachers and students only (Al-Dosari, 2011; Al-Harbi, 2011; Al-Khalifa, 2010a; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albalawi, 2007; Albirini, 2006; Ali, 2015; AlMulhim, 2013, 2014, Asiri et al., 2012a, 2012b; Mumtaz, 2000). Thereby, the current research project has an institutional level focus (English language centre). The inclusion of many stakeholders (teachers, administrators, policy makers) enriches our understanding of the research problem (poor integration of ICT). As a result, it is hoped that the research findings will contribute to knowledge in relation to effective ICT integration, pedagogy and ICT and managing change in educational institutions. Particularly, since it is almost ten

years ago since the establishment of the NCeLDL in Saudi Arabia, there is a need to review and investigate the current role of ICT as marginal or major in Saudi education. Furthermore, the findings of the study will shed light on the best strategies for effective ICT integration and how to support teachers to implement ICT in their teaching. Therefore, it is hoped that the research findings in this respect will assist educational authorities in the Kingdom of Saudi Arabia in their current efforts to integrate ICT in education and provide the best explanation of effective ICT adoption strategies. The results will also be of interest to teachers in providing them with the components of effective ICT incorporation. Finally, based on the findings of the study, the research will list recommendations for policy makers about how ICT should be integrated in Saudi education.

## 1.6 The Research Aims

The main objective of the research is to investigate EFL teachers', administrators' and policy makers' overall experience of technology implementation in an English foundation year at Taibah University in a campus-based education. Exploring EFL teachers' and administrators' overall experience demonstrates which aspects of technology implementation enhance their teaching and which aspects are challenging for them. Examining teachers' experiences helps in evaluating the implementation process, based on teachers' needs, views and attitudes. Therefore, investigating EFL teachers' experiences of technology implementation indicates their satisfaction, viewpoints and experience and gives suggestions and insights for future plans for ICT integration in campus-based education. The main objectives are:

- 1- To explore the teachers' attitudes towards ICT in language teaching.
- 2- To investigate teachers' utilization of ICT in language teaching (current practices).

- 3- To identify the challenging aspects of technology adoption in language teaching.
- 4- To examine teachers' overall experience, advantages and disadvantages.
- 5- To explore the administrators' and policy makers' experiences of technology integration in language teaching.
- 6- To illustrate the components of effective integration of technology based on teachers', administrators' and policy makers' viewpoints.

## 1.7 Research Questions

This research is investigating the following research questions

### **Main Research Question**

What are the factors that affect EFL teachers' adoption of technology in language teaching?

#### **A-Policy (context) level:**

- 1 What are the objectives of adopting technology in teaching?
- 2 What are the steps taken to achieve these objectives?
- 3 How does the contextual situation affect the implementation of technology?

#### **B-Perception level:**

- 4. What are the attitudes of EFL teachers towards ICT in teaching?
- 5. What challenges do EFL teachers face when integrating technology?

#### **C- Actual Implementation level:**

- 6. How do EFL teachers implement technology in English teaching?
- 7. What support do EFL teachers get from Taibah University when implementing technology?

## 1.8 Context of the Study

The integration of King Abdul Aziz University Campus and Imam Mohammed bin Saud University Campus led to the establishment of Taibah University in Medina, Saudi Arabia in July 2003. Taibah University is an independent research institution, publicly funded with eleven campuses in three different cities. Due to the Ministry of Higher Education plan to develop educational outcomes, all Saudi public universities established the foundation year. This pre-requisite year is mandatory for all new students. The foundation year consists mainly of intensive English courses with four hours teaching a day and twenty hours a week (Liton, 2012; Shah et al., 2013). Students in this year study an intensive English course along with other modules such as Physics, Mathematics and University Life Skills. The textbooks are the *Oxford Q Skills for Success* four level series as well as the *Oxford Headway Academic Skills* textbook (Personal Interview, 2014). The objectives of the foundation year are to develop students' English skills, as many studies indicated students' low proficiency in English despite the six years of studying English in public schools (Al-Hajailan, 2003; Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; I. Khan, 2011b). Therefore, the foundation year, which mainly consists of intensive English courses, aims to improve students' linguistic and learning skills. Based on students' English course marks, they are allocated to the chosen school. Furthermore, the objectives of the foundation year are to equip students with learning skills and prepare them for their future higher education studies (Liton, 2012; Shah et al., 2013). Moreover, to develop students' language skills, English is used as the medium of instruction (EMI) in most schools in the universities e.g. Computing, Business, Physics, Biology, Medicine and Economics (Ryhan, 2014).

## 1.9 Delimitation of the Study

The research project has the followings delimitations:

- 1- The participants of the study are EFL female teachers working in the English language centre (ELC), foundation year at Taibah University – during the second semester, 18 weeks, 2014-2015.
- 2- This institutional case study research has a limited number of participants (20 teachers, 8 administrators, 8 policy makers) which affects the generalizability of the results.
- 3- The study is limited to the chosen context (ELC, Taibah University) since all the participants (male and female) are from Taibah University, except the Deputy Minister (national figure).

## 1.10 Thesis Layout

This thesis consists of seven chapters. First is the introduction, background for the study, the context, the research aims and the research questions.

Chapter Two provides an overview of the current literature about ICT integration in higher education institutions. It presents an overview of what change is, how change is implemented, the benefits of ICT in education, factors that enable or hinder teachers' ICT integration and VLE as an example of implementing change in educational institutions. Furthermore, the chapter also summarises the theoretical frameworks of the current study.

Chapter Three presents the context of the study, an overview of Information and Communication Technology (ICT) in Saudi Arabia as well as an overview of English language teaching (ELT) in Saudi Arabia. The chapter presents an overview of many of the national projects designed to promote ICT integration in the country. This is followed by a summing-up of ELT in Saudi Arabia, summarizing many issues related to ELT e.g. teaching methodologies, ELT materials, students' competence, EFL teacher preparation programs, and new trends to develop ELT in Saudi Arabia.

Chapter Four presents the methodological approach, the design of the study, the research site, the participants, the methods, data analysis procedures as well as ethical considerations.

Chapter Five will illustrate the key findings and themes that were proposed by the research participants.

Chapter Six is a discussion of the results, based on the emergent themes.

Chapter Seven will conclude the thesis by presenting the implications, the main recommendations for technology implementation at Taibah University, and suggestions for future research based on the perspectives of different stakeholders (teachers, administrators and policy makers). The limitations of the study are illustrated as well.

### **1.11 Summary**

This chapter has presented an overview of the research study and the researcher's personal motivation for the current project. A statement of the research problem, the research aims and questions were also presented. The rationales for the study were presented followed by the context of the study and the structure of the thesis. The next chapter will present a review of related studies and the research theoretical frameworks.

# **Chapter 2: ICT Integration and Change**

By the end of the 20th century, the Internet and especially the World Wide Web, has proven to be the most sophisticated communications network our civilization has ever known. Because of its ease of use and low cost, the web has become very effective and popular. Email, discussion forums, web2.0 tools, social networks, chat rooms and listserves have connected people in ways that they never thought to be possible. The web has become so popular, like the telephone or television, that users (individuals or institutions) are using it as their main means of exchanging information (Jolliffe, Jonathan, & David, 2001). Consequently, governments are trying to restructure their educational policies to respond to technological, economic and social changes. E-learning or technology enhanced education cannot be ignored any more, especially today when it is part of everyday life including school life (Silva & Duarte, 2011; Walters & Fehring, 2009). Today in the twenty-first century, technology impinges on all aspects of students' daily lives as they are digital native consumers (Prensky, 2001, 2005, 2012; D. Thomas & Brown, 2011). Further, Selwyn (2008) claims that today students are well-resourced learners and are "inherently inclined towards using the internet as a source of information within their day-to-day lives" (p.12). Accordingly, teachers must practice putting engagement before content when teaching with ICT. They have to recognize that they are teaching in the 21st century i.e. promoting students' learning when designing online instruction (Silva & Duarte, 2011).

## **2.1 Change in Educational Institutions**

### **2.1.1 What is Change?**

Educational change is a fact of life for educators and teachers all over the world and educational institutions are liable to the constant stress of developing and improving everyday practice. However, many educational settings have remained stable and constant in the face of change (Priestley, 2011). Examples

of educational changes are “(1) curriculum materials, (2) teaching practices, and (3) beliefs or understandings about the curriculum and learning practices” (Fullan, 2007, p.85).

### 2.1.2 Change as a Difficult Process

*Change is difficult because it is riddled with dilemmas, ambivalences, and paradoxes. It combines steps that seemingly do not go together: to have a clear vision and be open-minded; to take initiative and empower others; to provide support and pressure; to start small and think big; to expect results and be patient and persistent; to have a plan and be flexible; to use top-down and bottom-up strategies; to experience uncertainty and satisfaction (Cherryholmes, 1998, p.276).*

C Cuban (1993) points out that technology has brought least change to educational institutions because “certain cultural beliefs about what teaching is, how learning occurs, what knowledge is proper in schools...dominate popular views of proper schooling”(p.185). Supporting this view, Fullan (2007) indicates that “we must start by restating where implementation fits and why it is important. The simple implementation question is: What types of things would have to change if an innovation or a reform were to become fully implemented?” (p.85). Additionally, Evans (2001) points out many different approaches to educational change i.e. structural vs. strategic paradigms (see Table 1).

	Rational-Structural	Strategic-Systematic
<b>Environmental</b>	Stable	Turbulent
	Predictable	Unpredictable
<b>Organization</b>	Stable	Fluid
	Logical	Psychological
<b>Planning</b>	Objective, linear	Pragmatic, adaptable
	Long-range	Medium-range
<b>Innovation</b>	Product	Process
	Fixed outcome	Emerging outcome
<b>Focus</b>	Structure, function	People, culture
	Tasks, roles, rules	Meaning, motivation
<b>Implementation</b>	Almost purely top-down	Top-down & bottom-up
	Disseminating	Commitment-building
	Pressuring	Purposing

Table 1 Paradigms of Change (Evans, 2001, p.7).

Change and developmental strategies in many educational institutions have been perceived as fundamental management practice to achieve the required aims, and educational leadership is the key accelerator of effective change (Beycioglu & Kondakci, 2014). However, despite the frequent efforts to change, many scholars point out that change strategies are usually ineffective in realising the planned outcomes (Beycioglu & Kondakci, 2014; Cuban, 2013; Evans, 2001; Fullan, 2007, 2013; Fullan & Hargreaves, 1991). Thus, the discussion over the theory and practice of change in education

enriches our understanding of effective change and cultivates our skills when practicing change implementation (Beycioglu & Kondakci, 2014). Firstly, the popular change characteristics as stable, top-down, logical, predictable, discontinuous and linear is the widespread aspects of change in many educational strategies (Beycioglu & Kondakci, 2014; Evans, 2001; Fullan, 2007, 2013; Fullan & Hargreaves, 1991). Thereby, many educational change scholars indicate the need to reconceptualise our understanding of an effective change process (ibid.). Secondly, change is emergent and disseminated on a continuous basis rather than a planned top-down product (ibid.). Significantly, “tolerance of ambiguities, the ability to respond to emergent local needs, building networks and practice communities....are some of these managerial practices” which enable continuous change in educational institutions (Beycioglu & Kondakci, 2014, para.4). Most importantly, many educational change scholars indicate the ineffectiveness of planned, large scale and discontinuous change (Beycioglu & Kondakci, 2014; Evans, 2001; Fullan, 2007, 2013; Fullan & Hargreaves, 1991). Thus, many authors indicate that leadership has the potential to build “strong collaborative teams, building collective capacity, facilitating knowledge sharing, delegating authority, and facilitating continuous learning in the organization” (Beycioglu & Kondakci, 2014, para.5). By doing so, educational leadership, enables “every organizational member to contribute to the change process rather than limiting change interventions to a small group of change agency” (Beycioglu & Kondakci, 2014, para.5). In addition, educational leadership disseminates knowledge about the proposed change aims and makes such knowledge accessible to every member (Beycioglu & Kondakci, 2014; Evans, 2001; Fullan, 2007; Fullan & Hargreaves, 1991). As a result, educational leadership acts as a key instrumental agent to disseminate and generate professional competencies, resources, motivation, collective capacity and expertise in educational institutions (ibid.).

Other characteristics of change in educational institutions are structural, cultural and psychological logical. The cultural and psychological approaches to educational change are significant due to the heterogeneous nature of educational institutions (ibid.). Additionally, disregarding the psychological and cultural characteristics of change repeats the same mistakes that have previously led to ineffective change proposals. Moreover, Cuban (2013) indicates that frequent structural, curricular changes generate limited development in educational institutions. Consequently, change advocates and policy makers should take different cultural settings into consideration to capture the contextual features and recognize context embedded logics (Beycioglu & Kondakci, 2014; Cuban, 2013; Evans, 2001; Fullan, 2007; Fullan & Hargreaves, 1991). Furthermore, "financial limitations, conceptual ambiguity, negative attitudes towards change, negative history of change, excessive fragmentation, work overload, and lack of participative practices causes limited success in educational change interventions" (Beycioglu & Kondakci, 2014, para.2). (For a complete summary of change characteristics see Table 1).

### **2.1.3 Implementation of Change**

Educational change is "technically simple and socially complex" (Fullan, 2007, p.84). Over the past 35 years, many educational changes have not been implemented well although there was a focus on implementation. Educational change requires planning and coordinating a multilevel social process. Implementing change is a complex process as there are many factors affecting the implementation of change (Fullan, 2007). The complexity of change is due to the human aspects of real change rather than paper-based change (ibid.). Thus, many attempts at policy-level change have focused on product development i.e. legislation and documents and have "ignored the fact that what people did and did not do was the crucial variable" (Fullan, 2007, p.85). Supporting this view, Evans (2001) states that policy makers most of the time pay too little attention to the central problem that usually appears in educational change which is "implementation". They neglect its practicalities, even though

they have accurate critiques and appealing proposals, "they often show a remarkable naiveté about how people and institutions actually behave" (p. XII).

Implementation is a "process of putting into practice an idea, program, or set of activities and structures new to the people attempting or expected to change" (Fullan, 2007, p.84). Implementation is critical because it is the means of achieving the required aims. Further, Fullan (2007) illustrates that the effectiveness of implementation mostly "depends on the degree and quality of change in actual practice" (p.85). Fullan (2007) notes the multidimensionality of implementation where he states that educational institutions are "more likely to implement superficial changes in content, objectives, and structure than changes in culture, role behavior, and conceptions of teaching" (p.79). Similarly, Selwyn (2011) advocates the contextual approach of ICT integration that looks at educational institutions and classrooms as social spaces. This approach notes the "socio-technical nature of technology related change in education" (p.60). Consequently, examples from history show that the use and the non-use of ICT in educational contexts is a social and a technical issue (*ibid.*).

#### **2.1.4 Supporting Teachers in Change**

Therefore, people who may accomplish such a change deserve and need much more consideration. The educational change may be simplified by its advocates but they should not oversimplify it and neglect the practical strategies. They have to consider people's readiness, organizational capacity and leadership (Evans, 2001). For teachers, unclear and indistinct change might be adopted literally i.e. without realizing that specific teaching approaches and underlying beliefs are significant to effectively implement a change. Worse than this, is when teachers adopt the advocated change superficially. Additionally, unclear and ambiguous change might create anxiety for the teachers who are trying to adopt a change. Nevertheless, clarity cannot be served on a tray as it is

accomplished through the implementation process (Fullan, 2007). Thereby, Priestley (2011) “suggests that strong leadership is important in the promotion and sustaining of change, being a source of both impetus and support” (p.3). Moreover, Fullan (2007) states that “when teachers do get help, the most effective source tends to be fellow teachers, and second, administrators and specialists” (p.133). Thus, for teachers to adopt the change meaningfully, they need role models; expert teachers who help to establish a community of practice. Additionally, over the past decades, research has shown that successful educational institutions have “purposeful interaction operates within” and the key issue is a “professional learning community” as well as “collaborative work cultures” (Fullan & Hargreaves, 1991). On the other hand, Fullan (2007) argues about the quality and the quantity of the teachers’ workshops stating that:

*Most professional development experiences for teachers fail to make an impact. Almost 30 years ago I conducted a review of “in-service,” as it was called then, and concluded that one-shot workshops were ineffective, the topics were selected by people other than those receiving the in-service, and follow-up support for implementation was rare (p.285).*

Consequently, according to Fullan (2007), research has shown that support from administration is crucial for a change to happen. Research has shown that “general support or endorsement of a new program by itself has very little influence on change in practice (e.g., verbal support without implementation follow-through)” (p.94). Teachers are fully aware that if they do not get the expected administrative support, they will not adopt the change and educational reform fails time and time again. Additionally, Fullan & Hargreaves (1991) indicate the reason for ineffective change is because “we believe this is because reform has either ignored teachers or oversimplified what teaching is about” (Fullan & Hargreaves, 1991, p.14).

## 2.2 Theoretical Framework

To obtain a richer understanding of the effective integration of technology, a framework is needed to guide the analysis of a research project and to investigate the pedagogical approach behind technology implementation. The models usually describe the specific role of technology in supporting teaching. Also, they clarify the detailed practices and the pedagogical rationale (Mayes & Freitas, 2005). Four theories will be presented in the following section, namely Social Constructivism, Rogers's Innovation Diffusion Theory, Fullan's New Meaning of Educational Change and Garrison & Vaughan's Community of Inquiry Model. Social Constructivism is a theory of inquiry in research. Rogers and Fullan's theories complement each other in terms of presenting a sound analysis of the implementation of change in education. More specifically, the Community of Inquiry Model illustrates the best practice of adopting technology along with face-to-face teaching (blended learning).

### 2.2.1 Social Constructivism Theory

Social Constructivism (often linked to Interpretivism) usually forms the basis for a qualitative research inquiry (Creswell, 2009). "The social constructionist perspective within the social sciences is part of a much wider tradition which has been labelled constructionist or constructivist" (O'Dowd, 2003, p.41). The basic assumption of such a theory was advocated by Berger and Luckmann's (1967) *The Social Construction of Reality* and Lincoln and Guba's (1985) *Naturalistic Inquiry* (Creswell, 2009). Social Constructivism proposes the beliefs that people form meanings and understandings of their own world. They construct their subjective understanding of their lives and experiences based on their social context (Lincoln & Guba, 1985). There are many variations of the formed meanings (multiple meanings), thus researchers investigate the complex context naturally rather than forming preconceived categories (Creswell, 2009; O'dowd, 2003). Researchers seek specific context as they

need to understand social and cultural backgrounds. These backgrounds help while studying participants' viewpoints about the research phenomena.

Since the objectives of the research are to understand people's views in the studied context, the research questions are open-ended so the participants can express their detailed experiences. Thereby, the focus is giving the participants a chance to discuss and interact with each other (the social part) as these discussions reflect cognitive developments (Creswell, 2009). Additionally, O'Dowd (2003) states that:

*Knowledge arises from social processes and interaction – in principle social scientific knowledge is no different from everyday knowledge. Constructionists believe that people make their own reality and that there are no universal laws external to human interaction waiting to be discovered. Constructionist assumptions have methodological implications in that social researchers are not distinct from their subject matter – they cannot study social life as scientists might do in a laboratory. Instead their interaction with their subjects is itself a key part of the sociological enterprise. (p.41).*

Furthermore, cultural and social backgrounds such as gender, ethnicity, class, and nationality are considered different categories of social constructs and usually differ depending on the cultures, process, circumstances and the type of interactions (O'Dowd, 2003). Supporting this view, Crotty (1998) points out the role of sociocultural factors in shaping human action by stating:

*Unworkable? Yes, unworkable. Without culture we could not function. Culture has to do with functioning. As a direct consequence of the way in which we humans have evolved, we depend on culture to direct our behaviour and organise our experience. In the past, Geertz points out, we have tended to see culture as 'complexes of concrete behaviour patterns-*

*customs, usages, traditions, habit clusters'. To view culture primarily in this light is to consider it the outcome of human thought and action. We need to reverse this way of viewing culture. Culture is best seen as the source rather than the result of human thought and behaviour. It is 'a set of control mechanisms-plans, recipes, rules, instructions (what computer engineers call "programs") for the governing of behaviour (p.53).*

Further, constructivists are suspicious, as they doubt the scientific approach to human characteristics. They claim that this natural approach, which is deeply seated in biology, has mistakenly assumed that there are natural fixed human aspects (Burr, 2003; O'Dowd, 2003). Similarly, Surry (1997) illustrates that "there is no danger in being driven to improve society by improving instructional technology. The danger is to ignore the society we are attempting to improve" (para.40). In addition, Social Constructivism theory notes the researcher's role as he/she is part of the social researched context. Thus, the theory highlights the reflexivity of the investigator, due to the dual role of being a participant and interpreter. Qualitative researchers realize their role in the research project since they cannot not separate themselves from their research (Creswell, 2009; Lincoln & Guba, 1985; O'Dowd, 2003). Consequently, their personal backgrounds and culture shape their interpretations. Unlike positivist researchers, they usually do not start with a theory, since their focus is on interpreting participants' meanings inductively (Creswell, 2009, 2013).

Moreover, Crotty (1998, cited in Creswell, 2009) points out many assumptions of the Social Constructivism paradigm, stating that:

- 1- *Meanings are constructed by human beings as they engage with the world they are interpreting. Qualitative researchers*

*tend to use open-ended questions so that the participants can share their views.*

- 2- *Humans engage with their world and make sense of it based on their historical and social perspectives—we are all born into a world of meaning bestowed upon us by our culture. Thus, qualitative researchers seek to understand the context or setting of the participants through visiting this context and gathering information personally. They also interpret what they find, an interpretation shaped by the researcher's own experiences and background.*
- 3- *The basic generation of meaning is always social, arising in and out of interaction with a human community. The process of qualitative research is largely inductive, with the inquirer generating meaning from the data collected in the field (p.8-9).*

Accordingly, the research objective is studying ICT adoption in a specific context. The researcher is investigating teachers', administrators' as well as policy makers' viewpoints about ICT integration in ELC, Taibah University. These viewpoints are socially constructed and shaped by many contextual and cultural factors. Further, as the focus is forming a holistic analysis of the research context, the cultural and social aspects should be considered. Participants form their reality based on the context they live in and this reality is generated by discussions and interactions. To understand the context deeply, a qualitative research design is adopted. The main questions of the current study are why there is less effective ICT implementation in ELC? and how can we develop better integration? based on participants' viewpoints. Therefore, the how and why questions necessitate a qualitative inquiry design. Moreover, the study is context bound and thus investigating the impact of sociocultural norms on peoples' experiences is essential.

## 2.2.2 Rogers's Innovation Diffusion Theory

“Getting a new idea adopted, even when it has obvious advantages, is difficult. Many innovations require a lengthy period of many years from the time when they become available to the time when they are widely adopted” (Rogers, 2003, p.1). Diffusion is defined by Rogers (2003) as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (p.5), while innovation is “an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (p.12). Investigating the relationship between the above stated two terms, Rogers (2003) developed his comprehensive theory, the *Diffusion of Innovations*. Diffusion of Innovation is “a process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 2003, p.35). The theory first appeared in 1962 in Rogers’s book *Diffusion of Innovations*. The theory is widely used in communications, education, marketing, public health, agriculture and specifically ICT adoption (Rogers, 2003; Sahin, 2006; Surry, 1997).

Rogers’s theory comprehensively addresses the issues related to the diffusion of any innovations. Interestingly, Rogers (2003) used the terms “innovation” and “technology” interchangeably. The theory deals with the change process and the attributes when presenting any new thing to individuals or organizations. The theory is mainly about implementing a change in terms of how and why the adoption is always late (Rogers, 2003). Due to the lack of proper integration of ICT in education, many scholars have adopted the Dol theory to enhance the adoption rate (Surry, 1997). This theory indicates how numerous main factors, along with various sub-factors, interact to enhance or inhibit the implementation of any new thing (materials, practices) among individuals or groups (Surry, 1997). Additionally, Surry (1997) indicates that:

*The study of diffusion theory is potentially valuable to the field of instructional technology ... First, most instructional*

*technologist do not understand why their products are, or are not, adopted. In a very real sense, the underlying causes of instructional technology's diffusion problem remain a mystery to the field. There appear to be as many reasons for instructional technology's lack of utilization as there are instructional technologists (para.3).*

Additionally, Surry (1997) indicates the significance of Dol theory by stating:

*The researcher who has done the most to synthesize all of the most significant findings and compelling theories related to diffusion is Everett M. Rogers. Rogers' book *Diffusion of Innovations*, first published in 1960...is the closest any researcher has come to presenting a unified theory of diffusion... Four of the theories discussed by Rogers are among the most widely-used theories of diffusion: Innovation Decision Process; Individual Innovativeness; Rate of Adoption; and Perceived Attributes (para.8).*

## **Four Components of the Diffusion of Innovation Theory**

The four main components of the Diffusion of Innovation Theory are: the innovation, communication channels, time, and the social system (Rogers, 2003). Innovation is an idea or a practice that is observed to be a new to the pre-existing setting. The observed degree of newness is subject to the individual's viewpoints and response. In terms of ICT innovation, he indicates that technology is "a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome" (p.13). Rogers identifies two aspects of technology: hardware and software. He asserts that people think of technology mainly as hardware and ignore the software aspect. This leads to ambiguity of the benefits to the potential adopters and thus results in poor integration. Potential adopters need to know about the possible consequences of the technology to reduce uncertainty. The more they

know, the more likely they are to try it. Therefore, the innovation-decision process, as Rogers points out, is essentially “an information-seeking and information-processing activity in which an individual is motivated to reduce uncertainty about the advantages and disadvantages of the innovation” (p.14). The typical questions asked are “what is the innovation?”, “how does it work?”, “why does it work?”, what are the innovation’s consequences?” (ibid.). Also, innovation is not an invariant alternative, since the adopter can re-invent or modify it while adopting i.e. users are not passive adopters “implementing a standard template of the new idea” (p.17).

Communication channels are the second element of the innovation diffusion. Communication is a process where people originate and share information with each other, aiming to better understanding (Rogers, 2003). However, diffusion is a certain type of communication where the content of the message is new (ibid.). The communication process entails “an information exchange” among people. The communication is usually between the innovation unit and the different potential users i.e. communication channels. Mass media channels are normally quick and effective ways of broadcasting new ideas to potential users. Another method of communication is through “interpersonal channels”. These are effective in persuading individuals to adopt a new idea or practice. Most importantly, diffusion studies show that many people rely on subjective accounts (peers) before embracing a new idea or practice (Rogers, 2003). They recognize a peer model and an imitation of the model is possible if they perceive its effectiveness. When two people are homophilous i.e. have the same education, beliefs, status or culture, effective communication is more likely to be possible and vice versa. Therefore, the challenging aspect of adopting any innovation is that people are heterophilous (ibid.).

Time is the third aspect of the innovation diffusion. Time is a very important element in diffusion process research (Rogers, 2003). The involvement of time is in the innovation-decision process, innovativeness (adopter categories), and the rate of adoption. The innovation-decision process is a five-stage cognitive

and behavioural process. These five stages are: knowledge stage, persuasion stage, decision stage, implementation stage, confirmation stage. Time is involved in the five stages when an individual passes through the innovation process. Time is also involved in users' rate of adoption (early or late) in comparison with others (innovators, early adopters, early majority, late majority, laggards). Also, the innovation's rate of adoption in a society is often calculated by the number of adopters in a specific time (ibid.).

The social system is the fourth element in the innovation diffusion process. "A social system is defined as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal" (Rogers, 2003, p.23). Social members are individuals, informal groups and organizations. The structure of a social system provides a "stability and regularity" to a given people in a context. Thus, the social structures and the established norms enable or inhibit the diffusion in a system. Another element in a social system is opinion leadership, which is the "degree to which an individual is able to influence informally other individuals' attitudes or overt behaviour in a desired way with relative frequency" (Rogers, 2003, p.37). Additionally, a change agent or an aide, who tries to affect individuals' innovation-decisions to achieve the change aims, plays a major role in the society. Another element is innovation-decisions that might be optional, collective and authority decisions. The last element is the consequence of the proposed change or innovation. Consequences are divided into three types; desirable vs. undesirable, direct vs. indirect and anticipated vs. unanticipated. The desirable-undesirable consequences are whether the effects of change are "functional or dysfunctional". Direct-indirect consequences are whether the changes of an individual or group are an immediate or a delayed "second-order" result. The last category is whether the change is observed and deployed by the members of a society (Rogers, 2003).

## **Innovation Decision Process**

The Innovation Decision Process is the process by which an individual (or other decision-making unit) passes through the five-stage process in order to

integrate or not to integrate (Rogers, 2003). These five stages are knowledge, persuasion, decision, implementation and confirmation. The knowledge stage is usually when the potential users are informed about the innovation and gain an understanding of its functions. The persuasion stage is when people shape their positive or negative attitudes towards the change. The decision stage is the accessibility of many activities so people can accept or reject the change. The implementation stage is when potential users try the proposed change and this is followed by the last confirmation stage where people seek reinforcement regarding their confirmed decision (see Figure 2). The last stage, which is sometimes a confirmation of a rejection, means people have a better idea than the actual change “replacement discontinuance”, or the idea reveals unsatisfactory performance “disenchantment discontinuance” (Rogers, 2003). Accordingly, many researchers of innovations and change illustrate that change never occurs as a spontaneous action. Rather, it is a process that develops over a period of time and entails a set of various actions (Rogers, 2003).

### **Attributes of Innovations**

Rogers proposes a sub-theory that describes the attributes of innovations in many contexts. The five attributes are; relative advantage, compatibility, complexity, trialability, observability. He indicates that although they are interrelated empirically, they are different distinct concepts. People's conceptions of those attributes foresee the innovation's rate of implementation. The rate of adoption is the average speed of the adoption by the social members in a society. The first relative advantage is the extent where the innovation is recognized as better than the pre-existing idea or practice. There is a positive correlation between the relative advantage of an innovation and its rate of adoption (Rogers, 2003).

Compatibility is the extent to which an innovation is realized as consistent or compatible with the current values, experiences and needs of the potential users. People's observation of the consistency of an innovation is positively

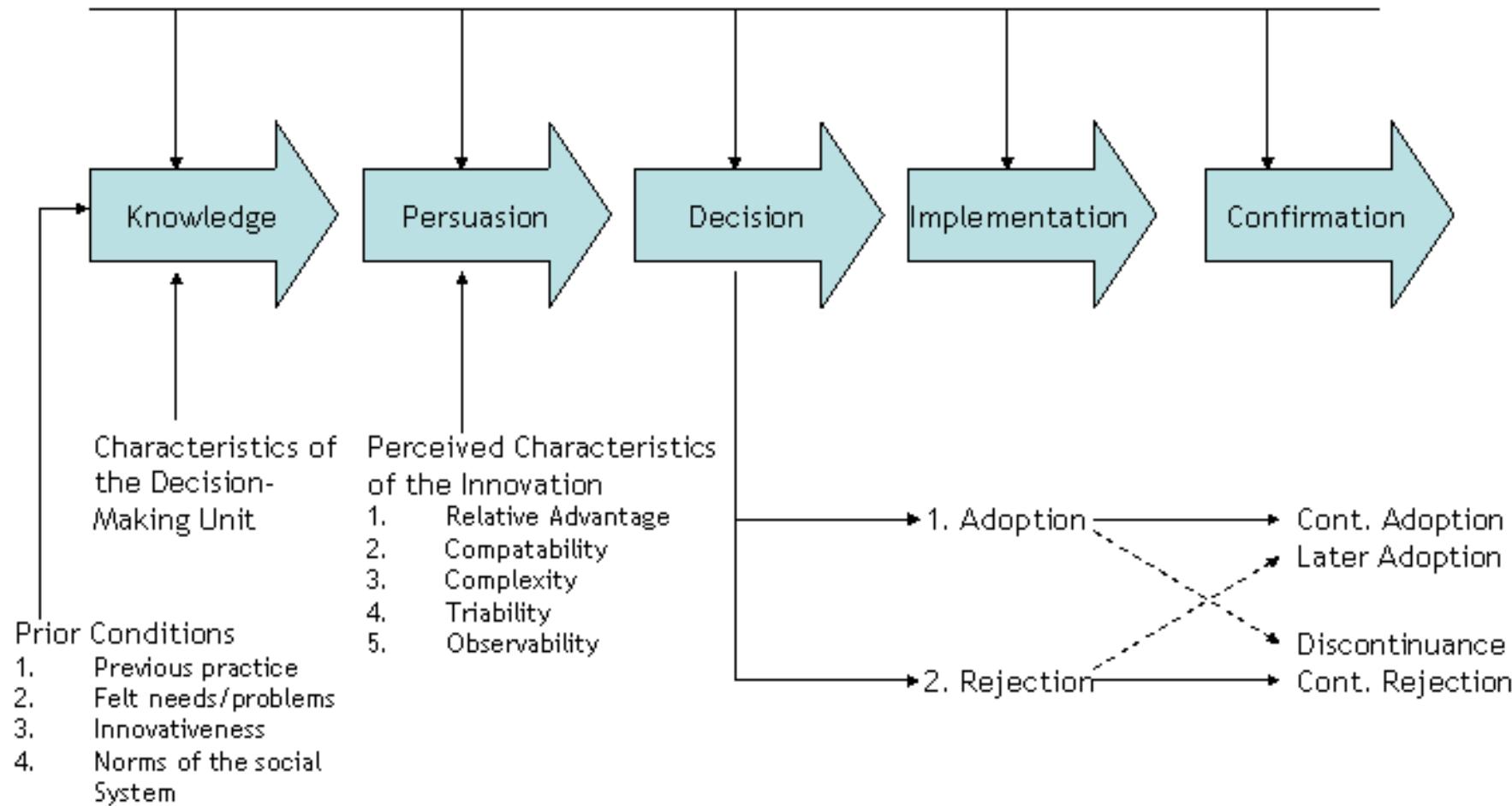
correlated with its rate of adoption. Realizing pre-existing beliefs and knowledge enhances the rate of adoption. Change agents usually overlook these aspects although they affect peoples' potential to change. Complexity is when an innovation is perceived as complicated or difficult to utilize or grasp. Thereby, complexity is negatively related to the rate of adoption (Rogers, 2003).

Trialability is the degree to which the innovation might be experimented with or tested in limited forms. If potential users are able to try out a new product or idea, they might be more likely to adopt the innovation. Thus, there is a positive correlation between trialability and rate of adoption. The last attribute is observability, which means whether the probable affordances of an innovation are observable or apparent to the adopters. Also, the observability is positively related to the rate of adoption (see Figure 2) (Rogers, 2003). The main theme of the attributes of innovation is that "change agents and diffusion scholars must understand how potential adopters perceive new ideas. Such perceptions count in determining the nature of the diffusion process" (Rogers, 2003, p.266).

Figure 2 A Model of Five Stages in the Innovation-Decision Process (Rogers, 2003, p.170)

(Image Source FIDIS, 2005)

Communication Channels

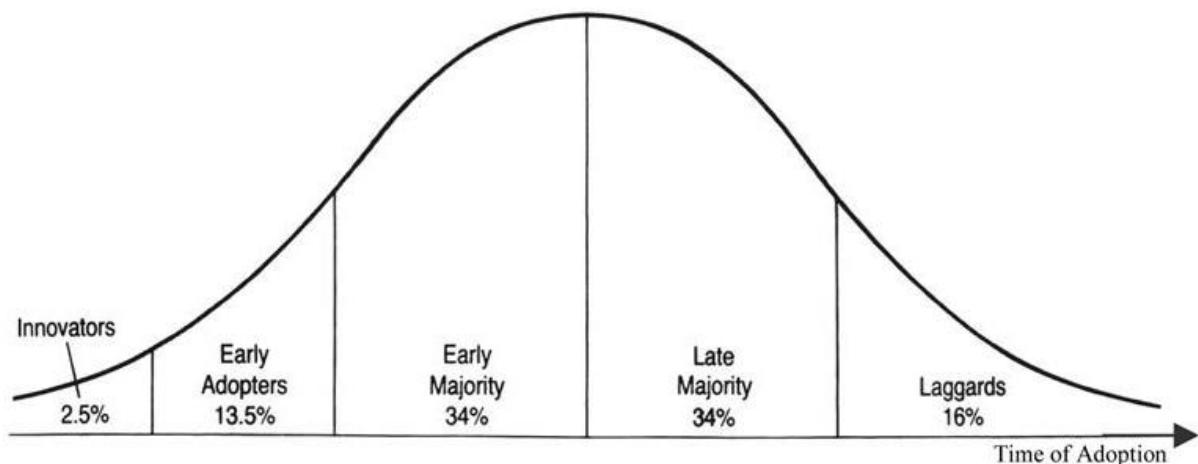


## Innovativeness and Adopter Categories

Moreover, in terms of innovativeness and adopter categories, Rogers identifies five categories of individuals: innovators, early adopters, early majority, late majority and laggards. These categorizations of the members are very much related to their values and status. Rogers defined innovativeness as "the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a system" (p.297). The continuum of innovativeness is like a bell curve in terms of adopters' distributions over a period of time. Many socio-economic factors affect the person's tendency to adopt an innovation. Rogers claimed that innovators and early adopters have good educational backgrounds, well-developed social skills and are risk-takers. He categorizes them as follows; innovators (venturesome), early adopters (respectful), early majority (deliberate), late majority (sceptical), laggards (traditional) (see Figure 3).

Figure 3 Adopter Categorization on the Basis of Innovativeness (Rogers, 2003, p.281)

(Image Source FIDIS, 2005)



### 2.2.3 Fullan's Theory – The New Meaning of Educational Change

Educational change is a complex process as it involves different stakeholders e.g. teachers, students, principals and government agencies. “Intrinsic dilemmas in the change process, coupled with the intractability of some factors, the uniqueness of individual settings, and variations in local capacity, make successful change a highly complex and subtle social process” (Fullan, 2007, p.86). Thereby, to form a profound understanding of the process of implementation of educational change, Fullan (2007) points out many different factors that influence the effective implementation of change. If any of these factors are working against implementation, the uptake will be less effective i.e. the more factors assisting implementation, the more actual change achieved. Most importantly, these factors should not be considered in isolation. In other words, they affect each other and interact in a dynamic process similar to the nature of the change process (ibid.). Fullan indicates nine factors and categorises them into three different classifications: (1) the characteristics of the innovation or change project, (2) local roles, and (3) external factors. Regarding the characteristics of innovations (change), Fullan points out four factors; need, clarity, complexity and quality.

Need is an essential factor in many educational changes. Many educational changes are initiated without a mindful assessment of the priority needs. Accordingly, teachers mostly do not recognize the need for the proposed change. Many studies have shown the importance of linking need to educational change decisions (Fullan, 2007). Similarly, Rogers (2003) points out that relative advantage and observability affect the degree of diffusion of an innovation. Relative advantage is the observations of the benefits (needs) of the advocated changes compared to the current situation, while observability means whether the benefits or needs are visible. Additionally, the process of agreeing upon the perceived needs is not clear (Fullan, 2007). He states that:

*Precise needs are often not clear at the beginning, especially with complex changes. People often become clearer about their needs only when they start doing things, that is, during implementation itself. Third, need interacts with the other eight factors to produce*

*different patterns. Depending on the pattern, need can become further clarified or obfuscated during the implementation process (p.88).*

*Clarity* is the second element that influences the implementation of educational changes. Clarity means that the objectives and the means of the advocated change are apparent. Although there is a kind of agreement on the perceived needs, the proposed change might not be straightforward, since teachers do not know what they should do differently. Furthermore, “lack of clarity—diffuse goals and unspecified means of implementation—represents a major problem at the implementation stage; teachers and others find that the change is simply not very clear as to what it means in practice” (Fullan, 2007, p.89). Consequently, on many occasions, teachers and educators are left with false clarity. False clarity happens when the advocated change is “interpreted in an oversimplified way; that is, the proposed change has more to it than people perceive or realize” (Fullan, 2007, p.89). For example, new materials (textbooks, technology) are easily introduced to the classroom, yet fail to advocate the important aspects of the underlying goals that should be addressed. Thereby, depending on the new material merely and overlooking the actual behaviours and educational beliefs that affect the effective implementation of educational change means that the desired outcomes are not reached.

*Complexity* refers to the degree of difficulty and the extent of the proposed change for the people involved in implementing it. Any change can be inspected in terms of difficulty, skill required, and extent of alterations in beliefs, teaching strategies, and use of materials (Fullan, 2007, p.90). Accordingly, effective change entails comprehensive activities such as teaching approaches, context diagnosis and understanding of its implicit philosophy. On the contrary, while complexity causes difficulty during implementation, it might lead to a greater result, not in terms of absolute change, but in terms of stimulating and challenging teachers (Fullan, 2007). If the advocated changes require less, little is gained.

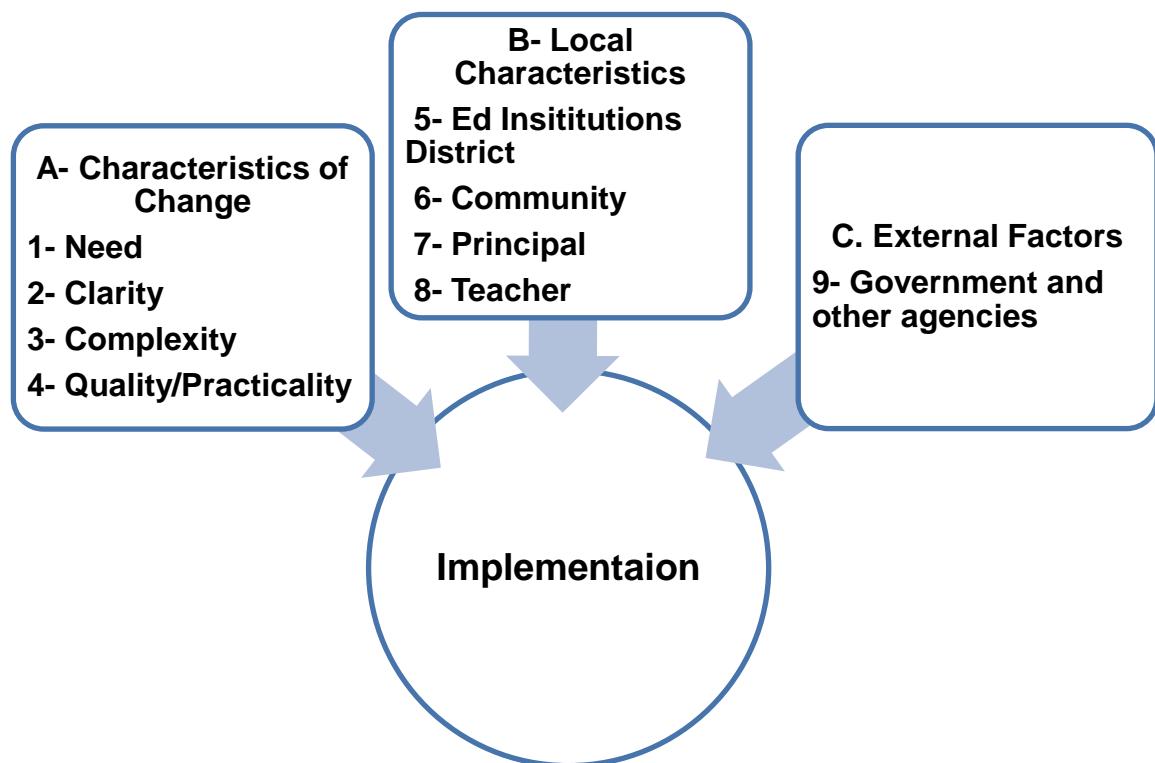
The quality and practicality of the proposed change influence the implementation process. When the focus is on adoption not implementation i.e. without adequate preparations and materials, the uptake of the change will be slow or ineffective. The initiation decision is usually politically based without any planning for effective uptake (Fullan, 2007). When looking at quality and practical issues, it needs to be considered that change is a consuming process and that “there is still the problem of superficial implementation when new materials are in use, and even new practices in evidence, without the deeper understanding required for substantial and sustained implementation” (Fullan, 2000, p.23). Thus, planned change is essential because “it is what people develop in their minds and actions that counts. People do not learn or accomplish complex changes by being told or shown what to do. Deeper meaning and solid change must be born over time” (Fullan, 2007, p.92).

The second set of factors that affect the implementation of change are what Fullan calls local characteristics; district, community, principal and teacher. This set of factors reflects the social conditions and the organizational settings needed for a change to be effective. The district of the educational institution plays a major role in the implementation of the change. If the district has a history of unsupportive change attempts, teachers will no longer respond to change (Fullan, 2007). Active involvement and partnerships between district and community are essential to effect change. Principals play a major role in implementing change, however many researchers have shown that principals do not play their administrative supportive leadership roles (Algarfi, 2010; Fullan, 2007; M. S. H. Khan et al., 2012; Mumtaz, 2000). Fullan (2007) indicates that many administrators “suffer from the same problem in implementing a new role as facilitator of change as do teachers in implementing new teaching roles” (p.96). The role of teachers, whether on an individual or collective basis, plays a significant role in the implementation of change. The educational institution culture shapes the psychology of the individual teacher for better or for worse (ibid.). Interaction is a key issue that enable teachers’ uptake of change, as Fullan (2007) indicates:

*Change involves learning to do something new, and interaction is the primary basis for social learning. New meanings, new behaviors, new skills, and new beliefs depend significantly on whether teachers are working as isolated individuals or are exchanging ideas, support, and positive feelings about their work. The quality of working relationships among teachers is strongly related to implementation (p.97).*

Government agencies play a role in the implementation of change. They usually issue new policies and national sponsored projects to introduce the change. However, whether or not implementation happens depends largely on the implementation process and the response to teachers' needs (Fullan, 2007). In addition, "government agencies have been preoccupied with policy and program initiation, and until recently they have vastly underestimated the problems and processes of implementation" (ibid., p.99). Consequently, we end up with two totally different worlds, namely the policy makers and the local teachers. In other words, "each side is ignorant of the subjective world of the other" and thus change will fail (ibid.) (see Figure 4 below).

Figure 4 Interactive Factors Affecting Implementation of Change (Fullan, 2007, p.87)



#### 2.2.4 Community of Inquiry Model

The Community of Inquiry Model (hereafter Col) is a framework that gives guidelines for complex and dynamic online blended learning environments. The model is based on a collaborative constructivist approach to teaching and learning. The framework states that educational experience is centered within a community of inquiry that is composed of teachers and students. The Col framework consists of three

overlapping elements: social presence, cognitive presence and teaching presence (Akyol, Garrison, & Ozden, 2009; Garrison, 2011; Garrison, Anderson, & Archer, 2000; Garrison & Vaughan, 2008) (see Figure 5 and Table 2).

In an attempt to understand blended learning designs, Garrison & Vaughan (2008) illustrate that “the Col framework provides the order and rationality to understand the nature, purpose, and principles of blended learning. It provides the context for the practical examples and the selection of strategies and tools presented” (p.10). Thus, the concept of a Col sets up a roadmap for blended learning designs and approaches (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008). The aim of the Col model is to enhance the engagement of students in the online environment. The model, according to Arbaugh (2007), is the most cited framework in The Internet and Higher Education Journal.

The model contains three main overlapping presences; social presence, cognitive presence and teaching presence. It is important to note that educational experience is enhanced by the effective integration of the above three presences. Garrison & Vaughan (2008) state that:

*Each of the presences reflects categories and indicators that operationalize the elements used to study and design the teaching and learning transaction. It is important to note the interdependence across and within the presences. For example, teaching presence will have a significant influence on cognitive presence, and social presence will influence cognitive presence (p.19-20).*

**Social presence** is when the students in the Col feel free to speak their minds freely in a risk-free manner. Students are able to develop “the personal relationships necessary to commit to, and pursue, intended academic goals and gain a sense of belonging to the community” (Garrison & Vaughan, 2008, p.19). The categories of social presence are open communication, group cohesion and cohesive responses. These categories are essential to sustain and develop a Col. A community is established when students are encouraged to interact personally and educationally. Interpersonal and purposeful interaction is a very important way to construct an engaging community. Students, who have a

sense of responsibility and commitment, must also feel emotional trust because it takes time for students to evolve and have a sense of comfort and trust in the online platform. Social bonding is important, especially when there is a lack of visual cues which might limit students' engagement. However, social presence alone does not structure academic interests among the students. A community of inquiry is more than online resources. Effective learning requires purposeful dialogue from the student to critically reflect on their understanding. This leads to the second element, cognitive presence (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008).

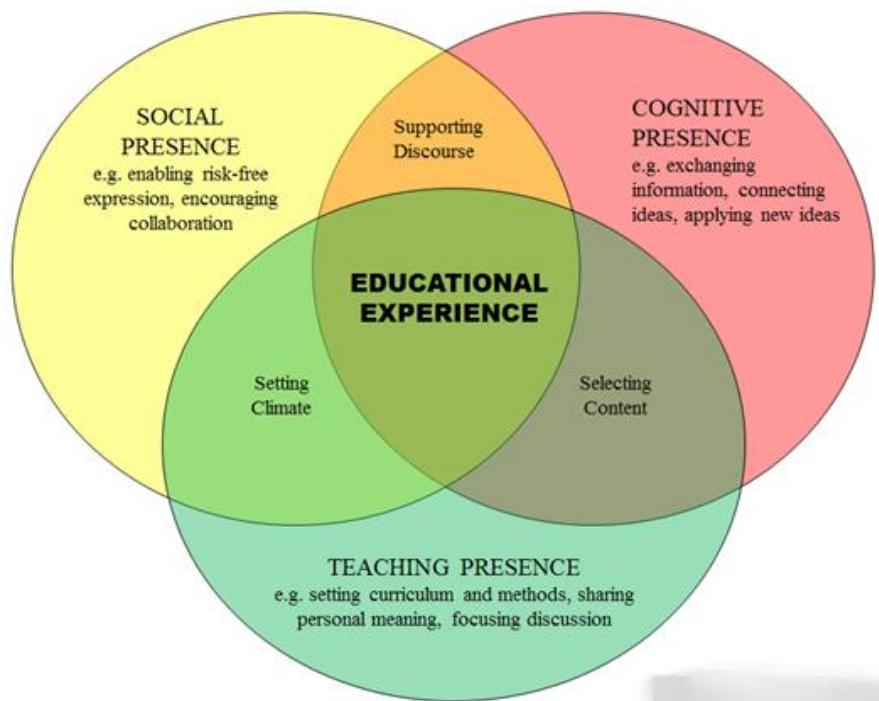
**Cognitive presence** is a fundamental element of the inquiry process. It entails the reflection of an interactive and reflective community to conceptualize and reflect on future experiences. The process of inquiry goes beyond accessing online information to a practical inquiry of knowledge building approach. Cognitive presence is a recursive non-linear means of perception-conception activities proposed via constructive collaborative engagement. Students exchange information, connect ideas, apply new ideas and create concepts. The inquiry is process-oriented and exploratory in nature. An online community is believed to be less threatening and inclusive where all the students participate in meaning making. Nevertheless, facilitation, direction to progression and balance are all very much needed. These categories are represented by teaching presence (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008).

**Teaching presence** is an important aspect that brings all the elements together in an engaging productive community. It involves design of the materials, facilitation of the discourse, direction and guidance. Teaching presence is a medium that brings social and cognitive presence together in an effective and engaging manner. It entails planning tasks, establishing a curriculum, adopting

approaches and fostering interactions. Teaching presence is an integral part of the Col model that is usually challenging to the teachers, especially in a blended learning environment. It is essential to point out that students usually expect a strong teaching presence in online courses (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008). The instructor's role is an important aspect in creating a strong teaching presence as well as a well-designed online course. Also, there are positive relationships between course design, direct instruction and perceived teaching style (Arbaugh, 2007). Furthermore, teaching presence is a significant predictor of students' learning and satisfaction with online blended courses. Teaching presence means engaging the students in challenging educational experiences to shape their cognitive and metacognitive attributes. Additionally, the use of teaching rather than teacher emphasizes the shared responsibilities and roles among community members (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008). The Col model provides an understanding of the essential elements of online higher education experiences.

Implementing the elements of the Col framework, namely, social presence, cognitive presence and teaching presence, is essential to effective ICT integration. The Col model is adopted in this study to serve as guidance, indicating the best practice for technology integration in higher education. The model helps with understanding and exploring technology-enhanced teaching. The ultimate goal is not to acquire fragments of information but to collaboratively encourage teachers and students to construct concepts and reflect. It aims to make the best of the overlapping three elements to end up with purposeful effective and engaging ICT (Akyol et al., 2009; Garrison, 2011; Garrison & Vaughan, 2008).

Figure 5 The Community of Inquiry Framework (p.18).



<b>Elements</b>	<b>Categories</b>	<b>Indicators (examples only)</b>
Social Presence	<ul style="list-style-type: none"> <li>▪ Open communication</li> <li>▪ Group cohesion</li> <li>▪ Affective/personal</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enabling risk-free expression</li> <li>▪ Encouraging collaboration</li> <li>▪ Expressing emotions, camaraderie</li> </ul>
Cognitive presence	<ul style="list-style-type: none"> <li>▪ Triggering event</li> <li>▪ Exploration</li> <li>▪ Integration</li> <li>▪ Resolution</li> </ul>	<ul style="list-style-type: none"> <li>▪ Having sense of puzzlement</li> <li>▪ Exchanging information</li> <li>▪ Connecting ideas</li> <li>▪ Applying new ideas</li> </ul>
Teaching presence	<ul style="list-style-type: none"> <li>▪ Design &amp; organization</li> <li>▪ Facilitation of discourse</li> <li>▪ Direct instruction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Setting curriculum and methods</li> <li>▪ Sharing personal meaning</li> <li>▪ Focusing discussion</li> </ul>

Table 2 Community of Inquiry Framework Categories & Indicators (p.19)

## 2.3 ICT Integration in Education

ICT integration is a broad term that has many meanings depending on the context. Thus, ICT normally stands for “electronic” or “online teaching”, asserting the learning is taking place at a distance from a formal classroom using web-based technologies (Pachler & Daly, 2011). Woppard (2011) states that ICT enhanced teaching is a form of teaching or learning characterized by the use of computers, allowing more opportunities for learning regardless of time and place. Since there are many applications of ICT, ICT enhanced teaching in this research means the integration of ICT in language teaching. More specifically, assessing ICT integration in this research involves investigating the use of VLE in language teaching along with campus-based education. The utilization of the VLE is considered a form of blended learning where students have to utilize the VLE along with classroom based teaching. The VLE is considered an ICT tool that enhances learning and teaching in

educational institutions. Thus, the terms “ICT integration” and “VLE utilization” are used interchangeably in this research.

ICT enhanced teaching applications need effective implementation to improve the educational outcomes. An effective strategic approach should take into consideration the different stakeholders i.e. teachers, administrators, students and policy makers. Warschauer (2004) illustrates that ICT integration in English language requires five areas to be examined: new contexts, new literacies, new genres, new identities and new pedagogies. Additionally, in order to engage students effectively in online learning, teachers must not only be ICT competent, they should do their best to find ways to incorporate online discussion forums into their teaching and encourage students to join online study groups (Prensky, 2005). Additionally, Weller (2007) states that the broadcasting approach, which means delivery of the content without the role of student-teacher discussion or guidance, might affect the quality of ICT enhanced teaching. He asserts that the broadcast viewpoint has been characterized as “a belief that ‘content is king’ which ignores the educational importance of dialogue (both between students and with an educator)” (p.6). Therefore, many studies clearly indicate that teachers have a significant role in forming an active collaborative e-learning community. He/she should direct the students to enhance their learning and achieve the course aims (Alebaikan, 2010; Alturki, 2007; Basha, Mnaathr, R.Mohain, & Othman, 2013; Johnson, 2012; Laurillard, 2012; Liaw & Huang, 2007; Pachler & Daly, 2011; Silva & Duarte, 2011; Woppard, 2011). This is clearly indicated in Asian contexts and especially in the Saudi context, where for sociocultural reasons, the role of the teacher is essential to manage an effective learning process.

## **2.4 Effective ICT Integration**

### **Technology Planning**

Successful ICT integration relies on goals shared by different stakeholders in educational institutions. Consequently, the development of an ICT plan and setting

clear goals and defining the means to achieve these goals, are pivotal steps towards effective ICT adoption (Tondeur, Keer, Braak, & Valcke, 2008). Additionally, a good ICT plan necessitates an assessment and evaluation process of the current level of ICT implementation. This fosters an iterative and on-going approach in planning and monitoring ICT implementation. More specifically, Tondeur et al. (2008) conducted a study that examined educational institution policies with respect to ICT integration from both administrators' as well as teachers' perspectives. The research participants were 53 administrators and 574 teachers in Belgian educational institutions. The authors concluded that "school-related policies, such as an ICT plan, ICT support and ICT training have a significant effect on class use of ICT. In addition, the findings from the interviews indicate that school policies are often underdeveloped and underutilised" (p.212). Thus, ICT planning in terms of an effective ICT plan, is a crucial step towards effective ICT adoption. In a similar vein, the National Association for all those interested in technology in education (Naace) issued a report about the importance of developing an effective ICT strategy in education. The Association indicates that "a successful strategic plan includes a defined set of educational outcomes and a proposed pathway to try to get there. Most importantly, a successful strategic plan is not a shopping list or a budget, it involves much more than simply buying resources. The changes in attitudes and ideas which come from planning sessions will be more important than the shiny new technologies themselves" (para.17).

Supporting this view, Wang & Woo (2007) indicate the importance of having a sense of completeness or wholeness when planning to use ICT in education. The authors reinforce that "simply handing out to students a collection of websites or CD-ROM programs is certainly not ICT integration. In a properly crafted ICT integrated lesson, ICT and other crucial educational components such as content and pedagogy are moulded into one entity" (p.149). Thus, ICT implementation planning is a more of a process rather than a product (ibid.). Thereby, policy makers should consider pedagogy as well as technology in ICT planning. In addition, many studies have shown that the most effective factor in enhanced learning is not the availability of technology, but the pedagogical design for effective integration of ICT (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2010b;

Becta, 2003, 2004; Cuban, 2003; Fullan, 2007, 2013; “JISC Digital Media,” 2013; Mumtaz, 2000; Selwyn, 2011; Wang & Woo, 2007). Furthermore, indicating the importance of pedagogy-led technology integration, Renwick (2016) states that better ICT adoption occurs when “pedagogy is the driver, technology is the accelerator” (para.1). He indicates that focusing on pedagogy and the art of teaching that enhances the student-centred approach is the first step and technology comes in later. However, there are many instances in educational settings where “technology could be the driver” and “pedagogy took a back seat” (Renwick, 2016, para.2). Similarly, Okojie, Olinzock, & Okojie-Boulder (2006) conducted a study investigating the pedagogy of technology integration and found that although inadequate infrastructure might inhibit ICT integration, it should be noted that teachers’ pedagogical practices and assessment strategies play a crucial role as well. The study concludes that “technology used for teaching and learning should be considered an integral part of instruction and not as an object exclusive to itself. Viewing technology integration from a wide perspective will provide teachers with the necessary foundation to implement technology into the classroom more successfully” (p.66). Thus, pedagogy led technology planning should go beyond providing the latest ICT tools as the aim should be to examine how these tools might enhance teaching practices. As a result, policy makers should think of pedagogy before technology, by considering what makes learning effective and designing learning strategies based on sound pedagogy. Only then should they bring ICT in to enhance learning and teaching (Tan & Yam, 2017).

## **Administrative Support**

Leadership and administrative support in terms of training and on-going monitoring play a major role in effective ICT adoption. Technology leadership is an important factor that enhances ICT integration. More specifically, Mwawasi ( 2014) conducted a study researching how educational leaders help build capacities for teachers to enable them to incorporate ICT effectively in their teaching in Kenya. Adopting a qualitative case study approach, five administrators involved in the capacity building and four teachers participated in the interviews and the focus group discussion. The

data show that administrators facilitated access to ICT and supported teachers in training. The administrative support helped teachers to try many different ways of implementing ICT in teaching. The study concludes that on-going administrative support is a crucial element in effective ICT incorporation. Supporting this view, Ghavifekr et al. (2014) conducted a study investigating the effectiveness of ICT integration in a Malaysian educational institution. Their research aimed to identify the level of teachers' ICT skills as well as of the level of ICT integration in teaching. The results show that most teachers did not use ICT frequently in their teaching. Most importantly, the data also show that for effective ICT implementation, good management is needed in terms of strategic planning and policy making. More specifically, the data indicate that support from administration and management is considered discouraging. Teachers indicated that they were not supported to attend workshops and training sessions. Additionally, teachers identified issues of insufficient ICT funds. They pointed out that there was no financial support for teachers to attend conferences and seminars on ICT integration. Consequently, due to the abovementioned factors, teachers' integration of ICT was poor. The study recommends that teachers need strong administrative support to help them replace their traditional methods with updated ICT tools. As a result, good administrative support that considers ICT integration as a process rather than a product is much needed today (Fullan, 2007, 2013). Many authors indicate that administrative support is an overlooked aspect in many educational systems (Cuban, 1993; Fullan, 2007, 2013, Selwyn, 2010, 2011; Warschauer, 2004; Weller, 2007). Providing ICT tools in educational institutions does not mean the automatic implementation of these tools. Teachers need on-going administrative support that helps them to integrate ICT into their teaching, support that is based on monitoring and reviewing the ICT aims to create the best strategies of ICT implementation (Alebaikan, 2010; Cuban, 1993; Fullan, 2007, 2013; Mumtaz, 2000; Selwyn, 2010, 2011; Warschauer, 2004; Weller, 2007).

On the other hand, many studies indicate the importance of teachers' involvement in ICT integration. The studies point out that besides ICT provision, teachers' participation is a crucial element (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010;

Alebaikan & Troudi, 2010a; Fullan, 2007, 2013; Hepp, Hinostroza, Laval, & Rehbein, 2004; Vaughan, 2010). Consequently,

*It is important to emphasize that it is not the presence of technology in itself (or of outstanding and guaranteed learning software, if such a thing exists) that will stimulate significant changes inside a school. Without teacher involvement, most students ..... may not take advantage of all the available potential on their own. Teachers need to become active participants for effective ICT educational use, such as providing guidance, help and usage rules for the students. Teachers are needed to organize the learning spaces and to guide toward the achievement of significant learning objectives (Hepp et al., 2004, p.3).*

Thereby, for better teacher involvement, ICT integration strategies should be more effective. More specifically, for the teachers to integrate ICT effectively, ICT should be an integral part of the curriculum (Alebaikan, 2010; Fullan, 2007, 2013; Hepp et al., 2004; Kaleta, Garnham, & Aycock, 2005; Selwyn, 2011). Therefore, “It is not advisable to have ICT as a separate, isolated technical subject or sector in the curriculum (e.g. programming, software tools and hardware configurations), because in this atmosphere, teachers will tend to regard ICT as a special subject and may not integrate it into their normal practice” (Hepp et al., 2004, p.3). On the other hand, some studies show that besides ICT strategies, there must be a focus on many interrelated requirements for effective ICT adoption (Alebaikan & Troudi, 2010a; Bingimlas, 2009; Fullan, 2007; Mumtaz, 2000; Price & Oliver, 2007b; Weller, 2007). In particular, Price & Oliver (2007) indicate that:

*Even if research shows that a particular technology supports a certain kind of learning, this research may not reveal the implications of implementing it. Without appropriate infrastructure or adequate provisions of services (policy); without the facility or ability of*

*teachers to integrate it into their teaching practice (academics); without sufficient support from technologists and/or educational technologists (support staff), the likelihood of the particular technology or software being educationally effective is questionable (p.14).*

The reviewed studies show that ICT adoption is a dynamic process with many interrelated requirements. Thus, for effective ICT integration, adopting change management strategies is the essential first step.

## **Adopting Change Management Strategies**

Price & Oliver (2007) indicate that the broad nature of research is essential for “developing our understanding of the relationship between technology and educational practice and a focus on change in educational practice” (p.15). Thereby, ICT adoption necessitates a change in the pedagogical approach (Fullan, 2007, 2013; Price & Oliver, 2007b; Selwyn, 2011; Weller, 2007). Importantly, change advocates need to take into consideration that the:

*attempt to reuse familiar practice in a new context may be appealing (since it attempts to build on established expertise and an extant professional identity) but it is problematic. The degree to which such practices can be transferred from one situation to another is unclear.... In other words... is it just the tutor's perception that they are merely transferring the same practice from one situation to another, rather than requiring the practice itself to change? Or, because of the new context, environment or technology, is practice necessarily modified (Price & Oliver, 2007a, p.21).*

The adoption of change management strategies is a process that needs on-going monitoring. Adopting a “one-shot” approach is ineffective and will lead to ineffective change in terms of ICT integration (Fullan, 2007, 2013). More specifically, change advocates usually think that providing ICT tools is an end in itself (Fullan, 2007, 2013; Selwyn, 2011; Weller, 2009). In other words, ICT provision does not mean automatic ICT integration. On the other hand, policy makers are focusing on policy level change i.e. they issue a policy and regulations about the proposed change and ignore the fact that certain pedagogical practices are essential to implement the change aims (Fullan, 2007, 2013, Price & Oliver, 2007b, 2007a). Moreover, many studies indicate that there are many discrepancies between policy and practice (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; Fullan, 2007, 2013, Price & Oliver, 2007b, 2007a). Significantly, Price & Oliver (2007b), indicate that a particular set of questions need to be addressed about “the degree to which technology concurs or conflicts with existing practice or policies, and any subsequent implications necessitating change” (p.14). Therefore, policy makers should focus on ways of implementing effective change i.e. change implementation strategies that consider change as a process, not a product (Fullan, 2007). More importantly, change advocates need to consider whether current pedagogical practices conflict or concur with the proposed change aims (ICT integration). Unquestionably, “understanding the underlying mechanisms that hinder or support the processes of change can inform ways of supporting the implementation of other new technologies and engineering the associated changes in practice necessary for their effective educational use” (Price & Oliver, 2007b, p.14). Supporting this view, Wang & Woo (2007), indicate that ICT implementation is a dynamic process of applying ICT tools to the curriculum to enhance teaching and learning. “Its success depends not only on the availability of technology, but also heavily on the pedagogical design. Other factors such as leadership, professional development, time and evaluation also have a great impact on the effectiveness of ICT integration” (Wang & Woo, 2007, p.153). In summary, for ICT change to be effective, there should be a focus on technology as well as pedagogy. In other words, ICT tools alone will not transform teaching and learning.

On the other hand, change management strategies ought to consider teachers' perceptions and beliefs in order to improve their pedagogical practices. Effective ICT integration strategies need to consider what Fullan calls the "human aspects of change" (Fullan, 2007). He indicates that for change to be effective, change advocates should consider the human aspects of change not the policy level only. Teachers' beliefs and perceptions need to be considered when introducing change in educational institutions. In addition, Aldama & Pozo (2016) conducted a study about how ICT was used in the classroom, investigating teachers' beliefs and practices in Spain. The study explores the relationship between teachers' beliefs and the way teachers use ICT in the classroom. The research tool was an open-ended questionnaire and the participants were 16 teachers. The findings indicate that there is a wide discrepancy between teachers' beliefs and their actual ICT practices. Although they (teachers) held positive towards ICT, their practices were ineffective. Teachers in the study reported that ICT enhanced student-centered learning but their practices showed a one directional way of teaching. Additionally, the study shows that ICT did not remarkably change their traditional mode of teaching. The study concluded that "the mere introduction of technological devices into classrooms does not ensure change. We need to promote spaces for reflection in which to re-think the role that teachers and students play in society and education in the twenty-first century, where conceptions and beliefs about teaching and learning can be reformulated" (p. 276). Similarly, Somekh (2008) indicates that ICT tools do not change pedagogical approaches themselves. Watson (2001, cited in Somekh, 2008) points out that while considering ICT as the means of transforming pedagogy, policy makers have "put the cart before the horse. It is teachers who change practices, co-constructing them to varying extents with their students" (p. 452). As a result, in order to have effective ICT integration, change management strategies should be adopted (Aldama & Pozo, 2016; Fullan, 2007, 2013; Hill, 2010; Price & Oliver, 2007b, 2007a; Selwyn, 2011). In a similar vein, Hill (2010) indicates that:

*"trying to foster the use of ILT (information learning technology): there is a still a way to go. The introduction of ILT in further education makes an excellent case study of how change happens, but not always as planned. It exemplifies how people respond to change, the*

*barriers to change and how change can be managed....understanding change in general can help you through the process of introducing ILT into your own teaching" (p.99).*

Additionally, change management strategies require defined perspectives and aims (Fullan, 2007, 2013; Hill, 2010; Selwyn, 2011). Teachers, as well as administrators, need to envisage the rationale for technology in order to change their practices (Fullan, 2007, 2013; Hill, 2010). Further, "in the introduction of e-learning, colleges often pass through a period of emphasis on the technology before they focus on the curriculum. This shows itself in many ways, such as heated discussion about the specification of computers or network software rather than learning needs and how ICT can help to meet them" (Hill, 2010, p.102 ). In other words, technology led pedagogy is an ineffective ICT integration strategy. Effective ICT implementation entails a clear policy and procedures that list the strategies and plans for change management. Furthermore, exploring the policy and practice of ICT integration in English language teaching, Ali (2015) conducted a study examining EFL teachers' and head teachers' experiences of ICT integration. The data collection tools were a focus group discussion, semi-structured interviews, classroom observations, and document analysis. The findings of the study indicate that although the current Baluchistan Education Sector Plan (2013-2018) emphasizes ICT integration in education, the actual practice is poor. The research participants face many challenges e.g. lack of awareness regarding policy intentions, weak ICT skills in ELT, lack of technological pedagogical content knowledge, lack of technical and financial support and lack of the head teacher and ELT voices in education policy. The results also show that the ICT integration policy for learning and teaching has not been translated to teachers and head teachers, which in turn, has led to poor policy implementation. Correspondingly, Imon (2017) conducted a study investigating the strategy for and the policy of ICT adoption in Asian countries. The study examines the extent of ICT utilization in the classroom. The study also explores the perceived impact of ICT tools in teaching and learning as well as the enabling and the inhibiting factors. The research participants were teachers and students and the data collection tools were interviews, focus group discussions and classroom observations. The notable findings show that even though teachers were using ICT in teaching, the

practices were not optimal. There were issues of infrastructure and unclear perceptions of stakeholders. Additionally, the study indicates that although policy makers for the education sector understand the benefits of ICT integration, they face serious problems in the implementation process. The study concludes that “more time is needed to overcome these obstacles and to bring about behavioural changes among the teachers and students to a successful integration of ICT” (p. V). To sum up, the reviewed studies indicate that effective ICT incorporation requires adopting change management strategies, change management strategies that go beyond providing ICT tools only. Effective change involves clear aims and procedures during the implementation process. Additionally, teachers’ involvement is essential for the change to be successful. They (teachers) need to envision the aims of the proposed change and envisage its benefits. Most importantly, effective change is not merely policy and procedural documents. It is focusing on stakeholders and supporting them during the implementation process.

## 2.5 Benefits of ICT in Education

ICT adoption in education is driven by many promises of technology affordances that might enhance teaching/learning in general and language education in particular. Wegerif (2007) identifies the following benefits of ICT:

- *Provisionality: the ability to change texts and other outputs with minimum cost.*
- *Interactivity: the capacity for feedback and response.*
- *Capacity and range: the capacity to handle large amounts of information and overcome barriers of distance.*
- *Speed and automatic functions: enabling routine tasks to be automated*
- *Support for multi-modal communication (p.180).*

In addition, ICT applications provide a unique platform for collaborative/cooperative learning. ICT has the potential to develop teaching and learning. Many studies claim that ICT enhances the student-centred approach where students have personalized anytime learning (Mbodila, Jones, & Muhandji, 2013; Selwyn, 2011). Collaborative-cooperative e-learning environments can be described as a context where ICT facilitates interaction among students and their teachers. Students are not absorbing knowledge only but connecting and restructuring it with their previous experiences. Furthermore, students are encouraged to exchange viewpoints and share perspectives when engaging in problem-solving or inquiry based learning. It is a rich online platform to reflect, negotiate, construct, share, and collaborate within one community (Garrison & Vaughan, 2008; Haythornthwaite & Andrews, 2011; Laurillard, 2002, 2012; Liaw & Huang, 2007; Lockhorst, Admiraal, & Pilot, 2010; Pachler & Daly, 2011; Prensky, 2012; Selwyn, 2011; D. Thomas & Brown, 2011; Woollard, 2011). Consequently, with ICT, there is scope for interaction, collaboration between students and their teachers or students with each other (tandem learning). These activities that encourage a student-centred approach and interaction between them is driven by Vygotsky's social constructivism theory of learning and situated learning (Mason & Rennie, 2006; Stiles, 2007).

ICT is distinguished by having huge authentic online materials for language learners that may motivate them to enhance their autonomous learning (Benson, 2011; Chapelle & Hegelheimer, 2004; Larsen-Freeman & Anderson, 2011; Stockwell, 2013). Moreover, Benson (2011) illustrates that technology based approaches are supportive of autonomy in three ways:

- *They place the learner (as controller of the technological device) in direct control of key aspects of the learning process.*
- *They allow wider access to authentic target language sources.*
- *They also allow wider access to authentic interactive use of the target language (p. 152).*

Significantly, while promoting students' autonomy by ICT adoption, teaching tends to be less teacher-centered in its approach. Furthermore, ICT adoption in education

equips students with soft skills and enhances their abilities to be prepared for a labour market that depends on knowledge economy (Selwyn, 2011). Additionally, technology enhanced learning is a cost-effective approach that allows for individualized instructions that meet different learning styles. It is a flexible method that affords available on-demand learning regardless of time and place (Garrison & Vaughan, 2008; Haythornthwaite & Andrews, 2011; D. Thomas & Brown, 2011; Woollard, 2011).

However, despite all the above mentioned benefits, ICT has many drawbacks. ICT adoption in education requires massive demands that must be fulfilled in order to have effective integration. ICT adoption may be less social for students and demotivate them to engage due to the feeling of isolation. Others, who lack motivation, might quit and find technology unappealing (Selwyn, 2011). Moreover, ICT integration demands an excellent infrastructure in terms of good internet access, software/hardware resources and technical support (Johnson, 2012; B. H. Khan, 2005; Mumtaz, 2000; Selwyn, 2011). These technical requirements are hard to meet in many contexts. In addition, ICT adoption entails efficient training for teachers as well as students to reduce technophobia resistance (Alebaikan, 2010; Bingimlas, 2009; Fullan, 2007; B. H. Khan, 2005; Mumtaz, 2000; Selwyn, 2011).

Do the drawbacks outweigh the affordances? Not necessarily. Despite all the claimed limitations of ICT, its effectiveness in everyday life including school life cannot be ignored. It is unarguable that ICT use is rapidly growing in educational institutions due to its positive effects on learning/teaching. Also, careful planning does help to reduce these risks (Erben, Ban, & Castañeda, 2009). The below reviewed studies indicate the potential benefits of ICT in language teaching. The studies show that ICT has many potential advantages for reading, writing and vocabulary development. The studies also indicate that ICT adoption has positive effects in terms of students' motivation and engagement.

Studying teachers' experience of ICT integration, Lai & Pratt (2008) conducted a study investigating the positive aspects of ICT in New Zealand as perceived by teachers. The main findings show that teachers found ICT was an efficient tool in managing teaching i.e. designing lesson plans and presentations. Regarding students' learning, the study reports that teachers found that ICT had a great impact on students' presentations. Additionally, teachers indicated that ICT had enhanced students' social and motivational competencies. Similarly, Hubackova (2015) completed a study about the effect of using ICT in German and English language courses. The aim of the study was to examine students' attitudes towards ICT and how often they used ICT while studying language classes. The researcher designed a survey questionnaire and the questions were closed with many options. The study concludes that using blended teaching is more effective than face-to-face teaching. Blended teaching is considered a more suitable and flexible method for students. Students in English classes liked to use audio and video recordings and found them beneficial complementary tools. Thus, the study recommends incorporating ICT in language classes to make teaching more effective. Furthermore, Kreutz & Rhodin (2016) conducted a study examining the influence of ICT on students' motivation for English language learning. The data were collected through a survey questionnaire and the research participants were 45 Swedish students. The study results show that ICT integration in language teaching increased students' motivation. The majority of the students indicated that lessons became more enjoyable and students were more motivated when ICT was incorporated in English lessons. The study concludes that ICT has a good impact in terms of increasing students' motivation in the language classroom.

Similarly, many studies have shown that ICT adoption has positive effects on teaching reading. Marzban (2011) conducted a study investigating the effect of CALL on the quality of students' reading comprehension in an Iranian academic setting. The study designed a pre-test / post-test experiment for the participant group. The study reports that students who had been taught reading comprehension using CALL showed a significant difference at the level of  $P<0.05$  between their reading

comprehension scores and the scores of the group that had not been taught using CALL. Consequently, it was concluded that the use of CALL can develop students' reading comprehension. Moreover, testing the effectiveness of ICT adoption in an extensive reading course, Assia (2012) conducted a study of EFL students at an Algerian university. The study aim was to create a chance for students to utilize ICT in their reading course. The research objectives were to investigate EFL university students' attitudes towards and teachers' experiences of using ICT in extensive reading classes. The research also aimed to shed light on the importance and benefits of adopting ICT in EFL extensive reading courses. The research participants in the experiment study were 24 students and 4 teachers who were chosen randomly. The main findings show that ICT had major benefits on students' achievements in the reading course as ICT motivated students to read intensively and extensively, enhanced their reading competence and made them enjoy the reading task. The results also indicate the important role of ICT while aiding EFL teachers to adopt new models of reading courses to engage students actively. The study recommends implementing ICT in reading classes to enhance students' motivation and develop their reading skills. Additionally, Maduabuchi & Vivian (2016) have completed a study investigating both the prospects and the problems of incorporating ICT in teaching reading comprehension in English language classes. To achieve the researcher objectives, a total of 25 teachers were interviewed by using a questionnaire. The findings of the descriptive statistical analyses indicated that the most important benefits of adopting ICT in teaching reading were vocabulary enrichment and utilization of online dictionaries. The results also show that students were motivated and excited in reading comprehension lessons and engaged in meaningful learning with each other. On the other hand, the findings show some issues like distractions by irrelevant websites, poor maintenance and lack of infrastructure. The study concludes that ICT has many potential benefits in EFL reading classes.

Further, many studies indicate the potential benefits of ICT integration on vocabulary enrichment. Vahdany & Majidi (2015) have completed a study researching the effects of teaching vocabulary using ICT on vocabulary learning and the retention of Iranian EFL learners. The research participants were seventy-six students from an

educational institution in Tehran, Iran. The students were divided into two groups: an experimental group (37 students) and a control group (39). In order to test their vocabulary knowledge, students were given a pre-vocabulary test. The experimental group students took an ICT-based instruction course while the control group had traditional teaching. The two groups were then given a post-vocabulary test and two weeks later a delayed post vocabulary test. The findings, obtained by t-test, reliability, skewness analysis, and Cronbach's alpha, revealed that the students who had taken the ICT course learned a larger amount of words than those who had been given traditional teaching. They (students of the experimental group) indicated remarkably better vocabulary retention than the control group. The study recommends better integration of ICT in vocabulary building courses in EFL classes. In addition, Clark (2013) has completed a study investigating the effect of using ICT to improve students' vocabulary development. The research was conducted in the USA with a group of five EFL students examining vocabulary development. One group of students completed teacher-made tasks while the other group completed ICT based activities. The major findings were that students preferred the use of ICT rather than traditional teaching. The obtained data show that the use of visual and audio materials improved vocabulary knowledge as well as students' engagement. The results of the study recommend teachers to build a better learning environment which accommodates different learning styles by the adoption of ICT tools.

In a similar vein, ICT based teaching has shown many advantages in terms of developing students' writing skills. Özdemir & Aydin (2015) conducted a study about the effects of blogging on English language writing skills. The study was based on an experimental approach having a demographic questionnaire along with a pre-test and a post-test on a sample of 40 EFL students. The study results indicate that although blogging itself does not lead to better achievement in terms of writing, "the process-based writing instruction positively affects students' achievement in both traditional and blog environments" (p.372). The study recommends that Turkish EFL teachers must create a writing platform (blog) for learners to encourage them to write in the

target language. Likewise, Rana & Asghar (2015) carried out a study investigating the effectiveness of ICT on developing students' academic writing skills in Pakistan. The study was conducted in a higher education institution, where 34 students participated in the study. The researchers designed an online course where students were given an assignment to complete in eight weeks using ICT. They were instructed to write a 3000 word essay about a topic of their own choice. The participants were guided and taught to use Internet resources effectively. The results show that the majority of the students held a positive attitude towards ICT. The findings also show that students welcomed the use of ICT in their course and reported that ICT helped them to improve their academic writing skills. Further, the basic writing skills of the students developed and the mean of the students' scores also rose significantly which was shown while adopting the T-Test. The study recommends incorporating ICT in academic writing courses to make a good use of its potential benefits.

## **2.6 Principles of ICT Enhanced Education**

Warschauer (2004) states that to form a comprehensive view about the possible pedagogical changes enabled by new technologies, it is essential to look beyond the classroom itself. He illustrates that determinists usually form many common beliefs about educational technology e.g. computers and their impact on learning, ignoring how the computers should be implemented. Thus, in order to generate optimal utilization of ICT, a strategic approach should be adopted. In a similar vein, Johnson (2012) theorizes a Hierarchy of Educational Technology Needs which consists of five needs (see Figure 6 ).

### **1- Established Infrastructure;**

A reliable, adequate, cost-effective, technology infrastructure that supports the learning/teaching aims in the institution.

### **2- Effective Administration;**

Use of technology to improve its administrative effectiveness by efficient business practices, communication, planning and record keeping.

3- Extensive Resources;

ICT will be utilized to provide the most current, accurate and extensive information resources possible to all students in a cost effective and efficient method appropriate to the user.

4- Enhanced Teaching;

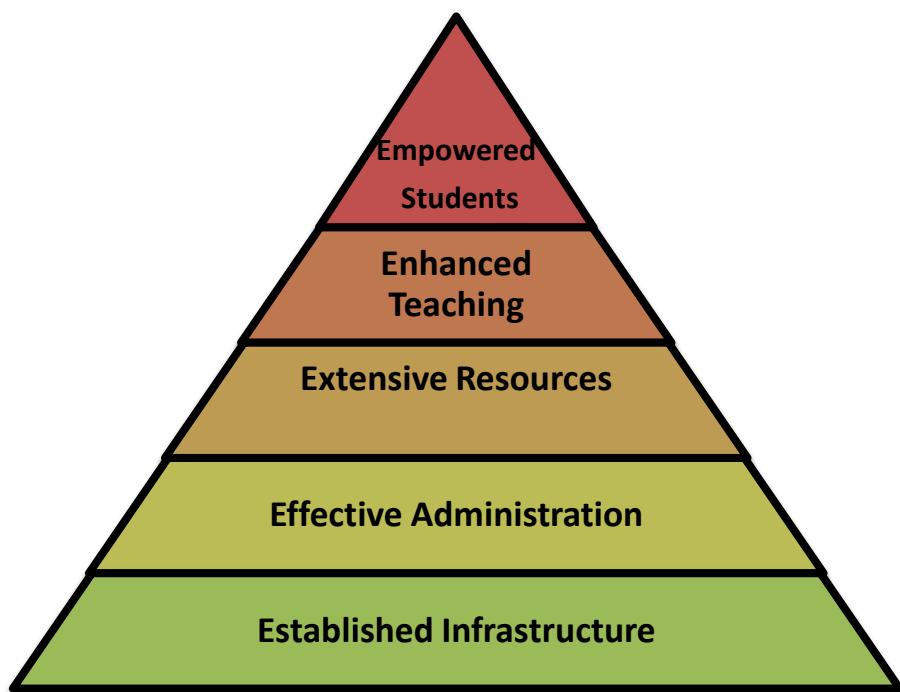
Teachers will have the ICT training, skills and resources needed to ensure that learners will achieve learning objectives and have the technological means to assess and record student progress.

5- Empowered Students;

Learners will display the sufficient utilization of ICT to access, process, organize, communicate and evaluate information in order to conduct inquiry-based and problem-solving learning.

Johnson's Hierarchy of Educational Technology Needs clearly indicates the subsequent approach of technology adoption. This approach indicates the different stages that need to be fulfilled to ensure successful ICT implementation. Educational institutions must meet its infrastructure needs in order to reach its aim of empowering students (Johnson, 2012).

Figure 6 Johnson's Hierarchy of Educational Technology Needs, (p.12)



Similarly, Kozma (2003) illustrates that before ICT integration, the following issues must be considered:

- *Re-imagining the role of the teacher: that is, changing from the teacher as initiator of instruction for the whole class to the teacher as a guide who helps students to find their appropriate instructional path and evaluate their own learning;*
- *Re-imagining the nature of teaching: that is, changing from working in isolation to teachers collaborating with their colleagues on joint plans and projects;*
- *Re-imagining the role of the student: that is, changing from students as passive individuals to students as active learners working in teams to create new knowledge and solve problems;*
- *Re-imagining the role of the educational institution: that is, changing from educational institutions that are isolated from society, to educational institutions that are integrated into society;*
- *Re-imagining the role of the parent: that is, changing from parents uninvolved in their children's education to parents who are actively involved (p. 5).*

Supporting Kozma's (2003) views, Cohen, Manion, Morrison, & Wyse (2010) highlight the different roles of traditional teachers and ICT oriented teachers. They argue that there is a huge difference between the two modes of delivery in terms of teachers' roles, the nature of learning, the aims and the ways of teaching/learning (see Table 3 below for more details).

<b>Teachers' Traditional Roles</b>	<b>Teachers' Newer Roles with ICT</b>
Teacher-transmission to passive-learners who obey & receive	Process-based curricula with learners who question and analyse
Teacher oriented	Learner-oriented
Teachers as task setters for individual learning	Teachers as managers of collaborative learning
An organiser of learning activities	An enabler of quality learning experiences
Dictating the learning	Creating enabling structures for learning
Technology as a tutor	Technology to promote interaction
Didactic teaching	Active learning
Low order retention and recall	High order thinking
Teachers as providers of information and experts in all knowledge	Teachers as advisors, managers and facilitators of learning
Teachers as suppliers of knowledge	Teachers as developers of skills

Teacher as a distant authority	Developed student-teacher relationships
Teacher in narrow and unchanging range of roles	Teacher in many roles as required: designer, director-actor, facilitator, manager

Table 3 Teachers' Traditional Roles and ICT Oriented Roles (adapted from Cohen et al. (2010)).

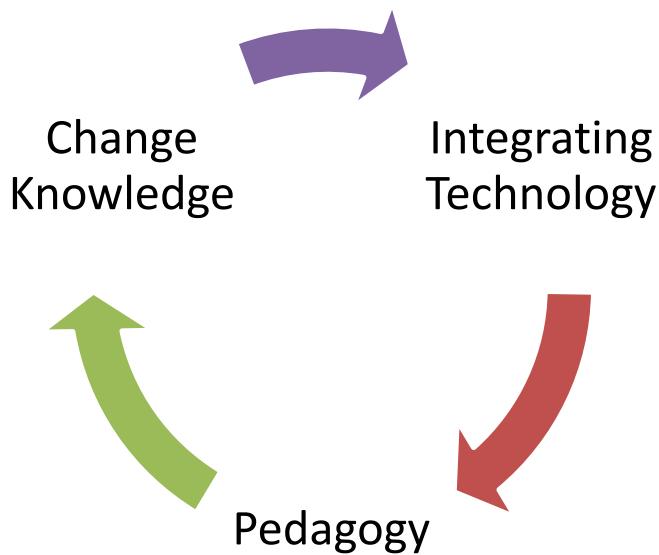
In the same vein, B. H. Khan (2005) proposed a framework consisting of eight dimensions of successful ICT enhanced teaching. The framework is composed of eight dimensions (pedagogical, technological, interface design, evaluation, management, resource support, ethical, and institutional factors) that serve as a checklist for institutions to check their readiness while adopting ICT. He notes that a strategic approach to implementing each dimension is needed in order to have sufficient ICT enhanced teaching.

In addition, a study was conducted by Kerns et al. (2005) to identify the many principles of effective teaching using Blackboard VLE. They indicate many principles that are needed, such as an active learning setting, student-student interaction, learner support, staff-student interaction and timely feedback. Supporting this view, Collis & Moonen (2001) point out the importance of paying more attention to human aspects during ICT implementation. They stress the importance of a flexible responsive plan to meet the individual needs and pedagogical experiences of teachers in order to effectively adopt ICT in education.

## 2.7 Fullan's Stratosphere Framework

To achieve better integration of ICT in education, Fullan (2013) indicates that we need to combine technology, pedagogy and change knowledge. He states that those three components need each other for effective ICT integration. He calls this triad "the stratosphere" that "includes technology with its huge, ever expanding storehouses of information, but also opportunities to learn differently, what I call pedagogy; and it incorporates change knowledge-what we should do with all this information to change things, presumably for the better" (p.1). The current education system is inappropriately content bound and a new pedagogy i.e. learning how to learn is essential. Successful education is promoting learning skills, as only those who know how to learn will thrive in this world (Fullan, 2013). Technology is part of our life with its aimless quality, so it is now time to reconcile how technology can be integrated in purposeful and meaningful ways (ibid.). To combine the two (technology & pedagogy) change knowledge is urgently needed, knowledge that makes change easier, engaging and most importantly more effective (ibid.). The focus of technology integration should be on its use, not on technology itself. Thus, we should work hard with technologies, not against them, not in ignorance of them (Fullan, 2013). "This is the journey of Stratosphere, from understanding the powers and the perils of technology, to carving out easier and more effective change, to using our change knowledge to establish a new self-generating system of learning for all" (Fullan, 2013, p.5). Those three forces are inevitably connected to each other and are converging to transform education in an unbeatable combination (ibid.) (see Figure 7).

Figure 7 The Components of Stratosphere (Fullan, 2013, p.15).



## 2.8 An Example of Change: ICT Integration (VLE)

### 2.8.1 Virtual Learning Environment (VLE)

A Virtual Learning Environment (VLE) or Learning Management System (LMS), sometimes also known as a Course Management System (CMS) is a web-based system that aims to employ technology in education to manage the educational process to facilitate the process of interaction between students and teachers. Reviewing the literature, there are many definitions for VLE. Weller (2007) indicates that a VLE may be seen as a "useful collection of e-learning tools in a package that allows a common interface and sharing of data between the tools" (p.16). The Joint Information Systems Committee JISC (2000) states that a VLE consists of "the components in which learners and tutors participate in "on-line" interactions of various kinds, including on-line learning" (para.8). The popular terms in the UK are

virtual learning environment (VLE) and managed learning environment (MLE), however, course management system (CMS) and learning management system (LMS) are used in the US (Mason & Rennie, 2006; Stiles, 2007). Thus, many scholars use the two terms (VLE & LMS) interchangeably.

At the moment, there are two kinds of VLE: one is commercial and the other is free open-source. WebCT, Lotus LearningSpace, Blackboard, Learnwise, COSE, Desire2Learn, Englishtown EF VLE etc. are commercial VLEs that require the purchase of a license in order to use them. However, there are many free open source VLEs such as Moodle (developed by Martin Dougiamas, Australia), Claroline (developed by Université Catholique de Louvain), ATutor (developed by University of Toronto, CA), ClassWeb (developed by University of California, US), Sakai,... etc. Although there are many VLEs in the market, two products dominate; Blackboard™ (commercial) and the free open source Moodle (Stiles, 2007).

These systems act as a platform for e-learning delivery to students and they are widely used across many institutions (Almpanis, 2006; Dalsgaard, 2006; Perez & Perez, 2011; Stiles, 2007; Weller, 2007).

### 2.8.2 Tools of the VLE

The VLE provides facilities or tools for managing course content, communication between students and instructors and access to learning materials (Mason & Rennie, 2006; Stiles, 2007; Weller, 2007). A typical VLE has a set of tools that enhance instructors' and students' involvement in learning and in communication. These tools are the following:

- Communication tools (email, chat, wikis, blogs, discussion boards).
- Testing tools (quizzes, electronic submission, self-assessments).
- Document sharing, including PPT, PDF, etc.
- Administrative tools (enrolment, grade-book, tracking)

Additionally, these tools have many different functions i.e. content delivery, communication tools, registration, testing, student tracking, administration and web 2.0 tools such as wikis and blogs. Because the VLE has different functions for its tools based on its users, it provides many facilities to students and instructors as well as administrators. Consequently, many institutions in higher education and public education are adopting the VLEs to deliver, manage and administer their e-learning approaches (Falvo & Johnson, 2007; Weller, 2007). Whether to support distance education or traditional teaching, many universities are integrating the VLE to develop their performance (Dalsgaard, 2006). Stiles (2007) states the reasons that led to the popularity of VLEs in higher education universities:

- *Enhancing the quality of teaching and learning*
- *Improving access to learning for students off campus*
- *Widening participation/inclusiveness*
- *Managing? student expectations*
- *Improving access for part-time students*
- *Using technology to deliver e-learning ( p.32).*

Although there are a variety of VLE tools, many studies have shown that these tools are not activated effectively in teaching/learning, since VLEs have been considered merely as a collection of lecture notes (Alebaikan, 2010; Al-Shahrani & Al-Shehri, 2012; Jisc Digital Media, 2013; Stiles, 2007; Weller, 2007, 2009). It is not uncommon that many VLE tools are overlooked (Alebaikan, 2010; Alhazmi & Rahman, 2012a, 2012b; Al-Shahrani & Al-Shehri, 2012; Jisc Digital Media, 2013; Keller & Cernerud, 2002). Jisc Digital Media illustrates that many teachers treat VLEs as repositories, stating:

*It is very common to use the VLE purely as a repository or extended storage space, even though they weren't designed primarily for this*

*purpose. Many facilitators of VLEs are disappointed that its users do not engage with many tools of the VLE. Simply putting content in the VLE is a very limited use of the VLE and in response users will often respond in kind and only use that facility. Although it is helpful to provide material for learners, it is even better to take full advantage of this medium format and its tools...This type of consideration will add value to your existing content and delivery (para.22).*

Additionally, there is a common claim that the VLE is used as a management system rather than as a learning sysytem (Al-Shahrani & Al-Shehri, 2012; Dalsgaard, 2006; OECD, 2005; Weller, 2007, 2009). This means that most of the VLE tools are not utilized effectively in teaching/learning apart from uploading documents or lecture notes (Hamuy & Galaz, 2010; Lonn & Teasley, 2009; Lonn, Teasley, & Krumm, 2011). Furthermore, Alhazmi & Rahman (2012a) & (2012b) have reviewed the literature from 2003-2012 to identify the reasons for the poor performance of many VLEs in higher education institutions and they categorize the poor performance into many themes; content management, features utilization, teaching and learning methods, learners' engagement and assessment management (see Table 4 for details).

Consequently, limited engagement from teachers as well as students and administrative issues were common across different academic settings when using a VLE. As a result of this bounded integration, limited use is usually made of a VLE due to the poor activation of many tools of the VLE i.e. users' bounded utilization is a result of poor bounded utilization strategies. Additionally, the main aims of a VLE are not primarily administrative. Many tools of VLEs should be effectively integrated into learning/teaching (JISC Digital Media, 2013).

Failure Aspects	Details
Content management	System being used as a content container, transmitting files.
Features utilization	Interactive features left unused
Teaching and learning methods	One-way in the delivering of information and knowledge, passive learner, etc.
Learners' engagement	Low level of student engagement in the course activities
Assessment management	Inflexible and difficult to use/ no alignment between assessment and intended learning outcomes

Table 4 LMS Failure Aspects (Alhazmi & Rahman, 2012b, p.1)

## 2.9 Factors that Affect ICT Adoption (VLEs)

The integration of ICT in education is one of the main tools that enhances education and equips students with twenty-first century skills (Bates & Sangra, 2011; Mumtaz, 2000; Selwyn, 2010, 2011). However, the impact is not seen in many educational institutions (Bates & Sangra, 2011; Fullan, 2007, 2013; Mumtaz, 2000; Selwyn, 2010, 2011). There are many factors that limit the utilization of ICT in spite of its potential positive affects (Fullan, 2007; Mumtaz, 2000; Selwyn, 2011). This section illustrates the factors that hinder teachers' effective uptake of ICT. Similarly, Toro & Joshi (2012) reviewed the literature on ICT integration in higher education from 2004 to 2012 and found that there were many common factors in many studies in different contexts. The factors are multiple and interrelated, such as: 1) content/digital

resources, 2) capacity building, 3) monitoring and evaluation framework, 4) educational technology management, 5) implementation plans, 6) financial allocations, 7) political and administrative support, 8) adapting a change in learning processes, 9) staff development and training programmes. Most importantly, they indicate that all of these factors should be considered in order to have effective and meaningful integration. Thus, the review of the studies gathers many studies from different contexts, but places more focus on the Saudi context.

The classification of the possible factors that enable or hinder teachers' integrations is split into three categories; teacher level, institutional level and system level i.e. broader education norms. Teacher level factors are; teachers' attitudes and perceptions, lack of time, ICT competence and training, teachers' confidence and resistance to change. Institutional level factors are lack of ICT resources, quality of IT support, lack of Internet access, and quality of infrastructure. System level factors are issues that reflect the deeply rooted factors in the whole education system. Identifying these factors can improve understanding of the reasons for the poor integration of ICT in education (Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Mumtaz, 2000). The below sections illustrate the possible factors that affect teachers' utilization of ICT in educational institutions. These factors might limit or enable teachers' ICT use in educational institutions.

### **2.9.1 Teacher Level Factors**

The factors that might enable or hinder teachers' use of ICT are grouped into two levels; teacher or personal levels and institutional levels.

#### **2.9.1.1 Time Constraints**

The potential of ICT is mostly restricted to its effective utilization by higher education instructors. However, there are many factors that limit effective utilization, and one of these factors is lack of time. Lack of time has been identified as the most significant

factor that inhibits teachers' integration of ICT tools in many studies in different contexts (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; AlMulhim, 2014; Alwani & Soomro, 2010; Assareh & Hosseini Bidokht, 2011; Aydin, 2013; Becta, 2004; Bingimlas, 2009; Kamal, 2012; M. S. H. Khan et al., 2012; Mbodila et al., 2013; Mumtaz, 2000; Sang et al., 2010; Toro & Joshi, 2012; Zare-ee, 2011). Similarly, Alebaikan's (2010) study found that lecturers of blended courses raised the issue of the time demands of ICT integration. The participants indicated that ICT utilization required more time for preparation, utilization and management of the online course beside their traditional teaching loads. Most importantly, the lecturers reported that the lack of Internet access on-campus had hindered their utilization of ICT and accordingly they could not contact students during their office hours. Thus, inadequate infrastructure had limited the usage of their on-campus time. Further, Zare-ee (2011) completed a study using a survey followed by a set of interviews to investigate the perceptions and the utilization of ICT in teaching by Iranian university teachers. The study surveyed 115 randomly selected full-time staff in different schools at three major universities in Iran. The major findings show that although Iranian teachers held positive attitudes about ICT integration, their utilization is very poor. The study points out many major inhibitors, such as lack of resources, lack of training and lack of time. The participants illustrated that limited class time along with the absence of ICT resources and poor Internet access hindered their utilization. The participants also highlighted that the poor ICT skills of students necessitated more time for preparation and training.

In a similar vein, M. S. H. Khan et al. (2012) indicate that "teachers need time to learn how to use the hardware and software, time to plan, and time to collaborate with other teachers. Teachers also need time to develop and incorporate technology into their curriculum" (p.72). Additionally, teachers have many administrative tasks, so they cannot incorporate ICT into their everyday teaching (Al-Mohanna, 2010; Alebaikan, 2010; AlMulhim, 2014; Alwani & Soomro, 2010; Bingimlas, 2009; Kamal, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Zare-ee, 2011). Thus, lack of time,

along with many interrelated factors, is one of the biggest constraints on ICT adoption.

On the other hand, many studies have shown that the quality of ICT training is significantly dependent on the time allocated for the proposed training (Al-Shahrani & Al-Shehri, 2012; AlMulhim, 2014; Bates & Sangra, 2011; Bingimlas, 2009; Fullan, 2007; M. S. H. Khan et al., 2012; Mumtaz, 2000). Supporting this view, a study completed by M. S. H. Khan et al. (2012) argues that:

*Staff development should be collaboratively created, based on faculty input and school needs. It must prepare teachers to use technology effectively in their teaching. But this training should not consist merely of short workshops or training, which is not enough to build proper knowledge and skills (p.74).*

As mentioned above, the studies highlight the importance of staff cooperation and engagement in order to have effective ICT integration. In addition, Levy & Stockwell (2008) indicate that many teachers reported that lack of time and insufficient funds were major difficulties when introducing technology. The integration of ICT into teaching should extend beyond the provision of ICT tools. Teachers need time to develop online materials and improve their soft skills. Thus, policy makers should take into consideration “how much can be done in a limited period of time might mean that the scope of a project may need to be reduced”(Levy & Stockwell, 2008, p.201).

The above reviewed studies illustrate the importance of time in effective ICT integration. The studies point out that teachers lack time because of their heavy teaching loads. Most importantly, the studies highlight that teachers need time to collaborate and cooperate with each other to enhance their reflective practice in terms of ICT applications. Lastly, follow-up support is crucial for meaningful adoption as one-shot workshops are ineffective (Fullan, 2007).

### **2.9.1.2 ICT Competence & Training**

ICT competence and training are highly interrelated factors. The two factors are positively correlated to each other. Many studies illustrate that teachers' competence is affected by ICT training in educational institutions (Alwani & Soomro, 2010; Bingimlas, 2009; Fullan, 2007; Gülbahar, 2008; Mumtaz, 2000; Zare-ee, 2011). Those two factors are significant determinant of teachers' ICT integration. Also, ICT competence and training are very much related to teachers' confidence and resistance to change.

Investigating teachers' ICT training needs and practices, AlMulhim (2013) conducted a study in six different cities in Saudi Arabia. The findings indicate that Saudi teachers lack ICT skills as well as pedagogical skills. Additionally, the study shows a very low level of ICT integration in the classroom. Many factors lead to poor uptake such as lack of access to ICT, lack of training and lack of time. In addition, Hismanoglu (2012) conducted a study in Turkey, examining pre-service EFL teachers' and academic staff attitudes towards and perceptions of ICT in language teaching. Turkish EFL teachers noted three main factors that impeded their ICT integration. The factors were; "(1) the lack of exposure to lessons fully designed with ICT tools, (2) an exam-driven system and (3) studying to learn only what is to be tested" (p.189). Further, the study points out that the lack of ICT competent specialists, exam-oriented teaching where the norm is "studying to learn only what is to be tested were some of the underlying reasons for the prospective EFL teachers' negative perceptions of ICT use in language learning" (p.190). The findings of this study also clearly show that despite having basic ICT skills, EFL teachers were not confident in using ICT to enhance their pedagogical methods. As a result, these factors shaped teachers' beliefs about ICT and language teaching.

Others claim that the lack of ICT competent teachers is due to inadequate EFL teacher programs. Gülbahar (2008) indicates that Turkish EFL teacher programs have failed to provide adequate ICT instruction. Moreover, three significant factors affect Turkish teachers' willingness to integrate ICT: "1) the quantity and quality of the lessons addressing technology in the curriculum, (2) incompetent teachers/lack of in-service training, and (3) insufficient technological infrastructure" (p.32). Thus, the study addresses the need for cooperation and coordination between teachers and ICT experts. The study also points out the lack of competent role-models and the poor ICT skills of most of the academic staff. Supporting this view, Al-Hazmi (2003) reviewed most Saudi EFL teacher programs and found that these programs were mainly based on English linguistics, English literature and some translation modules. He notes the lack of TESOL materials, resulting in ill-prepared teachers. Similarly, others have found that the poor integration of ICT among Saudi EFL teachers is because of inadequate pre-service and in-service training (Al-Dosari, 2011; Al-Jarf, 2009; Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; AlMulhim, 2013; Fageeh, 2011).

On the other hand, some scholars argue about the quality of ICT training introduced to EFL teachers. Researchers indicate that the proposed training strategy has a greater effect on ICT competence (Al-Shahrani & Al-Shehri, 2012; AlMulhim, 2014; Bates & Sangra, 2011; Bingimlas, 2009; Fullan, 2007; M. S. H. Khan et al., 2012; Mumtaz, 2000). Specifically, Jung (2005) indicates the need for ICT-Pedagogy integration in teacher training and notes that "combining new technologies with effective pedagogy has become a daunting task for both initial teacher training and in-service training institutions" (p.94).

Supporting this view, Abuhmaid (2011) conducted a study about ICT training courses for teacher professional development in Jordan and found that timing for ICT training is a major issue. Teachers in the study reported an over reliance on one-session training with no follow up support. In turn, the "no follow up" approach of training has been reported as ineffective in terms of what teachers develop and implement in the classroom. Additionally, the study indicates that learning isolated ICT skills can have

little impact on teaching. Training sessions should have clear objectives and should be based on pedagogical strategies. Thus, training session content, time and quality of the planned aims are major ingredients of any effective training. Significantly, teachers might underuse their ICT skills if they find them incompatible with their teaching aims.

Thus, teachers have to perceive the potential and valuable impact of ICT training in order to be able to integrate technology meaningfully (Fullan, 2007; Hismanoglu, 2012; Mumtaz, 2000; Rogers, 2003; Selwyn, 2011). Thereby, the importance of ICT training has been highlighted in many studies (Al-Rashed, 2002; Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Alenezi, 2012; Alhawiti, 2011; Alsadoon, 2009; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Hismanoglu, 2012; Johnson, 2012; B. H. Khan, 2005; M. S. H. Khan et al., 2012; Mumtaz, 2000). These studies recommend creating a better learning environment i.e. learning by doing as this might affect teachers' beliefs positively. Lastly, follow up support is crucial for meaningful adoption as one-shot workshops are ineffective (Fullan, 2007).

### **2.9.1.3 Teachers' Attitudes Towards & Perceptions of ICT**

Attitudes are important since they influence how we view the world, how we think and what we do. They are also pivotal in understanding our thoughts, behaviours, and tendency regarding certain objects (Maio & Haddock, 2009). Petty & Cacioppo (1981) (cited in Maio & Haddock, 2009) state that attitude is a general and constant positive or negative feeling towards a person, an object or an issue. Maio & Haddock (2009) define an attitude as "an overall evaluation of an object that is based on cognitive, affective and behavioural information" (p.4). Similarly, Fishbein & Ajzen (1975) state that an attitude is an evaluation of an object or behaviour positively or negatively. All these different definitions have one thing in common; that reporting attitudes involves an evaluative judgement about an object (Ajzen, 2005; Bohner & Wanke, 2002; Eagly & Chaiken, 1993; Fishbein & Ajzen, 1975; Maio & Haddock, 2009). Eagly & Chaiken (1993) divide attitudes into three levels: cognitive, affective and behavioural.

The cognitive component mirrors a person's knowledge of an object, while the affective component reflects the emotional state in terms of favour/disfavour. The behavioural component represents the overt behaviour towards an object. Consequently, attitudes are critical factors that reflect the degree of favouring and disfavouring of certain objects.

Thereby, many studies have investigated the impact of attitudes and perceptions on teachers' integration of ICT (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Arokiasamy, 2012; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Sang et al., 2010; Ziyadah, 2012). Many studies have shown that attitude towards ICT is interrelated with a set of factors such as training, confidence, competence, perceptions and experiences (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Arokiasamy, 2012; Balanskat, Blamire, & Kefala, 2006; Becta, 2003; Gülbahar, 2008; Hismanoglu, 2012; Mumtaz, 2000; Sang et al., 2010).

The studies have shown that attitudes towards ICT are indicators of teachers' beliefs and experiences (Albirini, 2006; Alebaikan, 2010; Arokiasamy, 2012; Mumtaz, 2000; Sang et al., 2010). Specifically, a Chinese study surveyed EFL teachers' adoption of ICT and demonstrated that ICT implementation was affected by a set of complex beliefs regarding ICT and teaching methods. The findings indicated that teaching approaches, teachers' self-efficacy and teachers' attitudes shaped the degree of ICT adoption. The study concluded that:

*Teacher education should reconsider its training approaches. Teacher education should be carried out in constructivist learning environment and provide student teachers with a conducive and non-threatening environment to experience success in using the computers. This will allow them to gain competence and confidence in using computers for teaching and learning (Sang et al., 2010, p.109).*

On the contrary, some studies found a mismatch between teachers' attitudes and their actual use i.e. many teachers appreciate the positive role of ICT (positive attitudes) but do not incorporate it in their teaching (Albirini, 2006; Alebaikan, 2010; AlMulhim, 2013, 2014; Becta, 2004; Bingimlas, 2009; Gülbahar, 2008; Hismanoglu, 2012; Mumtaz, 2000). Albirini (2006) indicates that although Syrian EFL teachers held positive attitudes towards technology, ICT integration was very poor. He points out that many factors impede teachers' ICT utilization, such as lack of training, lack of ICT resources, incompetent teachers, issues of infrastructure and inadequate technical support. He notes the mismatch between ICT and current curricula, indicating that bringing computers does not mean educational change. Supporting this view, investigating ICT integration in a Malaysian university, Arokiasamy (2012) highlights that:

*Teachers' beliefs, school culture, old curricula and traditional teaching approaches are some of the hurdles that constrain the effective use of ICT in education. History has shown that supporting schools with technological equipment is clearly not enough. It is necessary to take a broad view in order to understand and determine how ICT impacts on learning. This is because educational achievements are shaped not only by the way education is organized but also by the socio-economic background of the learners, their socio-cultural environments (p.24).*

Besides, AlMulhim (2013) examined the utilization of and attitudes towards ICT among Saudi teachers and found that although teachers had positive attitudes towards ICT, the implementation was very poor. She highlighted that lack of training and resources were the main inhibitors. Similarly, Hismanoglu (2012) indicated that although Turkish EFL teachers' held positive attitudes towards ICT, these attitudes were influenced by a set of factors such as insufficient ICT exposure lessons and an exam-based approach.

On the other hand, some studies point out that teachers' negative attitudes hinder the effective integration of ICT (Al-Shahrani & Al-Shehri, 2012; Albirini, 2006; Becta, 2004; Bingimlas, 2009; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Sang et al., 2010). However, Arokiasamy (2012), who studied ICT integration in Malaysia, indicates that negative attitudes are sometimes held due to teachers' beliefs and if we want "to excel further into the technology, the "mindset" of these particular kinds of teaching staff needs serious remodelling to keep abreast with the ICT era" (p.22). However, Sang et al. (2010), who studied Chinese teachers and ICT adoption, argue that negative attitudes are associated with organizational culture. They indicate that teachers lack a vision of how-to-use because of the absence of real life experiences, since "real life experiences are expected to influence the interrelated set of teacher thoughts (teaching beliefs, self-efficacy, attitudes, etc.) in relation to prospective educational use of technology" (p.109). Thus, the above different interpretations reflect that negative attitudes might be held due to personal factors (attitudes, beliefs, perceptions), or due to contextual factors (teaching culture, lack of training, lack of time/resources, lack of access).

## **2.9.2 Institutional Level Factors**

There are many institutional level factors that enable or hinder teachers' uptake of ICT in teaching. These factors are very much interrelated to teacher level factors e.g. the un/availability of the ICT resources enhances or impedes teachers' attitudes and motivation to integrate ICT and so forth.

### **2.9.2.1 Quality of Infrastructure**

ICT implementation in educational institutions is one of the major challenges, due to the high cost of software, hardware and state-of-the-art technology. Developing a robust infrastructure demands huge financial investments (Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Alhawiti, 2011; AlMulhim, 2014; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Hismanoglu,

2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Pyla, 2010; Ziyadah, 2012). Many studies highlight that lack of computer labs, lack of Internet access and lack of student workstations are hindering teachers' willingness to integrate ICT (Al-Dosari, 2011; Alebaikan, 2010; AlMulhim, 2014; Bingimlas, 2009; Fageeh, 2011; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000). Correspondingly, Alebaikan (2010) conducted a study investigating teachers' and students' experiences of blended learning in a Saudi university, and found that inadequate infrastructure inhibited the potential impact of blended learning. She highlights that lack of Internet access on-campus, lack of computer labs and lack of technical support have impeded the effective integration of blended learning for teachers and students. Also, the study shows that the inadequate infrastructure has affected students' and teachers' orientation to blended learning as blended courses merely consisted of online content. Thus, Garrison & Vaughan (2008) highlight the need for planning for adequate infrastructure and the need "for strategic action plans that consider specific initiatives, roles, infrastructure, resources, professional development, assessment, and accountability measures" (p.165).

However, a study conducted in India has shown that the establishment of infrastructure does not guarantee successful integration, since there is a need for change in professional approaches to learning and teaching (Pyla, 2010). The author points out that besides appropriate infrastructure,

*The successful integration of ICT in higher education depends on the collaboration of national policies and institutional policies. The actions taken for the implementation of ICT need to be a proper action plan and training to all stakeholders involved in the integration and bring change on them (p.30).*

In the same vein, Gülbahar (2008) indicates that Turkish pre-service EFL teachers and academic staff could not incorporate ICT tools in their instruction. The unavailability of computer labs as well as ICT resources hindered their integration

and thus affected their competence. The study reports that “careful investment in both hardware and software should be planned in the long range...all classrooms should be equipped with the necessary infrastructure” (p.36). However, the study asserts that infrastructure cannot guarantee effective utilization and ICT integration. Nevertheless, the availability of ICT resources and a proper infrastructure often encourage teachers’ utilization and increase the potential impact of ICT on language teaching. On the other hand, Al-Shahrani & Al-Shehri (2012) conducted a study about teachers’ and students’ attitudes towards e-learning and found that the lack of sufficient infrastructure hindered the teachers’ and the students’ utilizations of the VLE. They point out that the VLE was used as an announcement tool rather than a learning tool. Less effective incorporation is associated with lack of Internet access, lack of student workstations and lack of IT support.

### **2.9.2.2 Lack of ICT Resources**

The effective integration of ICT requires state of the art technology. The availability of ICT resources, including hardware and software, affects teachers’ willingness to adopt ICT. Thereby, lack of ICT resources is one the main constraints of ICT adoption (Alhawiti, 2011; AlMulhim, 2014; Becta, 2004; Bingimlas, 2009; M. S. H. Khan et al., 2012; Mumtaz, 2000). Additionally, many studies have shown that the unavailability and inaccessibility of ICT resources affects teachers’ competence, confidence and attitudes (Bingimlas, 2009; M. S. H. Khan et al., 2012; Mumtaz, 2000). Similarly, Hismanoglu (2012) conducted a study in Turkey, examining pre-service EFL teachers’ attitudes towards ICT in language teaching, and illustrated that the lack of ICT exposure limited teachers’ opportunities to try ICT themselves; decreased teachers’ self-efficacy and thus negative attitudes were held.

Moreover, a study conducted by Khan et al. (2012) investigating teachers’ utilization of ICT in higher education found that the availability of ICT was related to funding. They found that one of the major reasons for the absence of ICT resources was a lack of funding. Effective integration of ICT in educational institutions demands

substantial funding (M. S. H. Khan et al., 2012; Mumtaz, 2000) because “ICT-supported hardware, software, internet, audio visual aids, teaching aids and other accessories demand huge funds” (Khan et al., 2012, p.68).

Similarly, the lack of ICT resources is highlighted in many Saudi studies (Al-Jarf, 2009; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alhawiti, 2011; AlMulhim, 2014; Alwani & Soomro, 2010; Bingimlas, 2009; Fageeh, 2011). These studies show that lack of sufficient resources hinders students' and teachers' utilization of ICT. The studies also indicate that the lack of computer labs on-campus and the unavailability of student public workstations discourage teachers as well as students from implementing ICT in higher education and public schools too. Most importantly, the absence of such resources leads to poor ICT skills for teachers as well as students in the twenty-first century (Alebaikan, 2010; M. S. H. Khan et al., 2012; Mumtaz, 2000; Selwyn, 2011). Further, Al-Shumaimeri's (2008) study about EFL teachers' attitudes towards ICT indicates that lack of resources affects teachers' attitudes and competence.

On the other hand, Cuban (2003) argues that availability of ICT does not mean automatic utilization by teachers. Illustrating “maximal access, minimal change” Cuban (2003) indicates that the question we should ask is “Given the availability of computers, in what ways have approaches to teaching and learning remained stable and in what ways have they changed?”(p.49). Further, Selwyn (2011) indicates that although there are many strongly held claims of ICT impact in education, most of the promises have not been recognized by teachers. He points out that social and cultural factors in educational institutions usually shape the level of ICT integration. In a similar vein, a study conducted in China, examining teachers' integration of ICT, indicates that effective ICT incorporation is strongly related to teachers' thinking and teaching approaches i.e. teachers' beliefs, attitudes, and self-efficacy regarding ICT. The study highlights that teachers' hidden complex beliefs should be challenged in order to have successful ICT integration (Sang et al., 2010). Additionally, many authors indicate that ICT tool provision does not mean automatic integration by teachers (Arokiasamy, 2012; Cuban, 2003; Fullan, 2007, 2013; Mumtaz, 2000; Price

& Oliver, 2007b, 2007a; Pyla, 2010; Weller, 2007). As a result, there are many issues to be considered besides ICT resources. Worse than this is when change advocates consider ICT tool availability as a means in itself.

It is noteworthy that the above-mentioned factors are very much interrelated to each other. They work in a dynamic way as each factor affects many other factors e.g. teachers' confidence is very much interlocked with teachers' access to ICT and training. Also, teacher training affects teachers' attitudes and confidence and so forth (AlMulhim, 2014; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Mumtaz, 2000).

### **2.9.3 Broader Institutional and Pedagogical Factors**

Below are the factors that belong to the outer educational institutions. These are not necessarily only related to the research context, as most of them are part of the overall culture of educational institutions.

#### **2.9.3.1 Pedagogy Led Technology Integration**

Illustrating the importance of pedagogy led technology integration, Watson (2001) indicates that ICT is "not only perceived as a catalyst for change, but also change in teaching styles, change in learning approaches and change in access to information. Yet research indicates that teachers are both threatened by change, and conversely not impressed by change that appears to focus on what the technology can do rather than on learning" (p.251). Similarly, Okojie et al. (2006) point out that teachers should be able to "assess the appropriateness of any technology used for teaching and learning in relation to specific instruction. The teacher should also consider how the technology selected fits into the objective of the lesson, methods of instruction, evaluation, feedback and follow-up initiatives" (p.67-68). Such consideration will provide teachers with the chance to reflect on their practice and envision the rationale for integrating technology into teaching and learning in a meaningful way (ibid.). Likewise, Levy (2012) indicates that ICT integration

*requires much of the language teacher to successfully integrate the elements into an effective, fully functioning whole...the language teacher has to be able to understand and assess the varied contributions of the elements and contrive to enable them to work together effectively. This requires an intimate knowledge of the students, the curricula goals, and the strengths and limitations of contributing technologies. This is possible, if the teacher keeps foremost in mind pedagogical goals and step by step approach to the introduction of new technologies and practices (p.284).*

Most importantly, Vaughan (2007) argues that “without adequate preparation, most faculty members will simply replicate their traditional class sections and the benefits, resulting from a blended course, will not be achieved” (p.12). Thereby, it is noteworthy that the adoption of new technologies in teaching necessitates teachers to change to a sound pedagogy which enables them to achieve the course aims and maximize the potential of technology (Fullan, 2013; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Price & Oliver, 2007b; Reinders, 2012; Selwyn, 2011; Weller, 2007). Thus, teachers need an approach and strategies for how they can integrate ICT into their teaching. In addition, “there is no “one best way” to integrate technology into the curriculum. Rather, integration efforts should be creatively designed or structured for particular subject matter ideas in specific classroom contexts” (Koehler & Mishra, 2009, p.62). In other words, effective ICT integration consists of three interrelated elements: understanding of content, understanding of teaching and understanding of technology. Keeping the three interrelated elements in mind, teachers, researchers and teacher educators should go beyond the “oversimplified approaches that treat technology as an “add-on” instead to focus again, and in a more ecological way, upon the connections among technology, content and pedagogy as they play out in classroom contexts” (ibid.,p.67). Thereby, “effective learning in any environment requires good design, management and pedagogy. The reality is that a boring, low-order thinking task on paper will remain the same when substituted for an iPad, unless the iPad allows opportunities to

redefine and transform that learning opportunity" (Chalich, 2015, para.4). Consequently, Garrison & Vaughan (2008) highlight the importance of pedagogy before technology in faculty CPD. They point out that:

*The potential exists within such a professional development program for faculty to make a transformational shift in their approach to teaching from one of disseminating information to one of creating learning environments. Students are able to co-construct their own knowledge through interactions .....The role of technology shifts from the packaging and distribution of information (content) to its use as a "tool set" to enable students to communicate and collaboratively construct their own knowledge (p.52-53).*

In a similar vein, the teacher's role in blended teaching is a key indicator of the quality of ICT integration (Alebaikan & Troudi, 2014; Cohen et al., 2010; Fullan, 2007, 2013; Garrison & Vaughan, 2008; Kozma, 2003; Levy, 2012; Levy & Stockwell, 2008; Price & Oliver, 2007b; Reinders, 2012). Teachers need to move from the traditional role (information giver) to a facilitator of the learning process. Worse than this, is when teachers stick to their typical traditional practices when implementing ICT in education (ibid.). Correspondingly, Wilson & Boateng (2014) conducted a study investigating pedagogical practices in teacher education and ICT adoption. The study examined the issues and implications of integrating ICT into teacher education and pedagogical practices in particular. The study adopted both qualitative and quantitative methods for data collection. The research participants were instructors of teacher education institutions in an African country. The primary findings of the study highlight the weak integration of ICT in spite of the efforts made at the time. The study shows that although there were many large investments made by policy makers and stakeholders, the actual integration of ICT in education was poor. The low level of ICT was coupled with the fact that many instructors lacked the skills to create innovative ideas to use technology. More importantly, the study indicates that many instructors depended heavily on traditional methods of teaching. Thus, the study recommends providing continuous training for practicing teachers. Further, the

study concludes that teachers' pedagogical practices are essential for effective ICT incorporation. Therefore, effective ICT implementation entails a paradigm shift in the pedagogical practices of teachers and a focus on moving from a teacher-centred approach to a student-centred approach. Supporting this view, Anderson (2004) points out that,

"As yet, we are at early stages in the technological and pedagogical development of online learning. But the fundamental characteristics of teaching and learning and the three critical components of teaching presence—design and organization, facilitating discourse, and direct instruction—will continue to be critical components of teaching effectiveness in both online learning and classroom instruction" (p.291).

Therefore, if technology adoption is pedagogy based, the utilization of the ICT will be fruitful and effective. Moreover, the real factors that play a role in education are pedagogical approaches and practices. ICT is only a tool, however it has potential benefits if the integration is based on well-informed pedagogy.

### **2.9.3.2 Insufficient ICT Integration Strategy**

In the language classroom there are plenty of ICT tools that students might engage with, however the question we should ask is "which technology do we choose for which purpose?" (Levy, 2012, p.279). Obviously, EFL teachers may become unmotivated if they face a wide range of ICT tools. An effective way to deal with this difficulty is to consider ICT tools in relation to certain language skills. This approach is helpful and useful because it matches the potentialities of technologies with specific language skills or aims (ibid.). As a result, there are many key issues to be considered when integrating ICT tools in language teaching. These issues are the following:

- “Understanding the in-class/out of class relationship: time on task;
- Integrating the elements into an effective, fully functioning whole, including assessment;
- The pivotal role of the language teacher” (Levy, 2012, p.283).

Thus, it is least effective if technologies are available for language learners but the content seems separate from their in-class learning (Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012; Weller, 2007). More specifically, Levy (2012) illustrates that,

*These developments lead to new and different conceptions of the in-class/ out of class relationship, both in terms of teacher roles and materials development. Out of class work via informed technology use allows for an extension of class contact time into out of class time, and thereby provides extra time on task beyond what is possible in a limited number of classroom contact hours- especially extra practice at macro-skills, and extra contact with appropriate material for exploring linguistic and cultural content. This has been increasingly important in recent years as class sizes have increased and contact hours decreased (p.284).*

Thus, many authors indicate that although it is important for teachers to be equipped with ICT skills, it is also essential to train them on how to use these skills in teaching. Integrating ICT “into a curriculum is less likely to make an impact on students’ learning if technology is not considered as a component of instruction. Therefore, technology should not be treated as a separate entity but should be considered as an integral part of instructional delivery” (Okojie, Olinzock, & Okojie-Boulder, 2006, p.67). Therefore, ICT incorporation should be part of the course assessment or used as a tool to motivate students’ participation in the online discussion forums (Levy, 2012; Weller, 2007). Moreover, ICT integration involves the use of technology in teaching that is based on a well-informed pedagogy. To adopt blended teaching, teachers need to master ICT tools, develop online materials and assess students’ work online (Reinders, 2012). Most importantly, monitoring students’ engagement and facilitating their learning can be quite challenging. Thus, ICT implementation

requires a change in the role of teachers and their ability to employ ICT potential and avoid its pitfalls (ibid.). The change in the teacher's role is necessary to ensure "continuity between what the students do in class and online" (Reinders, 2012, p.289). Thus, a well-designed online course encourages students to expand on what been taught in class and provides the required scaffolding (ibid.). On the other hand, many teachers adopt a very limited scope and provide additional practice materials only. Therefore, the delivery format plays a key role in effective ICT integration and teachers should not replicate their traditional role. Thus, teachers need to define the suitability of ICT and its relativity to the course aims. Additionally, teachers should select the best technology for the pedagogical goals i.e. try to find the best tool for the job. In many instances, the tool is there but the employment of its potential is based on poor e-pedagogy (ibid.). Consequently, ICT adoption clearly requires appropriate ICT tools, effective strategies and good pedagogy. Significantly, if the students feel that technology integration is another burden and it is not reducing their class time, they might have what is called "a course and a half" where the use of technology does not reduce their face-to-face instruction (Kaleta et al., 2005). To avoid "course and a half" syndrome, Kaleta et al. (2005) indicate that "when developing their first Hybrid course, instructors tend to "add-on" to their traditional course instead of rethinking their course's objectives with the hybrid model in mind" (p.2). Thus, it is important to encourage instructors not to overload their first blended course. In the same vein, dealing with technology integration as an add-on is a poor approach, since technology implementation should be based on clear objectives (Akyol et al., 2009; Garrison & Vaughan, 2008; Selwyn, 2011). Consequently, most of the limited use of VLEs in Saudi Arabia is largely due to poor e-pedagogy, when teachers lack sufficient knowledge/skills for effective integration and consider ICT integration a secondary activity (Al-Khalifa, 2010a; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2010a; AlMulhim, 2014).

The teacher's role in online teaching is key to effective ICT integration (Fullan, 2013; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Price & Oliver, 2007b; Reinders, 2012; Selwyn, 2011; Weller, 2007). Their role is significant for encouraging

students' utilization of ICT. Many students report a sense of isolation and loneliness when working online. Thus, sufficient scaffolding from teachers is very important in order to have effective ICT integration (Reinders, 2012). Additionally, students need support in order to maintain their new mode of learning (online). Teachers' presence is pivotal as they need training and encouragement to get used to self-directed learning (Cuban, 2003; Reinders, 2012; Vaughan, 2007; Weller, 2007). Supporting this view, Edick (2015) indicates that:

The problem with a computer-based education...It's a lonely experience...From the literature you will learn that if students felt they were in a community of some sort, they were quite satisfied with the online learning experience. However, if they felt they were alone and uncared for, they tended to drop out of the course or leave school altogether. It's hard to be a self-directed learner, to push oneself when no one seems to care (para.8).

Significantly, Otter (2012) illustrates that "interactions form the foundation of a community of learners. If students feel they are part of a community of learners, they are more apt to be motivated to seek solutions to their problems and to succeed" (para.6). Thus, the challenge for online teachers is to adopt strategies and techniques to build "learning communities" for students, regardless of space and time (ibid.).

On the other hand, many studies show that teachers' weak participation online is due to inadequate preparation programs (Abuhmaid, 2011; Alebaikan, 2010; Fullan, 2007, 2013; Reinders, 2012). More specifically, Tømte et al. (2009) conducted a country case study investigating ICT in initial teacher training in Norway and found that student teachers lacked sufficient training. The challenge was that most pre-service teachers lacked competence in the pedagogical use of ICT, although they had had training. Further, the student teachers indicated that teacher trainers did not function as positive role models. Generally, the study reports that although there is institutional awareness of the issue of ICT in teacher training (in terms of new policies

or plans); these ICT policies are clearly not fully implemented. In turn, this reflects the discrepancy between the desired institutional practice and the experiences, as reported by student teachers. Most importantly, the study indicates that “the university colleges do not seem to be in a position to require or to motivate unwilling teacher trainers to implement their institutional strategies, if there are any. This is also expressed as a key obstacle in the interviews with program managers for teacher training” (p.24). The study concludes with some remarkable insights into the quality of the proposed training programs, indicating that:

*ICT use can be seen in several ways. While the policies in principle are geared towards all three types of digital competences (skills, interpretative and creative competences), most of the policies that are actually implemented still belong to implementation of ICT as a tool. The main techniques involve the use of computers and projection systems. In order to implement more pedagogic and embedded use of ICT both policies and practices have to move beyond basic ICT skills and use of ICT as a tool, to find ways of building the interpretive and creative potential of ICT into teacher training (p.25).*

Simultaneously, Rani & Kant (2016) conducted a study about ICT training in teacher education in India. The study indicated that although ICT was application-oriented, the focus was only on theoretical aspects in most teacher education institutions. Additionally, the study highlighted that ICT training was about technical issues and there was little emphasis on the pedagogy. Further, most of the training was based on traditional methods with no evidence of work on how ICT could support instructional innovations. Consequently, student teachers lacked the skills to integrate technology into the curriculum and classroom instruction. The study recommends adopting effective change in teacher education programs in terms of ICT training. Likewise, Ruales & Adriano's (2011) study investigated the attitudes, the perceived skill levels, and the level of ICT integration in teacher educators' instruction in state universities in Asia. The study examined the relationship between teachers'

attitudes and perceived skill levels and the actual level of ICT integration. The study participants were 72 teacher educators from nine teacher education institutions. The key research results were that teacher educators had positive attitudes towards ICT integration but the levels of integration were low. Thus, positive attitudes towards ICT integration did not mean that ICT was integrated into instruction. Therefore, training teachers about ICT adoption was recommended as an effective strategy to motivate teachers to incorporate ICT into their teaching. Thus, the study concludes that to enhance teachers' ICT skills, effective training should take into consideration both pre-service and in-service teachers. Effective training should employ appropriate pedagogy when integrating ICT.

## 2.10 Summary

This chapter presents an overview of the current issues that enhance or impede ICT integration. Considering ICT implementation as an example of change, the chapter starts with definitions of change and the characteristics of effective change strategies. The reviewed studies highlight that most change advocates focus on policy level change i.e. producing rules and objectives and focus least on supporting people (teachers and administrators) during change. An overview of VLEs and their features are presented as well. However, VLEs are highly unlikely to be used effectively in most educational institutions. Many studies indicate that VLEs have been considered as content repositories and utilized for announcements rather than learning. Thereby, many studies outline three major factors that affect ICT implementation in educational institutions. The factors can be categorized into three levels; teacher, institution and broader system level. Significantly, the reviewed literature illustrates that ICT availability does not mean spontaneous utilization. Issues like effective pedagogy should be taken into consideration. In other words, ICT integration entails student centred rather than teacher centred pedagogy. Additionally, the teacher's role is a key ingredient of effective ICT integration. Students need on-going support to enhance their online learning. Consequently, policy makers should consider

effective CPD when integrating ICT. Teachers' technology training should go beyond sessions about basic ICT skills. Teachers need to comprehend the pedagogical benefits of ICT tools, with follow up support instead of one time training sessions. To conclude, stakeholders need to envision the potential of the proposed change (ICT adoption). Lastly, the change aims and rationale should be observable for all people involved in the change.

# **Chapter 3: Context of the Study**

This chapter presents an overview of the context of the study. It illustrates Saudi higher education and the efforts to promote the use of information and communication technology (ICT) in teaching. A detailed account of English language teaching in Saudi Arabia and the use of ICT in English language teaching is also presented.

## **3.1 Higher Education in Saudi Arabia**

Higher education is one the influential pillars in the development process of any country and it is the basis for human and cognitive development and progress. Higher education represents the general plans that underpin the process of education to develop the human resources of the community. The Ministry of Higher Education was established by Royal Decree No. 1/236 in 1975, to supervise the implementation of the Kingdom's educational policy charter in higher education. Higher education in Saudi Arabia is in line with the objectives of the Ministry of Economy & Planning to achieve the objectives of the national comprehensive human development plans. Higher Education in the Kingdom was responsive to social and economic needs, and reflective of the attitudes and trends of the national authorities' plans to promote the growth and development of Saudi society (Ministry of Economy & Planning, 2003)

Saudi higher education had generous financial support from the government, represented by the establishment of new universities and colleges and the allocation of huge budgets. The number of public universities in the Kingdom has increased from seven universities in 2004 to twenty-five public universities, nine private universities and thirty-four private colleges in 2013 (Ministry of Higher Education, 2013).

The Ministry of Higher Education in Saudi Arabia realized the steady changes faced by higher education institutions and recognized the importance of preparedness and

planning for a written educational policy. Therefore, to educate Saudi citizens intellectually and enhance scientific research and progress, in 1977 the Ministry of Higher Education developed the objectives of Saudi higher education policy. The educational policy charter states the following objectives:

- 1 To develop the doctrine of loyalty to God, to equip students with understanding of the Islamic culture that makes them feel their responsibilities before God, the Nation of Islam and to achieve fruitful scientific abilities.
- 2 To prepare highly-qualified competent citizens scientifically and intellectually, to perform their duty in the service of their country, and the advancement of their nation, in the light of the sound principles of Islam.
- 3 To provide an opportunity for gifted postgraduate students to study different scientific disciplines.
- 4 To play a positive role in the field of scientific research that contributes to the field of global progress, in arts, science, and inventions and to find sound solutions appropriate to the evolving requirements of technological life.
- 5 To promote movement of authorship and scientific publications, including adjusting science to serve the Islamic idea, and enhancing leadership roles to build a human civilization that leads to righteousness and wisdom, and to avoid distractions and atheistic thoughts.
- 6 To translate science and useful arts knowledge into the language of the Quran (Arabic), and enrich the terminology of the Arabic language "Arabization," to satisfy knowledge needs and make it accessible to many citizens.
- 7 To provide more studies and innovative training services to help graduates who are in the workplace (Educational Policy Charter, 1995).

To achieve these objectives Saudi higher education has undergone many changes in depth and breadth. The number of public universities was seven in 2004 and now in 2017 there are 25 public universities. Most of the new universities were colleges in different cities and converted into universities (Ministry of Higher Education, 2013). Nevertheless, Al-Mengash (2006), in her evaluation study of the Saudi educational

policy charter, illustrates that not all provisions are applied effectively and the policy charter has not changed since 1977. The results of her study indicate that there are no explicit provisions focusing on the importance of quality of education or the importance of standards based education i.e. the system is reviewed to verify its quality. Additionally, the current educational policy charter has attached no importance to technology, but is focused more on moral aspects rather than knowledge aspects. She concludes that the policy points out the importance of developing research and scientific thinking for students but she questions the effectiveness of these provisions, as there is a dominant teacher-centred approach in Saudi higher education.

### **3.2 Information and Communication Technology (ICT) in Saudi Arabia**

The growth and development of Saudi Arabia has led to progress in all walks of life like technology, health and education. Saudi Arabia has given increasing attention to all sectors, including information and communications technology (ICT, hereafter) due to belief in the effective role of ICT in the development of and the transformation to an information society and knowledge based economy.

Recognizing the importance of ICT in sustainable development and diversification of sources of national income, the Seventh Development Plan in Saudi Arabia has recommended many national projects and investments in ICT. The objectives of the Seventh Development Plan are to prepare a national plan to employ ICT in education, health and the economy. It also develops a future vision for the deployment of ICT in society and for the narrowing of the technological gap between Saudi Arabia and the industrialized countries by 2020 (Ministry of Information and Communications Technology, 2005). Therefore, the Saudi National Plan for ICT has four main categories: culture and education, trade and economy, communications and information security and management and services. Under each category there are a number of sub-themes.

The vision of the National ICT Plan is “The transition to an information society and digital economy to increase productivity, and provide ICT for all segments of society, in all parts of the country, and to build a strong industry in this sector to become one of the main sources of government income” (Ministry of Information and Communications Technology, 2005).

To achieve this vision, the Saudi Ministry of Communications and Information Technology (2005) developed the below objectives and categorized them according to seven main categories (see Table 5). However, the National ICT plan has highlighted the less effective role of ICT in education in Saudi Arabia and recommends more effective adoption of ICT in education by enriching online learning materials and providing hard and soft resources to schools, teachers and students (National ICT Policy, 2006). In addition, the Saudi Telecom Company (STC) report illustrates that better integration of ICT in educational institutions is needed (STC Group Report, 2011).

<b>No.</b>	<b><i>The Category</i></b>	<b><i>The Objectives</i></b>
1	Services and Productivity	Increase the efficiency and productivity of all sectors, provide online government services, including social and health services and promote teleworking through optimized employment of ICT
2	ICT Sector	Organize ICT sector in fair and attractive ways that act as a catalyst for investments
3	ICT Industry	Build a strong and competitive ICT industry to compete locally and globally through scientific research, innovation and development in strategic areas and increase international cooperation to promote ICT based government income

4	Education and Training	Optimized employment of ICT in education and training at all levels
5	Digital Divide	Enable all segments of society in all parts of the country to deal with ICT effectively and easily to bridge the digital divide
6	Islam, Country & Arabic Language	Optimized employment of ICT to promote national identity, sense of belonging, Arabic language and reinforce the message of Islam
7	Human Resources	Provide qualified trained capabilities of both sexes in the various disciplines of ICT by training of national cadres and attraction of international expertise

Table 5 The Objectives of the National ICT Plan

Following the recommendations of the National ICT Plan and to achieve the above objectives, many national projects were launched to develop the ICT sector in Saudi Arabia, such as the e-government project “Yesser”, which established the NCIS (National Committee for Information Society) in 2005 and MadinahKnowledge Economic City in 2006.

### 3.3 ICT in Saudi Higher Education

The following is an overview of the national projects that were launched to promote the uptake of ICT in Saudi higher education institutions.

#### 3.3.1 National Centre for E-Learning and Distance Learning

Following the recommendations and suggestions of the “AAFAQ” future plan for Saudi higher education, the Ministry of Higher Education established the National Centre for e-Learning and Distance Learning (NCeLDL) in October 2006. The NCeLDL is publicly funded and aims to promote and facilitate the use of ICT in Saudi

higher education. The NCeLDL has developed many national projects to enhance the best use of ICT in Saudi higher educations. The main objectives of the NCeLDL are:

- To spread e-learning applications and solutions in all higher education institutions, in accordance with the best quality standards.
- To facilitate capacity building for higher education institutions by using e-learning applications and solutions.
- To widen technical awareness and e-learning knowledge. This will help in building knowledge in society.
- To facilitate conducting and evaluating e-learning projects.
- To support research and studies in the field of e-learning and distance learning.
- To set standards for e-learning courseware production and publishing.
- To provide consultancy in the field of e-learning and distance learning.
- To build and distribute educational software applications that support the educational process in both public and private sectors.
- To encourage projects on e-learning and distance learning in higher education institutions.
- To hold seminars, workshops and conferences that will add value to e-learning & distance learning.
- To establish international bonds with the best leaders in the e-learning field (National Centre for E-Learning, 2013)

In addition, the NCeLDL has launched many national projects to develop and promote the use of ICT in Saudi Higher education and they are as follows:

### **3.3.2 The Saudi Digital Library**

The Saudi Digital Library is one of the national projects that has been developed by the National Centre. It aimed to enhance learning in general and e-learning and distance education particularly. Also one of the aims is to facilitate access to information resources and support scientific communities at national level. Moreover, the Saudi Digital Library participates in building a knowledge society where

information is accessible to everyone. It develops the transition to digital curricula and makes the content available to teachers and students. The library contains approximately 90,000 titles (e-books and resources) available to students and faculty staff (National Centre for E-Learning, 2013).

### **3.3.3 National Repository for Learning Objects (MAKNAZ)**

The National Repository for Learning Objects (MAKNAZ) was launched by the National Centre to promote and facilitate the delivery of e-learning in Saudi universities. To ensure effective e-learning, it is important to create a platform where anyone can develop, archive, retrieve, reuse and share learning objects. The National Repository, in collaboration with Saudi universities, is creating high quality digital content and curricula. The National Repository is supporting all initiatives by Saudi universities regarding the use of learning objects in the light of evidence from scientific research (National Centre for E-Learning, 2013).

### **3.3.4 JUSUR Learning Management System (LMS)**

JUSUR is a national learning management system (LMS) designed by the National Centre for E-learning for Saudi public universities. The JUSUR LMS was developed by the Noor group which is a Malaysian company specializing in programming of educational technology. Even the Arabic word “jusur” means “bridges”, as it is meant to bridge the gap between students and the teachers in order to create a better learning environment.

JUSUR LMS has many key features, such as log in, scheduling, delivery, tracking, communication and evaluation. JUSUR LMS also has a learning content management system (LCMS) which is a built-in system that can facilitate the access and use of the learning objects repository and the user can create, design and deliver the e-content easily (National Centre for E-Learning, Saudi Arabia, 2013). JUSUR LMS is a user-friendly site and the National Centre has uploaded an online user guide for teachers as well as students. Many Saudi universities have started to use

JUSUR LMS in their teaching, such as King Saud University, King Abdul Aziz University, Baha University, Taibah University, Qassim University and Madina Islamic University in collaboration with the National Centre to provide technical and ongoing support while using it. Additionally, the National Centre launched another project called (SANEED) to support the use of JUSUR by faculty staff.

### **3.3.5 The Saudi Centre for Support and Counseling**

The National Centre has established the Saudi Centre for Support and Counseling and named it SANEED. The word “saneed” means “support” in Arabic to match the aim of the centre to give support, advice and raise awareness of the affordances of e-learning. The centre presents support and guidance to faculty staff, students or any external customers seeking advice about e-learning. To achieve this aim, the centre established the SANEED Call Centre with the latest technology to ensure the smooth delivery of support services. SANEED also provides support and guidance for many communications channels such as live voice chat, emails, fax and SMS (National Centre for E-learning, 2013).

### **3.3.6 Project of Training and Qualification**

This training project aims to provide training sessions to faculty staff and technicians in the applications of e-learning in Saudi universities. The training sessions vary from simply raising awareness to more advanced approaches. The sessions are arranged by national and international expert house. The Centre cooperates with international institutions to provide high quality training to faculty staff abroad such as APEC Collaborative Education in South Korea, the Meteor Group of Companies in Malaysia, the Japan International Cooperation Centre “JICE” in Japan and the University of Manchester in the UK (National Centre for E-Learning, 2013).

### **3.3.7 Excellence Award in E-Learning**

Due to the growing interest in e-learning, it is necessary to establish an agency responsible for developing e-learning standards at university level, as well as at an individual level. Therefore, the Ministry of Higher Education is developing plans to enhance the use of ICT in education. The Ministry represented by the NCeLDL, have launched an award for Excellence in E-learning at university level. The rationale for this award is as follows:

- 1- Promoting the use of information and communication technology (ICT) locally.
- 2- Stimulating and encouraging educational institutions, universities, as well as individuals to embrace quality in e-learning in education.
- 3- Provoking creativity and innovation, and encouraging the spirit of competitiveness to enrich e-learning in educational institutions.
- 4- Exchanging successful experiences and disseminating best practices in the areas of e-learning locally.
- 5- Recognizing the distinctive efforts in the field of e-learning, and deepening the concepts of excellence and innovation through the adoption of standards of excellence in the applications of e-learning technologies.
- 6- Integrating efforts between educational institutions to improve educational outcomes in the Kingdom of Saudi Arabia to keep pace with global progress in the field of e-learning (National Centre for E-Learning, 2013)

The award has six categories; three for university level and three for individual level success. The six categories are as follows:

#### **For Universities**

- 1- Award in e-contents.
- 2- Award in effective use of VLE.
- 3- Award in innovative programs in e-learning.

#### **For Individuals**

- 4- Distinctive e-learning content design.
- 5- Distinctive e-learning research papers.

6- Distinctive use of modern technologies in e-instruction.

The award has three levels for individuals and universities as well. Details in Table 6 below:

<b>The Awards</b>	
<b>First Place</b>	Golden Award 30000 SAR / 5000 GBP
<b>Second Place</b>	Silver Award 15000 SAR / 2500 GBP
<b>Third Place</b>	Bronze Award 5000 SAR / 1000 GBP

Table 6 E-Learning Excellence Awards

Each award has criteria that must be met in order to participate in the competition. The prize is nationally accredited by all Saudi universities and the deanship of e-learning and distance education in each university is strongly encouraging academic staff to participate in this award.

In addition, many public as well as private universities are launching awards to promote the use of ICT in education. An example of an emergent university, Majmaah University, represented by the deanship of e-learning and distance education, has launched the University Chancellor's Awards for e-learning in higher education to develop the use of ICT by academic staff (University Chancellor's Awards, 2013). Effat University, which is a private female university, has also launched many awards to integrate the use of ICT in public education as well as higher education (Effat University Awards in Learning and Technology, 2012):

### **3.3.8 International Conference on E-Learning and Distance Learning**

E-learning applications facilitate the flow of information and educational materials in an interactive learning environment rich with learning resources. Thus, the global trend today towards e-learning comes in line with the rapid and successive developments in information and communication technology (ICT). Believing in its importance and to make use of its advantages, the Ministry of Higher Education, represented by the National Centre, has organized the International Conference on E-Learning and Distance Learning biennially.

The conference on e-learning and distance learning is one of the initiatives of the Ministry of Higher Education, represented by the National Centre for E-Learning and Distance Learning, to enrich scientific dialogue by providing insights and global experiences. This conference is a space for international meetings which enhance the objectives of the national development plans. The conference was held in Riyadh in 2009, 2011 and 2013. With more than 130 speakers, 36 workshops and 89 exhibitors from all over the world, the conference has the four following themes (Conference on E-Learning and Distance Learning, 2013) :

- Successful e-learning experiences designed to improve learning and ensure quality.
- Challenges facing performance-driven e-learning.
- Developing engaging e-learning content to improve performance.
- Assuring e-learning quality.
- The future of e-learning and emerging technologies

Similarly, Effat University is organizing the 10<sup>th</sup> conference on learning and technology in Jeddah, Saudi Arabia. The goals of the conference are:

- To provide access to the latest scientific research and studies in the field of learning and technology.
- To exchange scientific expertise between professionals and those interested in the field of e-learning.
- To promote cooperation and coordination between educational institutions of society and the private sector in the field of e-learning and training.

- To highlight the role of technology in learning and its contribution to the development of education.
- To foresee the future of learning and technology in the world of the knowledge-based society.
- To promote learning and technology applications in educational institutions in the Kingdom (Learning & Technology Conference, Effat University, 2013)

These meetings are important to explore what progress has been made in this area, and to measure the degree of its effectiveness in supporting educational performance. Perhaps the next step is to review the lessons and experiences of previous initiatives in the field of e-learning, and strive hard to understand the current initiatives to develop a clear vision for the new approach to e-learning, and distance education (International Conference on E-Learning, 2013).

### 3.3.9 Deanship of E-Learning and Distance Education

All Saudi public universities have established a Deanship of E-Learning and Distance Education. The deanship aims to promote the use of ICT in Saudi higher education institutions. Taibah University is no exception, and the deanship in the university states the below aims to be achieved (Objectives of Deanship of E-Learning, 2012):

- Develop the use of e-learning systems and improve academic performance at the university.
- Enable all employees of the university to take advantage of the infrastructure for e-learning and distance education, especially for academic and administrative issues.
- Develop and deliver interactive e-learning solutions to serve the educational process, and provide distance education programs along with ICT resources to enhance academic and educational processes.
- Transform traditional courses to electronic ones that can be taught remotely.

- Build a cadre of qualified human resources capable of innovative production in the field of e-learning and distance education.
- Establish infrastructure networks, labs and information centres capable of providing online educational services at the university.

Consequently, the Deanship of E-Learning and Distance Education in Taibah University has launched its official account on Twitter to advertise its activities, video lectures, Taibah University events calendar and training sessions. On its Twitter account, the students find their timetables, module outlines, contact information, rules and regulations for examinations, and even the induction sessions (Deanship of E-Learning and Distance Education, 2013).

Furthermore, the NCeLDL is running a monthly panel discussion to be hosted and conducted by one of public universities represented by the Deanship of E-Learning. The topics of the panel discussions vary but they all come under one category, which is prompting e-learning and distance education in Saudi Arabia. The last tenth panel discussed e-learning in emergent Saudi universities: futuristic visions.

All these projects and awards are a kind of formal recognition by the Ministry of Higher Education as well as the local community in Saudi Arabia of the essential and the potential role of technology in education. These awards motivate teachers and academic staff to adopt technology in education and take advantage of the technological tools and informational flow in contributing to the development of education. Thus, e-learning applications are considered to develop the education system and enhance flexible and accessible learning environments. Additionally, best practices of education, which enhance participation, discussion and autonomy, regardless of time and space are promoted with the use of ICT.

### **3.4 An Overview of English Language Teaching (ELT) in Saudi Arabia**

English is the global language of the twenty-first century where its speakers populations is dramatically increasing more than its native speakers e.g. India. The

cultural legacy plays an important role in the spread of English in terms of cinema, education, music, media and international travel and communications (Crystal, 2003). English is “closely associated with the leading edge of global scientific, technological, economic and cultural developments, where it has been unrivalled in its influence in the late 20th century” (Graddol, 2000, p.4).

Saudi Arabia is no different, since English has received significant support as the only foreign language in formal public education. Shortly after the establishment of Saudi Arabia in 1932, there was a steady development in the country economically, educationally and socially. These developments were followed by the discovery of oil in 1938, which reinforced the need for communication with foreign experts. Therefore, it was important to adopt English language teaching in Saudi education, especially with the rapid growth of the petrochemical industries that necessitated bilingual qualified citizens (Al-Seghayer, 2005).

After the founding of the Directorate of Education in 1923, English was introduced in secondary schools and a few years later, in 1959, in intermediate schools (grades 7, 8, and 9) as well. English became a core subject with specific educational objectives as well as assigned textbooks at both secondary and intermediate levels. English enjoys an instrumental function as a medium of instruction and learning at many educational institutions in Saudi Arabia. Additionally, English proficiency is a core requirement for postgraduate studies in Saudi universities and a prior knowledge of English is essential in the Saudi job market (Al-Seghayer, 2011).

### **3.4.1 Objectives of Teaching English in Saudi Arabia:**

In the Saudi education policy charter, a general objective of ELT is to provide the students with a language, besides their native language, to widen their knowledge, and to use to work on translating Arabic science and literature to other languages and contribute to the spread of Islam and the service of humanity (Al-Hajailan, 2003).

In addition, under this main goal there are many specific objectives as follows:

- 1 To afford the secondary school pupil a window on the world.

- 2 To give the secondary school pupil an experience of delight through reading samples of English that have an appeal both in arts and science.
- 3 To cultivate the pupil's critical thinking as a useful adjunct to intelligent reading of English textbooks.
- 4 To give play to the pupil's imagination by means of imagery in poetry and visualization of character.
- 5 To provide the pupil who intends to go to university or another higher institute with an adequate knowledge of English to help him in his future studies.
- 6 To give the pupil who finishes his formal education in the third year of secondary education sufficient knowledge of the language to help him in his/her vocation.
- 7 To help pupils to gain a reasonable command of English in order to be in a better position to defend Islam against adverse criticism and participate in the dissemination of Islam (Al-Hajailan, 2003).

However, many studies have shown that these aims are not sufficiently implemented and teachers, students and textbook writers should be actively involved in designing ELT objectives based on analysis of students' needs. (Alhaisoni & Rahman, 2013; Javid, Farooq, & Gulzar, 2012). Additionally, there is a mismatch between most of the objectives and the adopted teaching methodologies (Alresheed, 2008).

### **3.4.2 Textbooks and Teaching Methodologies**

Curriculum design entails working out what competence, skills and needs are required by students and then proposing plans to achieve these objectives (J. C. Richards, 2001). The National Saudi English Curriculum has undergone constant changes in the last decades. The textbooks are locally produced, adopting the principles of communicative language teaching (CLT), with elements of the functional-notional approach. The assessment criteria in public schools is 10% for class participation and homework and the remaining 90% is based on quizzes and final exams (Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 1999). Local textbooks are written by a committee of EFL specialists at King Fahad

University. The EFL curriculum in Saudi Arabia has many features that to some extent affect ELT and students' achievements. First of all, the centralized approach, in which all EFL teachers are given an identical syllabus with guidelines and deadlines to follow and apply, shows how Saudi teachers are less autonomous and discouraged from developing their own materials because they have unified, fixed textbooks (Al-Seghayer, 2005, 2011). The second issue is the length and the scope of the national curriculum. English is introduced in elementary, intermediate and secondary schools. Students have four periods of 45 minutes a week to study English, with the exception of elementary school, where they have only two periods a week. The textbooks are always accompanied by a workbook with exercises and a teacher's book. Consequently, it is easy to identify that there is a lack of effective materials in Saudi EFL classes. Teachers and students alike rely heavily on the grammar rules and vocabularies presented in the textbook, and consider it as a test-book (Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 1999). This approach (one single textbook) reinforces lecture-type class activities, but the design of the objectives and the course should instead be based on analysis of students' needs, not a "one size fits all" style (Al-Murabit, 2012; Alhaisoni & Rahman, 2013). Although the significant role of textbooks in Saudi EFL classes is evident, the question remains whether or not the objectives of the syllabus are successfully achieved.

The dominant teaching methodology in Saudi EFL classes is the Audio-Lingual Method with some aspects of the Grammar-Translation Method. Many studies have shown that most Saudi EFL teachers prefer the use of ALM. However, not all aspects of ALM are sufficiently employed in typical Saudi EFL classes due to the lack of language laboratories in most public schools. Teachers usually spend their time explaining extensive grammar rules and asking students to memorize lexical lists. Conducting stimulus-response drills and adopting a structural approach are the main components of teachers' practices in SA. The salient deficiency of the teaching methodology is the lack of CLT aspects, i.e. the focus of instructions and exams is on the structural features of English (Al-Hazmi, 2003a; Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 1999; Al-Subahi, 2001; Alhaisoni & Rahman, 2013;

Bahumaid, 2012; Fareh, 2010; I. Khan, 2011c, 2011b; Shah et al., 2013). Another issue which is clearly illustrated by many studies is the excessive use of Arabic L1 in EFL classes. Teachers tend to use Arabic to simplify English grammar rules due to students' low linguistic competence. In addition, the use of L1 is usually associated with teacher-centred practices (Abdool, Yahya, & Unzueta, 2011; Al-Mohanna, 2010; Al-Nofaie, 2010; Al-Seghayer, 2005, 2011; Al-Subahi, 2001; I. Khan, 2011b, 2011c, 2011a).

Moreover, issues of large classes, lack of teaching/learning resources, non-autonomous students, exam-oriented teaching and fixed textbooks are indicated by many studies (Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 2008; I. Khan, 2011b, 2011c, 2011a).

### **3.4.3 EFL Teachers and Students' Competence in SA**

In an EFL context with limited exposure, the teacher, along with many other factors, is considered very important, as he/she is the one who is considered as an instrument of change (I. Khan, 2011b). EFL teacher preparation programs in Saudi Arabia involve a four-year degree in English linguistics and literature or English language and translation. These programs are introduced in the departments of English in teachers' colleges, or in colleges of languages and translation, or in colleges of arts in various Saudi universities (Al-Hajailan, 2003; Al-Hazmi, 2003a; Al-Mohanna, 2010; Al-Saadat, 2004; Al-Seghayer, 2011; Fareh, 2010). The courses are a combination of language skills building, literature and applied and general linguistics. Consequently, many Saudi EFL teachers lack training in materials development, language testing, ICT and ELT, and effective teaching methodologies. As a result, many Saudi EFL teachers are not sufficiently qualified and are unprepared to be effective language teachers. Additionally, continuing professional development (CPD) is not efficiently implemented due to the lack of qualified trainers in EFL new trends. Teachers are trapped in a situation where they have heavy workloads, large classes and additional administrative tasks (Al-Hazmi, 2003a; Al-Mohanna, 2010; Al-Seghayer, 2005, 2011; Alhaisoni & Rahman, 2013; Fareh, 2010; I. Khan, 2011a, 2011b; Shah et al., 2013; Syed, 2003).

Moreover, most Saudi students have a low proficiency in English. Education First (EF) Country Rankings (2012) ranked Saudi Arabia 52nd out of 54 countries for English proficiency. Supporting this report, many studies have shown that Saudi EFL students have a low proficiency in English. Students are usually passive listeners to the teacher-centred approach, where the main focus of classroom instruction is explanations of grammatical structures and translation of vocabulary lists. Engagement in a meaningful communicative approach is very rare in typical Saudi English classes. As a result, students enter university after seven years of English classes in public schools, unable to write a short composition or to complete a dialogic task (Al-Hazmi, 2003a; Al-Samadani, 2009; Al-Seghayer, 2005, 2011; Al-Shumaimeri, 1999; Batawi, 2006).

According to Kachru's (1992) three circles of English around the globe, Saudi Arabia belongs to the expanding circle, where English has limited purposes with no governmental role. Therefore, due to the limited functions of English in students' daily life, since English is considered as a foreign language in the Saudi context, students lack intrinsic motivation towards ELT and have a negative attitude towards English. They usually consider English as a core subject that they have to pass rather than a language they need to acquire (Al-Mohanna, 2010; Al-Murabit, 2012; Al-Seghayer, 2005, 2011; Fareh, 2010; Javid et al., 2012; I. Khan, 2011b; Liton, 2012; Shah et al., 2013). Additionally, many studies note the limited exposure to English and the limited number of English classes that students usually take (Al-Nofaie, 2010; Alhaisoni & Rahman, 2013; I. Khan, 2011c).

One crucial factor that results in students' low proficiency is examination-oriented teaching. The focus of students, teachers and parents is on equipping students with knowledge of how to pass exams. Thus, the achievement of students is below average and there is no assessment for their performance. Teachers' ultimate goal is to fulfil students' need to pass the final exam; accordingly teaching methods are modified as well (Al-Mohanna, 2010; Al-Saadat, 2004; Al-Seghayer, 2011; Al-Shumaimeri, 1999; Javid et al., 2012). In addition, Al-Shumaimeri (1999) indicates that "failure to take account of the backwash effect is one of the main reasons for the

failure of the new communicative teaching methods to take root in language classes” p.48.

### **3.4.4 Change and New Trends to Develop ELT in SA**

Due to the above-mentioned situation, in 2010 the Ministry of Education launched many national projects to develop ELT in SA. Firstly, new international textbook series by various publishing bodies (Pearson Longman, OUP, McGraw-Hill...etc.) were adopted at all educational levels (elementary, intermediate, secondary). Accordingly, all the locally produced textbooks were abandoned. These new textbooks are communicatively-oriented, adopting a notional-functional approach.

Secondly, English was only taught in intermediate and secondary schools for decades. However, in 2003 the cabinet approved the Ministry of Education's decision to introduce English in grade 6 (elementary school 1-6). After that, in 2011, the Ministry of Education decided to start English earlier, in grade 4 in elementary school. Thirdly, all Saudi public universities launched a foundation year program as a prerequisite for all new students (Liton, 2012; Shah et al., 2013). The foundation year mainly consists of an intensive English course to develop students' four language skills. Students study English courses for two semesters along with Mathematics, Computer and Study Skills and an English course making up 80% of the total marks.

Moreover, many studies recommend proper use of technological resources to develop ELT in SA. Also, studies have shown that in-service and pre-service teachers are ill-prepared and unaware of new trends in language teaching. Thus, studies suggest training teachers to integrate technology in their classroom instruction. (Al-Seghayer, 2011; Al-Shumaimeri, 2008; Alhaisoni & Rahman, 2013; Javid et al., 2012; I. Khan, 2011a).

Furthermore, the Ministry of Education represented by the Tatweer (development) project, are highly encouraging and promoting the use of ICT in education and language teaching particularly. They launched a long-term plan to adopt ICT in schools and to train teachers to use the VLE. Selected schools in each city have chosen to implement the first phase of the project (Tatweer Project, 2012).

Additionally, almost all Saudi public universities are enhancing the use of ICT and VLE in particular in teaching. Incentives and awards have been launched to encourage their use among academic staff (Ministry of Higher Education, 2010).

### **3.5 Summary**

This chapter covers the current expansions and developments in Saudi higher education. The situation regarding ICT is illustrated, highlighting the national projects to promote ICT in Saudi higher education institutions, followed by an illustration of current practices of ELT in SA. The main features (use of L1, large classes, teacher-centred approach) of typical EFL classes are also identified. Lastly, challenges and weakness in the system, such as unavailability of teaching/learning resources, old fashioned teaching methodologies, exam-oriented education, centralized education management and lack of sufficient training are briefly discussed. A glimpse of new trends and prospects to develop ELT in SA is also presented.

# **Chapter 4: Methodology**

This chapter presents a detailed account of the procedures and techniques followed while doing this research project. It starts with the research questions and objectives followed by an overview as well as a justification of the qualitative research paradigm. Next, the research strategy (institutional case study) is also presented with the research context. After that, the participants are outlined, followed by data collection instruments (classroom observations, demographic questionnaire, semi structured interviews, focus group interviews, document review, field notes). Then, issues of trustworthiness, analysis techniques and procedures are illustrated and lastly, the ethical considerations are stated.

## **4.1 Research Questions**

The study aims to explore teachers' overall experiences of technology implementation in Taibah university foundation year. Additionally, the study aims to investigate their attitudes towards, utilization of ICT and the support they get while implementing technology in language teaching at ELC, Taibah University. The research investigates teachers' attitudes, utilizations and overall experience of the efficacy of the technology. The research also investigates administrators' as well as policy makers' viewpoints about technology implementation in language teaching. To form comprehensive views about technology adoption in language teaching in ELC at Taibah University, the following research questions are developed:

### **Main Research Question**

What are the factors that affect EFL teachers' adoption of technology in language teaching?

### **A-Policy (context) level:**

- 1    What are the objectives of adopting technology in teaching?
- 2    What are the steps taken to achieve these objectives?

3 How does the contextual situation affect the implementation of technology?

### **B-Perception level:**

4. What are the attitudes of EFL teachers towards ICT in teaching?
5. What challenges do EFL teachers face when integrating technology?

### **C- Actual Implementation level:**

6. How do EFL teachers implement technology in English teaching?
7. What support do EFL teachers get from Taibah University when implementing technology?

## **4.2 Qualitative Research Paradigm**

“Research is a systematic, critical and self-critical enquiry which aims to contribute to the advancement of knowledge and wisdom” (Bassey, 1999, p. 38). Researchers are split in terms of their viewpoints about what reality is like as well as their approach to researching it. Accordingly, there are two main paradigms of research; qualitative and quantitative. Quantitative research is based on priori categorizations and variables using statistics/numbers and seeking generalizability and universal laws. On the other hand, qualitative research is based on emergent design and natural contexts, using words and interpretive analysis and looking for a better understanding of the actual situation (Bryman, 2012; Cohen et al., 2011; Dörnyei, 2007; Gillham, 2000a). It is noteworthy that some authors “view those two approaches as a matter of degrees or a continuum rather than a clear-cut dichotomy” (Dörnyei, 2007, p.20). Yin (2011) highlights that qualitative research can study various topics, and is widely adopted in many different academic disciplines and professions. Qualitative research refers to “research that is based on descriptive data that does not make (regular) use of statistical procedures” (Mackey & Gass, 2005, p.162). Before addressing the distinctive features of qualitative research, it is worth looking at the philosophical basis for qualitative research. Gillham (2000) indicates three philosophical bases;

1. *Human behaviour, thoughts and feelings are partly determined by their context. If you want to understand. People in real life, you have to study them in their context and the way they operate.*
2. *'Objective' research techniques - abstracted, controlling - can produce results that are artefacts of the methods used. An artefact is something that only arises because of the method that has been used (like controlled memory experiments in a laboratory or 'opinions' given in a questionnaire). You get results, but are they 'true' for the people concerned in the practice of real life?*
3. *How people behave, feel, think, can only be understood if you get to know their world and what they are trying to do in it. 'Objectivity' can ignore data important for an adequate understanding (p.11-12).*

The prominent feature of qualitative research is its ability to provide a holistic picture of an institution, seeking all the people who might be involved in the study (Creswell, 2012; Mann, 2003; Merriam, 2009). In the same vein, Mann (2003, p.67) notes the opportunities available to the qualitative researcher to include powerless people with elite decision makers by stating that:

*Historically, qualitative research has tended to focus on the relatively powerless rather than the social elites found in powerful organizations [...] However, a researcher may successfully gain access to elites as part of an overall investigation into an institution. A key element of much qualitative research is that it attempts to understand experience within a context taken as a whole [...] Thus, within institutions, the search for a holistic picture may encompass those at the top of the hierarchy as well as the less powerful as qualitative research looks deeply into social patterns, attempting to understand the concepts, behaviours, perceptions and accounts of all informants.*

Additionally, the distinctive need for adopting qualitative research emerges when “there are new situations to deal with, or if an institution has intractable problems that do not seem to be explained by existing theories, qualitative research is stereotypically seen as the chosen method” (Mann, 2003, p.66). Thus, qualitative research allows the researcher to investigate real world situations in undirected, exploratory ways. Qualitative researchers are less predetermined, investigating natural context in real settings and aiming for a better understanding (Creswell, 2012; Dörnyei, 2007; Mann, 2003; Merriam, 2009; Yin, 2011). By adopting an interpretive inductive approach, qualitative researchers study the situation using multiple sources of data, seeking participants’ understanding and meanings to get a rich description (Bryman, 2012; Creswell, 2012; Dörnyei, 2007; Merriam, 2009; Yin, 2011). It is noteworthy that researchers mostly tend to present predictions that exist in the natural world. However, when it comes to educational aspects, K. Richards (2003) emphasizes the role of qualitative design by stating:

*A different sort of investigative approach is needed [...] that will seek to understand the patterns and purpose in our behaviour and provide insights that will enrich our understanding. As practising teachers, we operate in a professional context which is at best only loosely predictable but where we can draw strength from our shared understandings and experiences (Richards, 2003, p.9).*

In spite of the aforementioned strengths, qualitative research has many constraints. It presents data with thick description that might be time consuming and requires extensive work (Creswell, 2009; Dörnyei, 2007; Stake, 2010). Further, it lacks generalizability, since it focuses on small sample sizes (Bryman, 2012; Creswell, 2009; Dörnyei, 2007), although Dörnyei (2007) highlights that deep exploration of personal experiences does not require large samples. Further, in qualitative research, Stake & Trumbull (1982) cited in Stake (2010), introduce the term “naturalistic generalization”, which means that it is the reader’s not the researcher’s responsibility to see if the insights and details of the case are generalizable to similar

cases. Similarly, Bogdan & Biklen (2006) indicate that a different approach to generalizability is considered by qualitative researchers, who think that if they present a detailed account of the research context, then it is someone else's job to see how generalizable the results are. Further, Bogdan & Biklen (2006) state that qualitative researchers do not follow the traditional form of generalization since they are more interested in eliciting universal statements of social context than statements of commonality between homogeneous contexts. Moreover, a major criticism of qualitative research is that it is too subjective and complex, since the researcher is an instrument as well (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Stake, 2010). It relies heavily on the researcher's role i.e. competence, prejudices, biases, and analysis. Nevertheless, there are many strategies that enhance sensitivity and reflexivity and reduce the researcher's bias e.g. triangulation and member checks (Bogdan & Biklen, 2006; Merriam, 2009). Furthermore, Bogdan & Biklen (2006) argue that this is a strong aspect of qualitative research, as no other form of research allows consideration of the process of study itself and the researcher who is conducting the research project.

Despite the above-mentioned limitations of qualitative research, Richards (2003) asserts the significance of qualitative research in language teaching, stating that:

*A second reason for adopting a qualitative approach is that it is above all else a person-centred enterprise and therefore particularly appropriate to our work in the field of language teaching. This is dangerous territory for the experimental researcher for, as Peshkin (1993:27) notes, 'most of what we study is truly complex, relating to people, events, and situations characterized by more variables than anyone can manage to identify (p.9).*

Consequently, to investigate the situation deeply where a new tool (technology) has been integrated with language teaching, a qualitative design is adopted to achieve the research aims. Therefore, this research project is based on a qualitative

institutional case study approach, to allow the researcher to form a profound understanding of the chosen context. To investigate the phenomena in its natural context, a qualitative approach is adopted due to the fact that the phenomena under study could not be decontextualized or tested quantitatively. Also, the variables that might affect technology integration are loose and indeterminate. To form a better understanding of technology adoption in ELC, qualitative tools are triangulated as well. The main aims of the project are to study how technology is adopted in ELC and why there is a less effective integration of technology. To achieve these objectives, qualitative tools are more convenient than quantitative ones. The research should go beyond surveying EFL teachers' attitudes towards technology adoption, taking into consideration that these (attitudes) are incidental issues that might not mirror the real story. Thus, the researcher has to observe EFL teachers, talk to them, and encourage them to speak about their experiences in detail. Moreover, the researcher investigates administrators' as well as policy makers' viewpoints about the concern of the study.

### 4.3 Case Study Approach

The theoretical approach of the methodology is an exploratory interpretive case study. A case study approach is common in psychology, social sciences, education and even economics (Duff, 2007; Gillham, 2000a). A case study, as Gillham (2000) points out, is somehow hard to define because it might be:

- *a unit of human activity embedded in the real world;*
- *which can only be studied or understood in context;*
- *Which exists in the here and now;*
- *that merges in with its context so that precise boundaries are difficult to draw (p.1)*

A case study is a deep investigation of a single instance of a “bounded system” based on multiple data collection tools over a period of time (Creswell, 2012). A case study can involve an individual, group, community or institution or it could consider multiple cases. According to Stake (1995), a case study is a study of a particular and complex single case to explore its activity within distinctive boundaries.

Moreover, a fundamental characteristic of case study research is that we do not begin with *a priori* theoretical assumptions because “until you get in there and get hold of your data, get to understand the context, you won’t know what theories (explanations) work best or make the most sense” (Gillham, 2000, p.2). Additionally, all researchers are looking for evidence and theory; however they take different approaches to searching. A prominent need for a case study stems from the need to understand a complex situation and develop a holistic analysis (Yin, 2009). It “provides a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by presenting them with abstract theories or principles. Indeed a case study can enable readers to understand how ideas and abstract principles can fit together” (Cohen et al., 2011, p.289).

A case study paves the way for a researcher to dig deeply into the phenomena under concern, allowing for exploratory investigation where the variables are intangible quantitatively. It tends to focus more on analysing the situation under study rather than seeking numerical popularization (Cohen et al., 2011; G. Thomas, 2011). Additionally, “case studies can establish cause and effect, (how and why); indeed one of their strengths is that they observe effects in real contexts, recognizing that context is a powerful determinant of both causes and effects, and that in-depth understanding is required to do justice to the case” (Cohen et al., 2011, p.289). Further, Sturman (1999) (cited in Cohen, Manion, & Morrison, 2011) argues that the distinctive characteristic of a case study is its way of approaching human factors as whole “rather than being a loose connection of traits, necessitating in-depth investigation” (p.289). In addition, case studies always aim to present like reality images, providing detailed descriptions of participants’ experiences of the actual situation in a natural real life context (Cohen et al., 2011; Simons, 2009; G. Thomas, 2011).

Accordingly, a case study should not be considered as preliminary exploratory strategy in the early phases of research, rather it is a legitimate strategy in itself (Yin, 2009). A case study may be considered as an object of inquiry or as an instrument of inquiry, where the researcher investigates a system or individual deeply (Creswell, 2012). Interestingly, in this project, a case study is considered as an object and a strategy of inquiry as well. Based on its outcomes, Yin (2009) identifies many types of case studies; exploratory, descriptive, explanatory, evaluative and interpretive. Also, Stake (1995) classifies case studies into three categories; intrinsic, instrumental and collective case studies.

Despite the aforementioned advantageous features of case studies, there are many constraints of the case study approach in social sciences. First, generalizability is hard to achieve based on a case study approach. However, G. Thomas (2011) argues that generalization is not always the main aim of the research process. He asserts that the need is mostly to form analytic pictures of the situation, stating that most insightful research was based on case studies. Another limitation of the case study is issues of thick descriptions of data that might be difficult to handle (Cohen et al., 2011). However, with the availability of computer assisted qualitative data analysis software (CAQDAS), the thick data are more manageable. Moreover, case studies might be subject to researcher's biases and selectivity although the researcher tries to be reflexive (Cohen et al., 2011). Also, case studies are data driven rather than theory driven, and have constraints on quantitative analysis of small-sample data (Duff, 2007). Furthermore, Nisbet and Watt (1984) (cited in Cohen et al., 2011) highlight that some case studies researchers are having a journalism style i.e. focusing on remarkable issues of the case, thus presenting incomplete picture of the situation. Also, other researchers are selective informants when conveying an account about the case.

Despite the above-mentioned limitations of a case study approach, it is a suitable and convenient strategy if the research aim is deeply exploring the phenomena in its

context (Bassey, 1999; Gillham, 2000a; Stake, 1995; G. Thomas, 2011; Yin, 2009). As a result, an institutional case study is adopted here because the focus of the research is how and why; to investigate how technology is integrated in an English language centre (ELC) in Saudi tertiary education, how we can improve ICT implementation based on teachers', administrators', as well as policy makers' perspectives and why there is a less effective use of technology as many studies have shown (Al-Jarf, 2007, 2009; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alqahtani, 2010; Alqurashi, 2009; Alwani & Soomro, 2010; Bingimlas, 2009). To study the situation profoundly, it is essential to adopt a case study to contextualize the focus. Contexts are "unique and dynamic, hence case studies investigate and report the complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance" (Cohen et al., 2011, p.289). Consequently, a case study should be relocated in its wider context to understand it wholly (Creswell, 2012).

#### 4.4 Research Context

Due to the Ministry of Higher Education plan to develop educational outcomes, all Saudi public universities established the foundation year (Liton, 2012; Shah et al., 2013). This pre-requisite year is mandatory for all new students. The foundation year mainly consists of intensive English courses with four hours of English taught a day and twenty hours a week (*ibid.*). Students in the first year study an intensive English course along with other modules such as Physics, Mathematics and University Life Skills (Liton, 2012; Shah et al., 2013). The textbooks are *Q Skills for Success* four level series as well as *Oxford Headway Academic Skills*. The universities are promoting the use of the technology in teaching and especially in the foundation year. Students who use the online materials have a 5% bonus added to their overall grades (Personal Interview, 2014). The four textbooks are divided into two each semester. The assessment scheme mainly consists of exams about the four language skills (listening, speaking, reading, & writing) and grammatical structures (Personal Interview, 2014). Table 7 below illustrates the assessment criteria in the foundation year.

Semester one			Semester two		
Level	Exam	Total	Level	Exam	Total
1	Quiz 1	10%	3	Quiz 1	10%
	Midterm	35%		Midterm	35%
2	Quiz 2	10%	4	Quiz 2	10%
	Midterm	35%		Midterm	35%
Final speaking Test		10%	Final speaking Test		10%
<b>Englishtown EF VLE</b>		5% bonus	<b>Englishtown EF VLE</b>		5% bonus
Total 100%					

Table 7 ELC Assessment Scheme

Regarding the utilization of technology, students were asked to enrol themselves in the online lesson on an optional basis. All the participating students have free online accounts for Englishtown EF VLE to enhance out of class learning. They were encouraged to use Englishtown (EF VLE) and participate in the interactive lessons. Englishtown is an online platform designed by the EF education group. It consists of 16 levels of interactive lessons ranging from beginners to advanced proficient learners (EF, 2014). Specifically, EF Englishtown VLE has 30 teacher-led classes as

well as 16 levels of self-study lessons (beginner-proficient). It is available 24/7 for students and the lessons are certified when each level has been passed (EF, 2014) (see Appendix A for a snapshot of EF VLE). However, students were asked to enrol in the self-study lessons only. Students were encouraged to enrol in the online lessons on an optional basis. Those who register themselves, get a 5% bonus and a certificate to demonstrate that they have completed the appropriate level (Personal Interview, 2014). To familiarize myself with the EF online platform, I registered for a trial account to explore EF Englishtown online VLE. Lastly, the study was conducted in the second semester (15 February 2014 to 25 May 2014) at Taibah University, Deanery of Academic Services, English Language Centre (ELC).

## **4.5 Participants**

The sampling strategy in this research is a purposive sample. During a staff meeting, I was given the last fifteen minutes to talk about my research. A five minute presentation was given to the teachers as well as administrators explaining the research aims and questions. After the presentation, the volunteer teachers and administrators signed their names and wrote down their contact details. Also, a written announcement of the research was advertised asking for participation. Twenty out of forty-two EFL teachers agreed to take part and participated in the study. Those teachers were teaching in the English language centre (ELC) -foundation year- at the Deanery of Academic Services. The total number of teachers in the ELC is forty-two who teach English language skills in the foundation year. The sample for this research was mainly drawn from the main campuses of Taibah University in Medina, the female campus. It is the main and the largest campus. The other campuses are in small towns in the Medina province. The research was conducted on the main campus since it is a good representative sample that reflects the situation of technology adoption in ELC.

#### 4.5.1 EFL Teachers

The participant teachers were twenty out of forty-two teachers (almost 50%) working in the ELC, Taibah University. They were female EFL teachers with different unique cultural backgrounds. The teachers were from Jordan, Syria, SA, Canada, the UK, Pakistan, France and the U.S. Their educational levels were BA & MA and most of them had worked in the ELC for at least two years. This helped them to explain more about their experiences of technology adoption in the ELC. Their ICT skills varied between good, very good and proficient. It is noteworthy that most of them had not studied ICT in their BA or MA (pre-service preparations). Also, to cover and protect their identities, pseudonym names were used for EFL teachers (see Table 8 for an overview of EFL Teachers' Demographic Profiles).

No	Nationality	ICT Skills	No. of Years in Taibah University		Prior ICT Study	ED. Level
			1-5	11-20		
1	Jordan	Good	1-5	No	MA	
2	Egypt	Proficient	1-5	No	BA	
3	UK	Good	11-20	No	BA	
4	Syria	Good	1-5	No	MA	

<b>5</b>	US	Proficient	6-10	Yes	MA
<b>6</b>	UK	Very good	1-5	No	MA
<b>7</b>	Saudi Arabia	Very good	6-10	No	MA
<b>8</b>	Canada	Very good	1-5	Yes	MA
<b>9</b>	Saudi Arabia	Proficient	1-5	No	BA

<b>10</b>	UK	Expert	1-5	No	BA
<b>11</b>	Saudi Arabia	Proficient	6-10	No	BA
<b>12</b>	France	Proficient	1-5	Yes	MA
<b>13</b>	US	Expert	1-5	Yes	MA
<b>14</b>	Saudi Arabia	Very good	1-5	No	BA
<b>15</b>	Saudi Arabia	Very good	1-5	No	MA

<b>16</b>	Jordan	Very good	1-5	No	BA
<b>17</b>	Bangladesh	Very good	1-5	No	BA
<b>18</b>	Pakistan	Very good	1-5	No	BA
<b>19</b>	Tunisia	Very good	1-5	No	BA
<b>20</b>	Jordan	Very good	1-5	No	BA

Table 8 EFL Teachers' Demographic Profiles

#### **4.5.2 Administrators**

Most of the participant administrators were working in the ELC (5 out of 8). All of them had worked at Taibah University for at least three years, which means that they had profound detailed administrative experience in the ELC. They were from different positions e.g. CPD unit, e-learning unit, testing unit, academic affairs, ELC coordinator...etc. It is noteworthy that the researcher invited the Director of the ELC as well as the Dean of Academic Services to participate in this research but they refused. Unlike teachers, the researcher was seeking the participation of male and female administrators. However, one male administrator from the e-learning unit agreed to participate but the researcher could not conduct the interview because of time constraints. The administrators were mainly from the ELC, with the exception of two who were working in the IT deanship. Those two administrators were interviewed because the researcher found that there was no IT unit in the ELC. The participant administrators were summarized in Table 9. Further, to protect their identities, pseudonym names were used for administrators.

#### **4.5.3 Policy Makers**

Policy makers in this project were selected on a national as well as a regional level. They were selected because of their extensive experience that might enhance the researcher's understanding of the phenomenon under investigation. On the national level, the researcher had the privilege to interview the Deputy Minister and the Senior Consultant, Dr Abdullah Almegren. He is also the General Director of the National Centre for e-Learning and Distance Learning (NCeLDL). On the regional level (Taibah University), the researcher interviewed the Dean of E-learning, the Deputy Dean of E-learning, the Deputy Dean of Quality, the Deputy Dean of Academic Development, the Deputy Dean of IT, an ED Tech. Lecturer and ICT Trainer, and the Head of the Centre of Excellence in Learning and Teaching. There were eight participants in total from different positions. Their selection was based on their ICT related position and emergent data. They were mainly females (5) and the rest were males. Table 9 presents a complete summary of all the participants. Lastly, policy makers have individual recognized positions, thus pseudonyms could not be used.

#### 4.5.4 Students

Students in this research project are not the main participants. The primary participants of the study are teachers, administrators and policy makers. However, students' viewpoints were considered to complement the experience of the main informants of the study. The researcher has included some of students' quotes to see if their experience coincided or contradicted the points of the view of the main participants. The number of students who participated in the interviews was only five. They were asked about their experiences of using the VLE in language learning. The researcher asked them the following two questions:

- 1- Have you used the VLE in your language course?
- 2- Tell me more about your experience of using ICT (VLE) in language learning.

The researcher examines students' utilization of ICT and their attitudes to form a fuller picture of ICT integration in the ELC. The Col model in the current study highlights the students' role in online learning. Investigation of the elements of the model were based on teachers as well as student data.

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#### ***EFL Teachers***

<b>No</b>	<b>Position</b>	<b>Total</b>
20	EFL Teachers	20

#### ***Administrators***

<b>No</b>	<b>Position</b>	<b>Total</b>
1	ELC Coordinator	
2	Assistant ELC Coordinator	8
3	Academic Affairs Coordinator	

<b>4</b>	CPD Unit Coordinator	
<b>5</b>	E-Learning Unit Coordinator	
<b>6</b>	Quality Unit Coordinator	
<b>7</b>	Technician, Deanship of IT	
<b>8</b>	Technician, Deanship of IT	

***Policy Makers***

<b>No</b>	<b>Position</b>	<b>Total</b>
<b>1</b>	Deputy Minister, Senior Consultant and General Director of the National Centre for e-Learning and Distance Learning (NCeLDL), Riyadh	
<b>2</b>	Dean of E-learning, Taibah University	
<b>3</b>	Deputy Dean of E-learning, Taibah University	
<b>4</b>	Deputy Dean of Quality, Taibah University	
<b>5</b>	Deputy Dean of Academic Development, Taibah University	8
<b>6</b>	Deputy Dean of IT, Taibah University	
<b>7</b>	ED Tech. Lecturer and ICT Trainer	
<b>8</b>	Head of the Centre of Excellence in Learning and Teaching, Taibah University	

Table 9 Summary of the Research Participants

## 4.6 Data Collection Instruments

An inductive qualitative approach is adopted in the current study to explore the participants' views in real life contexts. Qualitative research is a means to explore and understand individuals or groups in the natural setting of the phenomenon (Creswell, 2009). Qualitative research is "attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials - case studies, personal experience, introspective...interviews" (Creswell, 2007, p.15). The following are the methods used in this research, an explanation of each instrument as well as a rationale for its selection. The tools of this research project are triangulated and mixed qualitatively.

### 4.6.1 Classroom Observation

Observation is a normal human activity of everyday life, however, in research the activity is guided (Dörnyei, 2007). Classroom observation is defined by Mason (1996) (cited in Mackey & Gass, 2005) as a "method of generating data which involves the researcher immersing [him or herself] in a research setting, and systematically observing dimensions of that setting, interactions, relationships, actions, events, and so on, within it" (p.175). Classroom observation is an enhancing tool that betters the researchers' understanding of the study under concern and enables them to go beyond the verbal given account (Blaxter, Hughes, & Tight, 2010; Cohen et al., 2011; Dörnyei, 2007; Mackey & Gass, 2005). It is a common method in social and educational research (Mackey & Gass, 2005). The method provides reliable first-hand data rather than focusing on a questions-based approach.

There are two approaches to classroom observation; participant versus non-participant and structured versus unstructured. The participant-observer joined a

group and was one of them like ethnographic research. However, in a classroom observation usually the non-participant approach is the norm. Structured observation, usually entails a detailed checklist or a rating scale to gather data quantitatively (Cohen et al., 2011; Dörnyei, 2007; Mackey & Gass, 2005). However, the semi-structured approach is the most common approach for classroom observations i.e. when the researcher goes to the context and has a focus in mind while observing the natural setting (Dörnyei, 2007). Most researchers use the available classroom protocols and adapt them to their research (Dörnyei, 2007). Moreover, Mackey & Gass (2005) identify popular aspects of classroom observation e.g. a focus on the groups & individuals, the topic of the lesson, or teachers' and students' interactions.

The most significant element of classroom observation is the opportunity it provides to observe people in action (Blaxter et al., 2010; Dörnyei, 2007). This fist-hand authentic data is more objective than verbal reported data (Blaxter et al., 2010; Cohen et al., 2011; Dörnyei, 2007). It is “invaluable for providing descriptive contextual information about the setting of the targeted phenomenon” (Dörnyei, 2007, p.185). Also, using the protocol helps the researcher to focus on particular key aspects. Many authors advocate that classroom observation along with other research methods leads to a better understanding rather than relying mainly on observational data (Allwright & Bailey, 1991; Blaxter et al., 2010; Dörnyei, 2007; Mackey & Gass, 2005).

On the other hand, though classroom observation data is reliable, it does not provide the reasons for the observed actions. In other words, observation does not mean understanding the reasons (motifs) for people's behaviour (Dörnyei, 2007; Mackey & Gass, 2005). However, this drawback can be minimized if the observation is accompanied with other methods like interviews (Cohen et al., 2011; Mackey & Gass, 2005). Further, some participants may not feel comfortable with the presence of the observer and might adjust their behaviour accordingly (Cohen et al., 2011; Dörnyei, 2007; Mackey & Gass, 2005).

Despite the above-mentioned constraints, Cohen et al. (2011) indicate that the important element with observation is the difference between given and actual practice. Thus, observation usually acts as a reality check process (ibid.). Additionally, Cohen et al. (2011) illustrate the importance of observation in context-specific research by stating;

*This enables researchers to understand the context of programmes, to be open-ended and inductive, to see things that might otherwise be unconsciously missed, to discover things that participants might not freely talk about in interview situations, to move beyond perception-based data (e.g. opinions in interviews) and to access personal knowledge. Because observed incidents are less predictable there is a certain freshness to this form of data collection that is often denied in other forms, e.g. a questionnaire or a test (p.456-457).*

Furthermore, classroom observation allows the researchers to collect data on:

- 1- *the physical setting (e.g. the physical environment and its organization)*
- 2- *the human setting (e.g. the organization of people, the characteristics and make-up of the groups or individuals being observed, for instance, gender, class)*
- 3- *The interactional setting (e.g. the interactions that are taking place, formal, informal, planned, unplanned, verbal, non-verbal etc.)*
- 4- *the programme setting (e.g. the resources and their organization, pedagogic styles, curricula and their organization) (Cohen et al., 2011, p.457).*

Accordingly, to shape a profound investigation, a series of observations were undertaken. The main aims of adopting classroom observation in this project are;

- 1- To investigate EFL teachers' actual implementations of technology in language teaching.
- 2- To examine the actual ICT facilities in classrooms.
- 3- To form a general picture of teachers' teaching approaches.

The method is used to obtain first-hand data in terms of teachers' integration of ICT in language teaching and also to examine the available ICT facilities in EFL classroom besides looking at teachers' teaching approaches. To investigate the above-stated aims, the researcher has slightly adapted the classroom observation protocol with permission from the Educational Development Centre, University of London. The protocol looks comprehensive in terms of including various aspects, although the observation is directed by the above-mentioned objectives. The selection of the protocol was based on the research aims. The researcher has come across many protocols but they were numeric in focus. Thus the above protocol has been selected due to the semi-structured nature of the focus. The main focus of the observation is a technology and pedagogy check. Thus, the adaptation was very slight in terms of changing some terms and adding ICT related elements. Section number 1-4 of the protocol has a pedagogy check focus while section number 4-6 has an ICT check focus. The adaptation is appropriate and fits the aims of classroom observations. Consequently, the researcher has formed a general picture about the pedagogical approach in terms of teaching methods and identified a comprehensive study of ICT use and facilities in classrooms.

Observation allows the investigator to gain access to and fully understand the research site (Patton, 2002). The researcher asked all the teachers whether she could observe them, and out of forty-two, only eight agreed. There was no self-selection and teachers agreed to be observed on a voluntary basis. Each classroom lecture was almost two hours and the researcher observed the classroom until the end of the class. The researcher asked the teachers' permission to audio record the class but they refused. They stated that even in their formal observations no one recorded the class, thus the researcher decided to rely on the pre-prepared protocol (see Appendix B). It is noteworthy that being unable to audio record the class does not affect the researcher's ability to observe the actual classroom. The researcher

has had many observational experiences (peer observation) where the researcher became used to using the protocol during observations. Also, during the researcher's MA study, many protocol-based classroom observations were conducted. Thereby, the incorporation and the triangulation of classroom observation data with other methods such as interviews and document reviews assisted the researcher to form a better understanding of the research site.

#### **4.6.2 Demographic Questionnaire**

Questionnaires are "any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers" (Brown, 2001, p.6). Generally, a questionnaire can obtain many types of data, such as factual, behavioural, and attitudinal. Factual questions usually focus on demographic issues i.e. age, gender, race or marital status, level of education or L2 background. Behavioural questions often include people's actions, life-styles, habits and personal history. Attitudinal questions usually illustrate people's attitudes, beliefs, opinions, values or interests (Dörnyei, 2003). The main advantages of questionnaires are their efficiency and the fact that they are cost effective in terms of researcher time and effort. Also a questionnaire helps to obtain a large amount of data in a limited time and allows interpretation of these data using computer software (Gillham, 2008). However, the researchers ought to be fully aware of the limitations of the questionnaire. Firstly, there is little or no chance of correcting the participants' mistakes, thus questionnaire items should be clear and concise because if the questionnaire is poorly designed, there will be unreliable data. Moreover, questionnaires should be relatively short otherwise there is a tendency to get inaccurate or missing data due to participants' limited time (Dörnyei, 2003; Oliver, 2010)

The questionnaire for the current study is mainly a demographic questionnaire. To investigate teachers' experiences of technology adoption, it is essential to ask about their backgrounds. Fullan ( 2007) illustrates that background information is very important in terms of knowing the participants very well as it might affect their beliefs or practice. The demographic questions are gender, age, nationality, level of education and computer skills. Furthermore, the teachers were asked about their educational ICT background in their previous studies (BA, MA....etc.) i.e. their pre-service preparations. Also, there are questions about teaching experience and the number of years spent working in the ELC, Taibah University (see Appendix C).

The administration of the questionnaire was completed by the researcher. Because there is no previous contact with the participants the distribution was manually. The participants took approximately 4 minutes to complete the questionnaire. They took part before the interview in the presence of the researcher. They were kindly informed that their participation, suggestions and questions were welcomed. The questionnaire was written in English as well as Arabic. Twenty teachers agreed to take part in this research and answered the questionnaire.

#### **4.6.3 Semi-structured Interview**

Due to cultural and social constraints, Saudi Arabia has a gender-segregated education system at all levels of education except kindergarten (Al-Hakami, 1999; Al-Hazmi, 2003b; Al-Khalifa, 2009; Alebaikan, 2010; Alebaikan & Troudi, 2010b; Alharbi, 2011; Alkhatnai, 2011; Kadwa, 2012; Kampman, 2011; Shaw, 2010; Ziyadah, 2012). Consequently, the researcher adopted a semi-structured interview with female participants and semi-structured telephone interviews with male participants as well. Interviewing is a basic mode of inquiry that require narratives of people's experience (Seidman, 2006). An interview is "a conversation, usually between two people. But it is a conversation where one person - the interviewer - is seeking responses for a particular purpose from the other person: the interviewee"

(Gillham, 2005, p.1). The purpose of an in-depth interview is not to get answers to questions, nor to test hypotheses, as it is simply investigating a phenomenon in depth (Seidman, 2006). Interviewing is an adaptable, powerful instrument that allows “multi-sensory channels” i.e. reflects verbal and non-verbal data. It is a tool that gives opportunities for spontaneity where the interviewer as well as the interviewee can answer questions thoroughly and discuss complex and deep matters as well (Cohen et al., 2011).

Furthermore, an interview as a research tool requires good communication skills (Dörnyei, 2007). Thus, a skilful interviewer knows how to listen (self-critical) so he/she is fully aware i.e. has an attentive ear to single details and yields information professionally (K. Richards, 2003). Prompting and following up the interviewee to check his/her responses are essential in an effective interview. Additionally, knowing how to listen more, talk less and not to interrupt are essentials for the interviewer (K. Richards, 2003; Robson, 2011; Seidman, 2006). Semi-structured interviews are common in social, applied linguistics and educational research (Dörnyei, 2007; Duff, 2007). It is a type of interview where the researcher gives guidance and focus (the structured part) as well as being keen and open to pursuing interesting developments i.e. allowing the interviewee to discuss emergent issues (the semi part). Semi-structured interview compromises between the two extreme (structured and unstructured) (Dörnyei, 2007). If the interview is carefully designed, it can have the benefit of establishing good open ended questions in a natural setting. In spite of the fact that there are guiding questions and probes in a semi-structured interview, the format is open ended questions that let the interviewees “elaborate on the issues raised in an exploratory manner” (Dörnyei, 2007, p.136).

Unlike questionnaire data, which are necessarily thin, interviews allow the researcher to understand and explore the answers in depth. They have empowering positive features i.e. the richness and the vividness of the collected data (Gillham, 2000b). As a distinctive research tool, the interview might be used as a major instrument of data

collection that fulfils the research objectives (Cohen et al., 2011). Also, Tuckman (1972) cited in Cohen et al., 2011) describes interview affordances;

*Providing access to what is 'inside a person's head', [it] makes it possible to measure what a person knows (knowledge or information), what a person likes or dislikes (values and preferences), and what a person thinks (attitudes and beliefs) (p.351).*

Therefore the interview, in this research, is the main tool of data collection. It allows the researcher to explore EFL teachers', administrators' and policy makers' perceptions of technology implementation. In addition, interviews enable the researcher to investigate EFL teachers' experiences of technology implementation in language teaching, examine the challenges that faced them during technology integration and consider how can we develop more effective implementation. Unlike abstract numerical data, interview data usually reflect the situation naturally during exploration (Gillham, 2000b). If the research aims require insights and understanding, then interviews could be a powerful tool (Gillham, 2000b).

However, despite the many affordances of the interview technique, there are also many drawbacks. It is noteworthy that interviews, unlike everyday conversations, are goal oriented question-based discussions that entail the interviewer mastering the "rules of the game" (Cohen et al., 2011). One of the shortcomings of the interview is lack of anonymity (Cohen et al., 2011; Dörnyei, 2007; Seidman, 2006). To minimize this risk, the researcher did her best to reassure the interviewees that their views and experiences regarding technology implementation were highly confidential and anonymous and solely needed for research purposes. In addition, pseudonyms have been used to cover respondents' identities and sustain confidentiality. Another issue with interviews is that interviewees might better themselves to please the researcher. Also, interviews are sometimes subject to unwilling biases (Cohen et al., 2011; Dörnyei, 2007; Duff, 2007). Thus, it was carefully indicated that the researcher would take a neutral approach while asking questions. Additionally, leading questions were avoided and instead the questions were in an open format to allow exploratory discussion with the subjects. Another pitfall is the nature of interview data, which are

time consuming as they include thick and rich descriptions (Cohen et al., 2011; Dörnyei, 2007; Gillham, 2000b; K. Richards, 2003). Yet, with the help of software, the managing of qualitative data can be facilitated. There are many computer packages that offer help to researchers in terms of coding and administering their qualitative data set (Cohen et al., 2011; Dörnyei, 2007).

The questions in the interview should be clear, straightforward and short, where each question contains one idea. It is essential to avoid jargon and vague sentences and leading questions should also be avoided (Cohen et al., 2011; Dörnyei, 2007; Duff, 2007; Gillham, 2000b; Robson, 2011). The interview questions were developed based on the main categories to be investigated. These categories or topics were the main ones but not the only ones, as the open ended questions allowed for more open investigation. Therefore, the design of the research question is informed but not directed by the following topics: technology utilization, attitudes, perceptions, objectives of technology implementation, challenges, support, contextual factors, continuous professional development (CPD), implementation level, infrastructure, and recommendations (see Appendix D).

Interviews were tape recorded because this documents what is being said accurately and allows the researcher to follow up the participants' answers and take notes. Nevertheless, taking notes during the interview must be done with careful consideration, as the interviewee might feel uncomfortable (Gillham, 2000b; Oliver, 2010). To obtain a deep understanding of technology implementation, all the EFL teachers (forty-two) were asked to take part in the interview, although only twenty agreed to participate (see Table 10). The interviews were about 35 to 65 minutes long and were conducted in a quiet room in the University library. The interviewees were informed about the tape recorder and signed the consent form. The teachers were encouraged to speak their mind about their experience with technology adoption in language teaching without being judged.

Participant	No. of Participants	Male/Female	No. of Hours	Total
Teachers	20	Female	12:58	
Administrators	8	Female	4:1	24:12
Policy Makers	8	3 Male 5 Female	7:44	

Table 10 Summary of Interview Participants

#### 4.6.4 Semi-Structured Telephone Interview

Many authors consider telephone interviews and structured interviews as synonymous and have used the two terms interchangeably (Oliver, 2010; Yeo et al., 2013; Yin, 2011), stating that telephone interviews are like telephone surveys where there is a set of close ended questions and the researcher is asking the participants questions over the phone (Oliver, 2010; Yin, 2011). Since there is a degree of ambiguity around the term (telephone interview), it is essential here to illuminate exactly what is meant by a telephone interview in this research. “Telephone interview” is a term frequently used in the literature as synonymous with “structured interview” (telephone surveys). However, in this research, a telephone interview is a semi-structured interview conducted over the phone.

Telephone interviewing was and still is a significant tool for data collection, and it is “common practice in survey research” (Bryman, 2012). It is a “useful but tricky art”

(Cohen et al., 2011). Additionally, the telephone interview is a significant beneficial tool, especially where there is an issue of access (Bassey, 1999; Duff, 2007; King & Horrocks, 2010). Cohen et al. (2011) indicate that telephone interviews may be suitable for “many groups, particularly of busy people, who can be reached at times more convenient to them than if a visit were to be made” (p.439). Also, a telephone interview is a cost effective method that can be conducted with minimum effort (Bryman, 2012; Cohen et al., 2011; Oliver, 2010). Importantly, Bryman (2012) states that he and his colleagues have conducted qualitative telephone interviews and found that the participants were expansive in their answers with no recording problems. Further, he highlights that their comprehensive answers show that the tool is highly efficient.

On the other hand, Yeo et al., (2013) and Bryman (2012) claim that it might be difficult to conduct verbose, lengthy interviews over the phone. Additionally, others indicate that telephone interviews lack the visual communicative channels i.e. non-verbal clues (Bryman, 2012; Cohen et al., 2011). Moreover, Cohen et al. (2011) indicate that sometimes it is hard to write notes or comments during telephone interviews. However, if the call is recorded, the researcher would be able to take his/her own notes. Thus, while conducting the interviews, the calls were recorded and so the important comments were written down as well.

Cohen et al. (2011) also assert the importance of preparations in advance before conducting telephone interviews. They indicate that if the interviewer and the interviewee are prepared, the aims are mostly achieved. Moreover, telephone interviews entail careful preparation and planning in terms of time and duration and an initial call might be a requisite to book an appointment in advance asking when a longer call can be completed (Cohen et al., 2011). All the participants in the telephone interviews were male policy makers. Thus, careful arrangements were made and many phone calls were conducted in advance to set suitable dates and times for them. Furthermore, the research aims and questions were sent to them.

Like other types of interview, Cohen, Manion, & Morrison (2011) illustrate that it is essential to avoid jargon and keep the terminology simple and clear. The major themes of the questions are technology utilization, attitudes, perceptions, objectives of technology implementation, challenges, support, contextual factors, continuous professional development (CPD), implementation level, infrastructure, and recommendations (see Appendix D-2).

For sociocultural reasons, it was too difficult to conduct face-to-face semi-structured interviews with male participants. As a result, telephone interviews were the most convenient and suitable tool to gain access to male participants. Similarly, in his study, Alkhatnai (2011) points out “While it was easy and possible to interview the male participants, due to social and cultural barriers, female participants were interviewed over the phone” (p.85). Thus, the telephone interview is a significant tool when there is an issue of face-to-face access to participants (Bassey, 1999; Bryman, 2012; Duff, 2007; King & Horrocks, 2010). For a summary of telephone interview participants see Table 11 below.

<b>No.</b>	<b>Position</b>
1	Deputy Minister, Senior Consultant and General Director of the National Centre for e-Learning and Distance Learning (NCeLDL), Riyadh
2	Dean of E-learning, Taibah University
3	Head of Centre of Excellence in Learning and Teaching, Taibah University

Table 11 Summary of Telephone Interview Participants

#### 4.6.5 Focus Group Interview

Focus group interviews are still a significant tool in social, educational and market research. It was widely used in market research and then became a widespread tool in applied social and educational research (Cohen et al., 2011; Dörnyei, 2007; Puchta & Potter, 2004). There is no particular definition of what a focus group is, however, Vaughn and colleagues (1996, cited in Puchta & Potter, 2004) identify the core elements of any focus group;

- 1- *There is a trained moderator who sets the stage with prepared questions or an interview guide;*
- 2- *The goal is to elicit participants' feelings about, attitudes towards and perceptions of a selected topic (p.6).*

Focus groups are a sort of group interview not mainly between the interviewer and the group. Seeking a collective rather than an individual viewpoint, the focus group relies on group discussion and interaction between the group members while talking about a given topic (Cohen et al., 2011; Dörnyei, 2007). Group discussion and interactions between group members lead to the emergence of the data, although a topic is always given to participants (Cohen et al., 2011; Dörnyei, 2007). The predetermined setting, in terms of the selection of group members, the chosen themes and the unnatural atmosphere, has advantages and disadvantages. Focus groups offer an exchange of views that may not be possible with one to one interviews. Moreover, focus groups are cost effective in terms of time and the amount of data obtained from the participants (Morgan1988, cited in Cohen et al., 2011; Dörnyei, 2007). Additionally, a focus group is a good tool to gather data about attitudes and opinions and to generate data from different respondents to develop themes (Cohen et al., 2011; Dörnyei, 2007). Most importantly, a focus group is an enabling tool that encourages participants to speak their minds and reflect on their experience. Furthermore, a focus group is beneficial for the triangulation method

when it is used along with other tools like traditional interviews and observations...etc. (Cohen et al., 2011; Dörnyei, 2007).

On the other hand, focus group interviews entail many drawbacks. First, access to the participants in the research study is limited (Cohen et al., 2011; Hancock & Algozzine, 2006). Thus “the individual interviews and focus groups inherent in qualitative research may slow one’s research efforts if access to individuals is difficult” (Hancock & Algozzine, 2006, p.8). Moreover, due to the limited number of participants, focus group data tend to be less generalizable and not numerical (Cohen et al., 2011). Furthermore, the group discussion may lead to the dominance of certain group members (Cohen et al., 2011; Dörnyei, 2007). Also there is an issue of only “socially acceptable opinions emerging” (Dörnyei, 2007, p.146). Additionally, focus group data is usually difficult to transcribe because of the nature of group discussion (Cohen et al., 2011; Dörnyei, 2007). Consequently, a focus group requires good preparation and skills in management and facilitation from the researcher (Cohen et al., 2011; Dörnyei, 2007).

The size of the focus group usually ranges from 6-12 members. Fewer than this may limit the opportunity for collective intellect, whereas more than this may lead to individuals having less chance of taking part in the group discussion (Cohen et al., 2011; Dörnyei, 2007). For the focus group to work better, it is essential to consider the homogeneous respondents. By doing so, the researcher obtains a reasonable amount of data in terms of depth and breadth (Cohen et al., 2011; Dörnyei, 2007).

While conducting the focus group, the researcher is usually called a moderator. Unlike one to one interviews, this name illustrates the different role of the researcher. Thus, he/she might ask questions or provide themes in an unconventional way, since their role during the session is a moderator or a facilitator (Dörnyei, 2007). Focus group dynamics require a leadership role from the researcher to ensure everyone’s interaction during the session. In addition, the researcher should ensure that nobody is dominating or hindering group opinion (Dörnyei, 2007). Therefore, focus group facilitation is a difficult role, especially when it lasts for more than an hour. It usually

starts with welcoming the participants and explaining the purpose of the discussion. It is essential to assert the confidentiality of the recorded discussion. Moreover, participants need to know that there are no right/wrong answers i.e. they must be encouraged to express their views and relay their experiences (Dörnyei, 2007). The moderator usually has a list of topics and/or questions, themes that he/she wishes to address. Furthermore, the researcher ought to be keen on using probes, body language and gestures to maintain the focus of the group (Dörnyei, 2007). In addition, before the end of the session, the moderator must ask the participants about any issues or topics that they want to address or ask about (Dörnyei, 2007).

Thus, in this research, to develop a better understanding of teachers' experiences and opinions regarding technology adoption in language teaching, teachers were asked to volunteer for the focus group session. However, due to the constraints of time and teaching duties, only ten teachers participated in two focus groups (five in each). Focus groups were used as subsequent interviews to form a better understanding of teachers' experiences and to triangulate the gathered data. It is an advantageous tool for an educational context that shows the effectiveness of the program to "understand what was or was not working and why" (Dörnyei, 2007, p.146). Therefore, the focus groups in this project were used to understand teachers' experiences of technology integration in language teaching. The themes of the focus groups were objectives of using technology in the English language centre, challenges of technology implementation, administrative support from Taibah University, IT support, attitudes and perceptions, implementation level, effective implementation and sufficient infrastructure (see Appendix E). Those themes were guiding themes only as teachers had the freedom to express their experiences in detail.

Focus groups were conducted in a convenient quiet place on the main campus. All the participants agreed to audio recordings of the sessions. Using an audio digital recorder allows the researcher to focus on the discussion of the group.

Consequently, attention is mainly paid to the interviewees; providing adequate eye contact and capturing non-verbal cues (Blaxter et al., 2010). The participant teachers were homogeneous in terms of having had a good teaching experience at Taibah University (minimum three years). In consequence, they used their solid experience to share ideas and reflect on the ELC approach of technology implementation. Additionally, they were teachers with different backgrounds and nationalities (teachers were from the UK, Jordan, Saudi Arabia, Sudan, the U.S, France, Canada, Syria, Egypt, Tunisia and India). These cultural differences enriched the discussion and enhanced the emerging data. However, despite the different backgrounds, teachers were homogeneous in terms of teaching unified curricula, textbooks, examinations, and the obligations imposed on them as well.

#### **4.6.6 Document Review**

Most research projects, in social as well as in educational settings, use document analysis. Researchers tend to read, examine and evaluate written works. Thus, researchers have examined many kinds of documents, including historical, archival, media as well as policy documents (Atkinson & Coffey, 2004; Blaxter et al., 2010; Bogdan & Biklen, 2006; Bryman, 2012; Cohen et al., 2011).

Furthermore, documents are multifaceted i.e. they can be any written source e.g. field notes, diaries, timetables, reports, statistics or planning and policy documents. It is noteworthy that no written source can be excluded from documentary analysis (Atkinson & Coffey, 2004; Bogdan & Biklen, 2006; Bryman, 2012; Cohen et al., 2011; Hurworth, 2005). Also, documents are varied in terms of being published/unpublished, official/informal, anonymous/authored, for circulation and not for circulation (Cohen et al., 2011). Some research projects are mainly based on document analysis, while others are supplemented by document analysis. Thus, “considerable attention has already been given to the techniques of reading for research” (Blaxter et al., 2010, p.167). Blaxter et al. (2010) point out that document analysis is an authentic methodological instrument that doesn’t necessarily entail the researcher to approach informants first hand. In fact, he/she “can trace their steps

through the documents that they have left behind" (p.168). Additionally, Hammersley & Atkinson (2007) illustrate that;

*Documents can provide information about the settings being studied, or about their wider contexts, and particularly about key figures or organizations. Sometimes this information will be of a kind that is not available from other sources. On other occasions they may provide important corroboration, or may challenge, information received from informants or from observation (p.122).*

In a similar vein, Blaxter, Hughes, & Tight (2010) illustrate that document reviews "might complement interviews within an institution with the analysis of available documents, in order to compare written and spoken versions" (p.85). They highlight that documents are normally issued after a revision and editing process, "and may be as interesting for what they don't say as for what they do say, as well as for how they say it" (p.201). Additionally, most documents were written for a purpose, with an agenda and an audience apart from researchers (Bogdan & Biklen, 2006; Bryman, 2012; Cohen et al., 2011; Prior, 2003, 2004). Nevertheless, they are a useful source that can enhance our understanding of the phenomenon being researched (Prior, 2003). Furthermore, a document review allows the researcher to "understand why a program is the way it is. It is useful for determining the purpose or rationale of a program. It may help in determining the major stakeholders involved" (Hurworth, 2005, p.118). Also, document reviews show the researcher which data ought to be gathered (*Ibid.*). Thereby, a document review is more reliable than other forms of data, since the researcher's bias is lessened while introducing such data (Hurworth, 2005). However, they should be examined along with other factors as they are only one part of the jigsaw (Prior, 2003).

On the other hand, documents as social products have many issues that should be considered. They may be biased or selective since they are not produced for a research aim. Furthermore, documents should be examined in their context, to better

understand their significance (Atkinson & Coffey, 2004; Cohen et al., 2011; Prior, 2003, 2004). "They, themselves, may be interpretations of events rather than objective accounts . . . selective interpretation by the writer, may mean that they may present an incomplete record of the situation under concern" (Cohen et al., 2011, p.201-202). Also, documents have different forms and some of them may be inaccessible to researchers. Accordingly, researchers must be careful when conducting document reviews. In view of the fact that unlike the actual situation, they may be written to reflect a better image of the program, researchers should be open-minded when looking for the true picture (Bogdan & Biklen, 2006). Moreover, documents might be misleading, unclear or not detailed enough (Hurworth, 2005). Particular constraints appear when trying to understand how and why the documents were produced (Hurworth, 2005; Prior, 2003, 2004).

Thus, while conducting document analysis, Cohen et al. (2011) addressed many questions that ought to be considered. The questions examined the context of the documents, the writer of the documents and the researcher and the documents. For the context of the documents, researchers have to investigate "what is the document? Where has the document come from? When was the document written? What is the focus of the document? What were the effects/outcomes of the document? What does the document both include and exclude?" (Cohen et al., 2011, p.202). For the writer of the documents, researchers should look at the following: Who wrote the document? What were the interests of the writer? What was the status/position of the author? (Atkinson & Coffey, 2004; Cohen et al., 2011). Moreover, the below questions about the researcher and the documents should be explored as well;

- 1- *How close to, or detached from the participants was/is the researcher?*
- 2- *What (additional) information does the researcher and the audience need to know in order to make sense of the document?*
- 3- *How can or should the document be used in the research?*
- 4- *What are you, the reader/researcher bringing to the document in trying to make sense of it? (Cohen et al., 2011, p.202-203)*

Consequently, documents have to be “interrogated and interpreted rather than simply accepted. They are often selective, deliberately excluding certain details or information and serving purposes and audiences other than the researcher” (Cohen et al., 2011, p.203). Thereby, documents are not accurate “transparent representations” of their context (Atkinson & Coffey, 2004). However, as resources, documents play a significant role in their context i.e. reflect first-hand data. Accordingly, documents were used in this research to examine the phenomena under study. As the aim of this project is to investigate ICT implementation in the ELC, the documents that document any actions or plans are worth looking at. The review of the documents was adopted to explore any ICT related plans, policies, initiatives or objectives as well as challenges. The review of the documents was approached on three levels (national, regional, institutional (research context) (see Figure 8). At national level, the National Future Plan, called AFAQ (in English Horizons), was developed by the Ministry of Higher Education to enhance the quality of Saudi tertiary education. The National Plan was also examined to look at any ICT related projects, aims and policies. However, the researcher will not limit herself to predetermined themes while reviewing the documents, as a purpose is to deeply investigate any ICT related written account wholly. Moreover, the ICT policy of the NCeLDL will be reviewed as well. The NCeLDL was established by the Ministry of Higher Education to promote the use of ICT in Saudi tertiary education. Thus, reviewing National Centre documents, looking at policies, aims, prospectuses, plans or projects, is essential to this research.

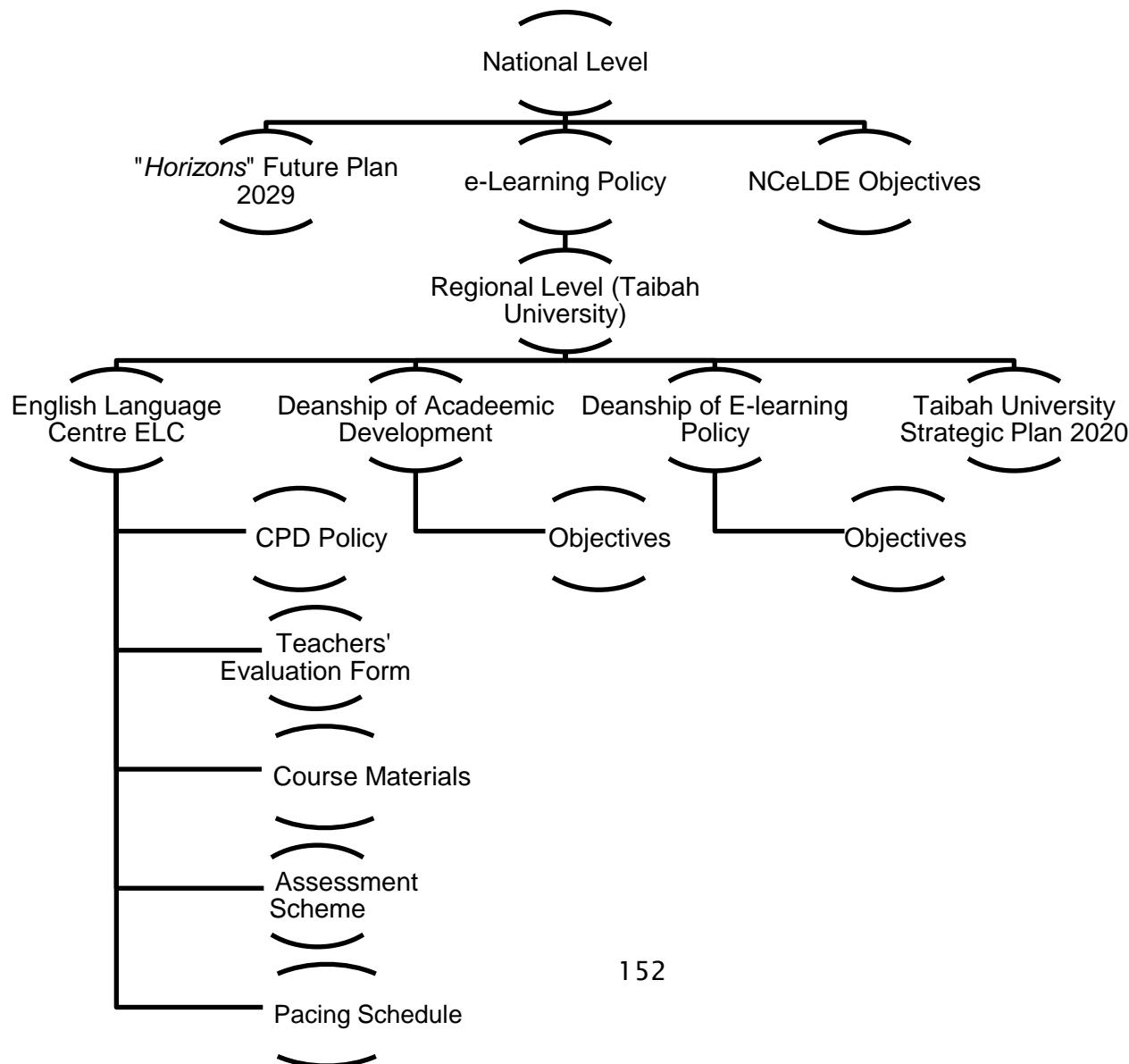
Simultaneously, many documents were reviewed from Taibah University (regional level). To form a better understanding of the research context (English Language Centre), it is essential to study its context deeply (Taibah University). Therefore, to fulfil the study aims, many documents were selected to be reviewed. The University strategic plan was analysed to explore any ICT related aims, actions, CPD policy, initiatives, ICT policy, plans as well as procedures. Also, the documents of the deanship of e-learning and deanship of academic development were reviewed, looking for aims, projects and challenges regarding ICT integration. Furthermore, to

investigate the specific research context (ELC) thoroughly, its documents were reviewed as well. The researcher was looking for ICT policy, ICT objectives, CPD policy, course materials, ELC assessment scheme, as well as teachers' observation sheets and timetables (for a complete summary of the reviewed documents see Figure 8.)

These documents should help the researcher to form a complete picture of the research context. For example when teachers addressed the issue of time as an obstacle to technology integration, the researcher went back to the field to obtain a copy of teachers' timetables and course materials. Additionally, when they raised an issue of technology implementation strategy (optional basis) as it was not part of students' assessments, the researcher reviewed the ELC assessment scheme. In addition, when teachers raised issues of quality of training, the researcher gathered documents about CPD policy and took a sample of training sessions from the CPD unit in the ELC.

Reviewing the documents enabled the researcher to dig deep, exploring teachers' experiences regarding technology adoption. The documents helped the researcher to form a less distorted image of ICT in the ELC. Also, the documents should help the researcher to see if there is a mismatch between the actual situation and the written accounts (Blaxter et al., 2010). The documentary data will support or refute the possible findings. The content of the documents mirrors actions and plans relating to ICT integration and actual approaches to ICT integration in Saudi tertiary education. These documents reflect first-hand data that enhance our understanding of why and how ICT is implemented in Saudi tertiary education.

Figure 8 Summary of the Reviewed Documents



#### 4.6.7 Researcher's Field Notes

Field notes have been considered one of the best tools that allow the researcher to write about his/her research project. Field notes are diaries written by the researcher while conducting the investigation (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007; G. Thomas, 2013). Field notes are defined as a description and/or a reflection by a researcher about people, events, observational data, activities, places and conversation (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007; G. Thomas, 2013). However, field notes are not limited to a description of context or the participants of the study. They can be researcher's own reflections or thoughts about the research (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007; G. Thomas, 2013). Field notes have been widely reported in ethnographic as well as in social research. Some scholars prefer to call them research journals or diaries instead of field notes, as the latter is widely used in ethnographic research (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007). Accordingly, the term "field notes" in this thesis is interchangeably used with the term "researcher's diary" or "journals".

It is often essential that a researcher keeps writing reflective as well as descriptive thoughts. Thereby, Dörnyei (2007) indicates that if researchers build consistent diaries, they might end up with valuable data. He asserts that in qualitative research anything might be potential data. Because field notes are a researcher's thoughts, memos, comments and reflections about issues related to his/her project, these notes are valuable meta-data that enhance the researcher's critical reflection. They are internal dialogue or thinking aloud insights that better the researcher's understanding of the research problems (Dörnyei, 2007). Thus, field notes have been considered as a vehicle that reveals researchers' internal perceptions (Hammersley & Atkinson, 2007). Similarly, many researchers take daily notes since this enhances reflection and the development of the analysis (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007; G. Thomas, 2013). They highlight that keeping consistent, systematic notes reinforces the analysis and the interpretation of the data, as a researcher is used to reflecting and catches emergent themes (Bogdan & Biklen, 2006; Dörnyei, 2007; Wolfinger, 2002).

There are many types of field notes in qualitative social research. Depending on field note content, Silverman (2013) categorizes four kinds of notes (observational, methodological, theoretical, personal). It is noteworthy that researchers focus on detailed extensive accounts of field notes. They should provide exact quotes rather than summaries (Bogdan & Biklen, 2006; Bryman, 2012; Hammersley & Atkinson, 2007; G. Thomas, 2013; Wolfinger, 2002). Additionally, Bogdan & Biklen (2006) indicate that researchers should avoid abstract words i.e. they ought to be specific in their depiction of events, people and thoughts. Further, field notes have to be written right after events and conversations in order not to miss important details (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2007). In addition, most field notes complement participants' observations or recorded interviews (Bogdan & Biklen, 2006; Dörnyei, 2007; Mogalakwe, 2006).

On the contrary, some limitations are indicated when using field notes. Some scholars consider field notes to be a very subjective account of the research process (Bogdan & Biklen, 2006; Bryman, 2012; Dörnyei, 2009). However, Bogdan & Biklen (2006) indicate that despite its subjectivity, field notes are useful as they enhance researchers' self-awareness of the research. Moreover, some researchers "go native" while writing a reflexive or a descriptive account (Bogdan & Biklen, 2006; Bryman, 2012; Stake, 2010). Furthermore, field notes are time consuming and rely on the observer's memory (Bogdan & Biklen, 2006; Dörnyei, 2007). Thus, not all researchers, as Dörnyei (2007) illustrates, keep daily systematic journals. Additionally, Bryman (2012) states that field notes are a hard task because of their unstructured nature i.e. researchers might not know when to start or stop.

Field notes are used in this project to complement the research instruments. They are a tool that allows the researcher to capture important emergent data. In order to form a comprehensive account of ICT integration in the ELC, the researcher adopted

descriptive and reflective notes (see Appendix F). However, the notes were not written on a daily basis. Below are some examples of the gathered field notes;

1. A reflective as well as a descriptive account of Englishtown EF VLE
2. An informal meeting with the testing unit to understand exams policy and procedures
3. Attendance at staff training sessions (Building Online Course)
4. Attendance at the official opening of an e-learning Club at Taibah University
5. Informal discussions with teachers
6. Informal interviews with students
7. Writing reflective as well as descriptive notes about events, documents
8. Observing ICT facilities in most of the classrooms (descriptions)
9. Observing students' computer labs (quantity and quality)
10. Contextual data (No. of teachers, No. of classes, No. of student public workstations)
11. Documents collected from field notes (examinations directory, deanship of e-learning report)

## 4.7 Establishment of Trustworthiness

Qualitative research design entails many strategies or procedures to ensure the rigour and the quality of the research process and the findings. Unlike quantitative research, which focuses on validity and reliability, qualitative researchers have developed many strategies to ensure equivalent validity and reliability in quantitative research. These strategies act as criteria that suit the nature of qualitative research methods. These criteria are credibility, transferability, triangulation, consistency, peer debriefing, member checks, audit trail, thick description, maximum variation and neutrality (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Lincoln & Guba, 1985; Merriam, 2009). Those criteria were first proposed by Lincoln & Guba (1985) who introduced the term “trustworthiness” as a parallel to reliability and validity in quantitative research. The main strategies are;

- 1- Credibility (truth value), which parallels internal validity;
- 2- Transferability (applicability), which parallels external validity;
- 3- Dependability (consistency, replicability), which parallels reliability;
- 4- Confirmability (neutrality, not biased), which parallels objectivity (Bryman, 2012; Dörnyei, 2007)

Under each strategy there are sub categories to enhance the trustworthiness of the qualitative research design. Some of these strategies are research based while others are researcher based (Dörnyei, 2007).

The credibility of the research is ensured using many strategies such as triangulation, peer debriefing, and member checking. These strategies illustrate that the research findings are credible (Bryman, 2012; Creswell, 2009; Merriam, 2009). Triangulation is using multiple sources of data collection to confirm the possible results (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Merriam, 2009; Stake, 2010). Additionally, Wolcott (1994) cited in (Duff, 2007) describes triangulation as a way of adopting multiple tools and introduces the mnemonic of the three E's of qualitative data collection: "experiencing (participant observation), enquiring (interviewing), and examining (studying documents)" (p.128). Consequently, many instruments were adopted in the research project (demographic questionnaire, semi-structured interview, focus group interview, classroom observations, document review, field notes). In other words, the researcher has triangulated the tools for each research question i.e. no research question will be answered by one instrument.

Peer debriefing (peer review), which entails discussing the research process, preliminary categories and possible interpretations with a competent, experienced peer, is another method of enhancing credibility (Bryman, 2012; Dörnyei, 2007; Merriam, 2009). This method allows an external reviewer to act as a researcher and submit feedback (Dörnyei, 2007). Thereby, in this research, the researcher has asked two colleagues, who have substantial knowledge and experience in research and the chosen context, to peer review the categories and themes as well as the

preliminary findings and they kindly agreed. Those two colleagues are PhD holders (The University of Manchester, Indiana State University) in education. Another strategy is to use member checks or respondent validation; a process of taking the data back to the research participants along with the initial interpretations so they can substantiate or refute the results (Bryman, 2012; Dörnyei, 2007; Merriam, 2009). Thus, two teachers and one of the policy makers provided their contact details and were happy to share their comments and viewpoints with the researcher.

The transferability and dependability of the qualitative research are interrelated and considered as major components in building trustworthiness. "Transferability" means presenting what Geertz (1973, cited in Bryman, 2012) calls a thick description (dependability) of the research context, tools, informants, procedures i.e. a rich extensive account to act as a checklist so that readers can examine the transferability of the findings to another contexts (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Merriam, 2009). Accordingly, the researcher has provided a detailed account of the research context, respondents and tools, so that the reader will be able to determine the possibility of transferring the results. Audit trail strategy also requires a detailed account of the methods and procedures used while carrying out the research. It entails the analysis process and the analysis strategies that follow (Merriam, 2009). Maximum variation is another strategy that enhances the dependability (consistency) of the findings. It is where the researcher selects different samples or sites to allow greater applicability of the research. Therefore, the researcher used different samples in the research (EFL teachers, administrators, policy makers). Also the researcher includes male and female policy makers.

The last strategy is confirmability, which very much relates to the researcher's role in the research. It is the researcher's self-critical self-awareness of his/her own biases, values, faith, and theoretical/cultural orientation while conducting and reporting the research project (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Merriam, 2009). Interestingly Dörnyei (2007) highlights that researcher's integrity is the most important strategy that ensures the trustworthiness of the research, while Bryman (2012) argues that complete objectivity is impossible in social research.

Due to the idiosyncratic nature of qualitative research, the role of the researcher is very important. One of the key aspects of qualitative research is the role of the researcher as the main data collection instrument. The qualitative researcher is an instrument him/herself that affects the analysis and the procedures of the research design (Bryman, 2012; Creswell, 2009; Dörnyei, 2007; Lincoln & Guba, 1985; Merriam, 2009; Wellington, 2000). Thereby, the qualitative researcher has to recognize his/her personal bias, beliefs, prejudices, experiences and theoretical orientations while conducting the research. Thus, qualitative investigators should develop sensitivity to their data in order not to bring their biases to the research (Creswell, 2009). This is what Dörnyei (2007) calls “researcher integrity”. He asserts that researcher integrity is the most important strategy that ensures the trustworthiness of qualitative research. Similarly, Creswell (2009) illustrates that identifying the researcher’s own biases is an important issue in the inquiry, as this will provide an open and honest account of the research. Consequently, in this research the researcher has adopted many tools to enhance the quality of the findings. Also, the researcher did not let her pre-existing experience and knowledge as an EFL teacher affect her role as a researcher. Thus, the researcher developed skills after reading about the importance of self-awareness of research bias to enhance the integrity of the research. In addition, the researcher adopted the above mentioned strategies to enhance the quality of qualitative research results, especially peer debriefing and member checks. Most importantly, triangulation was used to reduce research bias and many tools were adopted while answering each research question.

Additionally, due to the subjective nature of qualitative research, the researcher has to develop sensitivity as a strategy to enhance the rigorousness of the research (Bryman, 2012; Dörnyei, 2007). In addition, researchers should develop reflexivity, which means that researchers should be reflective about the potential effects of values, beliefs, biases, prejudices on their research. It involves sensitivity to the researcher’s social, political context (Bryman, 2012). The term implies the role of the researcher in the construction of knowledge from the researched participants. It also entails commitment and rigour i.e. considerable involvement with the subject matter, developing the required skills and thorough methods for data collection and analysis (*Ibid.*). Conversely, complete objectivity is impossible in social and educational

research (Bryman, 2012; Wellington, 2000). Thus, as Wellington (2000) indicates, “the researcher influences, disturbs and affects what is being researched in the natural world” (p.41). Accordingly, researchers whilst trying to be impartial, cannot separate their experiences, beliefs, values or culture from what is being researched. It is noteworthy that the above mentioned criteria are very much interrelated and work together in a dynamic process rather than as a separate checklist, as each strategy affects the other e.g. triangulation enhances credibility and confirmability, and conformability is affected by the researcher’s role.

## 4.8 Data Analysis

Different kinds of data gathered from different methods require careful analysis. Therefore, it is important to highlight that during data analysis, the researcher should be less predetermined and more open-minded, patient and objective. He/she must start his/her analysis without preconceptions to get the most out of the data as these skills are much more important than adopting any analytical approach. Additionally, qualitative data analysis strategies display a diverse perspective, which means that these strategies are hardly unified. Variations and diversity are the main characteristics of qualitative research analysis (Cohen et al., 2011; Creswell, 2009; Dörnyei, 2007). In other words, “There is no one single or correct way to analyse and present qualitative data; how one does it should abide by the issue of *fitness for purpose*” (Cohen et al., 2011, p.537).

There are many strategies and approaches to qualitative data analysis. Also, no strategies can be claimed to be better than another, since each approach has its strengths and weakness (Cohen et al., 2011; Dörnyei, 2007). It is noteworthy that unlike quantitative analysis, qualitative data analysis is a non-linear, recursive process, that usually takes the form of a zigzag as researchers move back and forth during data collection and analysis (Creswell, 2013; Dörnyei, 2007). Thus, the

researcher should be open-minded and avoid preconceptions (Blaxter et al., 2010; Cohen et al., 2011; Creswell, 2013; Dörnyei, 2007). The whole process is about reducing the qualitative data set and retaining some varied and general representative items to keep the originality of the data (Blaxter et al., 2010; Cohen et al., 2011; Creswell, 2013). Mainly, data analysis involves coding, annotating, labelling, selection, interpretation and summarising (Ibid.).

Transcription is the first step towards data analysis; the researcher will transcribe each case wholly. Also, online voice recognition software will be used, such as Google Chrome Dictation 2.0. Although these programmes are not highly sophisticated, they do help partially as the researcher will correct the errors herself. After that, data will be coded i.e. when some data has to be grouped to make it more manageable. Also those codes have to be standardized in order to analyse them (Blaxter et al., 2010; Cohen et al., 2011; Creswell, 2013; Dörnyei, 2007). Additionally, annotation is adopted, which implies classifying different codes and annotating them, writing brief notes or highlighting some important text. This is followed by labelling, where the researcher has developed major themes and groups them under labels. However, the researcher should be aware of her/his bias as he/she might exclude some important themes (Blaxter et al., 2010; Creswell, 2013; Dörnyei, 2007). By doing so, the researcher might see the links and the contrast between different labels or/and different themes. Then the researcher can start selection, where the researcher chooses some significant items to supplement or even contradict his/her arguments, usually taken as examples of the data (Blaxter et al., 2010; Cohen et al., 2011; Creswell, 2013; Dörnyei, 2007).

Most importantly, these strategies might not be systematic in practice due to the emergent data and the iterative idiosyncratic nature of qualitative research (Cohen et al., 2011; Creswell, 2009; Dörnyei, 2007). Also, Cohen et al., (2007) assert that there should be multiple analyses of qualitative data because it is always heavy on interpretation, therefore it must be fit for purpose. Accordingly, the researcher will

adopt many strategies while analysing qualitative data. The researcher will use thematic analysis (analytic induction), where she will look at the emergent themes, classify them, make connections, and compare and contrast them (Cohen et al., 2011; Creswell, 2013; Dörnyei, 2007). Additionally, the researcher will focus on a participant approach, where the aim is to focus on each group of participants and analyse them in detail (teachers, administrators, policy makers). Cohen et al. (2011) stress the importance of analysing the data from participants' perspectives, especially when there are many different groups talking about one issue.

Another approach that might enhance the focus and the interpretation of the data is a research question-based strategy (Cohen et al., 2011). Here, the aim is to look at each research question and answer it based on the emergent data. A constant comparison strategy will be adopted as well to compare and contrast the participants' data themes, emergent themes, and different research tools. Constant comparison, i.e. looking for similarities, inconsistencies or even contradictions, is an effective strategy (Cohen et al., 2011). It allows for comparing different categories, themes and new emergent themes with pre-existing ones. Also, negative themes or cases will not be excluded as they might enhance the interpretation or lead to a modification or more data collection. Thus, adopting many strategies is significant to form a profound picture of the research problem (Cohen et al., 2011).

More specifically, the researcher has adopted Braun & Victoria's (2006) model when carrying out thematic analysis (see Table 12).

Phase	Description of the process
1. <b>Familiarising yourself with your data:</b>	Transcribing data (if necessary), reading and rereading the data, noting down initial ideas.
2. <b>Generating initial codes:</b>	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.

<b>3. Searching for themes:</b>	Collating codes into potential themes, gathering all data relevant to each potential theme.
<b>4. Reviewing themes:</b>	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic “map” of the analysis.
<b>5. Defining and naming themes:</b>	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.
<b>6. Producing the report:</b>	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Table 12 Phases of Thematic Analysis

The model describes the followed steps while conducting thematic analysis. Although the model consists of six stages in theory, in practice the stages are not systematic as the researcher moves between the stages in order to analyse the data. The codes that emerge are technology utilizations, attitudes, perceptions, objectives of technology implementation, challenges, support, contextual factors, continuous professional development (CPD), implementation level and infrastructure.

Like quantitative data, computer assisted qualitative data analysis software (CAQDAS) has “become an integral part of qualitative data analysis” (Dörnyei, 2007, p.262). (CAQDAS) is an efficient tool for storing, sorting, retrieving, organizing, locating and comparing multiple qualitative data (Blaxter et al., 2010; Creswell, 2013; Dörnyei, 2007). However, these programs do not offer a real analysis although they have distinctive aspects that help researchers in managing and coding qualitative

data. These tools will not replace the researcher's role (some call it "wetware") as they are managing not analysing tools (Dörnyei, 2007). These programs help the researcher in managing data effectively e.g. locating hidden quotes or themes easily (Ibid.). Consequently, MAXQDA will be used to ensure effective handling and managing of the data analysis. Unlike NVivo, MAXQDA supports the Arabic language besides English, thus the researcher was able to upload the two transcripts and compare themes across many participants.

Additionally, regarding the documents, each document will be analysed investigating any ICT related elements. Here are some examples of the questions that we should consider while examining a document.

- 1 What is the type of the document?
- 2 Who is the author?
- 3 What is their position?
- 4 Where and when was the document produced?
- 5 Why was the document produced?
- 6 What are its underlying assumptions?
- 7 What does the document say, and not say?
- 8 How is the argument presented?
- 9 How well supported and convincing is its argument?
- 10 How does this document relate to previous ones?
- 11 What do other sources have to say about it? (Blaxter et al., 2010, p. 208).

Accordingly, document analysis necessitates summaries of ICT related aspects, which the researcher considers to be significant. Also, "by grouping together these findings, or setting them alongside others which we believe to be related, what you see or read in documents will be a product of your viewpoint, discipline or focus" (Blaxter et al., 2010, p. 208). Lastly and most importantly, as mentioned above, no strategy in itself is better than another, however, adopting many strategies will enhance the analysis of the data as the researcher will not limit her analysis with one chosen approach. Also, as stated above, qualitative data analysis is an on-going

process that involves continual reflection and interpretation (Creswell, 2013; Dörnyei, 2007)(for a complete summary of research questions, themes and tools see Table 13).

<b>Questions</b>	<b>Categories</b>	<b>Data Collection Methods</b>				
		<b>Major Themes</b>	<b>Classroom Observation</b>	<b>Semi-structured Interview</b>	<b>Focus Group</b>	<b>Document Review</b>
1. <i>What are the objectives of using technology in English teaching?</i>	<i>Technology objectives,</i>		√	√	√	√
2. <i>What are the steps taken to achieve these objectives?</i>	<i>Projects to achieve objectives</i>		√	√	√	√
3. <i>How does the contextual situation affect the implementation of technology?</i>	<i>Pedagogical practices &amp; contextual rules and regulations</i>	√	√	√	√	√
4. <i>What challenges do EFL teachers face when using technology?</i>	<i>Challenges</i>	√	√	√	√	√

<b>Questions</b>	<b>Categories</b>	<b>Data Collection Methods</b>				
		<i>Major Themes</i>	<i>Classroom Observation</i>	<i>Semi-structured Interview</i>	<i>Focus Group</i>	<i>Document Review</i>
<b>Research Questions</b>						
5. <i>What are the attitudes of EFL teachers towards ICT in teaching?</i>	<i>Utilization attitudes &amp; perception</i>	√	√	√		√
6. <i>How do EFL teachers implement the use of the technology in English teaching?</i>	<i>Actual integration</i>	√	√	√		√
7. <i>What support do EFL teachers get from Taibah University when using technology?</i>	<b>Support</b> <ul style="list-style-type: none"> <li>a. <i>Training</i></li> <li>b. <i>Infrastructure</i></li> <li>c. <i>Resources (hardware, software)</i></li> <li>d. <i>IT Support</i></li> </ul>		√	√	√	√

Table 13 Summary of Research Questions, Themes and Tools

## 4.9 Pilot Study Report

A pilot study is one of the most important stages before conducting a research project. As there are unanticipated difficulties with any research project, it is essential not to simply rely on the careful plans and to skip the pilot study. This section aims to describe the followed steps while administering the pilot study. A pilot study can be defined as a process whereby the researcher pre-tests the planned research techniques and methods to see how well they work in practice, and, in case of need, amend his/her plans accordingly (Blaxter et al., 2010).

Conducting and planning the interviews for the pilot study enriched the researcher's experience as an interviewer. The researcher was able to develop her skills while asking and listening to the teachers' answers. The researcher asked eight teachers to participate in the interview and seven agreed. During the interviews the researcher discussed EFL teachers' perceptions of ICT integration in language teaching. The pilot study showed that although there were many attempts to implement ICT in teaching, teachers encountered many difficulties such as infrastructure and pedagogical as well as contextual factors. Thus, many questions about pedagogy and context were added for administrators and policy makers (Q No. 6, 10, 14). Additionally, many teachers pointed out the lack of pre-service preparation in EFL education programs regarding ICT adoption, thus question number 19 was added. In addition, while administering the questionnaire, many teachers did not understand question number 10. As a result, the researcher paraphrased the question to make it clearer to the participants.

As for the focus group, eight teachers agreed to participate but only three attended. During the discussion, the researcher took notes about the lack of policy and insufficient training. The participant teachers discussed the quality of training as most of the sessions were general in nature and not related to their everyday practices. Accordingly, two categories were added (implementation level and support from Taibah University). Furthermore, the researcher took field notes during the pilot study. These notes enriched her understanding of the research context such as the

marking scheme and teaching loads. Also, while taking field notes, the researcher developed her skills as a researcher. Most importantly, the pilot study indicates the importance of a document review to investigate the aims of ICT incorporation nationally and regionally.

On one hand, the researcher could not conduct interviews with policy makers and administrators due to the lack of time and examinations. On the other hand, teachers' interviews illustrated many issues that need to be addressed to them (policy makers and administrators) such as the lack of written policies. Moreover, the researcher could not conduct classroom observations due to time constraints. However, it is noteworthy that the researcher developed good experience while completing in service peer observation as well as observing classes during her MA studies.

#### **4.10 Ethical Issues**

Social research as well as “research in education concerns people’s lives in the social world and therefore it inevitably involves ethical issues” (Dörnyei, 2007, p.63). There is a global awareness of research ethics, especially in North America, which is more participant than researcher-friendly (Dörnyei, 2007). Ethics means, as indicated in the Oxford Dictionary, moral principles that govern a person’s behaviour while conducting of an activity (OUP, n.d.). Ethical issues are essential, especially if the research involves human participants. Ethics in research has received significant attention reflected by regulatory codes of practice developed by universities and professional bodies (Bryman, 2012; Cohen et al., 2011). However, it is noteworthy that Merriam (2009) argues that “although policies, guidelines, and code of ethics have been developed by the federal government, institutions, and professional associations, actual ethical practice comes down to the individual researcher’s own values and ethics” (p.230). Thus, the researcher has to be conscious of the ethical issues that affect the research design or procedures (Ibid.).

Ethical issues might emerge due to the research problem, research methods or during the dissemination of the results (Merriam, 2009). Thereby, research purposes, contents and methods have to be ethically principled (Cohen et al., 2011). In addition, the enhancement of the trustworthiness (credibility) of the research relies on the researcher him/herself being trustworthy in carrying out the study in an ethical behaviour (Merriam, 2009). Therefore, before conducting this research an approval (number 5640) was obtained from Ethics and Research Governance Online (ERGO) at the University of Southampton to meet ethical rules and guarantee subjects' rights. Furthermore, a detailed report of the research aims, questions, participants and context was sent to the Dean of Academic Services, Taibah University, to gain access. The same report was sent also to the Director of the ELC to obtain permission. Both of them approved the study, although they refused to participate (see Appendix G).

The British Educational Research Association (BERA) points out some guidelines for researchers, such as voluntary informed consent, openness and disclosure, right to withdraw, privacy (BERA, 2011). Additionally, Mackey & Gass (2005) note three conditions of the informed consent that need to be fulfilled;

1. *Supply of sufficient information (i.e., full disclosure about the experiment by the researcher).*
2. *Comprehension on the part of the subject.*
3. *Voluntary participation, in which the subject is free from undue pressure or coercion (p.27).*

Accordingly, the informed consent clearly indicates that data and participants' information will be anonymous and confidential and are intended solely for research purposes. Participants were fully aware of their voluntary role in this research. Also all their data have been stored in a secured system used for research only (see Appendix G). Bryman (2012) indicates that data should be kept confidential and not shared with any third party. He states that researchers should read the Data

Protection Act issued by university local committees or professional associations. Accordingly, before the interviews or the focus group took place, the researcher asserted her neutral role to encourage the participants to talk about their actual experiences with as little involvement from the researcher as possible. The researcher also stressed the anonymity and confidentiality of the data to each participant.

In addition, to cover respondents' identity, pseudonyms were used. Moreover, the research objectives were explained to them as well. Furthermore, participants were informed clearly that it was their right to withdraw at any time without their legal rights being affected, since participation and attendance were on a voluntary basis (Cohen et al., 2011). Additionally, before the interviews, the focus group and the observations, the researcher informed the participants of the audio recorder. The researcher was able to audio record all the sessions except the classroom observations. Teachers were not happy with this, stating that even during their formal observations, no one recorded the class. Also, the researcher had to obtain permission from all the students to audio record the classes. Thereby, the recording of the classes was unattainable. As a result, the researcher has to rely on her pre-prepared protocols.

## 4.11 Summary

The current study adopted a qualitative approach to investigate teachers' use of, experiences with and attitudes towards technology integration at Taibah University, English Language Centre (ELC). The study also investigates administrators' as well as policy makers' viewpoints regarding technology implementation in language teaching. The qualitative approach enhances the exploration of the phenomenon in a natural setting where the impact of social norms is clearly indicated. The main tool for data collection was a set of semi-structured interviews and this method was supplemented by a focus group, classroom observations, field notes and a document review from the research context. Additionally, to form a profound picture of the participants' backgrounds, a demographic questionnaire was adopted for EFL teachers. The participants were 20 EFL teachers working in the foundation year in the ELC, Taibah University. Additionally, 8 administrators in the ELC were interviewed as well as 8 policy makers from inside and outside Taibah University.

The research questions aimed to investigate the objectives and the guidelines on technology integration (policy level). Also, the research questions explore the current practices of technology adoption (implementation level). In addition, the research questions also investigate teachers' experiences of, attitudes towards, and the challenges of technology implementation (perception level). To answer these questions, an institutional case study was designed with a set of qualitative tools. To enhance the credibility of the research findings, data from the study were triangulated by the use of a demographic questionnaire, semi-structured in depth interviews, focus group interviews, document review, classroom observations as well as field notes.

The research project is a qualitative institutional case study which aims to deeply examine technology adoption in the ELC, Taibah University. The

research project is informed but not directed by Everett Rogers's (1962) Diffusion of Innovation (DOI) theory and by Michael Fullan's (2001) theory of the New Meaning of Educational Change. Those theories were chosen because of their direct applicability to the aims of this project. The two theories of change provided guidelines which informed the research questions, analysis and methods regarding technology adoption while investigating teachers', administrators' as well as policy makers' experiences at Taibah University. The two theories of change complement each other and form a profound understanding of the research problem and analysis.

To study teachers', administrators' as well as policy makers' experiences and views on technology adoption, the above models were adopted. Moreover, the Col model, which is based on the integration of cognitive presence, social presence, and teaching presence to create effective online learning, is adopted as well. In this study, the theory of community of inquiry provided guidelines to form a better understanding of the best practices of ICT adoption along with face-to-face teaching (blended learning). Most of the elements of the Col model were examined using a qualitative method (teachers' in-depth interviews). The teachers, in their interviews, had the chance to elaborate on their experiences regarding technology implementation and its impact on their teaching. The focus of the current research is ICT adoption along with face-to-face teaching (blended learning) in language teaching. Consequently, the researcher is investigating ICT adoption and its use to enhance language teaching. Thus, the researcher adopted the Col model. The model defines a good e-learning experience through the interdependence of three elements; social, cognitive and teaching presence. Thus, the model has been adopted to examine the ICT teaching experience in the ELC. The teachers' interview data as well as the focus group data investigated the presence of Col elements i.e. social, cognitive and teaching. More specifically, the model was used to investigate the educational experience in the ELC when adopting ICT in language teaching. Teachers were asked about their ICT experience to examine their teaching presence as well as social and cognitive presence. Additionally, teachers were asked about students' utilization of ICT and ICT implementation strategy. The

aims of the teachers' questions in the interviews and focus group were to examine the achievement of the three elements; social, cognitive and teaching. They were asked to elaborate on their ICT adoption strategy. Also, they highlighted students' utilization of ICT in the ELC. Consequently, the researcher identified the achievements in terms of the elements of the Col model's three presences; social, cognitive and teaching.

To sum up, the researcher is investigating if the educational experience of ICT adoption in the ELC is constructing a meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements; social, cognitive and teaching presence (Garrison et al., 2000).

## Chapter 5 Data Analysis

This chapter presents the findings of the reviewed data from different tools (classroom observations, demographic questionnaire, semi-structured interviews, focus group interview, document review, field notes). The research project aims to investigate the objectives and the guidelines for technology integration (policy level). Also, the research explores current practices of technology adoption (implementation level). In addition, the research also investigates teachers', administrators' as well as policy makers' experiences and attitudes, and the challenges of technology implementation (perception level). The results are presented according to the gathered themes: objectives of technology implementation, ICT utilization, attitudes, perceptions, challenges, IT support, contextual factors, continuous professional development (CPD), implementation level, infrastructure, and constraints of time. The purpose of this study is to investigate teachers' experiences of ICT integration in terms of their attitude, utilization and the support they are given. The study also examines administrators' as well as policy makers' viewpoints at Taibah University in Saudi Arabia. The aims of the study are to investigate the implementation of change represented by ICT adoption, along with campus-based education.

The chapter presents the data obtained from the three groups of participants i.e. teachers, administrators and policy makers. Thus, the data analysis chapter will be divided into three sections based on the three different types of participant (teachers, administrators and policy makers). The research findings are presented in the three following sections. The first section presents the findings from teachers. The second section presents the results from administrators followed by the third section that presents policy makers' data. Each group of participants has presented major themes relating to ICT integration in the ELC at Taibah University. Interestingly, many themes have seemingly been repeated by the three groups of participants, however they have been tackled differently.

For example the theme of training, where the policy makers highlight the issues of lack of strong policy and lack of administrative support, however the administrators raise problems with a lack of trainers and incentives. On the other hand, teachers were concerned about the lack of useful topics covered in CPD sessions and lack of time to attend those sessions.

Because of the iterative idiosyncratic nature of qualitative research (Cohen et al., 2011; Creswell, 2009; Dörnyei, 2007), Cohen et al., (2007) assert that there should be multiple analyses of qualitative data because it is always heavy on interpretation, therefore it must be fit for purpose. Accordingly, the researcher adopted many strategies while analysing qualitative data. Thematic analysis (analytic induction) was used, along with the participant approach strategy, where the aim is to focus on each group of participants and analyse them in detail (teachers, administrators, policy makers). Cohen et al. (2011) stress the importance of analysing the data from participants' perspectives, especially when there are many different groups talking about one issue.

Another strategy that enhances the focus and the interpretation of the data is the research-question based strategy (Cohen et al., 2011). Here, the aim is to look at each research question and answer it based on the emergent data. A constant comparison strategy was adopted as well to compare and contrast the participants' data themes, emergent themes, and different research tools. Constant comparison, i.e. looking for similarities, inconsistencies or even contradictions, is an effective strategy (Cohen et al., 2011). It allows for comparing different categories, themes and new emergent themes with pre-existing ones (see Table 14). Also, negative themes or cases were not excluded, as they might have enhanced the interpretation or led to a modification or more data collection. Additionally, a triangulation method was adopted, where each theme was triangulated by analysing many tools simultaneously e.g. interviews, document reviews and field notes (see Figure 9). Thus, adopting many approaches is important to form a profound and complete picture of the research problem (Cohen et al., 2011).

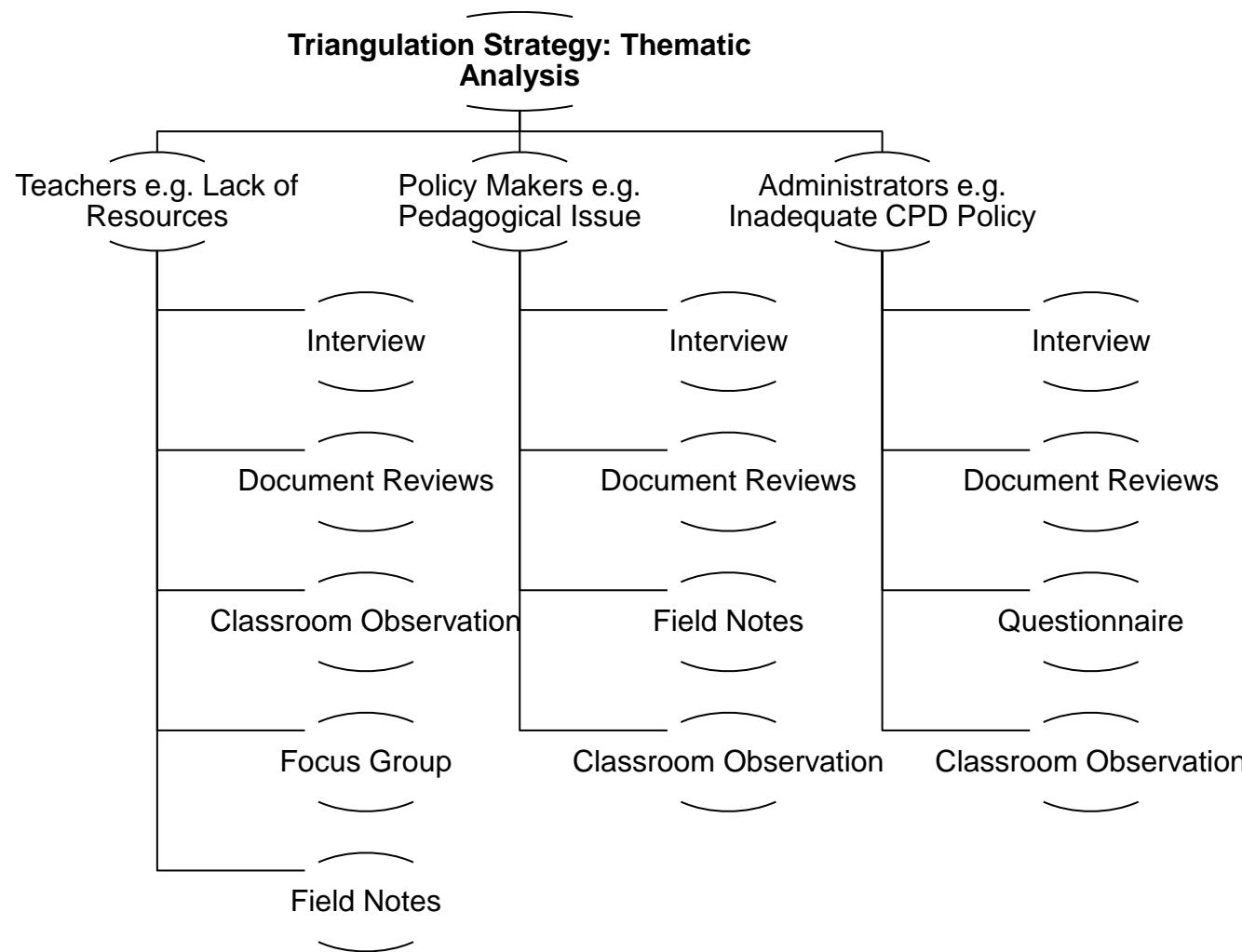
Different tools were adopted to answer the research questions i.e. individual interviews as well as focus group interviews. A focus group was used for subsequent interviews to form a better understanding of teachers' experiences and to triangulate the gathered data. In other words, the researcher triangulated the tools for each research question i.e. no research question was answered by one instrument. Thus, the researcher found it helpful to begin with individual (in-depth) interviews and then explore the emergent themes further in a focus group. The teachers had the chance to discuss the proposed themes in the interviews and also collectively in the focus group. Seeking collective rather than individual viewpoints, teachers in the focus group interacted and elaborated on issues related to ICT integration. The collective interaction enriched the understanding of the research problem. Their shared experiences highlighted the shared issues surrounding ICT adoption at the ELC. Thus, the focus group interviews built on the individual interviews. As a result, by adopting many tools, the researcher had the chance to triangulate and explore the themes raised by the participants.

The first section will present teachers' viewpoints followed by administrators' viewpoints and lastly the policy makers' data will be presented. If the data or the interviews held in Arabic, the excerpts will be presented in two languages (Arabic and English) however, if it is in English, only the English quotes will be presented.

Themes	Policy Makers	Administrators	Teachers
<b>Training</b>	No strong policy, no administrative support	No trainer, no culture of sharing, no incentives, no time to plan a session	Poor topics in CPD sessions, issues of time,
<b>Weak uptake of ICT</b>	Pedagogy not ICT	Pedagogy - teacher centred approach and structured context	ICT resources, and IT support

Table 14 Example of Themes Analysis across Participants

Figure 9 Examples of Triangulation Strategy: Thematic Analysis



## 5.1 Major Themes From Teachers

This section lists the main themes that have been stated by the participant teachers (20 out of 42). The data from the teachers were collected using many tools, such as classroom observations, interviews, a focus group and document reviews. The themes were classified and reviewed constantly across many tools. The below section is a comprehensive list of the main themes that were proposed by teachers while talking about ICT integration in the ELC. For teachers' data, the researcher identifies which quotes are from the interviews and which ones are from the focus group discussion.

### 5.1.1 Positive Attitudes towards ICT

Attitudes towards ICT integration are an important factor that encourages or limits teachers' willingness to incorporate ICT into teaching. Consequently, teachers who have positive attitudes towards ICT will utilize it in education and those who hold negative attitudes will not. However, attitudes alone do not reflect the actual situation because some teachers do have positive attitudes but do not use ICT in their teaching. Thus, we need to consider other issues besides attitudes. The below quotes (from interviews) show that the majority of teachers, despite not using technology, held positive attitudes towards ICT.

Teacher 1 stated that ICT is time and cost effective by saying:

It can greatly make our teaching cost-efficient in terms of enhancing our time and I also think it promotes students' autonomy and that's what we need. I also think our aims will be achieved better if we incorporate ICT in teaching and we can also overcome the issues that we have here

In a similar vein, Teacher 5 pointed out that ICT is an excellent tool for communication and cost-effective by saying:

I use ICT to enhance my classroom time as it is time and effort effective. But because of the lack of proper ICT resources, we cannot incorporate the online materials that accompanied Oxford textbooks. Also ICT makes students more autonomous and provides better communications with students in terms of setting and receiving assignments.

Another teacher (in the interview) illustrated the user-friendly aspect of many ICT devices. She indicated the availability of ICT tools in the current time. The benefits of ICT that accommodates different learning styles is highlighted by Teacher 6 who said:

ICT tools are easy because Laptops, PC, smart-boards and projectors are a matter of click and we do not need to know how it functions. Also the availability of it is easy because now most people have their own laptops, smartphones...etc. Besides many softwares are easy to download and free of charge. Why it (ICT) is fun because it has colourful presentation that accommodate different learning styles and we should enhance our lessons by using it especially when students really enjoy it.

Interestingly, during the interview, Teacher 10 highlighted the fact that ICT is highly beneficial in the EFL context, where there is limited input of the target language. She explained that unlike an ESL context, students in an EFL context have insufficient exposure to L2 and by using ICT, students gain a better input of the L2. She illustrated this by stating:

Well I think it is very important because technology is part of our everyday life and especially here in SA when it is an EFL context where learners of English usually do not get enough exposure like students in ESL contexts. However they are exposed to the same technology in terms of internet and social apps, thus when learning a language, they need a realistic environment where they can retain and use the language naturally

On the other hand, another teacher pointed out that ICT enhances the students' soft skills and prepares them for the workplace. By using ICT in education, graduate students are better equipped with soft skills, as Teacher 7 indicated by saying:

I think it is very useful especially when they (students) leave schools and go for workplace equipped with the soft skills. They (teachers) should master ICT skill in educational institutions because it can enhance the educational instruction positively.

Teachers' beliefs about ICT were positive. They highlighted that ICT is time and cost effective. Additionally, they indicated that integrating ICT in language teaching develops their soft skills and students' soft skills as well. Furthermore, they indicated that ICT is part of teachers' as well as students' daily life. Interestingly, some of them (teachers) had positive attitudes based on positive experiences with ICT. Others have shown that although they hold positive attitudes they need more training. More specifically, two teachers indicated that they had a solid background in ICT integration but could not integrate ICT into their teaching. Their hands were tied by the structured context. One of them designed a blog for writing lessons but was asked to encourage students to utilize the VLE. Another teacher tried to design a Facebook page for her class but was not granted permission. The constraints of the structured context demotivate teachers to initiate ICT integration plans. In addition, they highlighted issues related to infrastructure that led to weak ICT utilization. As a result, those ICT competent teachers who had tried to use ICT in teaching raised issues relating to context, where everything is fixed and structured. Others highlighted the need for training along with an adequate infrastructure. Thus, teachers who had no ICT experience indicated the need for training and an adequate infrastructure. However, teachers who had ICT experience illustrated the need for an adequate infrastructure and an effective ICT integration strategy. Those experienced teachers indicated the need for a less structured environment in order to have more effective ICT adoption.

### 5.1.2 Issues of Time

Many teachers indicated that their teaching loads were an obstacle to ICT integration. They indicated that they had 20 hours of teaching a week along with many administrative tasks such as invigilation every other week. Teacher 1 (in the interview) indicated that:

لأن لدينا 20 ساعة في الأسبوع للغة الإنجليزية و التي تعني 4 ساعات في اليوم، والطلابات لديهن العديد من المواد الأخرى يومياً من الساعة 8-5 و ذلك أن تخيلني كيف السنة التحضيرية مكثفة و بالتالي ليس لدينا الوقت للاستفادة من أي شيء اختياري. بالنسبة لي كمعلمة لغة فأنا أفضل أن تتكامل دروسني مع مصادر الكترونية على الانترنت. على سبيل المثال يطلب من الطالبات أن تكون هناك ساعتين للمصادر الالكترونية و 12 ساعة للتدريس في الفصل كمثال ولكن عندما يكون لديهن (الطالبات) بالأصل 20 ساعة في الأسبوع فهذا يعد علينا كثيراً بالنسبة لنا و لهن (الطالبات) ناهيك عن الاستفادة من المصادر الالكترونية على الانترنت. من الجيد استخدام التقنية (نظام ادارة التعلم) إذا تم تقليص الـ 20 ساعة تدريس أسبوعياً أو إذا كان الاستخدام ضمن الـ 20 ساعة الأسبوعية.

Because we have 20 hrs a week of English which means 4 hrs a day and students have many other courses daily from 8-5, so imagine how intensive it is and thus we have no time to utilize something optional (ICT). For me as a teacher, I prefer to complement my lessons with online materials. As an example by asking students to have two hours for online materials and 12 hours for classroom –based teaching. But when they already have 20 hours a week, I think it is too much for us and for them (students) to utilize the online materials on VLE. It is good to use technology if we reduce the 20 hrs teaching a week or if the utilization was within the 20 hrs a week.

Moreover, many teachers have weekly invigilation duties besides their already overloaded teaching schedule. They indicated that time is a real challenge for them as they need to cover four textbooks (two in each semester). In the interview, Teacher 4 illustrated this by saying:

Time was a real challenge for me and for many teachers, have a look at the tight course pacing schedule to see how difficult to implement the VLE besides the teaching loads. The use of the VLE was an extra work as the utilization of the online materials did not reduce some of the teaching loads. Further, Students have no access to computer labs unless they have a computer class. In addition, every week we (teachers) have invigilation duties.

Similarly, Teacher 3 indicated that:

ICT integration is an optional and extra work to our already busy schedule. Most of us are struggling with time because we need time to plan lessons effectively. Tuesdays are our off-days however, every Tuesdays we have invigilation duties and in turn we hardly find spare time to the optional ICT.

### 5.1.3 Issues of Poor Communication

Most of the teachers (in the interviews) indicated that they are required to fill in a survey at the end of the year. Teachers are required to participate in the survey and state their viewpoints about the textbooks and issues related to their

teaching. However, teachers illustrated that the completion of the survey was regarded as an end in itself because there was no follow-up feedback. Teacher 11 illustrated this by saying:

Most of us received an email to fill in the survey at the end of the year. The survey was about the textbooks, marking scheme and our suggestions. We have written our feedback but got no feedback. Consequently, many of us are frustrated because our suggestions are not properly considered.

Likewise, Teacher 16 in the focus group stated that:

After 5 years of ICT integration in the ELC, I have written my suggestions in the survey and raised the issue of time for us (teachers) and for students as well. However, we received no follow-up feedback and realised that our voices are not heard.

#### 5.1.4 Issues of Training

Training is a major issue that affects ICT integration in the ELC. During the interviews, teachers raised many issues about the quality of the training sessions, the lack of qualified trainers and the inadequate topics of most of the sessions. Furthermore, teachers highlighted the importance of pedagogy-led technology integration in the training. They need proper training, specifically in ICT integration, in order to be able to use it. Teacher 17 indicated the repeated topics of the sessions by saying:

Most of the training we had is how to use the textbooks, how to use different parts of the textbooks and that's it. One session was about using PPT slides effectively and that's it in terms of ICT related sessions

Similarly, Teacher 15 indicated:

They need to know what they are doing because some teachers attend just because it is a mandatory. For the trainer we need the competent qualified trainer and I think they do not have any because the topics of the sessions are neither varied nor tailored to our needs e.g. how to teach with PPT slides or how to design lesson plan

Additionally, many teachers pointed out the importance of addressing the rationale for ICT integration in language teaching. They illustrated the importance of knowing the potential pedagogical benefits of ICT in teaching. Teacher 9 indicated this in the focus group by saying:

We have only two sessions about Jusur VLE, we have no idea about the rationale for utilizing the current VLE (our town). I am a professional and I need to know why I am using it in my teaching

Likewise, Teacher 3 in the focus group indicated the importance of pedagogy-led technology integration. She stated that:

Utilizing technology in education should be based on a purpose because it is not a matter of physical equipment or software. Also a lot of teachers have no adequate training in terms of integrating technology into a curriculum. The training should draw teachers' awareness to see how it (technology) is beneficial to them.

Additionally, Teacher 7 in the interview highlighted the role of administrative support in the quality of the training. She indicated the social use of ICT and the need to encourage academic staff to utilize it in education. She pointed this out by stating:

It depends on the mindset of the administrators or policy makers as the training should not be only on the technical issues. Teachers need to know why ICT is important and how it can be integrated usefully in the hybrid curriculum and that need planning. Many students as well as teachers use technology for social purposes like apps in smartphones. If the mindset of the high admin push the academic staff, they will try to figure it out and update themselves to know how to use it in education and what to use if for.

However, some teachers indicated the aspects of some training sessions. They bring to light that these sessions are too general and are not tailored to their needs. For example topics are not closely related to their teaching and are not tailored to their needs, although the CPD coordinator claimed that they had distributed needs analysis forms. Teacher 7 in the interview stated that:

Although they did some training but they were inadequate training because the session was too general, didactic and mechanical. Further, the questions we have asked were not answered professionally. It seems that everything was based on someone's decision who we never met.

More specifically, the lack of the training for the newly installed smart-boards was indicated by many teachers. The smart-boards were installed but not used because of the lack of training. Teacher 11 stated in the interview:

Now we have been told that there will be some training sessions about smart-boards but we have no training at all till today. We just use the speakers of the smart-boards in the listening lessons and that's it.

In a similar vein, during the classroom observations almost all the teachers avoided using the smart-boards. Five out of seven teachers used the speakers of the smart-boards only. The underuse of the available ICT is because of the lack of training. The underuse of smartboards was another example of weak ICT integration, let alone the VLE. Teachers indicated reasons for the weak integration of ICT (both smartboards and VLE) and raised issues regarding training and infrastructure. They highlighted that providing ICT tools is not enough for utilization, as they need ongoing support as well as training. Thus, the underuse of smartboard parallels the weak integration of the VLE. Most importantly, the physical condition of classroom has an indirect effect on ICT integration. The classroom physical settings should be based on interactive pedagogy and equipped with ICT facilities. Thus, the classroom should have an ICT oriented atmosphere. Furthermore, there must be a focus on other issues besides ICT affordance, like training and infrastructure.

In addition, Teacher 13 in the interview stated:

The ELC coordinator has no answer herself and it is something out of her hand (lack of training). Thus, without support in terms of training and availability of ICT resources most teachers will not implement technology in their teaching.

Likewise, Teacher 16 pointed out that:

The classroom facilities are good enough though there are smart-boards and projectors, but they are not used. The underuse is because of the lack of training and IT support team. Most of us (teachers) used the speakers of the smart-board only for listening classes and that's it. Also there is no internet access in classrooms.

Supporting the abovementioned views about classroom ICT facilities, the classroom observation data show that there are smart-boards, projectors and speakers in each classroom. However, there are no e-podiums and no internet access.

### 5.1.5 Lack of ICT Focus in Pre-service Teacher Education

Reviewing the demographic questionnaire shows that most teachers did not study ICT related modules in their pre-service education, apart from two who studied a course about ICT as part of their MA. Most of the teachers lack the subject knowledge to use ICT in language teaching. Only two teachers have studied modules about instructional technology and they were non-Saudis. The rest indicated a lack of pedagogical knowledge about using ICT in language teaching. In addition, teachers' willingness to use ICT in their classroom is usually obstructed by poor ICT facilities in classrooms. Most importantly, the researcher has reviewed the study plan of the English department of the eight main universities in Saudi Arabia (including Taibah University) to identify any ICT related modules. The review shows that most, if not all, the universities have a mixture of literature as well as applied linguistics modules. Usually all the modules are about literature and linguistics besides the general core modules. Accordingly, there are no modules about CALL or ICT in education in most of the undergraduate programs (see Appendix H). Thus, the weak preparation along with the weak ICT facilities leads to the poor uptake of

technology in education. The below section illustrates how the inadequate infrastructure hinders the effective utilization of ICT in teaching.

### 5.1.6 Issues of Infrastructure

Infrastructure is a crucial factor that affects ICT integration. Without a proper infrastructure, the implementation of ICT will be very limited. In order to incorporate ICT effectively, teachers need proper ICT facilities. Issues of shortage of proper internet connection, lack of computer labs and adequate IT support teams have been indicated by many teachers. Teacher 17 in the interview stated that:

There are no computer labs on campus and I have known that the three computer labs were exclusively for computer classes. Also not all teachers have their own laptops let alone the students. We do not have internet access and even our own modems sometime are not working.

Another teacher indicated that students face the same problems. In the focus group Teacher 15 said:

Students have the same problem and how can we expect them to self-access the VLE independently while there is no adequate infrastructure

The same viewpoint was repeated by Teacher 11 in the focus group who indicated that:

Well for many reasons most of students have no ICT devices and even those who had ICT devices do not know how to use them in language learning by themselves. The major problem is that there is no ICT facilities on-campus i.e. no computer labs, public workstation and poor internet connection for us as teachers let alone the students.

Similarly, Teacher 16 stated that:

There are no ICT facilities. We need bucket of facilities, we do not have proper internet access, no computer labs except for computer departments and because of that most teachers have not used the smart-boards yet.

An inadequate IT Support team is a major problem to ICT integration. Teachers need ongoing IT support to overcome technical problems. Thus, the insufficient IT support limits the ICT integration. Teacher 18 in the interview stated that:

We (the academic staff) have no internet access so we have to buy our own modems. Projectors are not always available and when we contacted the IT support they came and check and that's it. I think they have to contact the male-side and we have got no feedback from them. There was sometimes a Wi-Fi access but not good enough because we always have disconnection so we do not rely on it.

Also, many teachers pointed out that when they needed IT support, their problem was not solved most of the time. In the interview, Teacher 12 stated that:

I think the administrative support was not good because many times I went to our site coordinator to ask about the projector and smart-board and she only refer me to the IT support. The IT support was not helpful because they usually need to send a report of the problem to the male side.

Additionally, while interviewing Teacher 3, she indicated the IT support team consisted of only two people, which in turn meant that they had no time to handle the questions of 42 teachers. She stated that:

Also we (students & teachers) do not have a qualified IT team who can resolve our technical problems immediately. The VLE trainer was one volunteered teacher and she does not have enough time for our enquiries. This means no dedicated ICT training team. One person will never handle problems of 42 teachers and the big number of students as well. It is a real challenge for the prep year.

The above quotes from teachers indicate the need for proper IT support. Teachers indicated that IT support teams need training as well. They highlighted that most of their IT problems could not be solved properly. The IT team tried to solve technical issues but did not always succeed. Thus, most of the time, they reported the problem to male side which in turn, takes a lot of time. They clearly illustrated that technical

issues should be solved immediately for effective ICT integration. Thus, IT support teams need sufficient training in common ICT technical issues. Moreover, teachers and administrators indicated the shortage of IT support teams. The research participants pointed out that two or three IT support team members could not handle the problems of 42 teachers, let alone the ELC staff team. Consequently, there is a need for more IT technicians in the ELC. On the other hand, teachers highlighted the need for good IT support besides the availability of ICT resources. More specifically, they indicated that ICT affordance only is a demotivating strategy. Teachers' needs for ongoing IT support and adequate ICT resources have equal importance. Additionally, they (teachers) assert that as teachers, they should not be IT experts because that is someone else's job. Thus, the availability of a well-trained IT support team is a basic requirement for effective ICT integration.

Supporting this view, many teachers indicated that the lack of ICT resources affects the implementation of ICT in language teaching.

Teacher 3 in the interview said:

Yes I used to use ICT when I have projector but this year we had no projector and we could not use the smart-boards either. Also my portable modem is not working here though I have to buy it myself. The internet is not stable here (ELC) to the extent that I could rely on it in my teaching. Last year, I used to design a blog for students so they can submit their writings but because of the technical issues I did not utilize ICT in my teaching this year.

Similarly, Teacher 14 explained that they used to have projectors but this year only smart-boards were installed. Consequently, many teachers could not adopt ICT in their teaching. She illustrated:

To give you examples we used to have projectors in each classroom but the male side came and took them and I have gone to the site coordinator to borrow a projector and could not find one. Also the smart-boards were installed but not used and we do not know why.

Further, in the interview Teacher 8 indicated that the underuse was due to the limited ICT resources for teachers and students as well. She stated that students use ICT excessively for social and communicative purposes only. She said:

The irony of it is that students have ICT devices (smartphones, iPads, iPods) and using it all the time merely for communication and pleasure. Although we have been asked and encouraged to use it, very few of us have do so. Why I think the unavailability of ICT resources and internet are the main reasons.

### 5.1.7 Structured Learning Environment

Teachers indicate that a structured learning environment where everything is fixed e.g. textbooks, mark schemes and exam-based learning? have affected ICT integration negatively. They were unable to design their own materials or allocate marks to some online tasks. Their role was very limited to merely teaching. The lack of autonomy affects the ICT integration negatively.

Specifically the optional use strategy of the online VLE demotivates students to uptake ICT. Teacher 3 in the interview explains this by saying:

Exams make our job more stressful; have a look at our pacing schedule and the fixed textbook. The amount I should cover limits the potential benefits of the prep year. We teach students the skills to pass the exams rather than developing their language skills to use them later on. We should help them to read write and speak in English and prepare them for their future studies but we are not doing what we should do in this context. We are not going beyond the classrooms as the exams limit this so much. We cannot achieve our higher aims because of the exams let alone the ICT integrations.

Further, many teachers in the focus group pointed out the mismatch between the objectives of the preparation year and actual practice. They stated that the aims of ICT integration are not achieved because of the exam-oriented approach. Teacher 7 said:

What I mean is that students are struggling in their language learning because the prep year is exam-driven. I can see a discrepancy between the aims of the prep year and the actual practice as we (teachers) should help students to master and practice the language in their courses.

Many teachers indicated that exam-based teaching limits ICT integration. They pointed out the significant role of the marks, especially in the Saudi context. Consequently, utilizing the VLE is not effective because of the optional strategy. Teacher 9 in the focus group stated that:

No matter what I do I cannot motivate them (students) to learn because they usually ask me why, and their argument since it is not included in the exams why should we waste our time on something optional. Thus exams-driven context is the norm here and in turn students do everything for marks.

Other teachers have pointed out that big classes and lecture based teaching hinder the effective integration of ICT. They illustrate that even the classroom design should be technology friendly. They raised issues of big classes and lecture-based teaching. Teacher 7 in the interview stated:

Classes are too big, sometimes are doubled or tripled (40 students) so we are overworked and this is one of the reason where teachers cannot give students extra stuff because the lack of time. The classroom design is for lecturing though we are adopting activities-based language teaching (textbooks series). Consequently, we do not have a proper design for classroom to allow group work where students face each other, also most of the chairs are nailed to the floor and we cannot turn them around.

Likewise, Teacher 9 in the interview indicated the importance of the rationale for ICT integration. She stated that:

We need up to date facilities that accommodate technology enhanced learning especially the foundation skills. Thus, classrooms need to be designed to activities-based learning as opposed to lecture-oriented learning. In addition, we need a goal to integrate technology so it becomes in the mindset of the entire department.

### 5.1.8 Ineffective ICT Integration Strategy

Many teachers in the interviews indicated that the poor utilization of the VLE is because of the optional based use. They illustrated that students will not use

the VLE when it is not required by the ELC. The optional strategy demotivates students to uptake the benefits of the VLE although there was a 3-5% bonus. Thus, the implementation process needs to be effective to encourage students to see the benefits of ICT. One of the teachers was a VLE coordinator who pointed out that:

نظام التعليم الإلكتروني (اور تاون) هو يشكل اساسي نظام استخدام ذاتي. استخدام النظام الإلكتروني متاح و اختياريا للطلاب و الطلاب. يحصل الطلاب او الطالبات الذين يستخدمونه و ينجذبون عدة مستويات على زيادة حوالي 3-5%. ولكن لأن السنة التحضيرية مكتففة جدا لم يستطع اغلب الطلاب و الطالبات استخدام النظام الإلكتروني بشكل فعال و ذلك لأن الجدول الدراسي للطلاب و الطالبات مختلف جدا. وللتوضيح اكثر فقط عشرين طالبة من اصل 600 استخدمن النظام بما يعادل حوالي 3% فقط

Our town (VLE) is mainly a self-access online platform. The utilization was based on an optional basis. Those (students) who use it regularly and able to achieve many levels (1-16) will get the 5% bonus. However, because the preparation year is too competitive, students did not utilize the VLE effectively as they have a very full schedule. To tell you the truth only 20 out of 600 students (almost 3%) have utilized the VLE.

However, other teachers brought to light another issue which might be causing the underuse of the VLE. They pointed out that the reason for the weak utilization of the VLE is the already busy schedule. They highlighted how VLE utilization did not reduce the current classroom based teaching, besides not being an official requirement. They stated in the focus group:

كان استخدام النظام الإلكتروني (اور تاون) شيء إضافي بالنسبة لنا كمعلمات وبالنسبة للطلاب كذلك. وهكذا، فإن استراتيجية الاستخدام ليست فعالة لأن لا نحن ولا الطالبات لدينا ما يكفي من الوقت. أما وقد قلت ذلك، يجب أن يقلل استخدام النظام من التدريس الصفي الحالي، بحيث يكون للطلاب الوقت الكافي للاستفادة من هذا النظام الإلكتروني. إضافة إلى ذلك نحن ندرس أربعة كتب (اثنان في كل فصل دراسي)، بالإضافة إلى مواد أخرى كثيرة للطلاب. وبالتالي ضعف أو قلة الاستخدام لأن النظام الإلكتروني هو حقيقة عيناً إضافياً على الجدول المزدحم و خصوصاً عندما لا يكون جزءاً من التقويم الرسمي

The VLE utilization was an extra thing for us and for students as well. Thus, the integration strategy was not effective because neither we nor students have enough time. Having said that, the utilization of the VLE should reduce the classroom based teaching, so students have time to utilize the VLE. Also, we are teaching four textbooks (two in each semester) plus many other courses for students. Thus, the VLE is underused because it is an extra burden to already busy schedule especially when it is not part of the official assessment.

Similarly, Teacher 8 in the focus group stated that:

The rationale for VLE is to develop students' language, learning and soft skills however the implementation strategy has not helped to achieve the mentioned aims. Why, because the utilization was on an optional basis, they usually get 3-5 bonus marks if they utilize it.

Likewise, Teacher 17 in the interview highlighted that the ICT integration strategy is not effective by saying:

I think training is an important along with adequate strategy that encourages students as well as teachers to utilize the ICT effectively. Based on my experience, the utilization of Jusur VLE was a kind of a failure because most students will not utilize ICT (VLE) on an optional basis. Now, they are repeating the same mistake because the uptake of Our-Town VLE is based on an optional basis too. We have to motivate them (students) to use it effectively to supplement the course with online materials.

Similarly, Teacher 6 in the interview indicated that:

The internet is not available so students have to do the online tasks at home. Also the online tasks were a kind of extra duties to students as they get 2-5 bonus if they utilize VLE and most of them have not used it

Many teachers brought to light the independent utilization of the online VLE. They clarified that students are not sufficiently encouraged to uptake ICT by themselves. Teacher 10 in the interview pointed this out by saying:

The level of students was not that good to the extent that they can read, understand and do the online tasks themselves. The strategy was an issue because students have to use the VLE independently and on an optional basis. Consequently, the utilization was somehow superficial.

On the other hand, other teachers highlighted the importance of preparation and training for self-regulated learning. Students are not motivated enough to take responsibility for their own learning. Teacher 4 in the interview stated:

Also students were not learning from VLE because they are not trained for self-regulated learning and not motivated by marks apart from a very few of them.

Similarly, many teachers in the interviews showed that the strategy was ineffective for teachers as well. They highlighted the need for administrative support in order to uptake ICT effectively. They indicated that if ICT utilization is not a requirement, teachers will not use it. Teacher 7 indicated this by saying:

I think it is really the backgrounds of the instructors because those who did not receive any type of technology exposure in their own academic experience they need to be provided with workshops or training. Prior to that, this has to be in the mindset of those who are willing to integrate ICT. Then, we can provide the training but if the teachers have no sense of obligation, they will not utilize ICT.

Thus, as teachers have indicated, there is a need for good administrative support for teachers in order for them to uptake ICT. Most importantly, the data show that ICT integration was on an optional basis. This strategy is ineffective, as teachers indicated, because to them it (ICT) is not part of the official requirements. The following section will review the main themes gathered from administrators in the ELC.

## 5.2 Major Themes from Administrators

A set of interviews were conducted to ask administrators about ICT integration in the ELC. The data shows that even though most of them (administrators) held positive attitudes towards ICT utilization in language teaching, they had encountered many issues regarding ICT integration in the ELC. Training was an issue, as the CPD coordinator lacked qualified trainers. Besides teachers were so busy that they could not attend the training sessions. Also, the ICT

integration strategy was not effective because it was on an optional basis and was not part of the official curriculum. Additionally, administrators raised factors related to the inadequate infrastructure and the structured learning environment. They pointed out that the ELC is part of centralized hierarchical administration system i.e. the ELC is a structured learning centre where exams, textbooks and rules are fixed and need to be followed. The following section illustrates the main themes gathered from administrators.

### 5.2.1 Positive Attitudes Towards ICT

Administrators held positive attitudes towards ICT integration in language teaching. They pointed out that students are digital natives and technology is part of their daily life. They also stated that teachers need to adjust their teaching approaches according to students' needs and styles. It is counterproductive not to use technology as the ELC academic coordinator stated:

أعتقد أنه من المهم جداً أن تستخدم التقنية، وهذا هو الاتجاه في الوقت الحاضر. نحن نعيش في عالم حيث التقنية تستثمر بشكل كبير في حياة الناس، وبالتالي لا يمكننا القيام بأغلب الأمور بدون التقنية بعد الآن. طلاب اليوم هم الجيل الرقمي وهذه الطريقة أثرت على اهتماماتهم، وعلى طرائقهم في مشاهدة الأمور. وأيضاً طريقة تعليمهم. وهذا، كمعلمات حتى إذا لم تكن من الجيل الرقمي علينا التكيف مع ذلك لأن التدريس لطلابنا و ليس لنا. لذلك أعتقد أنه من الواجب أن يتم تدريب المعلمين والمعلمات على استخدام التقنية بشكل فعال. وأيضاً لا ينبغي أن يترك الامر للمعلمات لأنه من مسؤوليات المؤسسة التعليمية فهي (المؤسسة) التي يجب أن تزود وحدة التدريب بالوسائل والادوات لتدريب المعلمات

I think it is very important to use ICT and this is a trend nowadays. We live in a world where technology heavily investing people life, so you cannot do many things without ICT anymore. Our learners are digital natives and being so; it influences their interest, their way of viewing things and also the way they learn. Thus, as a teacher even if you are not digital natives you have to adapt to that because the lesson is for your learners not for yourself. Therefore I think it is a must that staff is trained to use technology effectively. Also, it should not be left to teachers' responsibility because it is the institution responsibility to equip the CPD unit with the means to train teachers.

Likewise, the ELC coordinator illustrated that technology is good for students because:

ICT can be used to enhance students' motivation and get them engaged because as I have said before they might use technology more than we do as teachers, so we need to learn from them. Also because I think that language learning is lifelong matter, therefore if we give them the skill to use technology for language learning, then it can stay with them so they do not need a teacher all the time as they have a skill to build their autonomy

## 5.2.2 Issues of CPD

### **CPD Policy at the ELC**

Reviewing the Professional Development and Continuing Education (PDCE) unit

Procedures and Policy indicates a variety of activities that have been stated. The aims range from providing individual training needs to inviting international speakers. The CPD unit brochure also states that the training will be tailored to the teachers' needs and the teaching contexts. The brochure also illustrates the planned activities, such as CPD meetings and workshops, attending external and internal conferences, observations and research. The objectives of the PDCE unit are the following:

Provide a professional development model of support for teachers creating a supportive environment

Prepare and deliver tailor made workshops/training sessions that are explicitly centred around our teaching context

Manage teachers' time at work and take their individual training needs into account.

Provide a range of experiences and development opportunities in the classroom and in the ELC as a whole.

Offer external and internal training

Twin the ELC with an international language school in the UK

Invite guest speakers to talk about pressing issues in ELT in Saudi Arabia

Subsidise MAs and training courses

Hold mini conferences

Create a PD portfolio (PDCE Procedures and Policy, 2012, p.5)

Additionally, besides the stated aims, the policy clearly indicates that the sessions will be from the three different sources below:

- 1 Within the ELC: Coaching, workshops, lesson observations, sharing good practice, ELC development events
- 2 Other ELC networks: Other speakers from ELCs in KSA, other trainers from ELCs in KSA,
- 3 External expertise; external trainers, courses, universities, training conferences (p.4).

However, the policy does not include a detailed plan of the steps or the efforts that have been made in order to achieve these aims. The CPD policy only lists the different planned activities for teachers' CPD. The planned CPD activities vary from training sessions and conferences to coaching and seminars.

### **Inadequate CPD Policy**

On the other hand, the CPD unit coordinator pointed out the ineffective CPD policy. She illustrated that the current CPD policy is too brief and is mainly about the aims of the CPD unit. Most importantly, she asserted that there is a mismatch between the policy and the practice which, in turn, underestimates the status of the current policy.

نعم، لدينا لائحة و سياسة للتطوير المهني المستمر ولكنها قصيرة جداً صفرة واحدة، و تتحدث بالعموم حول التطوير المهني و أهدافه... الخ، ولكنها (اللائحة) ليست مطابقة حفاظاً على معايير الجودة على الرغم من أننا قد أنشأنا حديثاً وحدة ضمان الجودة في العمادة. أصدقك القول لم نرِ منهم (وحدة الجودة) أي شيء يذكر لها احتياج وحدة للجودة تكون في مركز اللغة..... أيضاً هناك تعارض بين اللائحة و الممارسات الحالية و ذلك أن اللائحة تنص على الحضور الالزامي للدورات التدريبية و لكن أغلب المعلمات لا يحضرن لذلك اللائحة فقط موضوعة هناك

Yes we have CPD policy, but it is very brief one page, and it is too general mainly about the aims of the CPD unit i.e. to develop teachers ...etc. However, it is not really matched with quality assurance criteria though we have newly established quality assurance unit in DAS. Honestly speaking, we have not seen anything from them (quality unit) so we need quality unit here in the ELC. ..... Also there is a mismatch between policy and practice because the policy states that teachers should come to training sessions but most of them do not come so the policy is just out there

When asking the CPD unit coordinator about the role of the CPD unit based on the written aims, she pointed out that the policy is too brief and mainly about general objectives. She indicated that her limited role is just to make sure that there are some training sessions although they face challenges regarding finding time. The following excerpt illustrates the general nature of the CPD aims and the issue of time that faces the CPD coordinator.

اللائحة تشمل الأهداف العامة وهي وجيزة أساسا. غالباً ما يجب أن أقوم به كمنسقة التطوير المهني هو فقط للتأكد من أن لدينا بعض الدورات التدريبية خلال العام، وهذا هو ما أقوم به. ولكن لدينا مشكلة أنه على الرغم وجود منسقة لوحدة التطوير المهني إلا أنه لا يوجد لدينا الوقت لإقامة الدورات التدريبية من

The policy contains general objectives and basically they are too brief. Usually, what I have to do as a CPD coordinator is just to make sure that we have some training sessions during the year and this is what I am doing. However, we have a problem that though there is a CPD coordinator, we do not have time to run sessions.

Similarly, the ELC academic coordinator showed that the current CPD policy is not mandatory. She pointed out that teachers do not usually attend the training sessions. Most importantly, she stated that the policy is vague because of the weak attendance at the training sessions.

لا (اللائحة) ليست إلزامية، قبل ثلاث سنوات كانت هكذا حيث يتعين على المعلمات حضور 3-4 دورات في الفصل الدراسي. الآن الحضور نوعاً ما ليس إلزامياً بالنسبة للمعلمات لأن هذه اللائحة غامضة جداً لأنها بطريقة ما تتنص على وجوب الحضور ولكن عندما لا يحضر معظمهن (المعلمات) لا يحدث شيئاً

No it is not mandatory; three years ago it was like that where teachers should attend three to four sessions in a semester. Now it is not compulsory for them as the policy is very vague because somehow they say teachers should attend but when most of them did not attend nothing happened.

However, the following section illustrates that teachers' poor participation is because of their fully loaded schedules. They usually have many administrative tasks (invigilation) besides their teaching. The below section illustrates this more.

### 5.2.3 Issue of Time

#### Administrative Tasks (Invigilation Duties)

Although the participants indicated teachers' poor attendance at the training sessions, they could not deny the problem of time. They (administrators) showed that teachers have one free day during the week; however most of them have exam invigilation or meetings during this time. Accordingly, there is no assigned time for CPD sessions as the CPD coordinator claims. The CPD unit coordinator indicated:

لأن الثلاثاء هو يوم الفراغ الوحيد للجميع، ولكن معظم الوقت لدينا مراقبة امتحانات و اجتماعات دورية. لذلك لا يوجد لدينا وقت لعقد الدورات التدريبية و لم نستطع التخلص من هذه المشكلة و هي أنه لا يوجد وقت ثابت و مخصص لدورات التطوير المهني.

Though Tuesdays are the only free days for everyone (teachers), but most of the time we have exams invigilation and regular meetings. So, no time for CPD sessions and we cannot get out of this issue i.e. no fixed time assigned for CPD sessions.

### 5.2.4 Incentives and Prevailing Culture:

On the other hand, the ELC assistant coordinator showed that the lack of incentives leads to poor attendance by teachers. She illustrated that preparing for a workshop involves time and effort, which in turn necessitates incentives to encourage teachers to do so. Most importantly, she highlighted that the prevailing culture needs to be changed, where teachers should be more open to share their experiences and ideas with each other. She highlighted the need to change the mindset and the beliefs of teachers to encourage them to exchange their experiences and practices with each other.

من جانب المعلمات أعتقد أنها الثقافة السائدة التي يجب أن تتطور أي الرغبة والاستعداد لتقاسم وتبادل الخبرة والأفكار مع الآخرين و هذا الأمر غير ملموس في مركز اللغة. سبب آخر هو عدم وجود حواجز لعقد الدورة التدريبية. على الرغم من أن منسقة مركز اللغة تصدر شهادات حضور إلا أن المعلمات لا يهتمون بالشهادات الداخلية غير المختوقة من قبل وزارة التربية والتعليم. إلى جانب ذلك، إعداد الدورات التدريبية لا يخول المعلمات بالحصول على مكافأة مالية. أيضاً إعداد ورشة العمل يستغرق أسبو عين على الأقل و هي عملية تكلف الكثير من الوقت والجهد لأن المدربين (المعلمين) بحاجة إلى التفكير في عروضهم التقديمية ومواضيعهم المختارة في حين أن المعلمات مشغولات بأعباء التدريسية و المهام الإضافية

From the teachers' part I think it is the prevailing culture that has to be developed i.e. the willingness to share with others your ideas and expertise and that is not seen in the ELC. Another reason is because of the lack of incentives to run a training session. Though ELC coordinator issued certificate but teachers do not care about internal certificates that are not sealed by the ministry of education. Besides, though attending sessions teachers are not rewarded with a bonus. Also the workshop takes at least two weeks to organize so it is time and efforts consuming as trainers (teachers) need to think about their PPT slides and research about the chosen topics while they are busy with teaching loads and extra duties.

Similarly, the ELC academic coordinator raised issues about teachers' willingness to change. She explained the need to work as a team rather than making individual efforts to improve the uptake of ICT in language teaching. She highlighted the need for good administrative support in order to encourage teachers to utilize ICT as many teachers might hope without action. Thus, the high administration should work as an agent of change and as a driving force to promote ICT adoption. She illustrated this by saying:

It depends on teachers' experience, background, willing to change, their skills and so forth. I think it is better if it based on team efforts rather than letting this to teachers' own decisions because some of them might hope without action. Thus, the high admin should work as a driving force to enhance ICT uptake.

Likewise, the ELC assistant coordinator explained the need for top-down change to promote ICT integration in language teaching. She indicated that they should start with high level administration as they need to work on teachers' awareness and beliefs. She highlighted that due to institutional culture, she could not ask teachers to use ICT in their teaching. Thus, a top-down change that works on teachers' awareness and practice is needed. They (teachers) need to be fully convinced about the benefits of ICT in language teaching in order to utilize it in their teaching. The following excerpt illustrates this.

The high admin is the first thing; it has to start from them. I am skilled teacher and I have MA in instructional technology and I can train many teachers but I cannot go and tell them. Culturally speaking, it has to be top-down so things will change gradually. Students as well as teachers need a purpose and awareness to see how technology is beneficial to their teaching and learning.

### 5.2.5 Lack of ICT Policy in the ELC

Reviewing the documents in the ELC shows that there is no ICT policy at centre level. Although the ELC has been adopting ICT in language teaching since 2011, there is no written policy. The importance of an ICT policy, where the teaching staff usually see the objectives of ICT uptake and the steps taken to achieve these aims, is clearly indicated in the literature. All the administrators indicated the lack of ICT policy e.g. the ELC coordinator said that:

Unfortunately there is no written ICT policy at the ELC. what are we doing regarding technology utilization is based on institutional decisions

At the same instant, the ELC academic coordinator indicated the lack of an ICT policy by stating:

There is no written document for ICT integration as far as I know. This is my fifth year and I have not come across any kind of ICT policy

Supporting this, the CPD unit coordinator illustrated the lack of an ICT integration policy. She pointed out that there are some documents related to the ELC objectives and CPD unit aims but nothing about ICT integration. She said:

We do not have ICT related documents. We have some objectives about ELC and there are some objectives about CPD unit in the ELC

The lack of an ICT policy is interrelated to the different strategies of ICT integration at the ELC. Four years ago the ELC was adopting Jusur VLE in English language teaching. However, during the last two years they have switched to Englishtown (VLE designed by EF) and this is due to the change of administration. The following theme talks about Infrastructure and IT support at the ELC.

## 5.2.6 Issues of Infrastructure

Another theme that hinders the effective integration of ICT, is the inadequate infrastructure. Many administrators raised this issue as they talked about the lack of proper ICT resources and insufficient IT support. They indicated that although there are many ICT resources (smart-boards and VLE), teachers never use them. The lack of available training and the lack of IT support restrict the utilization of these ICT facilities. The ELC academic coordinator illustrated this by saying:

### 5.2.6.1 Lack of ICT Resources

All the classrooms have smart-boards and all the classrooms technically have internet access too, but there is a general problem of the internet access in the building. So supposedly we all had internet access outlets everywhere and in every classroom but on the ground it is not available. Now, as you can see we are using our own modems, thus there is a big difference between what is actually there on the ground for teachers to use and what the higher admin claims.

### 5.2.6.2 Inadequate IT Support

Likewise, the ELC coordinator explained the need for proper maintenance in order to have better utilization of ICT. She indicated that many times they faced many technical problems without finding support. Thus, she was unsure about the utilization of the ICT with the absence of an IT support team. She stated that:

One of the major obstacles is the proper maintenance and the upkeep of the equipment which is extremely essential for the use of technology. For example I am not sure when are we going to use smart-boards and how long we will have technical support because things do happen when you use technology and it needs to be sorted out immediately.

More specifically, the ELC assistant coordinator indicated her experience with IT support when she faced technical problems. She

stated that all they (the IT team) do is report the problem to their male counterparts. She asserted that immediate solutions to technical problems are needed in order to facilitate the utilization of ICT for teachers.

I have seen in some other universities where they have an IT helpdesk and if I call him/her the person will come in 10 minutes or so. Thus, as a teacher I need not to bother about technical issues. Here (at ELC) there is an IT helpdesk but we had the experience of emailing them, calling them however we did not get that much support and response. Mainly, their job is to report the problem to the male admin.

### 5.2.7 Institutional and Pedagogical Culture

#### 5.2.7.1 Lecture Based Teaching Strategy:

The ELC coordinator indicated the issues with the teaching based approach of the ELC. She highlighted the fact that four hours a day of language teaching was not as effective as had previously been thought. Additionally, she pointed out that most students have many other subjects in the preparation year. Thus, she suggested the reduction of four hours face-to-face teaching and the adoption of blended teaching instead. She asserted the ineffectiveness of adopting one strategy i.e. lecture based teaching, and illustrated the importance of varied approaches to language teaching. The following quote illustrates this:

I think it is better to switch to blended teaching and learning instead especially if we have internet access to students, computer labs besides the reduction of four hours of face to face teaching. By doing so, it might in one sense prepare them (students) for future life skills especially when students have other subjects to study. Therefore, it is very difficult to have four hours teaching daily so probably I think we need to vary the activities by adopting blended learning here in the ELC instead of merely focusing on teaching. However, we need to provide them (students) the proper ICT facilities first because some students do not have internet access at home.

Similarly, the academic coordinator stated that:

Here everything is structured and my role is monitoring the implementation of the ELC rules. We should follow the rules of the teaching loads and the marking scheme because this is our main focus. In addition, the use of ICT is an optional for students as far as I know. Also, teachers are not involved in VLE utilization. The VLE is for students as an extra supplementary tool.

### 5.2.7.2 Poor ICT integration Strategy

The ELC coordinator indicated that the high level administrators had failed to better integrate ICT. She asserted the need for good administrative support to pave the way for teachers to adopt ICT more effectively. She pointed out that providing ICT resources was not enough as they needed ongoing administrative support to make sure that the final beneficiaries (teachers and students) were using it effectively. Thus, technology needs a good strategy that is based on a sound pedagogy in order to result in effective implementation of ICT. She illustrated that:

The issue is we have to know that not by providing technology only; teachers are going to utilize it. Look at the smart-boards and e-journals as the university have extensive subscription to thousands of journals but most teachers are unaware of this. Thus, the university role is like a mediator between ICT and to the final users (teachers and students). The higher admin must pave the way to the final beneficiaries otherwise the technology sits there even if it has been provided officially

However, the ELC assistant coordinator stated that the integration of ICT must not be for formality but for actual teaching and learning

Students are very attached to their mobile devices so I do not see any problems of using technology here because people are somehow ready. However, we need two main things the infrastructure support. Also, ICT integration has to be part of the curriculum. More specifically, as an example we can do three or two hours of classroom based teaching and one or two hours of online learning. By doing so, we can teach the same syllabus but in a different way. Last semester I try to use oxford online platform where students can have online tests, discussion forum, and can upload speaking materials but students' engagement was very weak because it was an optional for them. In addition, it is very centralized here as we (teachers) could not allocate bonus marks to motivate them so it needs to be part of the curriculum i.e. mandated centrally

The above quotes show the difficulties that teachers have encountered while trying to adopt ICT themselves. Those willing teachers initiated the use of the online materials last year but students' engagement was very poor. The quote tells the reader that they had the same problem many years ago. Thus, the teachers explained that they are facing the same problem this year with the VLE. This year they (teachers) were not required to produce their own materials, as students should enrol themselves into the VLE. Thus, students should take the VLE lessons and join the discussion forum on an optional basis (for more information about the implemented ICT tool (VLE), see answer to research question number 5 in the discussion chapter).

Likewise, the ELC academic coordinator indicated the importance of the full integration of technology with the curriculum. She illustrated that students lack motivation because:

There is a need to having it (ICT) as a component of the overall program and then giving the necessary training so the teachers know how to fully incorporate technology into the lesson

The reviewed data shows that the Structured Learning Environment, which is exam-based with fixed textbooks, a fixed pacing schedule, fixed marking & a fixed assessment scheme, is hindering effective ICT adoption. Additionally, the participants raised the issue of the poor ICT implementation strategy. They illustrated that the optional basis strategy is not effective. More specifically, they indicated that ICT integration should be part of the official curriculum and the formal assessment as well. Without that, the integration of ICT will remain in name only.

### 5.3 Major Themes from Policy Makers

The themes mentioned by the policy makers are classified under four related categories (policy related issues, pedagogical and institutional culture, infrastructure, and administrative support). However, positively, most of them indicated that there are many ongoing projects to better the university performance in terms of ICT integration. The following is an outline of the main themes and subthemes presented by the policy makers. The below sections will present the themes in detail.

### 5.3.1 Policy related issues

#### 5.3.1.1 Inadequate ICT Policy

There is a kind of general objective of ICT integration with a mission and vision, however there is no detailed written policy for ICT integration in higher education. It is noteworthy to differentiate between distance education policy and ICT integration with campus-based education i.e. blended teaching as the Ministry recently issued a policy for distance education only. The findings show that there is no written policy for ICT integration, however there is a national trend to adopt ICT in higher education; the director of the NCeLD highlighted this by stating:

دعينا نكون دقيقين حول ما الذي نعنيه بالسياسة إلى حد ما لا يوجد لدينا سياسة مكتوبة. لدينا اتجاه لاستخدام تكنولوجيا المعلومات والاتصالات في التدريس بناء على العديد من الدراسات والبحوث التي قمنا بها. أيضاً، آفاق (الخطة الوطنية لتطوير التعليم العالي) دعت لتبني تكنولوجيا المعلومات والاتصالات في التعليم وتعزيز الانفصال من هذه البيانات لتعزيز التعليم الإلكتروني، والتعليم عن بعد والتعلم المستمر، يمكننا أن نقول أن لدينا نوع من صيغة من خطة آفاق ونحن لدينا دعم من الوزارة لتعزيز وتشجيع استخدام تكنولوجيا المعلومات والاتصالات في التعليم عموماً

Let us be precise about what do we mean by policy to some extent we do not have a written policy. We have a trend to use ICT in teaching based on many studies and research we have done. Also, AAFAQ (national plan) calls for adopting ICT in education and promote the utilizations of VLEs to enhance e-learning, distance education and lifelong learning. We can say we have a kind of a formula out of AAFAQ National Plan and we have a support from the ministry to promote and encourage the use of ICTs in education

The lack of an ICT integration policy was clearly indicated by many participants in this study. The policy has an important role to guide the implementation strategies within the specific aims. It redirects the stakeholders to envision the goals and presents guidelines on methods of ICT implementation. Without a policy, teachers and/or stakeholders might be unaware of the rationale behind ICT integration in education. The lack of ICT policy was clearly identified by policy makers along with poor implementation strategies that lead to ineffective ICT integration. Similarly, the Dean of e-learning illustrated the lack of ICT policy by stating:

أولاً نحن بحاجة إلى سياسة تطويرية قوية في مجال تكنولوجيا المعلومات والاتصالات على جميع المستويات، أي سياسة لتطوير وتحفيز أعضاء هيئة التدريس وسياسة للتشغيل والصيانة ، سياسة للبنية التحتية و ذلك لأن تبني التقنية في التعليم عبارة عن عملية مشتركة و مترابطة بين جميع هذه القطاعات

First we need a strong developmental ICT policy at all levels i.e. academic staff developmental policy, operating and maintenance policy, and infrastructure policy because ICT integration is a joint process of all these interrelated sectors.

In the same vein, reviewing the AAFAQ National Plan shows that there are some general statements regarding the adoption of ICT in teaching without giving detailed explanations i.e. how and why. The AAFAQ Plan states that for IT and Infrastructure we need the following:

1- توفير شبكة تعليمية فائقة السرعة

2- تطوير التعلم الإلكتروني و التعليم عن بعد

3- تطوير نظم المعلومات في التعليم الجامعي

4- توفير محتوى معرفي رسمي

5- إنشاء الجامعات الافتراضية

6- تطوير البنية التحتية

Provision of a high-speed educational network

Development of E-learning and distance education

Development of information systems in university education

Provision of knowledge-based digital content

Establishment of virtual universities

Development of infrastructure (AAFAQ Plan 2029, 2011, p.24)

Simultaneously, reviewing the Taibah University Strategic Plan 2020, shows that there is a trend to integrate ICT in teaching as well as to develop teaching skills, but there are no detailed procedures. For example, the University Plan states that they have many directions e.g. excellence in teaching and learning and under this direction there are many goals such as:

التجه الأول: التميز في التعليم و التعلم

الهدف 4- تعزيز قدرات أعضاء هيئة التدريس

4-1 توفير دورات تدريبية متقدمة في مهارات التدريس الجامعي

4-2 تمكين عضو هيئة التدريس من حضور المؤتمرات و الندوات و الحلقات العلمية داخلياً و خارجياً

4-3 توفير مجموعة من الحوافز الكافية لتشجيع أعضاء هيئة التدريس على الإنتاج و التميز و الإبداع في التدريس

الهدف 5- توفير بيئة تعليمية ذات جودة عالية

5-1 دعم أنشطة الإرشاد النفسي و التوجيه الاجتماعي و المهني للطلبة

5-2 تطوير مصادر التعلم و المعلومات

5-3 توفير قاعات دراسية ذكية مطورة

5-4 تفعيل الأنشطة الالكترونية

5-5 تأهيل المعامل و المختبرات للحصول على الأيزو

5-6 استخدام التقنية الحديثة و تفعيل التعلم الإلكتروني

First Direction: excellence in teaching and learning

(Goal 4) Strengthen Faculty Competency

4-1 Provide advanced training in teaching.

4-2 Enable and support faculty participation in conferences, seminars and workshops locally and internationally.

4-3 Encourage distinction and creativity in teaching through providing adequate incentives.

(Goal 5) Provide a High Quality Educational Environment

5-1 Support counselling and social guidance for students.

5-2 Develop learning and information resources.

5-3 Provide smart classrooms.

5-4 Enhance student participation in extracurricular activities.

5-5 Qualify laboratories for ISO certification.

5-6 Use of modern technology and introduce electronic learning (Taibah University 2020, 2011, p.10-11)

Thus, as it seems from the documents reviewed nationally and regionally, there are general statements or objectives to enhance teaching and learning and to integrate ICT in university education. However, these trends lack the rationale and plans for the stated aims, as they are general in nature. Consequently, most of the stakeholders (teachers, administrators and policy makers) are unaware of how ICT might enhance education i.e. rationale. This indicates the lack of administrative support that is needed to achieve the stated aims. The lack of administrative support is one of the major themes that causes ineffective ICT integration. Supporting this view, the deputy dean of e-learning pointed out the discrepancy between the policy (aims) and current practices. The deputy dean of e-learning indicated that:

أعتقد أن السياسة [الأهداف المكتوبة] الحالية هي مثالية جدا في الواقع و لم تتحقق جميع الأهداف الموضوعة ولكن من السابق لأوانه الحكم أو تقييم الجهود الحالية

I think the policy [written aims] is too ideal in practice as not all the objectives were achieved but it is too soon to judge or evaluate the current efforts

### 5.3.1.2 Inadequate CPD Policy

The lack of a proper CPD policy for the Saudi academic staff was highlighted by most of the policy makers. They stated that most of the academic staff members tended to focus on publishing and teaching rather than CPD. This is echoed by current official policy for the academic staff that merely focuses on publishing. Thus, the majority of the academic staff develop their research skills more than their teaching skills. The general director of NCeLDL illustrated this by stating:

سياسة أو لائحة أعضاء هيئة التدريس الحالية يجب أن يتم تغييرها و تطويرها لأنها تركز فقط على النشر العلمي وليس تطوير المهارات المهنية أو التدريسية. فاللائحة تجعل أعضاء هيئة التدريس ينصرفوا غالباً إلى النشر فقط دون اهتمام بتطوير المهارات المهنية

The current official policy of CPD for the academic staff should be change as it is merely about publishing and nothing about the development of the professional or teaching skills. As a result, policy redirects the academic staff to publishing and neglecting the professional teaching skills

At the same time, the dean of e-learning illustrated the need for strong administrative support to allow the effective uptake of ICT. He pointed out the need for incentives and administrative support by saying:

لكي تكون صادقين استخدام التقنية في التدريس هي عملية تستغرق الكثير من الوقت والجهد في بداية الأمر فقط. لأنه إذا بني الأستاذة أسلمة المادة و وضعها في البنك، و بنى المحتوى الإلكتروني سوف يوفر الكثير من الوقت والجهد في وقت لاحق. لذلك أعضاء هيئة التدريس بحاجة إلى حواجز لإدماج التقنية في تدريس المواد الدراسية. وعلاوة على ذلك، نحن بحاجة إلى الدعم الإداري القوي من الإداره العليا في الجامعة لأننا بحاجة إلى سياسة وأنظمة تشجع تبني استخدام التقنية

To be honest integrating ICT in teaching is time and effort consuming activity for instructors. But I think this is only at the beginning, because if he/she builds the online questions bank, e-contents it will be time and cost effective alternative later on. Therefore, academic staff members need incentives to incorporate ICT into course material. Moreover, we need a strong administrative support from university high admin as I think they need a policy and regulations that enhance ICT integration.

Significantly, reviewing the academic staff policy in Saudi Arabia shows the criteria of ranking in most if not all the Saudi universities. The policy was issued by the Ministry of Education and adopted by all Saudi universities as the rules and regulations for academic staff upgrading qualifications. Reviewing the policy (see Appendix I) shows that the criterion for upgrading is mainly academic publishing only. The policy places emphasis on the originality and rigorousness of the academic publishing. More specifically, reviewing the Articles of Rules and Regulations of the Saudi Academic Staff at Taibah University (2013) shows detailed criteria about publishing and nothing about CPD for the Saudi academic staff (see Appendix I).

### 5.3.1.3 Ineffective ICT Integration Policy

The integration of ICT is an optional choice for faculty members. Thus, as highlighted by many participants, the optional strategy demotivates academic staff to use ICT. Besides the lack of time, many policy makers pointed out that the optional strategy is not effective to motivate faculty members to utilize ICT. Despite the many training sessions and incentives, current use is below the optimum level. This highlights the insufficient administrative support to encourage teaching members to utilize ICT. The deputy dean of e-learning indicated:

استخدام نظام إدارة التعلم في التدريس ليس إلزامياً ولذلك لا يستخدمه أغلب أعضاء هيئة التدريس، ولتشجيع استخدامه أعلنت عمادة التعليم عن بعد والتعليم الإلكتروني أن بدل الحاسب الآلي 25% سوف تعطى فقط لأولئك الذين يستخدمون نظام إدارة التعلم

The use of VLE in teaching is not compulsory and thus not all the staff is using it, to encourage staff utilization of VLE, we (deanship of e-learning) announced that 25% Computer allowance or incentive will go to only those who are using VLE

However, reviewing the deanship of academic development objectives shows ongoing change to develop academic performance. The deanship has many objectives that aim to enhance the quality of academic staff performance. The deanship indicates that one of the objectives is to promote the uptake of ICT in teaching. These objectives are:

## رؤية عمادة التطوير الجامعي

ريادة في التطوير الجامعي المستمر من أجل التميز

رسالة عمادة التطوير الجامعي

تعزيز منظومة التطوير الأكاديمي والإداري في جميع المجالات والإرتقاء بها إلى أعلى المستويات من خلال توفير بيئة العمل الجاذبة والمحفزة للأداء الأفضل

أهداف عمادة التطوير الجامعي

- 1- نشر ثقافة التطوير والتدريب بالجامعة ، والعمل على جعلها جزءاً أصيلاً من ثقافة المؤسسة
- 2- وضع المعايير والنماذج المختلفة التي تستخدم لتقدير جودة الأداء التدريسي والإداري
- 3- تقويم وتطوير الأداء التدريسي لعضو هيئة التدريس ، ومساعدته على تحقيق أقصى درجات النمو المهني
- 4- نشر استخدام التقنية الحديثة في التعليم ، وإيجاد بيئة تعليمية الكترونية في الجامعة
- 5- المساهمة في عقد الندوات والمؤتمرات العلمية بالمشاركة مع الكليات والأقسام العلمية
- 6- تقويم وتطوير الأداء الإداري للموظفين والقياديين الأكاديميين والإداريين
- 7- قياس وتحليل مؤشرات الكفاية الداخلية والخارجية للعملية التعليمية بالجامعة ، والعمل على النهوض به

### **Vision of Deanship of Academic Development**

Entrepreneurship in the continuous development of excellence

### **Mission of Deanship of Academic Development**

Promote development of the academic and administrative systems in all areas through the provision of an attractive and stimulating work environment to create better performance

### **Objectives of Deanship of Academic Development**

- 1 Dissemination of the culture of development and training and making development an integral part of the enterprise culture
- 2 Setting standards and different criteria that are used to enhance quality of teaching and administrative performance
- 3 Evaluation and development of teaching performance of faculty members, and help for them achieve the utmost professional growth
- 4 Spread the utilization of ICT in education by providing an electronic learning environment at the university
- 5 Contributing to holding seminars and scientific conferences in partnership with colleges and academic departments
- 6 Evaluation and development of administrative performance of staff and academic leaders and administrators
- 7 Measurement and analysis of internal and external efficiency indicators of the educational process at the university and enhancing them (Taibah University, Deanship of Academic Development, 2013)

The above objectives indicate the current trend to develop academic staff and the uptake of ICT in teaching. These aims are coupled with many training sessions that are organized by the deanship of academic development. The sessions have covered various topics so far, e.g. using Google apps in education, the adoption of a student-centred approach etc. The deputy dean of academic development stated that:

عقدنا العديد من الدورات التدريبية مثل استخدام تطبيقات جوجل في التعليم، و استخدام نظام إدارة التعلم في تدريس العلوم. لقد تم الإعلان عن هذه الدورات في موقعنا على الانترنت وأرسلنا العديد من الإعلانات إلى أعضاء هيئة التدريس عبر الرسائل القصيرة ورسائل البريد الإلكتروني

We have run many training sessions like using Google apps in education, using VLE in science teaching. We have advertised these sessions in our website and sent many announcements to the academic staff via SMS and emails

However, the deputy dean of e-learning indicated the lack of motivation to attend training sessions by most of the teaching staff. She indicated that despite current efforts to develop academic staff, attendance at training is not compulsory. More importantly, the lack of motivation is reinforced by the current strategy that states that ICT uptake is optional. She stated that:

ولاً حضور الدورات التدريبية ليس إلزامي وحضور التدريب ليس مدرج في استماراة التقييم السنوي إذا كان هناك تقييم سنوي حقيقي. و علاوة على ما سبق أن تطبيق التقنية في التدريس ليس إلزامياً و يعتمد فقط على المبادرات الشخصية لأعضاء هيئة التدريس

Attending training sessions are not compulsory and are not included in the annual evaluation form if there is such a thing. Besides that, the application of ICTs in teaching is not compulsory and merely depends on personal initiatives of the academic staff members

Correspondingly, the director of the NCeLDL clarified some sociocultural beliefs in the Saudi context. He explained the lack of motivation amongst Saudi academic staff to attend CPD sessions. The demotivation is reinforced by the current policy which is mainly about publishing. He pointed out that:

هناك أمور تقافية مجتمعية وهي أن معظم أعضاء هيئة التدريس وخصوصاً حملة الدكتوراه منهم يعتقدون أنهم لا يحتاجون إلى أي تطوير مهني. و علاوة على ذلك، السياسة واللائحة الحالية هي حول النشر فقط وبالتالي فإنهم (أعضاء هيئة التدريس) ينصرفون إلى النشر. لذلك علينا أن نعمل على جانبين وهم تغيير معتقداتهم و تغيير السياسة الحالية وهذا هو الجزء الأصعب من عملنا

Socioculturally speaking, most of the academic staff and especially PhD holders believe that they do not need CPD anymore. Furthermore, the current policy is merely about publishing and thus they are focusing on publishing only. Thus, we need to work on changing two things; their beliefs as well as the current policy and this is the most difficult part of our job.

Similarly, the deputy dean of academic development critically evaluated the current training sessions. She highlighted the need to focus on the quality of the training sessions and the surrounding culture. She illustrated that:

نحتاج إلى الثقافة التعاونية والتشاركية مما يعني أن أولئك الذين حصلوا على تدريب يذهبون ويدربون زملائهم وهكذا دواليك. أيضا، التعاون المتبادل بين الجامعات السعودية أمر مهم جدا لأن تطوير موظفي الجامعة هو مهمة صعبة. علاوة على ذلك، إن تغيير ممارسات ومعتقدات وسلوكيات الأشخاص ليست مهمة سهلة أيضا. يجب أن يكون لديهم (أعضاء هيئة التدريس) افتتاح ومرونة لتبادل الأفكار والممارسات بين بعضها البعض. نحن بحاجة إلى تعزيز ثقافة العمل الجماعي على سبيل المثال جميع الفنانين يلتقاو ويتناشوا، وأيضا جميع معلمي اللغة يجتمعوا ويتبادلوا الخبرات والممارسات وجهات النظر. نستطيع أن نحقق الأشياء المذكورة أعلاه إذا كان لدينا ثقافة العمل الجماعي وهذا ما يجب أن تعززه القيادات التربوية. الدورات التدريبية فقط لن تطور بشكل جيد إذا كل عضواً في السلك الأكاديمي يعمل بمفرده.

We need a collaborative cooperative culture which means that those who got the training need to train their colleagues and so forth. Also, mutual cooperation between Saudi universities is very important because to develop the university staff is a hard job. Furthermore, to change people practice, beliefs and behaviours is not an easy task either. They (academic staff) need to be open and flexible to exchange ideas and practices from each other. We need to promote team-work culture for example all technicians meet and discuss, also all language teachers meet and review each other practice, and viewpoints. We can achieve the aforementioned things if we have a team-work culture and this is what educational leaders should enhance. Training sessions only will not develop well if each academic member is working alone.

Thus, the above quotes reflect the current situation regarding academic staff development and ICT utilization. The data shows that the deanship of academic development is putting significant effort into promoting ICT integration and developing academic staff. However, the data shows that the uptake of ICT is not compulsory which leads to the demotivation of academic staff. This is coupled with the fact that the use of the VLE is on an optional basis. The interviews and the documents also show the lack of CPD policy as the current Saudi academic ranking policy is merely about publishing. Moreover, the utilization of ICT is optional for students as well. Most of the modules are exam-based so

using ICT is not part of the official assessment. This leads to the next theme, which is quality of training.

### 5.3.2 Quality of Training

The quality of ICT training for academic staff is not sufficient. Many policy makers have indicated the need for a qualified trainer in most of the faculties. They highlighted the need for better training, as most of the current training is too general. The shortage of qualified experts to provide ICT training negatively affects the quality of training. The general director of the NCeLDL highlighted this by stating:

معظم التدريب يتميز بالعمومية مثل ذلك الف باء السبورة التفاعلية بدون التركيز على المواد العلمية المختلفة مثل التقنية و تدريس اللغة الانجليزية أو التقنية و تدريس الكيمياء. ذلك له بالغ الاثر على جودة التدريب من اغلب المدربين لأن الدورات عمومية و ليس تخصصية تركز على المادة العلمية و التقنية

Most of the training is general in nature i.e. the ABC of the interactive whiteboard or smart-board without focusing on different subjects knowledge e.g. ICTs and EFL or ICTs and chemistry. So this has a negative impact on the quality of the training as most of the trainers present general training without focusing on ICT and pedagogical content knowledge

Likewise the dean of e-learning stated the need for qualified trainers. He indicated that most of the training sessions were introductory sessions. Also, there is a shortage of ICT expert trainers, not only in Taibah University but in most of the Saudi universities. He stated that:

هناك حاجة ملحة لمدرب التقنية المؤهل ليس فقط في جامعة طيبة وإنما في اغلب الجامعات السعودية. وبالتالي فإن معظم الدورات التدريبية هي تقنية و تتميز بالعمومية

There is a significant need for the qualified ICT trainer not only in Taibah University but in many Saudi universities. As a result, most of the training sessions were introductory and generally in nature.

## Lack of ICT Competence

Many participants indicated the poor ICT skills of the academic staff and stressed the need for proper training. The participants stated that many academic staff were not aware of how to adopt technology and make use of it to overcome classroom challenges. The need for training in

ICT integration in teaching is essential to enhance the uptake of ICT.

The deputy dean of e-learning indicated:

أيضاً، لدينا تحديات بسبب نقص المهارات التقنية لدى معظم أعضاء هيئة التدريس ويمكنني معرفة ذلك من خلال نوعية الأسئلة التي تلقيتها خلال الدورات التدريبية. وبالتالي قمنا بتنظيم دورات عن أساسيات برامج مايكروسوفت أوفيس

Also, we have issues of the lack of the soft skills of most of the staff and you can tell by the type of the questions I have received during my training sessions. And thus we have organized some sessions about the ABC of the MS office

### 5.3.3 Issues of Time

Most of the participants in the research noted that there was a lack of time to attend training sessions. The participants indicated that faculty members were overloaded with teaching duties. Even though many training sessions were organized face-to-face and online, the attendance was still poor. The deputy dean of e-learning stated:

كما قمنا بتنظيم العديد من الدورات التدريبية لأعضاء هيئة التدريس والدورات الالكترونية للأعضاء في فروع الجامعة الأخرى، ولكن وجدنا أنه نظراً إلى الأعباء التدريسية لبعض أعضاء هيئة التدريس فإن الكثير منهم ليس قادراً على حضور تلك الدورات. لذلك قررنا أن نعقد معظم الدورات مرة أخرى لزيادة فرصة الحضور، ولكن لم يحضر الكثير منهم بسبب الأعباء التدريسية. بعد ذلك عقدنا بعض الدورات في وقت متأخر بعد الظهر ودورات أخرى الكترونية على الرغم من أن الحضور كان ولا يزال ضعيفاً

Also we have organized many training sessions for the academic staff and online sessions for staff in other campuses, but we have found that due to the teaching loads of the staff not so many of them are able to attend. So we decided to rerun most of the sessions to increase staff members' chance of attending, but again not so many of them can attend because of their teaching loads. As a result, we organized late afternoon online sessions though we still have the poor attendance

However, besides the lack of time, some policy makers noted the ineffective ICT integration strategy that has led to poor attendance at training sessions.

The deputy dean of academic development stated that:

أغلب أعضاء هيئة التدريس بالفعل منصرفون و منشغلين بالتدريس و الأعباء الإدارية. و لكن اعتقد ان سياسة الاستخدام اختياري للتقنية لا تشجع أغلبهم لحضور الدورات التدريبية. أضاف إلى ذلك ان حضور الدورات التدريبية ليس مطلباً رسمياً من الادارة العليا بالجامعة على الرغم من حثهم على الحضور

Most of the academic staff are really busy with teaching and administrative duties. However, I think the optional ICT integration strategy demotivate most of them. Also, attending training sessions is not officially required by the high admin even though prompted.

Thus the above mentioned issues (training, administrative support, lack of ICT policy, time constraints) are very much interrelated. These issues work in a dynamic process e.g. training is affected by CPD policy and CPD policy is related to administrative support. In addition, time is related to training and training is affected by ICT integration strategy.

### 5.3.4 Pedagogical and Institutional Culture

#### **Traditional Pedagogical Culture:**

Another factor that leads to ineffective ICT integration in teaching generally and language teaching specifically, is inadequate pedagogical approaches in most of the educational institutions. Most of the policy makers, if not all, highlighted the need to address the pedagogical issues before technology. This brings to light the cultural issues that exist in most of the educational institutions where there is a dominant reliance on lecturing, exam-oriented teaching, single-textbook adoption and a teacher-centred approach. The director of the NCeLDL pointed this out by stating:

لأسف معظم صانعي السياسات في الجامعات السعودية يفكرون في الجانب التقني فقط عند تبني التقنية أي التركيز على الحصول على وسائل و أدوات تقنية المعلومات والاتصالات. أنهم لا يدركون أن المشكلة الحقيقة في تبني التعليم الإلكتروني هو التغيير في الثقافة قبل تقديم تقنية المعلومات والاتصالات لأن التقنية وحدها لن تطور التعليم والتعلم، لذلك لمن بحاجة إلى تغيير و تطوير استراتيجيات التعلم والتعليم في ثقافة المؤسسات التعليمية على سبيل المثال تبني التعلم القائم على حل المشاكل ، والتعلم القائم على المشاريع ، وتغيير الاعتماد المطلق على إلقاء المحاضرات فقط لاعتماد استراتيجيات مختلفة و متنوعة من التعليم، و استراتيجيات متنوعة للتقييم، بالختصر تحتاج إلى تدريب أعضاء هيئة التدريس على تغيير كل هذه الأمور قبل تبني التقنية في التدريس

Unfortunately most of the policy makers in the Saudi universities think of the technical side only of technology integration i.e. focusing on obtaining the ICTs facilities. They are unaware that the real problem is that e-learning is a change in culture prior to providing ICTs. Technology alone will not better teaching and learning, so we need to change and enhance the strategies of learning and teaching in the culture of the educational institutions for example adopting problem-based learning, project-based learning. Also, changing from over-reliant on lecturing to adopt various strategies of teaching and various strategies of assessment as well. In short, they need to train the staff to change all these issues before adopting ICTs in teaching.

Similarly, the deputy dean of e-learning illustrated that:

أيضاً العديد من الجامعات السعودية الآن قامت بتبديل نظم إدارة التعلم المستخدمة و تحولوا إلى البلاك بورد و لكن المشكلة الحقيقة لا تكمن في هذه النظم ( جصور و بلاك بورد) لأنها (هذه النظم) تتشابه كثيراً فيما بينها حيث أنَّ أغلب هذه النظم تتبع معايير سكورم. لذا يجب علينا تغيير و تطوير ممارساتنا التعليمية و طرق التدريس أولاً. و بالتالي إذا تمسكنا بالمارسات التعليمية الحالية و تحولنا إلى أفضل نظام في السوق سوف ينتهي بنا الحال إلى نفس النتائج أي استخدام ضعيف للتكنولوجيا.

Also many Saudi universities now have changed their VLE as they switched to Blackboard™ but the real problem is not the VLEs because they (VLEs Jusur or Blackboard™) are very much similar to each other i.e. in functions most of them met SCORM criteria. Therefore, we should change our educational practices, our strategies and approaches first. Thus, if we adhere to our current pedagogical practices of utilizing ICTs and switch to the best VLE in the market, I assure you we will end up with the same results (poor utilization of ICT).

By adopting pedagogy-led technology, the utilization of ICT will be fruitful and effective. Additionally, the real factors that play a role in education are the pedagogical approaches and practices. ICT is only a tool, however it has potential benefits if the integration is based on sound pedagogy. Thus, the director of the NCeLDL pointed out the importance of adopting pedagogy-led technology, not vice versa. There is not necessarily a correlation between ICT implementation and pedagogical enhancement. However, ICT is a supportive enhancing tool where there are good pedagogical strategies e.g. a student-centred approach and collaborative learning etc. He stated that:

ينبغي أن نركز على تناول و تغيير العوائق و التحديات التعليمية التربوية و لا نبالغ في الاعتماد على أدوات التقنية و حدها. فالمناهج و الطرق التعليمية هي الاهم و ليس التقنية أي يجب علينا تبني التقنية لخدمة التعليم و ليس العكس فالتربيه و التعليم غالباً تأتي أولاً

The pedagogy issues should be addressed and changed because we should not overestimate ICTs tools. Pedagogy is such an important issues not the technology and we should have Pedagogy-led technology rather than technology-led pedagogy as pedagogy comes first.

More specifically, the director of the NCeLDL brought to light some pedagogical practices in Saudi universities that restrict the uptake of ICT in teaching. Issue like text-book adoption might lead the students to

become over reliant on one source of information and ignore the huge variety of e-resources.

الأمر الآخر هو النهج و الطرق التربوية في أغلب المؤسسات التعليمية لأنها (تبني التقنية) قائمة على المنهج التربوي و ليس التقنية وحدها. بعض من أعضاء هيئة التدريس لا زال يعتمد على الكتاب التقليدي

Another thing is issues of pedagogy in most of the institutions, it is not technology alone, it is pedagogy before technology. Some of the academic staff is still text-book oriented.

In detail, the head of the Excellence Centre of Teaching and Learning pointed out the over-reliance on lecture-based teaching. He illustrated that lecturing tends to be an integral part of educational cultures in Saudi Arabia generally and Taibah university specifically. Thus, the centre for excellence in teaching and learning is working as a change agent to reduce the dominance of the lecture method. He pointed out that they have a devoted unit for teaching to help academic staff develop their teaching. However, he highlighted the difficulty of changing people's beliefs by saying:

أعتقد أننا يجب أن نبدأ من المعتقدات و علينا أن نعمل على تغيير الثقافة المحيطة. رغبة في أن تكون صادقين أسهل وأكثر الطرق شيوعاً للتدريس هي إلقاء المحاضرات حتى لو أستخدمت عروض البوربوينت أو أي وسيلة تقنية. و مع الوقت أصبحت هذه الطريقة (اللقاء المحاضرات) جزءاً من ثقافة التعليم لدينا. و إلى حد ما هي أسهل طريقة للطلاب، لأنها تتطلب فقط الجلوس و كتابة بعض الملاحظات. هذه الطريقة ليست عديمة الفائدة تماماً ولكن الإعتماد الكلي على هذه الطريقة هو المشكلة الحقيقة.

I think we should start from beliefs and we should work on changing the surrounding culture. To be honest the easiest and the most accessible method of teaching is lecturing even if we are using PPT slides or any ICT tool. By time it (lecturing method) becomes an integral part of the teaching culture and somehow it is the easiest method to students too, as they just sit and take some notes. This approach is not totally unuseful but the over relying on this approach is the real problem.

Another factor that might lead to ineffective ICT integration is the current traditional pedagogical practices in most of the educational institutions in Saudi Arabia. The director of the NCeLDL brought to light

issues like textbook-based, exam-oriented teaching, and a teacher-dependent approach. He indicated that some educational practices impede effective ICT integration by stating:

تحدي آخر هو التدريس بطريقة المحاضرات أي اعتمادها كطريقة وحيدة للتدريس، والتدريس وفقاً للمحتوى، والتدريس من خلال الكتب المقررة والتعليم القائم على الاختبارات وبالتالي إذا كانا نأخذ في الاعتبار كل هذه التحديات والصعوبات لذا عملية تبني التقنية لن تقدم حلولاً سحرية لهذه الصعوبات الناشئة عن السياق البيئي. لذلك كل واحد من التحديات المذكورة أعلاه تحتاج إلى الكثير من الوقت والجهد للتغلب إذا كان في جامعة واحدة فقط ناهيك عن 28 جامعة أخرى في المملكة

Other challenges are teaching by lecturing i.e. mono teaching method, teaching by content, teaching by textbooks, teaching or learning for assessment or exam-oriented learning. Thus, having all these challenges along with adopting technology only will not provide magic solutions to these issues arising from the culture of the context. Therefore each one of the above mentioned challenges need a lot of time and efforts to overcome if it is in one single university let alone the other 28 universities in the kingdom.

On the other hand, the dean of e-learning illustrated the need for administrative support because of the difficulty of changing academic staff beliefs and practices. He asserted the importance of belief in the benefits of ICT in education to uptake ICT effectively. Without strong support and belief from high-level administration, the utilization of ICT will remain satisfactory. He stated that:

بصراحة يجب أن تفتتح الإدارة العليا وأعضاء هيئة التدريس بأهمية استخدام التقنية في التعليم. إذا كانوا يؤمنون في فوائد استخدام التقنية سوف يدعمون تبني التقنية في المؤسسات التعليمية. أسوأ من ذلك هو عندما تحاول الجامعة مواكبة الركب مع الآخرين كي لا تقع في الخلف وبالتالي لا يوجد تبني حقيقي مشترك للتقنية. وهذا، بالنسبة لي فإن الجانب الأكثر صعوبة هو تغيير المعتقدات والإتجاهات.

Frankly speaking the high admin and the academic staff need to be convinced of the importance of ICT integration. If they believe in the benefits of ICT adoption they will enhance and support ICT integration. Worse than this is when the university is trying to keep pace with others in order not to fall behind which means there is no real joint integration of ICT. Thus, to me the most difficult aspect is changing beliefs and attitudes.

### 5.3.5 Issues of Infrastructure and IT Support

While trying to integrate ICT (VLE) at Taibah University, the deputy dean of e-learning has encountered many problems, such as lack of IT support on the female campus. She stated that some effort had been made to promote the utilization of ICT in teaching. The dean of e-learning had assigned an e-learning coordinator to each school in the university. However, they have encountered many issues like the lack of qualified experts in educational technologies. She illustrated this by saying:

فيما يتعلّق بنظام إدارة التعليم لا يوجد لدينا دعم فني في مبني الطالبات أسوة بالدعم الفني في قسم الطلاب. لذلك علينا أن نتواصل معهم هاتفياً أو نرسل لهم رسائل بريد إلكتروني ووجدت ذلك غير عملي بتاتاً. بالإضافة إلى ذلك، أنشأنا وحدة التعليم الإلكتروني في كل كلية في الجامعة وقمنا بتعيين منسقات للتعليم الإلكتروني لكن ليس جميعهم لديهم شهادة في التقنيات التعليمية أو تكنولوجيا المعلومات والاتصالات أو التعليم الإلكتروني وهذا يشكل تحدياً كبيراً لنا

For the VLE we do not have onsite IT support as the IT team is in male- campus. So we have to call them or send them emails and I found it too impractical. Additionally, we have established e-learning units in each college in the university and assigned e-learning coordinator however not all of them have a degree in educational technologies or ICT related major and it is a big challenge to us

Similarly, the deputy dean of quality asserted the need for ongoing technical support to encourage academic staff to utilize ICT. She stated that:

واحدة من المشاكل التي لدينا هنا هي البنية التحتية والدعم الفني كما تعلمين لدينا سبورات ذكية، ولكن أعضاء هيئة التدريس لا يستخدمونها. وأعتقد أن السبب هو أنهم بحاجة إلى مزيداً من الوقت للتأقلم و التعود على الأدوات التقنية و بحاجة إلى الدعم الفني المتواصل

One of the problems that we have encountered is the infrastructure and technical support. As you know we have installed the smart-boards, but faculty members do not use them. I think the reason is that they need more time to familiarize themselves with the ICT tools besides they need an ongoing technical support.

Supporting her viewpoints, the dean of e-learning illustrated the same problem. The lack of the qualified experts to deal with technical problems is a common major issue. He indicated that:

نحن لازلنا نفتقر إلى الموظفين المؤهلين تأهيلًا عالياً في التشغيل والصيانة، وهذه مشكلة شائعة في العديد من الجامعات السعودية

We do lack the highly qualified staff in operating and maintenance and this is a common problem in many Saudi universities

In a similar vein, the deputy dean of academic development highlighted the shortage of qualified trainers and the insufficient number of computer labs. She stated:

لقد أقمنا العديد من الدورات التدريبية مثل استخدام تطبيقات جوجل في التعليم و استخدام نظام إدارة التعليم في تدريس العلوم. ولكن نفتقر إلى وجود المدرب المؤهل وكذلك نقص معامل الحاسوب في أغلب المباني

We have run many training sessions like using Google apps in education and using VLE in science teaching. Yet, the qualified trainer is not always there and we lack computer labs in many buildings as well.

Additionally, issues relating to the quality of the infrastructure have been brought to the light by most of the policy makers. Specifically, the deputy dean of e-learning indicated the interdependence of issues of infrastructure between the deanship of IT and deanship of e-learning.

She stated:

البنية التحتية ضعيفة جداً وهذا يخلق ضغوطاً وتحديات كبيرة و التي يجب حلها على وجه السرعة. إذا نظرنا إلى الوضع عن كثب، فاننا نشجع تبني التقنية في التدريس في حين لازالت البنية التحتية و معظم الأمور التقنية كالاتصال بشبكة الانترنت، والادوات التقنية في الفصول الدراسية، والدعم الفني تخضع لعمادة تقنية المعلومات. المشكلة الكبرى هي أنه حتى الان لا يوجد لدينا (عمادة التعليم الإلكتروني) معامل الحاسوب الخاصة بنا، وكذلك صيانة و تشغيل الاتصال بالإنترنت. وبالتالي، إذا كان لدينا دورة تدريبية علينا أن تحجز مسبقاً لأن معامل الحاسوب دائمًا مشغولة بشكل كامل وهذا يحد من مهمتنا

The infrastructure is too weak and this creates big pressures and issues that should be solved urgently. If we examine the situation closely, we are encouraging the uptake ICT teaching while infrastructure and technical issues like internet access, ICT facilities in classrooms and IT support are under the deanship of IT. The big problem is that till now we (deanship of e-learning) do not have our own computer labs or internet access. Thus, if we have a training session we should book in advance as most of the computer labs are usually fully booked and this limits our job.

In a similar vein, the dean of e-learning illustrated the inadequate infrastructures by saying:

نعم الطلاب وطالبات وكذلك أعضاء هيئة التدريس بالتأكيد بحاجة إلى معلم الحاسوب العامة وشبكة الإنترنت. وأعتقد أن هذه المسائل بعينها ينبغي تدارسها وحلها من قبل الموظفين المسؤولين في عمادة تقنية المعلومات

Yes students as well as academic staff members definitely need public workstations and internet access. And I think these particular issues should be handled by the responsible staff in the deanship of IT

Supporting this view, the head of the Excellence Centre for Teaching and Learning demonstrated the inadequate facilities in some of the classrooms. However, he noted that some classrooms in certain buildings have newly installed smart-boards.

أعضاء هيئة التدريس بحاجة إلى التسهيلات التقنية في الفصول الدراسية، وغالبيتهم يستخدمون الداتاشو لعرض المادة العلمية على الرغم من عدم توفر الإنترنت. أغلب الفصول الدراسية لا يوجد لديها طاولات مستديرة ونحن نعمل على تجهيز الفصول الدراسية مع إصال خدمة الواي-فاي. كل ذلك أدى إلى تبني سطحي للتقنية و التطوير قد يستغرق وقتا طويلا وذلك للأسباب المذكورة أعلاه

The academic staffs need ICT facilities in classrooms, and most of them are using data-show projectors though internet access is not available. Most of the classrooms have no round tables so we are working to equip classrooms with Wi-Fi access and proper facilities. Thus, the current utilization of ICT is superficial and it takes time to be developed due to the above mentioned reasons

The classroom observation data show the availability of newly installed smart-boards, but the data also show that they are underused. Most of the classrooms in the ELC building are equipped with smart-boards but have no Internet access. There are no e-podiums and teachers have to bring their own laptops. Also there were no data shows during the observations and only one teacher managed to use a portable projector in her lesson. Additionally, there was no use of the smart-boards in classrooms. Most teachers were able to use smart-board speakers only during listening classes. On the other hand, the dean of e-learning pointed out the interdependence of tasks between the deanship of e-learning and the deanship of IT. This interdependence of task leads to inadequate infrastructures. He stated that:

استخدام التقنية في جامعة طيبة يندرج تحت عمادتين عمادة تقنية المعلومات و عمادة التعلم الإلكتروني و عادة ما تكون عمادة تقنية المعلومات هي المسؤولة عن الاتصال بشبكة الإنترن特 ، والبنية التحتية، نظام إدارة التعلم والصيانة و التشغيل. وذلك كما ترون في العديد من الجامعات منها جامعة طيبة يستند عملنا على عمل عمادة تقنية المعلومات. وعلاوة على ذلك، استنادا إلى تجربتي بعد التحدي الأكبر هو البنية التحتية، واجهتنا مشكلة تباطؤ الإنترن特، الاتصال البطيء و قلة المعامل.

ICT integration in Taibah University is under two deanships; IT deanship and e-learning deanship and usually the deanship of IT is responsible for internet access, LMS, infrastructure, maintenance. So as you see in many universities including Taibah University, our work is based on deanship of IT work. Moreover, according to my experience, the biggest challenge is the infrastructure. We have encountered problem of internet slowdown, slow connectivity and shortage of computer labs.

On the other hand, interviewing the deputy dean of IT revealed that there was a shortage of IT support staff. In addition, she gave the researcher a copy of the report that she sent to her male counterpart in the IT deanship. In the report, she mentions the shortage of IT staff and IT resources. She pointed out this problem in the interview as well by saying:

أعضاء هيئة التدريس بحاجة إلى الدعم الفني المستمر بكفاءة حتى نتمكن من تشجيعهم وأصدقك القول لا يوجد لدينا سوى اثنين من الموظفات في قسم الدعم الفني. وأرسلنا العديد من التقارير إلى القسم الرجالـي نؤكد لهم الحاجة إلى توظيف المزيد من التقنيات في الأقسام النسائية

Academic staffs need an efficient IT support so we can encourage them to uptake ICT. And to be honest with you we have only two people working in the IT office and we have sent many reports to the male-campus telling them the need to hire more technicians in female campus.

She highlighted the lack of response (of technical problems) until the time of data collection and pointed out that even the male campus had a shortage of qualified IT technicians. Supporting this view, while reviewing the Taibah University 2020 (2011) strategic plans, it was noted that the plan stated some challenges that needed to be resolved such as developing the IT sector and integrating ICT at all levels. The plan states its 17<sup>th</sup> goal as:

- 17-1 تطوير البنية التحتية لتقنية المعلومات و الاتصالات
- 17-2 التحول المتكامل للعاملات الإلكترونية على جميع المستويات
- 17-3 نشر الثقافة المعلوماتية و التوعية التقنية
- 17-4 تطبيق معايير الجودة العالمية في مجالات تقنية المعلومات و الاتصالات

(Goal 17) Develop Information Technology & Communication (ITC)

- 17-1 Improve ICT infrastructure.
- 17-2 Apply an e-governance system at all levels.
- 17-3 Disseminate IT culture.
- 17-4 Employ international IT quality standards ( Taibah University 2020, 2011, p.29)

Likewise, an ICT lecturer and trainer pointed out the early stages of ICT integration due to the insufficient infrastructure. She mentioned that smart-boards were only installed a few months ago. Also, she highlighted that there were issues with the infrastructure that needed to be addressed. She asserted that Taibah University is an emergent institution by saying:

علينا أن نضع في اعتبارنا أن جامعة طيبة هي جامعة ناشئة وحاليا كل شيء تحت تغير مستمر. مثل ذلك على الرغم من أنه تم تركيب السبورات الذكية، ليس لدينا دعم فني أو اتصال بالإنترنت. وبالتالي، فإن الأمور تستغرق وقتا طويلا حتى نصل إلى التبني الفعال لتقنية المعلومات والاتصالات

We should keep in mind that Taibah University is an emergent university and currently everything is under constant change. For example, though there are newly installed smart-boards, we have no IT support and no internet access. Thus, things take time to have an effective ICT implementation

### 5.3.6 Positive Developments

The director of the NCeLDL pointed out that the integration of ICT is in its early stages and that there would be gradual changes over time. He brought to light that steady but slow progress is highly related to the relatively short-lived universities. He stated that:

يجب التفكير في مسألة الوقت فعمر أقدم جامعة في المملكة العربية السعودية (جامعة الملك سعود) هو 55 عاماً والانتقال ليست عملية سهلة. وهناك بعض التغيرات التدريجية في معظم الجامعات، لقد زرت العديد من الجامعات الدولية التي تعد أقدم من الجامعات السعودية وتبين أنهم يواجهون العديد من التحديات، ونحن في

المراحل المبكرة، وهناك بعض التقدم المعتدل، وعملية التغيير هي عملية معقدة جدا لأنها تتطلب تغيير في مستويات مختلفة و عدة أوجه

We should think of the age factor as the oldest university in Saudi Arabia is 55 years old (KSU). Also the transition is not an easy process though there are some gradual changes in most of the universities. We have been to many international universities which are older than Saudi universities and they are facing many challenges. Even though we are in early stages, there is some moderate progress. Additionally, the change process is too complex as it requires change in different levels

#### 5.3.6.1 Excellence Award in E-learning

Due to the growing interest in e-learning, it is necessary to establish an agency responsible for developing e-learning standards at university level as well as at an individual level. Therefore, the Ministry of Higher Education is developing plans to enhance the use of ICT in education. The Ministry, represented by the National Centre for e-learning and Distance Education, have launched an award for Excellence in E-learning at university level (National Centre for E-learning, 2013). All of these efforts and awards are a kind of formal recognition by the Ministry of Higher Education as well as the local community in Saudi Arabia of the essential role that technology plays in education and its potential. These awards motivate teachers and academic staff to adopt technology in education. In addition, they enhance the uptake of ICT tools and informational flow and contribute to the development of education. Most importantly, they promote best practices in education, which enhance students' participation, discussion and autonomy regardless of limits of time and space.

#### 5.3.6.2 The Establishment of e-learning Deanships

All Saudi public universities have established a deanship of e-learning and distance education. The deanships aim to promote the use of ICT in Saudi higher education institutions. Taibah University is no exception and the deanship in the university states the below aims to be achieved (Objectives of the Deanship of E-learning, 2012). The director of the NCeLDL stated that:

الآن لدينا توسيع كبير في عدد الجامعات الحكومية بما في ذلك الجامعة الإلكترونية. وفي الوقت نفسه، طلبنا من الجامعات تبني التقنية في التعليم والتعلم من خلال إنشاء وحدات للتعلم الإلكتروني في كل قسم. بالإضافة إلى ذلك، اقترحنا أن كل جامعة تنشئ عمادة التعلم الإلكتروني وترتبط بنائب رئيس الجامعة للشؤون الأكademية، وفي غضون عامين معظم الجامعات إن لم يكن كلها قد أنشأت عمادة للتعلم الإلكتروني. أهداف هذه العمادات تتمثل في تعزيز استخدام التقنية في التدريس لطلاب الانتظام والانتساب أيضا. وبالإضافة إلى ذلك أصدرت الوزارة مؤخراً ممثلة في المركز الوطني للتعليم الإلكتروني و التعليم عن بعد أصدرت لائحة التعليم عن بعد

Now we have a big expansion in the number of the public universities including the E-university. At the same time, we have asked the universities to adopt ICTs in teaching and learning by establishing e-learning units in each department. Additionally, we have suggested that each university establish e-learning deanship linked to the vice chancellor for academic affairs. Thus, in two years' time most of the universities if not all have established e-learning deanship. The aims of these deanships are to promote the use of ICTs in teaching for regular and external students as well. Furthermore, the ministry of education represented by the NCeLDL has issued the distance education policy.

Furthermore, the NCeLDL is running a monthly panel discussion to be hosted and conducted by one of the Saudi universities represented by the deanship of e-learning. The topics of the panel discussions vary, but they all come under one category which is prompting e-learning and distance education in Saudi Arabia.

### 5.3.6.3 The National Commission for Assessment and Accreditation (NCAAA)

In 2003, the National Commission for Academic Accreditation and Assessment (NCAAA) was established to provide regulated standards for academic performance. NCAAA is a responsible authority for the affairs of accreditation and quality in post-secondary education in Saudi Arabia. One of the major aims of the NCAAA is the accreditation of new academic institutions such as colleges and institutes e.g. they review departments' degree standards and academic plans. In addition, the commission announced periodic reviews to monitor the quality and standards of the programmes and degrees offered by each department. Consequently, all the stated objectives were prepared to enhance quality and set criteria for academic performance in Saudi educational institutions (National Commission for Academic Accreditation and Assessment (NCAAA), 2014) The director of the NCeLDL pointed out that:

هناك اتجاه في السنوات العشر الماضية و هو أن الجامعات السعودية تسعى للحصول على الاعتماد وهذا أدى إلى إنشاء الهيئة الوطنية للتفوييم والاعتماد الأكاديمي. هذه الهيئة تشجع الجامعات الوطنية للحصول على الاعتماد لبرامجها ومؤسساتها. وبالتالي، فإن معظم الجامعات لديها خطط استراتيجية وقد ذكر في تلك الخطط أهمية السياسات والممارسات للمساعدة في تبني التقنية في التعليم

There is a trend in the last 10 years that Saudi universities get accreditation and this led to the establishment of The National Commission for Assessment and Accreditation (NCAAA). (NCAAA) encourages national universities to get accreditations for their programs and institutions. Thus, most universities have strategic plans and in those plans they highlight the importance of the policy and the practice of ICTs in education.

Similarly, the deputy dean of quality stated that:

We are working for institutional accreditation for the university and for program accreditation as well. To get international accreditation, we should start nationally i.e. we need to get accreditation from NCAAA. They (NCAAA) have 11 standards and one of the standards is university facilities and there are a lot of sub-standards. All these standards are based on the number of students and the number of faculties. In addition, we have teaching and learning standards that promote adopting different ways of assessment. Thus, here in Taibah University, the English department as well as ELC will not get an accreditation till they follow these standards and they are trying to fulfil all the requirements. However, one of the problems we have encountered here is the infrastructure and the IT support as you might know. For example, although we have smart-boards and VLEs, teachers are not using them. Therefore, I think the reason is that teachers need time to be convinced to utilize these tools.

Moreover, the deputy dean of quality brought to light the efforts that have been made to enhance the quality of performance in the university. She pointed out that since the establishment of the deanship of quality they have run many workshops to raise the awareness of the quality criteria. She stated that by saying:

We have a representative unit in each college and if you look at the organizational chart, you will see that each college has a vice dean for quality. Also, we have a monthly meeting with each college to monitor the application of quality standards.

#### 5.3.6.4 Excellence Centre of Teaching and Learning and Deanship of Academic Development

Taibah University announced the establishment of the Excellence Centre of Teaching and Learning to better academic staff practices.

Also, just recently, during the data collection, the centre announced a best teaching award. The award is given annually to help academic staff develop new approaches to teaching and assessment (Excellence Centre of Teaching and Learning, 2014). The Centre units are the following:

The role of the centre can be understood through its five units represented in: The Teaching Unit (deepening the performance of Faculty Members), Learning Unit (Supporting Students), Learning Environment Unit (It improves the learning environment), Developmental Studies Unit (to execute the applied researches and provide proposals concerned with developing the academic work), Educational Consultations Unit (To provide academic consultations for the programs directors, departments heads, and faculty members regarding teaching and learning) (Excellence Centre of Teaching and Learning, 2014, p.2)

More specifically, the teaching unit in the Excellence Centre announced the following aims:

**Teaching Unit Activities:**

Firstly: Providing short courses for the faculty members in the following fields:

- Describing the course (planning, designing, reporting) whether a traditional or electronic course.
- Teaching methods and strategies.
- Using technology in teaching.
- Assessment.
- Designing exams.
- Class management.
- Solving problems.
- Measuring the outputs of learning (Excellence Centre of Teaching and Learning, 2014, p.7)

The head of the Excellence Centre of Teaching and Learning stated that:

نحن نحاول تطوير المعرف و المهارات والاتجاهات وبالتالي فإننا ينبغي أن نعتمد مختلف الوسائل للتغيير. أيضاً نحن نعمل على تغيير الثقافة الحالية لعملية التعلم / التعليم وهذه ليست مهمة سهلة على الإطلاق، وليس لأحد أن يدعى ذلك. التغيير ليست عملية سريعة لأنها يستغرق و يتطلب وقتاً يزعم البعض أنهم قد غيروا و طورو ممارساتهم ومن خلال النظر عن كثب على الوضع وجدنا أنه لم يكن هناك تغيير حقيقي. معظم الفصول

الدراسية لا يوجد بداخلها طاولات ونحن الان نعمل على تزويد معظم الفصول الدراسية بالطاولات. بالختصر  
نحن نسعى لنكون أداة التغيير والتغيير يأتي على مراحل

We are trying to develop knowledge, skills and attitudes thus we should adopt various modes of change. Also, we are working on changing the current culture of learning/teaching process and this is not an easy task at all and no one can claim so. Change is not a quick process and it takes time. Change is time consuming approach. Some people claimed that they have changed certain approaches however by looking closely at the situation we found that no real change has happened. Most of the classrooms do not have tables and now we are working to supply most classrooms with tables. In short, we are a change agent and change comes in stages.

## 5.4 Summary

The analysed data show interesting themes across different groups of participants. The policy makers highlighted issues relating to the inadequate policy that does not explicitly encourage ICT utilization. However, they indicated the ongoing projects to enhance the uptake of ICT e.g. quality criteria, e-learning award and the establishment of the Excellence Centre for Teaching and Learning. When the smart-boards were installed in classrooms but hardly used, it demonstrated how difficult change is. The university equipped the classrooms with the ICT facilities but they were still not used. Policy makers illustrated that the reasons for the underuse show the need to work on other aspects of change i.e. the human aspect (beliefs).

Most importantly, another factor that has led to ineffective ICT integration in teaching generally and language teaching specifically is the inadequate pedagogical approaches in most of the educational institutions. Most of the policy makers, if not all, highlighted the need to address the pedagogical issues before technology. This brings to light the sociocultural issues that exist in most of the educational institutions where there is a dominant reliance on lecturing, exam-oriented teaching, single-textbook adoption and a teacher-centred approach. Therefore, academic staff need to be fully convinced that in order to have a great impact on their students, they should adopt various methods of teaching, like using ICT.

However, other participants (teachers) indicated that they needed ongoing IT support to utilize ICT. Teachers and administrators raised issues relating to excessive teaching hours and the lack of student motivation as the utilizing of ICT was on an optional basis. Furthermore, lack of time was noted as a major problem that prevented teachers from attending CPD sessions. Most of the teachers had invigilation duties every week besides their daily teaching hours. Teachers also reported that the online VLE was underused because of students' busy schedules.

Poor infrastructure and IT support have impeded the utilization of ICT, as reported by many teachers and administrators. The infrastructure was insufficient because of the lack of public workstations for students, inadequate Internet connections, and unavailability of IT support teams. They (teachers and administrators) also linked the poor utilization of ICT to some institutional culture issues like the structured learning environment where everything is fixed e.g. textbooks, mark schemes and exam-based teaching. More specifically, teachers were not allowed to allocate marks for students which in turn demotivated students to utilize ICT, with the exception of the 5% bonus which was approved by the ELC. Administrators specifically reported issues of poor communication or coordination between male and female departments. They highlighted the lack of communication especially when they were not involved in the decision-making process. Moreover, the documents reviewed show the discrepancy between policy and practice e.g. CPD documents and the analysed data from teachers, administrators and policy makers. Furthermore, ICT integration aims were stated, however sufficient steps were not taken to achieve the claimed objectives (see Table 15 for a summary of reviewed documents).

<b>Documents Reviewed at National Level</b>	
<b>Documents</b>	<b>Comment</b>
<b>AAFAQ Plan</b>	Stated some aims and plans
<b>Saudi Academic Staff Policy</b>	Merely about publishing and training is not mentioned
<b>Documents Reviewed at University Level</b>	
<b>Documents</b>	<b>Comment</b>
<b>University Strategic Plan 2020</b>	States some ICT challenges facing TU
<b>Deanship of e-learning</b>	Objectives too generic and NO ICT Policy
<b>Documents Reviewed ELC( Institutional Level)</b>	
<b>Documents</b>	<b>Comment</b>
<b>ELC Course Materials</b>	Four textbooks (Q Skills OUP Series) each semester two textbooks
<b>ELC Pacing Schedule</b>	The teaching load is 4 hours a day & 20 hours of classroom based teaching weekly
<b>ELC Assessment Scheme</b>	90% exams (grammar, reading, listening, writing), 10% speaking, 3-5% bonus VLE
<b>ELC ICT Policy</b>	No Policy
<b>ELC CPD Policy</b>	The discrepancy between policy and practice e.g. the analysed data from teachers, administrators and policy makers.
<b>Teachers' Evaluation Form</b>	Evaluation form does not explicitly encourage ICT uptake

Table 15 Summary of the Documents Reviewed

To conclude, the analysed data indicate many factors that led to the poor utilization of ICT in teaching. The factors were grouped into two categories: teacher level factors (attitudes, ICT competence, lack of time) and institutional level factors (lack of administrative support, inadequate infrastructure). It is noteworthy that the above-mentioned factors are very much interrelated to each other. They work in a dynamic way as each factor affects many other factors e.g. teachers' competence is very much interlocked with teachers' access to ICT and training. Also, teachers' training affects teachers' attitudes and confidence and so forth (AlMulhim, 2014; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Mumtaz, 2000). Although there are many projects and everything is constantly changing, the University is in an early stage of approaching change and it does take time to achieve the claimed objectives of such projects. However, it is good thing that they are now realizing the need for change, as it is an important step.

# Chapter 6: Discussion of the Results

This chapter is divided into two sections; the first section will state answers to the research questions explicitly and the second section will discuss the themes of the research results. The present study aims to shed light on ICT adoption in English teaching from EFL teachers', administrators' and policy makers' perspectives. It examines the implementation of change in education represented by ICT integration. To form a clear picture of ICT adoption at ELC, this research project aims to examine teachers' experiences of ICT integration in terms of their attitude, utilization and the support they receive. The study also investigates administrators' as well as policy makers' viewpoints. Accordingly, to tackle the research problem (the poor utilization of ICT) effectively, there is a need to move on from researching teacher level factors to institutional level factors. By doing so, the implementation of ICT is closely examined and discussed by different groups of participants, which in turn boosts our understanding of the issues that led to the poor integration of ICT. The themes raised by the different informants will help policy makers overcome the issues that hinder effective ICT adoption. Additionally, the proposed themes give practical information about the principles of sufficient ICT implementation in education. Thus, the following findings give more insights in terms of theory as well as pedagogical practices.

## 6.1 Section one: Answers to the Research Questions

The answers to the research questions were developed based on the viewpoints of the research participants by triangulating many research instruments. Some themes were introduced by all the participants, such as infrastructure and training, whereas some themes were raised by policy makers and administrators only, such as poor e-pedagogy. Interestingly, all the proposed themes from the different groups of participants enhance the understanding of the research problem i.e. reasons for the weak uptake of ICT

in education. The following section is a summary of the answers to the below research questions (see Table 16 for a summary of the research questions).

## **List of Research Questions**

What are the factors that affect EFL teachers' adoption of technology in language teaching?

### **A- Policy (context) level:**

1. What are the objectives of adopting technology in language teaching?
2. What are the steps taken to achieve these objectives?
3. How does the contextual situation affect the implementation of technology?

### **B- Perception level:**

4. What are the attitudes of EFL teachers towards ICT in teaching?

### **C- Actual Implementation level:**

5. How do EFL teachers implement technology in English teaching?
6. What challenges do EFL teachers face when integrating technology?

#### **6.1.1     What are the Objectives of Adopting Technology in Language Teaching?**

To answer research question No.1, the researcher asked all the participants (policy makers, administrators, EFL teachers) about the aims of ICT integration at Taibah University, represented by the ELC. To answer this question, the researcher adopted many tools like interviews and document reviews. Actually the analysed data show that there are no clear stated aims of ICT integration in language teaching at ELC. However, at university level there are some general objectives about ICT integration issued by the deanship of e-learning. These aims are:

- Develop the use of e-learning systems and improve academic performance at the university.

- Enable all employees of the university to take advantage of the infrastructure for e-learning and distance education, especially for academic and administrative issues.
- Develop and deliver interactive e-learning solutions to serve the educational process, and provide distance education programs along with ICT resources to enhance academic and educational processes.
- Transform traditional courses to electronic ones that can be taught remotely.
- Build a cadre of qualified human resources capable of innovative production in the field of e-learning and distance education.
- Establish infrastructure networks, labs and information centres capable of providing online educational services at the university (Objectives of Deanship of E-learning, 2012).

Likewise, at national level there are some general aims regarding the integration of ICT mentioned in AAFAQ Plan and issued by the Ministry of Education. Further, the Ministry of Education represented by the National Centre for e-learning and Distance Education issued many objectives about ICT adoption in teaching. These objectives are the following:

- To spread e-learning applications and solutions in all higher education institutions in accordance with the best quality standards.
- To facilitate capacity building for higher education institutions by using e-learning applications and solutions.
- To widen technical awareness and e-learning knowledge to help in building a knowledge society.
- To facilitate conducting and evaluating e-learning projects.
- To support researches and studies in the fields of e-learning and distance learning.

- To set standards for e-learning courseware production and publishing.
- To provide consultancy in the fields of e-learning and distance learning.
- To build and distribute educational software applications that support the educational process in both the public and private sectors.
- To encourage the best projects in e-learning and distance learning in higher education institutions.
- To hold seminars, workshops and conferences that will add value to e-learning & distance learning.
- To establish international bonds with the best leaders in the e-learning field (National Centre for E-learning, 2013).

On the other hand, these aims are clearly presented and partially achieved. The data show that teachers were unaware of the university's aims and faced many difficulties when adopting ICT. The discrepancy between policy and practice has been shown from the data obtained from teachers, administrators and policy makers. More specifically, the university has stated some aims about integrating ICT in education; however teachers and students alike were unaware of the rationale for ICT adoption. At the ELC, there are neither policies nor aims for ICT implementation. Therefore, the university needs to clearly incorporate its sectors to have a shared vision of ICT incorporation. Additionally, strategic ICT integration requires the prospect stakeholders (teachers, students, administrators) to be involved in the change process. Consequently, adopting a haphazard approach where the pedagogic benefits of ICT are not introduced to the stakeholder causes less effective utilization. In the meantime, the objectives of ICT need to take into account that for better ICT adoption, ICT needs to be an integral part of the curriculum. Without this, the integration of ICT will remain on paper only. Most importantly, policy makers ought to consider that stating the aims should not be regarded as an end in itself. Thereby, the stated aims need to be clearly linked to the curriculum objectives. In other words, the potential benefits of ICT and its impact on language teaching should be addressed

effectively. By doing so, all the stakeholders are fully aware that the advocated change has pedagogical benefits to their teaching and learning. Significantly, many scholars indicate that people who are involved in change need to be convinced about and aware of the potential benefits of the proposed change (Cuban, 1993, 2003, 2013; Evans, 2001; Fullan, 2007, 2013; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Price & Oliver, 2007b, 2007a; Reinders, 2012; Weller, 2007). They highlight that change needs to be clear and its aims should be shared by all the stakeholders as a shared vision and steps taken need to enhance the success of change. As a result, the university general aims need to be followed by well-planned steps to achieve those aims. Consequently, this takes us to the following research question about the steps that have been taken to achieve these objectives.

#### **6.1.2 What are the Steps Taken to Achieve these Objectives?**

Regarding research question No.2, the researcher asked all the participants (policy makers, administrators, EFL teachers) about the steps taken to achieve these objectives. The researcher conducted interviews and document reviews as well. Although there are no clear aims about the implementation of ICT in teaching at the ELC, many efforts have been made to encourage teachers as well as students to use ICT. The ELC introduced a commercial VLE (Englishtown) for the students and encouraged them to utilize its facilities by giving them free accounts and allocating a 5% bonus for those who used its resources. Students were asked to enrol themselves in the online lesson on an optional basis. All the participating students had free online accounts for Englishtown EF VLE to enhance out of class learning. They were encouraged to use Englishtown (EF VLE) and participate in the interactive lessons independently. Englishtown is an online platform designed by EF (Education First). It is a 16 level interactive lesson ranging from beginners to advanced proficient learners (EF, 2014). Specifically, EF Englishtown VLE includes 30

teacher-led classes and 16 levels of self-study lessons (beginner-proficient). It is available 24/7 for students and the lessons are certified when passing each level (EF, 2014) (see appendix A for a snapshot of EF VLE). However, students were asked to enrol in the self-study lessons only. Students were encouraged to enrol in the online lessons on an optional basis. Those, who registered themselves received a 5% bonus and a certificate of completing the appropriate level (Personal Interview, 2014).

Moreover, all the classrooms in the ELC were equipped with smart-boards but no wireless Internet access. In addition, at university level, the deanship of academic development and the deanship of e-learning have run many sessions about ICT uptake in teaching. These sessions were varied, and included topics such as using the smart-boards, designing e-modules, utilizing blackboards in teaching and using Google apps in education. Nevertheless, many EFL teachers did not attend these sessions due to lack of time. Also, many EFL teachers and administrators raised issues regarding the lack of proper ICT facilities despite current efforts. Also, policy makers and administrators highlighted the weak attendance of academic staff at the abovementioned training sessions. They (policy makers and administrators) indicated that the poor attendance was due to the lack of CPD policy.

On the other hand, although the university has made many efforts to achieve ICT integration, the utilization is very poor. The weak uptake of ICT indicates that current efforts are not sufficient. Thus, ICT integration necessitates a strategic approach that considers ICT implementation as a process not a product (Evans, 2001; Fullan, 2007, 2013; Okojie et al., 2006; Price & Oliver, 2007b, 2007a). Worse than this, change advocates should not be too optimistic about expecting immediate utilization of ICT just by providing it (VLE). Teachers and students need to envision the potential impact of ICT and its enhancement of their learning and teaching. Additionally, they need training and adequate infrastructure to utilize ICT effectively. Most importantly, ICT integration clearly clashes with poor traditional pedagogical practices. Thereby, teachers need to have new roles as facilitators in the online platform. In addition, students' autonomy needs to be promoted in order to utilize the VLE effectively. Thus, the pedagogical culture needs to be addressed before ICT introduction. Most

importantly, policy makers should not overestimate the potential of ICT because the surrounding culture always wins (Cuban, 1993, 2003; Weller, 2007). In the meantime, many scholars indicate that pedagogical practices ought to be changed before introducing technology (Cuban, 1993, 2003, Fullan, 2007, 2013; Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Price & Oliver, 2007b, 2007a; Reinders, 2012; Selwyn, 2011; Vaughan, 2007; Weller, 2007). Therefore, ICT provision needs to be followed by many interrelated issues like time, training, infrastructure, pedagogy and effective ICT integration strategies. Thus, many studies have shown that for better ICT adoption, policy makers need a comprehensive approach that includes all the factors that hinder or motivate teachers' and students' adoption. Therefore, the availability of ICT resources is a first step on a long journey for policy makers.

### **6.1.3 How does the Contextual Situation Affect the Implementation of Technology?**

To answer this question, informants of the research proposed many themes related to institutional culture and contextual factors. The developed themes are explained below by reviewing data from interviews, focus groups, documents, field notes and classroom observations:

#### **6.1.3.1 Pedagogical and Institutional Culture**

An important factor that leads to ineffective ICT integration in teaching generally and language teaching specifically is inadequate pedagogical approaches in most of the educational institutions. Most of the policy makers, if not all, highlight the need to address the pedagogical issues before technology. This brings to light the cultural issues that exist in

most of the educational institutions where there is a dominant reliance on lecturing, exam-oriented teaching, single-textbook adoption and a teacher-centred approach.

By adopting pedagogy-led technology, the utilization of ICT will be fruitful and effective. Additionally, the real factors that play a role in education are the pedagogical approaches and practices. ICT is only a tool, however it has potential benefits if the integration is based on a sound pedagogy. Thus, the director of the NCeLDL points out the importance of adopting pedagogy-led technology not vice versa. There is not necessarily a correlation between ICT implementation and pedagogical enhancement. However, ICT is a supportive enhancing tool where there are good pedagogical strategies e.g. a student-centred approach and collaborative learning etc. More specifically, the director of the NCeLDL brings to light some pedagogical practices in Saudi universities that restrict the uptake of ICT in teaching. Issues like textbook adoption and exam-oriented teaching might lead the students to become over-reliant on one source of information and ignore e-resources.

#### **6.1.3.1.1 Lecture Based Teaching Strategy**

Many participants (teachers, administrators, policy makers) indicate issues with the teaching based approach at ELC. They highlight the fact that four hours a day of language teaching is not as effective as it seems. Additionally, they point out that most students have many other subjects in the preparation year. Thus, they suggest the reduction of four hours of face-to-face teaching and the adoption of blended teaching instead. They note the ineffectiveness of adopting one strategy, i.e. lecture based teaching, and illustrate the importance of a varied approach to language teaching. Many participants point out the over-reliance on lecture based teaching. They note that lecturing tends

to be an integral part of the educational culture in Saudi Arabia generally and at Taibah University specifically.

Thus, the Centre for Excellence in Teaching and Learning (Taibah University) is working as a change agent to reduce the dominance of the lecture method. They point out that they have a devoted unit for teaching to help academic staff to develop their teaching. However, they highlight the difficulty of changing people's beliefs and practices. Furthermore, many participants indicate that the large number of students has led to over-reliance on lecture-based teaching. They highlight that most of the academic staff lack the skills to use technology in big classes. Consequently, there is a restriction on the quality of teaching. Also, because of the large number of students, many faculty members rely on exams as a mono-method assessment strategy.

Exam-based teaching is a barrier to effective ICT integration as indicated by most of the participants. Accordingly, the focus of the teacher and the students is just to pass the exams, and this is coupled with the marking scheme, which is merely devoted to exams. Thus, ICT integration should be based on a profound pedagogy, as technology alone will not resolve poor pedagogical practices. Consequently, there is a need to confront and address the pedagogical issues before ICT adoption.

Policy makers and change advocates should take into account that ICT integration requires a supportive context. In other words, the role of ICT needs to be major and central in the chosen context. In the meantime, if the adoption of ICT is not part of the official requirement, the integration will be in name only. Thereby, teachers and students alike need official recognition at university level to motivate them to use ICT. Worse than

this, is when the utilization of ICT is left to one's choice and willingness. Thus, the adoption strategy of ICT needs to be effective and central. The data show that the utilization of ICT is based on an add-on approach. In other words, students were asked to utilize the VLE on top of their heavy schedule. As a result, the utilization of VLE was very poor. Consequently, the research participants highlight the need to reduce the amount of teaching if effective integration is a requirement. Unless this happens, VLE utilization will remain very poor. Additionally, the marking scheme should balance classroom based requirements and online activity. By doing so, teachers and students alike will pay attention to the online requirement as it is integral part of their course.

On the other hand, many scholars point out the importance of addressing teaching practices before technology (Cuban, 1993, 2003, Fullan, 2007, 2013; Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Price & Oliver, 2007a, 2007b; Reinders, 2012; Selwyn, 2011; Vaughan, 2010; Warschauer, 2004; Weller, 2007). Most importantly, policy makers need to start from pedagogical practices and not vice versa. Thus, providing ICT tools will not provide better learning if there is an over reliance on traditional approaches to teaching. Thereby, ICT tools are not magic tools that will transform teaching and learning. Conversely, these ICT tools have potential benefits if the integration is based on a well-informed pedagogy. Furthermore, ICT integration can be considered as a catalyst for change if policy makers have a well-planned implementation strategy. Thus, teachers and students need to adopt new roles to allow for effective ICT incorporation. Consequently, a student centred approach allows for better ICT adoption, as teachers are facilitators rather than information givers. Additionally, teachers and students need a supportive environment to help them utilize ICT effectively. They need a degree of independence, not a structured learning context. This will be discussed below.

### **6.1.3.1.2 Structured Learning Environment**

Teachers indicate that a structured learning environment where everything is fixed e.g. textbooks, marking schemes and exams, affects ICT integration negatively. They are unable to design their own materials or allocate marks to some online tasks. Their role is limited to merely teaching. The lack of a degree of autonomy has a negative impact on ICT adoption. Specifically, the optional use strategy of the online VLE demotivates students to use ICT. Further, many teachers point out the mismatch between the objectives of the preparation year and actual practice. They state that the aims of ICT integration cannot be achieved because of the exam-oriented approach. They indicate that exam-based teaching limits ICT integration. They point out the significant role of marks, especially in the Saudi context. Thus, students need a motivation strategy to enhance their utilization of the VLE. Consequently, utilizing the VLE is not effective because of the optional strategy.

To have more effective ICT adoption, the role of ICT needs to be fundamental. Thereby, when planning for ICT uptake, policy makers need to involve teachers and the prospective stakeholders. Teachers' viewpoints need to be addressed and discussed. In other words, a structured context where teachers are marginal and just need to implement what is planned, is a demotivating approach. Thus, teachers need a sense of responsibility over course planning and a degree of autonomy to balance between classroom based materials and online materials. On the contrary, policy makers usually adopt a top-down change approach and are totally ignorant of each other's views (Beycioglu & Kondakci, 2014; Evans, 2001; Fullan, 2007, 2013; Okojie et al., 2006; Price & Oliver, 2007b, 2007a). Thus, to have more effective ICT adoption, a joint approach needs to be planned i.e. teachers and change advocates should listen to each other's views. In addition, the structured learning context clashes with

online flexible learning. In other words, single textbook adoption might distract students' attention and in turn, the VLE will not be utilized effectively. Similarly, the mark scheme ought to be adjusted to account for the online requirements and classroom based teaching. As a result, teachers need a degree of autonomy to allocate marks to motivate students' utilization of the VLE. Most importantly, the optional basis strategy indicates that the role of ICT is marginal and in turn, the uptake is marginal too.

#### **6.1.3.2 Incentives and Prevailing Culture**

In a similar vein, the ELC assistant coordinator showed that lack of incentives leads to poor attendance by teachers. She noted that preparing for a workshop is time and effort consuming, which in turn necessitates incentives to encourage teachers to do so. Most importantly, she highlighted the fact that the prevailing culture needs to be changed and teachers should be more open to sharing their experiences and ideas with each other. She indicated the need to change the mindsets and the beliefs of teachers to encourage them to exchange their experience and practices with each other.

Additionally, teachers need administrative support to utilize ICT effectively. The first step that needs to be taken by administrative support is to motivate teachers to implement ICT by incentive allocation. Significantly, policy makers need to enhance a learning community where teachers share each other's practices. As a result, the ICT competent teacher will be willing to train other teachers. Thus, the surrounding culture plays a significant role. Additionally, changing teachers' beliefs and attitudes is a complex process. Thus, policy makers need to provide an encouraging environment where teachers are able to envision the potential benefits of ICT. Further, the role of attitudes and beliefs should not be underestimated by policy makers. Thereby, work needs to be done to promote teachers' positive attitudes as well as determining the conceivable barriers to their ICT usage.

#### 6.1.4 What are the Attitudes of EFL Teachers towards ICT in Teaching?

The data regarding teachers' attitudes towards ICT were gathered mainly from interviews and focus groups. The data reveal that most teachers held positive attitudes towards ICT. Most of them indicated that ICT implementation made their lessons more interesting to the students. Others noted that ICT utilization accommodates different learning styles and enhances students' communication. Additionally, many teachers stated that ICT is too beneficial in the EFL context where there is not enough input of the target language. Therefore, by adopting ICT tools students will have sufficient exposure to the L2. Importantly, many teachers highlighted the fact that ICT develops students' soft skills and prepares them for the workplace.

Attitudes towards ICT adoption are important factors that encourage or hinder teachers' willingness to incorporate ICT into their teaching. Accordingly, teachers who hold positive attitudes towards ICT will utilize it in education and those who have negative attitudes will not. However, attitudes alone will not reflect the actual situation, because some teachers do have positive attitudes but do not use ICT in their teaching. Most importantly, attitudes are formed and affected by the surrounding factors. Thus, we need to consider other issues besides attitudes. Thus, attitudinal based studies usually reflect part of the picture but not the full picture because some teachers do not utilize technology, although they hold positive attitudes towards it. Thereby, researchers should investigate teachers' practices besides their attitudes. The current study indicates that teachers have positive attitudes due to their willingness to integrate ICT into their teaching. Others hold positive attitudes as they have had a good ICT learning experience. However, the study shows that teachers encounter many problems while trying to incorporate ICT into their teaching. They highlight that lack of time is the main problem. More specifically, ICT integration does not reduce their teaching loads and students do not utilize ICT

(VLE) either due to lack of time. Moreover, many teachers note that training and infrastructure inhibit their ICT implementation. As a result, although teachers' attitudes are good indicators of ICT integration, there are issues that need to be considered besides attitudes. Consequently, teachers' practices should be examined to define the level of ICT adoption. Teachers' ICT integration is examined in the following research question.

#### **6.1.5 How do EFL Teachers Implement Technology in English Teaching?**

This research question investigates the actual implementation of ICT in language teaching. To examine the integration level of ICT in language teaching, the researcher conducted classroom observations and made field notes. Additionally, the researcher interviewed EFL teachers about their experiences of ICT adoption in language teaching. The classroom observations data show that the incorporation of ICT at ELC was based on a supplementary approach strategy. In the classroom observations, only one teacher used ICT during class-time teaching. Although there are newly installed smart-boards in each classroom, they were underused by teachers. Only one teacher managed to use a data show projector in her teaching as an ICT tool. When asking teachers about the underutilization of ICT in teaching, they raised issues of training, IT support, time and infrastructure.

The ICT tool that is used in the ELC is Englishtown VLE. The students were asked to utilize the VLE on an optional basis. Englishtown VLE is an online platform designed by the EF Education Company. It consists of 16 levels of interactive lessons ranging from beginners to advanced proficient learners (EF, 2014). Specifically, EF Englishtown VLE has 30 teacher-led classes and 16 levels of self-study lessons (beginner-proficient). It is available 24/7 for students and the lessons are certified when passing each level (EF, 2014) (see Appendix A for a snapshot of EF VLE). However, students were asked to enrol in the self-

study lessons only. The lessons are about vocabulary enrichment and grammar tasks. Students were encouraged to enrol in the online lessons on an optional basis. Those, who registered themselves gained a 5% bonus and a certificate of completing the appropriate level (see Table 7 the assessment scheme). The utilization of the VLE is neither related to their exams nor to everyday teaching.

However, teachers were not involved in the utilization of the VLE at all and most of them were unaware of the VLE. One teacher was responsible for registering the students who enrolled themselves to issue certificates for them. The researcher asked the VLE coordinator teacher about the number of students who utilized the VLE, and it was 34 out of 937 (3% of the total number of students). The VLE coordinator pointed out that many students were unaware of the VLE interactive lessons. She also noted that students lacked motivation because of the optional utilization strategy of VLE and their intense schedules. The interview data from students show that students lacked time to utilize the VLE lessons and were not motivated to self-study. They have four hours a day of English classroom based teaching (equal to 20 hours a week). Additionally, teachers were not involved in the discussion forum of the VLE. The participation was left to students alone on an optional basis. One of the students stated that:

احنا نعاني من الوقت و كثرة المحاضرات و الاختبارات الدورية و نحن غير متعودين على نظام الدراسة الذاتية. و بما انه لا يدخل في الاختبار النهائي لا نركز عليه باعتباره غير مهم

We (students) lack time and have so many tests and lectures, besides we are not used to a self-study learning approach. Additionally, since it is not included in the exams, we consider it (VLE) to be unimportant.

Similarly another student pointed out that:

استخدام نظام ادارة التعلم انجلش تاون مفيد لو كان داخل ضمن التقييم المعتمد لمادة الانجليزي و الافضل لو تم تقليص مدة المحاضرات الروتينية لأنها جدا مملة و لا تختلف عن منهج مدارس الثانوية العامة

The utilization of the Englishtown VLE would be beneficial if it were part of the official assessment of the English skills course. Moreover, it is better to reduce the class time teaching as it is too boring and similar to a school based system.

The above quotes reveal that students found the existing ICT implementation strategy to be ineffective. To the students, the VLE lessons were not part of the official requirement, thus stressing their unimportance. Most importantly, utilizing the VLE had no relation to coursebook or the exams. The lessons on the VLE are a kind of language development on the topics of vocabulary enrichment and structural grammar. All the above mentioned issues demotivate students as well as teachers to utilize the VLE effectively.

Most importantly, other teachers highlighted the importance of the preparation and training for self-regulated learning. The students were not motivated enough to take responsibility for their own learning. Consequently, it was hard for them to utilize the VLE lessons while they lacked the skills, the time and above all the motivation. Additionally, the textbook series (Oxford Q Skills) contains accompanying online material (ITools) but this was also unused. The teachers indicated that the lack of ICT resources and inaccessibility of Internet access hindered them from using the online materials accompanying the textbooks.

#### **6.1.6     What Challenges do EFL Teachers Face when Integrating Technology?**

While trying to use ICT in teaching, the teachers encountered many issues that hindered the more effective utilization of ICT in their teaching. They faced many problems that caused the underuse of the available ICT e.g. smart-boards. The below section illustrates the answers to the research question that investigates the common problems that lead to the poor utilization of ICT. The answers were gathered through interviews, focus groups, classroom observations, field notes and documents.

#### **6.1.6.1 Lack of ICT Competence**

Many participants indicated the poor ICT skills of the academic staff and stressed the need for proper training. The participants stated that many academic staff were not aware of how to adopt technology and make use of it to overcome classroom challenges. The need for training in ICT integration in teaching is essential to enhance the uptake of ICT. In addition, the lack of ICT integration preparation in pre-service teacher education has negatively affected ICT incorporation.

Reviewing the demographic questionnaire shows that most teachers did not study ICT related modules in their pre-service education apart from two who studied one course about ICT in their MA. Most of the teachers lacked the subject knowledge about the use of ICT in language teaching. Only two teachers had studied modules about instructional technology and they were non-Saudis. The rest indicated a lack of pedagogical knowledge about using ICT in language teaching. In addition, teachers' willingness to use ICT in their classroom was usually obstructed by poor ICT facilities in classrooms.

Most importantly, the researcher reviewed the study plan of English departments in the main eight universities in Saudi Arabia (including Taibah University) to identify any ICT related modules. The review shows that most, if not all, the universities had a mixture of literature as well as applied linguistics modules. Usually all the modules were about literature and linguistics besides the general core modules. Accordingly, the researcher found no module about CALL or ICT in education in most of the undergraduate programs. Thus, the weak preparation along with weak ICT facilities led to the poor uptake of technology in education. As a result, the above-mentioned factors affect teachers' ICT competence negatively.

As a result, policy makers need to develop teachers' as well students' soft skills in order to facilitate ICT integration. Thus, a strategic plan for ICT is a must for change advocates. The strategic planning should assess students' and

teachers' ICT competence levels. Additionally, teachers need a well-developed need analysis to motivate them to utilize technology effectively. In the meantime, training sessions need to be well-designed to improve the soft skills and the pedagogical skills of stakeholders. Consequently, providing ICT does not mean instant uptake, as there are many issues that need to be handled. Most importantly, teachers' poor ICT competence promotes their negative attitudes towards technology. Therefore, if teachers hold negative attitudes, they might avoid integrating ICT into their teaching. Additionally, the surrounding environment needs to be an ICT enhancing atmosphere. In other words, policy makers need to develop infrastructure and IT support teams to improve ICT uptake. Moreover, training planning needs to parallel course aims and ICT integration objectives.

#### **6.1.6.2 Inadequate CPD Policy at the ELC**

Reviewing the Professional Development and Continuing Education (PDCE) unit Procedures and Policy issued by the ELC indicates a variety of activities that have been stated. The aims range from providing individual training needs to inviting international speakers. The CPD unit brochure also states that the training will be tailored to the teachers' needs and the teaching contexts as well. The brochure also illustrates the planned activities, such as CPD meetings, workshops, attending external & internal conferences, observations and research. Additionally, besides the stated aims, the policy clearly indicates that the sessions will be from the three different sources below:

- Within the ELC: Coaching, workshops, lesson observations, sharing good practice, ELC development events.
- Other ELC networks: Other speakers from ELCs in KSA, other trainers from ELCs in KSA,
- External expertise; external trainers, courses, universities, training conferences (PDCE Procedures and Policy, 2012, p.4)

However, the policy does not include a detailed plan of the steps or the efforts that need to be made in order to achieve these aims. The CPD policy only lists the different planned activities for teachers' CPD. The planned CPD activities vary from training sessions and conferences to coaching and seminars.

On the other hand, the CPD unit coordinator pointed out the ineffective CPD policy. She noted that the current CPD policy was too brief and mainly about the aims of the CPD unit. Most importantly, she noted the mismatch between the policy and the practice, which in turn underestimates the status of the current policy. When asking the CPD unit coordinator about the role of the CPD unit based on the written aims, she pointed out that the policy was too brief and mainly about general objectives. She also noted that her limited role was just to make sure that there were some training sessions, although they face many challenges regarding finding time. Similarly, the ELC academic coordinator showed that the current CPD policy was not mandatory. She pointed out that teachers usually did not attend the training sessions. Most importantly, she stated that the policy was somehow vague regarding the weak attendance at training sessions. However, the following section illustrates that teachers' poor participation is not because of the lack of the CPD policy only. Teachers indicated that there was a problem with time because of their fully loaded schedules. Teachers usually have many administrative tasks (invigilation) besides their teaching. The below section illustrates this in more detail.

On a national level, the director of the NCeLDL clarified some sociocultural beliefs in the Saudi context. He noted the lack of the motivation of the Saudi academic staff to attend CPD sessions. The demotivation is reinforced by the current policy, which is mainly about publishing. Thus, the reviewed data reflect the current situation regarding academic staff development and ICT utilization. The data show that many current efforts have been made by the deanship of

academic development to promote ICT integration and develop academic staff. However, the data also show that the uptake of ICT is not compulsory, which leads to the demotivation of academic staff. This is coupled with the fact that the use of the VLE is on an optional basis. The interviews and the document reviews also show the lack of CPD policy, as the current Saudi academic ranking policy is merely about publishing (see Appendix I). Moreover, the utilization of ICT is optional for students as well. Most of the modules are exam-based so using ICT is not part of the official assessment. This demonstrates the importance of considering pedagogical factors with ICT integration.

The reviewed data indicate the importance of on-going support to enhance ICT integration. Policy makers and administrators indicated that the poor attendance at training sessions was due to lack of time. On the contrary, teachers illustrated problems with the poor topics of training sessions and time constraints. Thereby, change advocates need to have follow-up support to motivate teachers to use ICT. Additionally, the topics of the training sessions ought to be tailored to teachers' needs. Thus, the unplanned training sessions reflect the haphazard approach. Furthermore, teachers need a time and place to envision the benefits of ICT. They need to try and reflect with each other on the impact of ICT on teaching i.e. they need time to do so. Thereby, having a policy is not enough as the implementation of the policy is more important than the policy itself. Significantly, after the issue of a policy, there should be a dedicated team to enhance and support the implementation of such a policy. Moreover, a policy needs to be detailed and systematic i.e. not merely general aims. Also, the policy ought to contain a detailed plan of the steps needed to achieve its objectives. Apart from that, if teachers ignore or are unaware of the policy, this implies its status. In addition, at university level, the current policy for academic staff is merely about publishing and not about training. Thus, academic staff need a strong policy to enhance their CPD. Additionally, CPD needs to be a main objective in all the university sectors and ICT integration should be an integral part of CPD planning. Further, allocation of time to CPD sessions should be considered as well.

### 6.1.6.3 Time Constraints

Although most teachers did not use ICT tools in their teaching during data collection, they encountered many problems related to ICT. First of all, they raised issues of time and the intense pace of the course schedule. They (teachers) have to teach four textbooks in the foundation year, which means two textbooks in each semester. The review of the course materials and the course schedule shows that teachers have 20 hours a week for teaching besides extra duties like invigilation. Teachers should cover 10 units in each textbook, which means 20 units in a semester. Thus, many teachers brought to light other issues leading to the underuse of the VLE. They pointed out that one reason for the weak utilization of the VLE was the fully-loaded schedule. They highlighted the fact that VLE utilization did not reduce classroom based teaching and was not an official requirement.

Lack of time allocation is considered a main inhibitor of ICT incorporation. Many studies indicate the importance of time for effective ICT integration (Abuhmaid, 2011; Albirini, 2004; Alebaikan, 2010; AlMulhim, 2013, 2014; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Mumtaz, 2000; Vaughan, 2007; Zare-ee, 2011). Thus, policy makers ought to allocate sufficient time to ICT utilization. Additionally, integrating ICT in a campus-based education necessitates a balance of time between the different modes of teaching i.e. face-to-face and online. Thereby, policy makers need to assign equal importance to the two different modes of teaching. Without this, the implementation will be minimal. Additionally, students need enough time to maximize their online learning. Thereby, if teachers and students are overloaded with their schedules, the online learning will remain very limited. Further, teachers need sufficient time to develop a learning community where they can try and apply ICT in teaching. Thus, time allocation is a must for an effective ICT implementation strategy. The following section illustrates how ICT integration strategies lead to positive or negative adoption.

#### **6.1.6.4 Ineffective ICT Integration Strategy**

Many policy makers and administrators indicated that ineffective ICT adoption strategies cause a superficial uptake. They highlighted the need for administrative support in order to use ICT effectively. They indicated that if ICT utilization is not a requirement, teachers will not utilize it. Thus, as teachers have indicated, there is a need for good administrative support for teachers in order to adopt ICT. Most importantly, the data show that ICT integration was on an optional basis. This strategy is ineffective, as teachers indicate, because to them it (ICT) is not part of the official requirement.

On the other hand, many teachers brought to light the independent utilization of the online VLE. They clarified that students were not sufficiently encouraged to use ICT by themselves. Other teachers highlighted the importance of preparation for and training in self-regulated learning. Students are not motivated enough to take responsibility of their own learning.

Likewise, the ELC administrators indicated the importance of full integration of technology with the curriculum. They brought to light the fact that students lacked motivation because utilization of the VLE was not a component of the overall official program. Additionally, they noted the quality of training because teachers need to know how to effectively incorporate technology into their lessons. The effective ICT strategy is discussed in the answers to RQ3.

#### **6.1.6.5 Lack of ICT Policy in the ELC**

Reviewing the documents in the ELC shows that there is no ICT policy at centre level. Although the ELC adopted ICT in language teaching in 2011, there is no written policy. The importance of an ICT policy, where teaching staff see the objectives of ICT uptake and the steps that need to be taken to achieve these aims, is clearly indicated in the literature. Supporting this, administrators (the CPD unit coordinator and ELC assistant coordinator) noted the lack of an ICT integration policy. They pointed out that there were some documents related to ELC objectives and CPD unit aims, but none about ICT integration. The lack of ICT policy is interrelated to the different strategies of ICT integration at the ELC. Four years ago the ELC adopted the Jusur VLE in English language teaching. However, in the last two years they have switched to Englishtown (VLE designed by EF) due to a change in the administration. Additionally, the administrators indicated that there is constant change in the ELC administration, almost every two years. They indicated that everything is subject to change, including ICT integration.

The lack of an ICT policy at the ELC reflects unplanned ICT adoption strategies. The weak uptake of ICT mirrors the absence of a detailed, strong ICT policy. An ICT policy is essential for effective ICT incorporation. Teachers and stakeholders need to have a policy that includes the aims of ICT integration. Additionally, the policy should reflect the detailed steps that have been planned in order to achieve the stated aims. Also, a policy should be followed by a team to ensure fulfilment of its aims. Most importantly, teachers need to be fully aware of the ICT policy, as they need to be involved in the change plans. Thus, the lack of time and training reflect the unsystematic approach due to the lack of policy. Also, the ineffective ICT integration strategy highlights the lack of an ICT policy. Most significantly, ICT policies usually state the status of ICT within the curriculum. Thus, a strong ICT policy assigns technology a major and fundamental role, not a secondary optional one.

#### **6.1.6.6 Issues of Training**

Training is a major issue that has affected ICT integration in the ELC. Teachers have raised many issues about the quality of the training sessions, the lack of qualified trainers and the inadequate topics of most of the sessions. Furthermore, teachers highlighted the importance of pedagogy-led technology integration in the training. They need proper training specifically for ICT integration in order to be able to use it. Additionally, many teachers pointed out the importance of addressing the rationale for ICT integration in language teaching. They illustrated the importance of knowing the potential pedagogical impacts of ICT in teaching. Teacher 9 indicated this in the focus group by saying:

We had only two sessions about Jusur VLE. We have no idea about the rationale for utilizing the current VLE (Englishtown). I am a professional and I need to know why I am using it in my teaching.

Likewise, Teacher 3 in the focus group indicated the importance of pedagogy-led technology integration. She stated that:

Utilizing technology in education should be based on a purpose so it's not a matter of physical equipment or software. Also a lot of teachers have no adequate training in terms of integrating technology into a curriculum. The training should give teachers an awareness of how it (technology) is beneficial to them.

Additionally, teachers in the interview highlighted the role of administrative support in the quality of the training. They indicated the social use of ICT and the need to encourage academic staff to utilize it in education. On the other hand, some teachers commented on the aspects of some training sessions. They brought to the light that these sessions were too general and were not tailored to their needs. For example, topics were not closely related to their teaching although the CPD coordinator claimed that they had distributed need analysis forms. Further, the lack of the training for the newly installed smart-boards was indicated by many teachers. The smart-boards were installed but not used because of the lack of training.

In a similar vein, during the classroom observations almost none of the teachers used the smart-boards. Five out of 7 teachers used the speakers of the smart-boards only during the listening classes. The underuse of the available ICT was because of the lack of training. Teacher 13 in the interview stated:

The coordinator has no answer herself and it is something out of her hands. Thus, without support in terms of training and availability of ICT resources most teachers will not implement technology in their teaching.

Likewise, Teacher 16 pointed out that:

The classroom facilities are good enough because there are smart-boards and projectors. These ICT tools are not used because of the lack of training and an IT support team. Most of us (teachers) use the speakers of the smart-board only for listening classes and that's it. Also there is no Internet access in classrooms.

Most importantly, the quality of the ICT training for the academic staff is not sufficient. Many policy makers have indicated the need for qualified trainers in most of the faculties. They highlighted the need for better training, as most of the current training is general in nature. The shortage of qualified expertise for ICT training negatively affects the quality of training. Supporting the abovementioned views about classroom ICT facilities, the classroom observation data show that there are smart-boards, projectors and speakers in each classroom. However, there are no e-podiums and there is no Internet access. Accordingly, most of the teachers do not use them in their teaching because of the lack of training.

Change advocates need to go beyond one time training sessions while introducing technology (Abuhmaid, 2011; Fullan, 2007, 2013; Garrison & Vaughan, 2008). Teachers need follow-up support to develop their ICT skills. Most importantly, the research participants indicated the quality of the training sessions is essential. Thus, the training sessions should be more than just introductory sessions about general ICT skills. Teachers ought to improve their pedagogical skills when using ICT as well. As a result, a well-planned ICT adoption needs to take into account the importance of ICT training teams to

promote ICT uptake. The lack of qualified expertise discourages teachers' utilization of ICT. Additionally, training is also important for the IT support team. The research participants highlighted that the IT support team were not handling their problems effectively. Thereby, strategic planning for training needs to consider all the stakeholders' needs. Most importantly, training needs to include training teachers about recent teaching approaches e.g. student-centred and cooperative learning. Thus, comprehensive training planning for ICT should cover the soft as well as the pedagogical skills of teachers and students alike.

#### **6.1.6.7 Administrative Support**

Similarly, the ELC academic coordinator raised issues about teachers' willingness to change. She noted the need for team rather than individual efforts to better the uptake of ICT in language teaching. She highlighted the need for good administrative support in order to encourage teachers to utilize ICT, as many teachers might hope without action. Thus, the high-level administration should work as a change agent and as a driving force to promote ICT adoption. Likewise, the ELC assistant coordinator stressed the need for top-down change to promote ICT integration in language teaching. She indicated that they should start from high-level administration as they need to work on teachers' awareness and beliefs. She highlighted that due to institutional culture she could not ask teachers to use ICT in their teaching. Thus, a top-down change is necessary that works on teachers' awareness and practice. They (teachers) need to be fully convinced about the benefits of ICT in language teaching in order to utilize it in their teaching.

On the other hand, the Dean of e-learning illustrated the need for administrative support because of the difficulty of changing academic

staff beliefs and practices. He asserted the importance of belief in the benefits of ICT in education for effective uptake of ICT. Without strong support and belief from high-level administration, the utilization of ICT will remain satisfactory. In a similar vein, administrators indicated that there is an absent role of the high administration to better integrate ICT. They noted the need for good administrative support to pave the way for teachers' more effective use of ICT. They pointed out that providing ICT resources is not enough, as on-going administrative support is necessary to make sure that the final beneficiaries (teachers and students) are using it effectively. Thus, technology needs a good strategy that is based on a sound pedagogy in order to achieve effective implementation of ICT. More specifically, they (high-level administration) have to know that simply providing technology does not mean that teachers are going to utilize it. The best example is the smart-boards where they have been installed but are underused. Thus, the university's role should be that of a mediator between ICT and the final users (teachers and students). Otherwise, the adoption of technology will remain in name only, even if it has been provided officially. Thus, the implementation of ICT must not be for formality but for enhancing teaching and learning.

The analysed data show that administrative support is a central ingredient in efficient ICT adoption. Teachers and students ought to be motivated in the process of ICT utilization. Additionally, the possible obstacles must be overcome by change planners i.e. administrative support. In addition, the teacher's role is limited to teaching and learning, which in turns means that administrators have to take their roles seriously as leaders. Thus, a substantial change in the administration is essential for better ICT adoption. Adequate administrative support requires planning for ICT integration and motivating the stakeholders. Moreover, the paradigm shift in the way of handling change to go beyond paper based change is very significant (Fullan, 2007, 2013; Rogers, 2003). As a result, administrative support

should involve teachers in the proposed change. In addition, the planned change needs to be clear, compatible, necessary, practical and convenient (Fullan, 2007, 2013; Rogers, 2003). Thereby, for teachers and students to use ICT effectively, they need to be convinced of the potential benefits. Further, they need to be involved in planning and implementing the change aims. Thus, a top-down change is usually less successful, especially when teachers are unaware of the rationale for the change. Comprehensive administrative support takes into consideration all the possible factors that might impede ICT integration such as time, infrastructure, training, pedagogy and strategic planning. The below section illustrates how an inadequate infrastructure hinders the effective utilization of ICT in teaching.

#### **6.1.6.8 Issues of Infrastructure**

Infrastructure is a crucial factor that affects ICT integration. Without a proper infrastructure, the implementation of ICT will be very limited. In order to incorporate ICT effectively, teachers need proper ICT facilities. Issues such as a lack of adequate Internet connection, lack of computer labs and lack of an adequate IT support team have been indicated by many teachers.

Inadequate IT support is a major problem for ICT integration. Teachers need on-going IT support to overcome technical problems. Thus, insufficient IT support limits ICT integration. Many teachers pointed out that when they needed IT support, their problem was not solved most of the time. Additionally, Teacher 3 indicated that the IT support team only consisted of two people, and this meant that they had no time to handle the questions of 42 teachers. They explained that they had received no response when they raised the problem of the poor Internet connection. Consequently, they had to pay for their own mobile broadband.

Furthermore, many teachers indicated that the lack of ICT resources affected the implementation of ICT in language teaching. They claimed that they used to have projectors but this year smart-boards had been installed without training. Consequently, many teachers could not adopt ICT in their teaching. Most importantly, many teachers indicated that the underuse of the VLE was due to the limited ICT resources for teachers and students. They noted that students used ICT excessively for social and communicative purposes only. Additionally, the researcher observed the building and asked the teachers, administrators as well as policy makers about the ICT facilities on the university campus. The data reveal that students had no public workstations or Wi-Fi Internet access. Consequently, the inadequate infrastructure is a demotivating factor for students as well as teachers. Teachers pointed out that those students who use the VLE face the problem of poor Internet connection and the lack of public workstations. Surprisingly, there are many computer labs, however they are locked all the time as they are allocated for computer classes only.

Effective ICT planning takes into account that adequate infrastructure can motivate teachers and students greatly. A sufficient infrastructure means an encouraging atmosphere where students and teachers are surrounded by state of the art facilities. The availability of ICT resources encourages teachers' and students' utilization of technology and vice versa. Additionally, the importance of a proper infrastructure is highlighted by many studies (Abuhmaid, 2011; Albalawi, 2007; Albirini, 2004; Alebaikan, 2010; AlMulhim, 2013, 2014; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Mumtaz, 2000; Pyla, 2010; Zare-ee, 2011). Thus, policy makers must consider effective planning for well-developed infrastructure. On the other hand, providing ICT resources must not be considered as an end. There are many issues that ought to be handled besides the accessibility of ICT resources. Teachers and students need training and time for effective ICT integration. The data show that installing smart-boards does not mean an immediate uptake. Thereby, ICT planners need to adopt a comprehensive approach that covers all the interrelated issues like

training, time, infrastructure and policy. A well-planned ICT strategy should cover the means and the plans for motivating teachers' utilization of the obtainable ICT. Additionally, teachers need a dedicated IT support team to help them overcome their technical problems.

#### **6.1.7     What Support do EFL Teachers get from Taibah University when Implementing Technology?**

This question examines the support that EFL received while implementing ICT. It investigates any efforts that have been made in order to facilitate ICT adoption. The answer to this research question is the same as the answer to research question 2 (see answer of RQ2).

Research Questions	Rationale	Instruments	Analysis Method
RQ1- What are the objectives of adopting technology in language teaching?	This question investigates the aims of ICT adoption in language teaching. The researcher is examining the rationale for ICT adoption in education generally and language teaching specifically.	1. Interviews 2. Document reviews	Thematic Analysis
RQ2- What are the steps taken to achieve these objectives?	This question focuses on the efforts that have been made in order to increase the uptake of ICT in education at ELC level. It explores any ICT related projects that facilitate the utilization of ICT in teaching based on the stated aims.	1. Interviews 2. Document reviews 3. Classroom observations 4. Field notes 5. Focus groups	Thematic Analysis
RQ3- How does the contextual situation affect the implementation of technology	This question looks at how contextual practices affect ICT implementation negatively or positively. It examines the surrounding contextual factors and their impact on ICT integration.	1. Interviews 2. Document reviews 3. Classroom observations 4. Field notes 5. Focus groups	Thematic Analysis

Research Questions	Rationale	Instruments	Analysis Method
RQ4- What are the attitudes of EFL teachers towards ICT in teaching?	This question aims to shed a light on teachers' attitudes towards ICT integration. Attitudes are an important factor that encourages or impedes ICT adoption. Examining teachers' attitudes reflects their experiences of ICT uptake.	1. Interviews 2. Focus groups	Thematic Analysis
RQ5- How do EFL teachers implement technology in English teaching?	This question aims to understand the actual implementation of ICT by EFL teachers. It aims to take a close look at ICT integration in language teaching, which in turn helps to understand the adoption level of ICT at ELC.	1. Interviews 2. Focus groups 3. Classroom observations 4. Field notes	Thematic Analysis  6.2

<b>Research Questions</b>	<b>Rationale</b>	<b>Instruments</b>	<b>Analysis Method</b>
RQ6- What challenges do EFL teachers face when integrating technology?	This question explores the problems that EFL teachers encountered while implementing ICT. It summarizes the main issues that EFL teachers faced and considered as barriers to ICT integration. Identifying the main issues that impede ICT adoption provides guidance for ways to enhance ICT uptake.	<ol style="list-style-type: none"> <li>1. Interviews</li> <li>2. Focus groups</li> <li>3. Classroom observations</li> <li>4. Field notes</li> <li>5. Document reviews</li> </ol>	Thematic Analysis
RQ7- What support do EFL teachers get from Taibah University when implementing technology?	This question examines the support that EFL teachers received while implementing ICT. It investigates any efforts that have been made in order to facilitate ICT adoption.	<ol style="list-style-type: none"> <li>1. Interviews</li> <li>2. Focus groups</li> <li>3. Classroom observations</li> <li>4. Field notes</li> <li>5. Document reviews</li> </ol>	Thematic Analysis

Table 16 Research Questions Summary

### 6.3 Discussion of the Themes of the Main Findings

In this section, the researcher will discuss the research results based on the themes obtained from research tools, namely classroom observations, demographic questionnaires, semi-structured interviews, focus group interviews, document reviews and field notes. The following themes of the discussion chapter were developed based on the viewpoints of all the research participants. The themes will be discussed taking into consideration the previous studies and theories in the relevant literature.

The classification of the possible factors that encourage or obstruct teachers' ICT adoption is divided into three categories; teacher level factors and institutional level factors. Teacher level factors are issues which are related to teachers, such as teachers' attitudes and perceptions, lack of time, ICT competence, teachers' confidence and resistance to change. Institutional level factors are factors that are related to the institutional context e.g. lack of ICT resources, quality of the IT support, lack of Internet access, training, quality of infrastructure and the lack of administrative support. The third level factors are issues related to the broader educational contexts i.e. institutional culture and contextual factors like e-pedagogy and educational practices.

Identifying these factors enhances the understanding of the reasons for the weak adoption of ICT in education (Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Mumtaz, 2000). The following section indicates the factors that hinder teachers' effective integration of ICT in teaching. These factors might limit or enable teachers' ICT utilization in educational institutions.

## 6.4 Teacher Level Factors

These are the factors that relate to the teachers (time, attitudes, competence) and hence affect their ICT utilization. The following section will illustrate these factors in detail.

### 6.4.1 Time Constraints

Effective ICT adoption should be based on a rationale that ICT develops teachers' practices (Rani & Kant, 2016; Rogers, 2003). To achieve this aim, policy makers need to allocate sufficient time for teachers to envision the potential benefits of ICT. On the other hand, many studies have shown that teachers report issues of time when implementing ICT (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; AlMulhim, 2014; Alwani & Soomro, 2010; Assareh & Hosseini Bidokht, 2011; Aydin, 2013; Becta, 2004; Bingimlas, 2009; Kamal, 2012; M. S. H. Khan et al., 2012; Mbodila et al., 2013; Mumtaz, 2000; Sang et al., 2010; Toro & Joshi, 2012; Zare-ee, 2011). Teachers indicate that time is the main inhibitor when trying to integrate ICT. Similarly, the current research results show that time is the main obstacle for teachers besides many other factors. Teachers indicate that they are busy with their loaded schedules and invigilation duties. Specifically, teachers could not attend the announced training sessions due to lack of time. They illustrated that although they acknowledged ICT adoption, they could not utilize it. Additionally, besides time teachers reported issues with the extensive materials that need be covered. They indicated that they have four textbooks to be covered along with activity books. Moreover, they pointed out the limited class time let alone time for ICT adoption. Further, the participant teachers indicated that they have 20 hours a week of classroom based teaching. Most importantly, they reported that ICT utilization was optional and not a core requirement. According to teachers, for effective ICT adoption, policy makers should reduce their class time to adopt blended teaching. Thus, change advocates need to consider the allocation of time when introducing ICT.

Policy makers and change advocates need to plan sufficient time to better ICT adoption. They should go beyond providing ICT tools only. Therefore, for the VLE to be utilized effectively, students and teachers need time to familiarize themselves with its materials. Most importantly, teachers illustrated that the add on approach is an ineffective implementation process. Moreover, they indicated that even students struggle with time as they have so many modules in the foundation year. Thereby, ICT integration should be part of the core requirement and in turn, allocation of time for this is necessary. Supporting this view, many scholars highlight the importance of teachers' active role in online learning (Alebaikan, 2010; Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Reinders, 2012; Vaughan, 2010; Weller, 2007, 2009). They indicate that teachers' engagement with students motivates them when learning online. Significantly, when teachers are absent, this demotivates students, as they feel alone and isolated. Thus, for teachers to be active on the online platform, they need more time for their new role. Thereby change advocates need to consider the allocation of sufficient time to teachers in order for them to be present online. As a result, careful planning of ICT integration needs to consider the allocated time for technology. Worse than this, is when policy makers provide ICT tools and allocate no time, which in turn enhances its marginal role. Consequently, teachers and students will focus on their core requirements as they lack time. The current results show that the VLE was introduced but no time was allocated for it. Thus, teachers and students lacked the time to utilize it effectively. Most importantly, the VLE was not a core requirement and was not part of the official assessment. Thus, its utilization remained ineffective due to many interrelated issues besides time.

On the other hand, many studies have shown that teachers need sufficient time to cooperate with each other in terms of ICT utilization. They need time to perceive the pedagogical benefits of ICT tools and familiarize themselves with them (Alebaikan, 2010; Fullan, 2013; Garrison & Vaughan, 2008; Levy, 2012; Mumtaz, 2000; Pyla, 2010; Rani & Kant, 2016; Reinders, 2012). Thus, change

advocates and policy makers need to consider sufficient time allocation in order to have better integration of ICT.

Time constraints have been reported by many studies (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; AlMulhim, 2014; Alwani & Soomro, 2010; Assareh & Hosseini Bidokht, 2011; Aydin, 2013; Becta, 2004; Bingimlas, 2009; Kamal, 2012; M. S. H. Khan et al., 2012; Mbodila et al., 2013; Mumtaz, 2000; Sang et al., 2010; Toro & Joshi, 2012; Zare-ee, 2011). Thus, the findings of this research are similar to what has been reported in the literature about lack of time and ICT adoption. The current research findings indicate that time is crucial for effective ICT implementation. The research participants indicated the traditional rigid educational context. They pointed out that textbooks, pacing schedules, marking schemes, teaching loads and VLE utilization bonuses are all fixed and they are not allowed to make any changes. Therefore, policy makers need to plan sufficient time that compromises between campus-based teaching and online teaching in order to have better ICT adoption. Thus, the current study supports the recommendations of the previous studies that highlight the importance of time allocation for effective ICT implementation (Al-Dosari, 2011; Al-Shahrani & Al-Shehri, 2012; Albirini, 2006; Alhawiti, 2011; AlMulhim, 2014; Alwani & Soomro, 2010; Asiri et al., 2012b; Bates & Sangra, 2011; Bingimlas, 2009; Fullan, 2007; M. S. H. Khan et al., 2012; Mumtaz, 2000).

#### **6.4.2 Teachers' ICT Competence and Training**

ICT competence and training are very interrelated factors. The two factors are positively correlated to each other. Many studies have shown that teachers' competence is affected by ICT training in most educational institutions (Alwani

& Soomro, 2010; Bingimlas, 2009; Fullan, 2007; Gülbahar, 2008; Mumtaz, 2000; Zare-ee, 2011). Thus, those two factors are key indicators of teachers' willingness to integrate ICT.

Teachers' competence with ICT reinforces the effective implementation of its tools and vice versa. Thereby, to enhance teachers' competence with ICT, many researchers indicate the importance of training in order to have effective ICT incorporation (Abuhmaid, 2011; Alebaikan, 2010; Bingimlas, 2009; Fullan, 2007; Hismanoglu, 2012; Mumtaz, 2000; Rani & Kant, 2016; Ruales & Adriano, 2011). Most importantly, many studies highlight the lack of pre-service ICT training which in turn necessitates in-service training (Abuhmaid, 2011; Al-Hazmi, 2003a; Hismanoglu, 2012; Rani & Kant, 2016; Tømte et al., 2009). Supporting this view, the current study results indicate that most teachers lack the appropriate training to utilize ICT effectively. More specifically, the researcher has reviewed the study plans of English departments in the main eight universities in Saudi Arabia (including Taibah University) to identify any ICT related modules. The review shows that most, if not all, of the universities have a mixture of literature as well as applied linguistics modules. Accordingly, the researcher found no module about CALL or ICT in education in most of the Saudi undergraduate EFL programs. Thus, there is no focus on ICT enhanced education in Saudi pre-service education programs. Consequently, Saudi EFL teachers lack the sufficient preparation to utilize ICT in teaching. Additionally, the obtained data from the demographic questionnaire show that most, if not all, teachers had no modules about ICT in their pre-service education. Accordingly, this brings to light the need for a well-developed training program.

The lack of adequate preparation necessitates in-service continuous professional training for EFL teachers. Thus, teachers' competence is affected by efficient training and vice versa. Therefore, to enhance teachers' competence, policy makers should address the quality of the proposed training in ICT. The current research findings indicate that teachers report issues of insufficient training sessions. Teachers illustrate that most training sessions are

general and focus on the basic soft skills. Thereby, to have effective ICT adoption, training ought to go beyond surface ICT skills. Thus, training needs to address the pedagogical benefits of the adopted ICT tools. Teachers need to envision their (ICT tools) use for the enhancement of their everyday practices. Most importantly, teachers' involvement in ICT planning is essential. Therefore, training should consider involving teachers in ICT rationale and aims. Additionally, effective training means that teachers are fully aware of the potential benefits of ICT. In other words, training advocates need to work on teachers' beliefs and attitudes, as they are key indicators of effective adoption. Thus, the quality of the presented training plays a major role in teachers' willingness to utilize ICT effectively. Accordingly, many studies have shown that one time training sessions have least effect on teachers' development (Abuhmaid, 2011; Alebaikan, 2010; Mumtaz, 2000; Rani & Kant, 2016; Ruales & Adriano, 2011; Tømte et al., 2009). Therefore, training should be continuous and deep in nature i.e. focusing on soft skills and pedagogical skills.

On the other hand, policy makers need to motivate teachers to implement ICT in their teaching. Effective training is a good motivational strategy for better ICT adoption. Teachers need allocation of time for continuous training sessions in ICT integration. Moreover, teachers need incentives to better integrate ICT into their teaching. The current research results indicate that teachers lack time to attend training sessions. Teachers reported that they were too busy with their teaching loads and administrative duties to attend training sessions. Thereby, training advocates need to allocate more time to training sessions. In addition, many administrators reported the lack of strong policy to motivate teachers to attend training sessions. They highlighted that teachers are encouraged to attend training sessions but there is no follow up to their poor attendance. They indicated that policy makers need to consider training as a primary requirement for teachers. Supporting this view, Tømte et al. (2009) conducted a study about ICT training in Norway and found that although there were policies and plans in place in terms of ICT training, most of the aims were not achieved. The study

reports the mismatch between the institutional practices and the stated policy. Thus, a strong policy is essential to motivate unwilling teachers to attend training sessions.

Regarding ICT competence and training, the findings of this research are similar to those found in the literature in many different contexts (Al-Rashed, 2002; Al-Shumaimeri, 2008; Albalawi, 2007; Albirini, 2006; Alebaikan, 2010; Alenezi, 2012; Alhawiti, 2011; AlMulhim, 2014; Alsadoon, 2009; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Fullan, 2007; Gülbahar, 2008; Hismanoglu, 2012; Hu, 2009; Johnson, 2012; B. H. Khan, 2005; M. S. H. Khan et al., 2012; Mumtaz, 2000; Zare-ee, 2011). The current research results are consistent with the findings of the above-mentioned studies. The current study expands on the previous research results in terms of the quality of training sessions. More specifically, most of the studies in the Saudi context highlight the lack of training in ICT (Al-Jarf, 2007; Al-Rashed, 2002; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2014; AlMulhim, 2014; Bingimlas, 2009; Fageeh, 2011). However, not many studies highlight the quality of the proposed training sessions in ICT in the Saudi context. Therefore, the current research expands on the previous findings in terms of quality of training. The current study reports issues with one time training sessions i.e. not continuous. In addition, the study indicates that a strong policy is needed to motivate unwilling teachers to attend training sessions. Most significantly, the current study findings have shown that the current Saudi academic policy is merely about publishing not training. Thereby, the current policy does not address training for academic staff, which in turns leads to poor attendance at training sessions. Therefore, a strong policy is needed in order to motivate academic staff to attend training sessions. To enhance teachers' ICT competence to develop their skills, effective policies and practice are essential for better ICT incorporation.

#### 6.4.3 Teachers' Attitudes Towards & Perceptions of ICT

Policy makers might yield to a consensus if all stakeholders are involved in the planned change. Building a shared vision helps to build a trust and shape positive attitudes about the proposed change (Schleicher, 2018). In response, teachers' attitudes are a determinant of the degree of achievable change.

The cooperation of policy makers and teachers enhances awareness and hence a climate of achievable change can be developed. Accordingly, teachers' attitudes are significantly important for effective ICT integration. Thus, a substantial number of studies have investigated the role of teachers' attitudes in effective ICT adoption (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Arokiasamy, 2012; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Sang et al., 2010; Ziyadah, 2012). Illustrating the importance of teachers' attitudes in implementing change, Schleicher (2018) indicates that changing teachers' attitudes is "the most important point of leverage for change in education" (p. 87). He describes "the challenge as a shift in instruction from knowledge transmission to knowledge co-creation, from receiving abstractions in textbooks to learning by experimenting, from summative evaluation to formative monitoring. This often requires transforming a fear of failure into a willingness to try" (p.87). Consequently, introducing ICT without promoting teachers' positive attitudes, leads to poor incorporation of ICT. Thereby, identifying teachers' attitudes helps policy makers to envisage a clear picture of the expected outcomes of the proposed change.

On the other hand, extensive studies have indicated that teachers' attitudes towards ICT are interlocked with many other factors such as training, confidence, competence, perceptions and experiences (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Arokiasamy, 2012; Balanskat et al., 2006; Becta, 2003; Gülbahar, 2008; Hismanoglu, 2012; Mumtaz, 2000; Sang et al., 2010). Thus, policy makers need to take into account that teachers'

attitudes are the result of many issues, such as training, poor experiences, ICT competence and infrastructure. As a result, ICT integration should be based on a process that takes into consideration all the interrelated factors that shape teachers' attitudes. Worse than this, is when change advocates introduce ICT tools and expect teachers to utilize them instantly. Additionally, successful plans of change promote the development of teachers' learning communities where teachers can share and exchange their expertise and experiences (Fullan, 2007; Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012; Schleicher, 2018). Supporting this view, the current study results indicate that teachers are unable to utilize ICT effectively. They are not involved in ICT planning or ICT utilization as they are too busy with classroom based teaching. Most importantly, although most of them hold positive attitudes towards ICT, their integration is very weak. Similarly, many studies have found an inconsistency between teachers' attitudes and their actual uptake i.e. many teachers appreciate the positive role of ICT (positive attitudes) but do not integrate it in their teaching (Albirini, 2006; Alebaikan, 2010; AlMulhim, 2013, 2014; Becta, 2004; Bingimlas, 2009; Gülbahar, 2008; Hismanoglu, 2012; Mumtaz, 2000). Thereby, teachers' poor integration of ICT should be investigated beyond attitude focused studies. In other words, other issues that affect their ICT utilization should be investigated like training, support and infrastructure.

On the contrary, teachers' attitudes in many instances mirror the actual situation of the research context i.e. they reflect the reasons for the developed attitudes (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Arokiasamy, 2012; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Sang et al., 2010; Ziyadah, 2012). Thus, investigating teachers' actual practices besides attitudes enhances the understanding of the research problem (weak uptake of ICT). Supporting this view, the current study results indicate that although most teachers have positive attitudes towards ICT, they do not utilize it. Teachers indicate issues of time, training, support and infrastructure. Thus, it is essential to adopt a broader view when investigating teachers' integration of ICT. More importantly, policy makers should develop strategies to promote teachers' positive attitudes

towards ICT. Training is the main strategy that “needs to be continuous and include education, practice and feedback, and provide adequate time for follow-up. Successful programmes involve teachers in learning activities that are similar to those they will use with their students” (Schleicher, 2018, p.87). Effective CPD strategies take into account that pedagogy as well as ICT skills have equal importance if better integration is planned. Thereby, policy makers should not expect immediate utilization of ICT if training and attitudes are overlooked.

Regarding attitudes, the current study findings support the existing body of research which indicates that teachers' attitudes are not a mirror of their practice (Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Alhawiti, 2011; AlMulhim, 2013, 2014; Alwani & Soomro, 2010; Arokiasamy, 2012; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Rani & Kant, 2016; Ruales & Adriano, 2011; Sang et al., 2010; Ziyadah, 2012). More specifically, the participant teachers held positive attitudes towards ICT despite the poor utilization of its tools. The examined data show that the majority of teachers, although not using ICT, held positive attitudes towards ICT. Accordingly, attitudes alone will not reflect the actual situation, thus we need to consider other issues besides attitudes.

## 6.5 Institutional Level Factors

The institutional level factors are usually themes proposed due to the surrounding context rather than the individual teachers. There are many institutional level factors that support or hinder teachers' uptake of ICT in teaching. These factors are very much interrelated to teacher level factors e.g. the un/availability of ICT resources enhances or impedes teachers' attitudes to

integrating ICT and so forth. Similarly, training is interlocked with teachers' ICT competence.

### **6.5.1     Quality of Infrastructure**

"The Internet is a driving force for much development and innovation in individuals, business organizations, educational institutions and society at large" (Pyla, 2010, p.29). Accordingly, many educational institutions have invested in developing its infrastructure to build robust ICT tools. Building the latest ICT infrastructure is a process that demands financial investments in human as well as ICT resources. (Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Alhawiti, 2011; AlMulhim, 2014; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000; Pyla, 2010; Ziyadah, 2012). Indicating the importance of an adequate infrastructure in ICT adoption, many studies illustrate that the lack of sufficient infrastructures have restricted teachers' utilization (Al-Dosari, 2011; Alebaikan, 2010; AlMulhim, 2014; Bingimlas, 2009; Fageeh, 2011; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000). The studies indicate that lack of Internet access and lack of computer labs were key inhibitors. More specifically, some studies highlight that the quality of infrastructure is very important (Al-Dosari, 2011; Alebaikan, 2010; AlMulhim, 2013, 2014; Bingimlas, 2009; Fageeh, 2011; Hismanoglu, 2012; Mumtaz, 2000; Rani & Kant, 2016). In the meanwhile, educational institutions should take into account that the quality of their infrastructure is very important rather than merely providing ICT tools. Supporting this view, the current study results indicate that although the university has provided some ICT tools, teachers still encounter many problems. Teachers indicate the lack of the training of the newly installed smart-boards. They noted the limited number of sessions about the technical aspects of smart-boards. More importantly, regarding the VLE, teachers highlighted the urgent need for adequate Internet access for them as

well as for students. They indicated that students need computer labs on campus so they can utilize the VLE in their free time. Moreover, teachers pointed out that they had encountered many technical problems while trying to get access to the university wireless network. Thus, they indicated that these technical issues need to be addressed before introducing ICT tools. In addition, many teachers highlighted the need for sufficient IT support to enhance their ICT integration. They noted the lack of an adequate IT support team as they have only two people tackling problem of more than 44 teachers. The participant teachers indicated the need for sufficient training for the IT team. Thus, they indicated that policy makers need to address the technical needs in order to tailor an adequate plan to overcome these obstacles. Similarly, a substantial number of studies highlight that lack of computer labs, lack of Internet access and lack of student workstations are hindering teachers' willingness to integrate ICT (Al-Dosari, 2011; Alebaikan, 2010; AlMulhim, 2014; Bingimlas, 2009; Fageeh, 2011; Hismanoglu, 2012; M. S. H. Khan et al., 2012; Mumtaz, 2000). The studies indicate that teachers need an adequate infrastructure as well as a qualified IT support team who are able to solve their problems immediately. Thereby, policy makers ought to take into consideration that inadequate infrastructure and lack of proper administrative support enhances teachers' negative attitudes towards ICT integration. In a similar vein, Fullan (2007) indicates that "the main reason that change fails to occur in the first place on any scale, and is not sustained when it does, is that the infrastructure is weak, unhelpful, or working at cross-purposes" (p.18). On the contrary, many scholars indicate the importance of addressing pedagogy besides infrastructure. More specifically, Garrison & Vaughan (2008) indicate that "It is not sufficient to simply change approaches without considering incentives and infrastructure as well. The essential first element of this transformation is to provide the incentives (financial, recognition, and reward) to re-evaluate and redesign approaches to teaching and learning" (p.170). As a result, ICT integration is a complex process that needs well-designed plans which consider ICT issues as well as pedagogic strategies. This might explain why "digital technologies that have revolutionised nearly every aspect of our

lives have entered our children's classrooms surprisingly slowly" (Schleicher, 2018, p.207).

The findings of this research are similar to the research carried out by many scholars regarding the effect of infrastructure on ICT integration (Al-Shumaimeri, 2008; Albirini, 2006; Alebaikan, 2010; Alhawiti, 2011; Alhazmi & Rahman, 2012a; AlMulhim, 2014; Alwani & Soomro, 2010; Asiri et al., 2012a; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; Gülbahar, 2008; Hismanoglu, 2012; Hu, 2009; M. S. H. Khan et al., 2012; Mumtaz, 2000; Pyla, 2010; Ziyadah, 2012). Many teachers pointed out that the unavailability of Internet access and insufficient IT support teams were crucial barriers to ICT adoption. They indicated that there was poor communication with IT support teams when they raised issues of poor Internet access. As a result, they had to pay for their own Internet Wi-Fi access. Additionally, they indicated the absence of student computer workstations. Most importantly, due to the lack of student computer workstations, most students could not utilize the VLE interactive lessons. Accordingly, as the participants reported, all these issues led to the weak integration of ICT.

#### **6.5.2 Lack of ICT Resources**

"ICT according to a number of commentators, enhances teaching, learning, and research, both from the constructivist and instructive theories of learning. However the change in professional practices in which teachers are now enabled .... to incorporate more complex real world projects using ICT tools and resources" (Pyla, 2010, p.28). However, these promises of ICT enhanced teaching are not achieved properly, despite the many efforts of policy makers (Fullan, 2007, 2013; Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012; Schleicher, 2018; Selwyn, 2011; Weller, 2007, 2009). Thus, ICT integration strategies need to be well planned and ICT provision specifically needs to be followed by key issues like training and infrastructure.

Thereby, policy makers need to address the rationale for ICT integration, and consider if it is to be “truly transformative, or whether it is simply a repackaging of previous pedagogy”(Pyla, 2010, p. 28). Most importantly, many studies indicated that ICT integration was not effective despite the provision of available ICT resources (Alebaikan, 2010; Alebaikan & Troudi, 2010b; Alhawiti, 2011; AlMulhim, 2014; Becta, 2004; Bingimlas, 2009; Fageeh, 2011; M. S. H. Khan et al., 2012; Mumtaz, 2000). The studies indicate that the accessibility of ICT tools need to be coupled with issues like IT support, training and time. Similarly, the current research results indicate that although all students had free accounts to the VLE, their utilization was very poor. The research participants indicated that students did not have computer workstations or adequate Internet access. The findings also highlight that the optional basis strategy is not effective as ICT utilization is not a core requirement. Thus, the insufficient infrastructure along with the ineffective integration strategy hindered proper ICT integration. As a result, teachers as well as students need to consider the rationale for ICT integration and its potential for their teaching and learning. More specifically, if the utilization of ICT (VLE) is not part of the official assessment, students and teachers alike will consider its role as minor. Consequently, the incorporation of ICT will remain superficial or even artificial in many instances. The present study has shown that despite the availability of the newly installed smart-boards, teachers have not utilized them due to many interrelated issues such as training, lack of time, and inadequate administrative support. Thus, policy makers ought to take into account that providing ICT tools is only the first step on a longer journey ahead. The VLE was available to students and the university invested a considerable amount of money in order to make it free to students but students have not used it effectively. Worse than this, teachers have an absent role as they were not involved in ICT utilization. Thus, when introducing ICT to campus based teaching, the amount of teaching needs to be restructured. Teachers have complained that ICT utilization has not reduced their classroom based teaching. Consequently, its (ICT) utilization is considered as a burden not as a privilege. Thus, policy makers need to plan a strategy that balances between ICT implementation and classroom based teaching when

introducing ICT to campus based teaching. Additionally, students and teachers need to envision the pedagogical benefits of ICT (VLE) to utilize it effectively. In other words, providing ICT tools without introducing their potential is of the main issues that needs to be addressed. Thus, many authors indicate that the involved stakeholders should know the rationale, benefits and the aims of the proposed change (Cuban, 2003, 2013, Fullan, 2007, 2013; Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Reinders, 2012; Selwyn, 2011; Vaughan, 2010; Weller, 2007). Moreover, accessibility of ICT resources needs to be combined with issues like IT support, effective implementation strategy and time allocation. Similarly, the current study findings have shown that despite the provision of ICT (VLE), there were not enough ICT resources. Thus, effective infrastructure enhances proper ICT adoption if it is coupled with well-informed pedagogical strategies.

The results of this research are consistent with the findings of many previous studies which have indicated that lack of ICT resources is one the main constraints of ICT adoption (Alhawiti, 2011; AlMulhim, 2014; Becta, 2004; Bingimlas, 2009; M. S. H. Khan et al., 2012; Mumtaz, 2000). The studies have shown that the unavailability and inaccessibility of ICT resources affects teachers' integration of ICT (Bingimlas, 2009; M. S. H. Khan et al., 2012; Mumtaz, 2000). Similarly, the current study results support previous research findings, which highlight that having proper ICT resources is a key ingredient to effective ICT adoption. Similarly, the lack of ICT resources is highlighted in many Saudi studies (Al-Jarf, 2009; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alhawiti, 2011; AlMulhim, 2014; Alwani & Soomro, 2010; Bingimlas, 2009; Fageeh, 2011). These studies show that the lack of sufficient resources hinders students' and teachers' utilization of ICT. The studies have also indicated that the lack of computer labs on-campus and the unavailability of student public workstations discourages teachers as well as students from implementing ICT in higher education and public schools. Most importantly, the absence of such resources in educational institutions leads to poor ICT skills for teachers as well as students in the twenty-first century (Alebaikan, 2010; M. S. H. Khan et al., 2012; Mumtaz, 2000; Selwyn, 2011).

It is noteworthy that the above-mentioned factors are very much interrelated to each other. They work in a dynamic way as each factor affects many other factors e.g. teachers' confidence is very much interlocked with teachers' access to ICT and training. Also, teachers' training affects teachers' attitudes and confidence and so forth (AlMulhim, 2014; Alwani & Soomro, 2010; Becta, 2004; Bingimlas, 2009; Mumtaz, 2000).

## **6.6 Broader Institutional and Pedagogical Factors**

The below is a discussion of themes that are related to the outer educational institutions. The themes are not necessary related to the research context, because they reflect the broader educational culture.

### **6.6.1 Pedagogy Led Technology Integration**

“No matter how far removed the teacher might seem, the teacher still influences the effect of the learning activity, and will always play a crucial role in education” (Edick, 2015, para.16). Thereby, overestimating technology is when policy makers introduce technology and neglect the fact that pedagogy is the first step towards effective ICT adoption. The current study results show that over reliance on lecture based teaching and a teacher centred approach is limiting the potential of technology. The research findings show that change advocates have introduced ICT (VLE) and placed less focus on the teacher's role. The results show that ICT brings the least change in terms of the teachers' typical role (lecturing). Additionally, traditional classroom based teaching is the same and we can clearly see that ICT has been introduced without a reduction in classroom based time. As a result, teachers adhere to their traditional role (information giver) and students' motivations to utilize ICT remain inadequate. Moreover, the data show that teachers were absent as they were not involved in VLE utilization. The findings reflect the fact that a lack of connection between ICT (VLE) and teachers' everyday teaching leads to ineffective utilization.

Technology adoption does not fit the course aims or the course's assessment. Thereby, students and teachers could not see the rationale for ICT in their course. The focus was not on technology as students and teachers did not see the potential benefits of technology. In a similar vein, many researchers highlight the importance of pedagogy before the introduction of ICT (Al-Shahrani & Al-Shehri, 2012; Alebaikan, 2010; Alebaikan & Troudi, 2014; AlMulhim, 2014; Alshwiah, 2009; Bingimlas, 2009; Fullan, 2007, 2013; Vaughan, 2007; Weller, 2007). Specifically, Reinders (2012) indicates that students need an appropriate scaffolding to encourage their online learning. In other words, teachers have a significant role in managing and facilitating online learning. Thereby, teachers need to design their online courses so that they match the course objectives (Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012; Vaughan, 2007). Therefore, the introduction of ICT should be planned with course aims in mind. Worse than this, is when policy makers introduce technology alone i.e. ignoring poor pedagogical practices. Similarly, replicating traditional practices when utilising technology reinforces the poor pedagogy (Fullan, 2007; Okojie et al., 2006; Vaughan, 2007; Weller, 2007). More specifically, the delivery of an information strategy that considers ICT as a content repository and ignores the significance of conception interaction is an example of poor pedagogy. In turn, providing only online materials along with giving teachers a limited role leads to the ineffective implementation of ICT. As a result, teachers as well as policy makers need to consider the suitable technology for teachers and examine its significance for the curriculum objectives. Additionally, teachers need to have active roles as learning facilitators who encourage students to utilize technology. The data show that the absence of teachers has discouraged students from utilizing the VLE effectively. Moreover, utilizing technology is a lonely activity in most instances. Thus, teachers' support is crucial to students. Further, students are not used to self-directed learning which necessitate the teachers' motivating role.

Furthermore, change advocates need to go beyond legislation and document provision in order to have effective ICT implementation (Beycioglu & Kondakci, 2014; Fullan, 2007; Okojie et al., 2006; Price & Oliver, 2007b, 2007a). Thus,

policy makers need to work as change agents in terms of focusing on pedagogical practices. Therefore, many scholars indicate that change advocates have mainly focused on documents and regulations and neglected poor teaching practices. Additionally, providing ICT alone does not result in automatic incorporation. There are many issues that need to be addressed like pedagogy, teachers' beliefs and the traditional dominant culture in the classroom. Importantly, the current results show that stating ICT aims needs to be followed with clear steps to achieve the mentioned objectives. Thus, adopting policy level change (aims) only reflects a poor implementation approach. Consequently, the adoption of ICT is superficial due to the insufficient strategy that overestimates technology. Supporting this view, Alebaikan (2010) conducted a study investigating blended learning in a Saudi university and found that poor e-pedagogy has affected blended learning negatively. The study shows that teachers replicate their traditional practices, which in turn limits the potential of online learning. In addition, the students in the study indicated that teachers' weak involvement in the online VLE discouraged them to utilize it. Thereby, the employment of ICT as a tool should be based on a sound pedagogy. Therefore, training teachers on how to use ICT effectively enhances ICT adoption.

The findings of the study are in line with previous studies that indicate the importance of pedagogy-led technology integration (Al-Khalifa, 2010b; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2010a, 2014; Arokiasamy, 2012; Cuban, 1993, 2003, Fullan, 2013, 2007; Mumtaz, 2000; Sang et al., 2010; Selwyn, 2011). This result is consistent with many studies that indicate that ICT adoption should be based on a well-informed pedagogy (Fullan, 2007, 2013; Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012). Thus, policy makers ought to reach a compromise that does not overestimate technology nor underestimate its potential benefits. They need to take into consideration that the triad (technology, pedagogy, change

management) is an interrelated process that forms effective ICT utilization (Fullan, 2007, 2013).

### **6.6.2 Insufficient ICT Integration Strategy**

The adoption strategy of ICT is a key indicator of its effectiveness in educational institutions. Thus, our approach to ICT employment hinders or supports effective ICT integration. Thereby, technology should play a major role in students' learning experience. Worse than this is when change advocates introduce ICT with a limited marginal role and expect effective integration. Consequently, for students as well as teachers to have effective ICT adoption, technology should have an integral part in the curriculum. Many scholars indicate that dealing with technology as an add-on approach reinforces its ineffectiveness (Fullan, 2007, 2013; Garrison & Vaughan, 2008; "JISC Digital Media," 2013; Okojie et al., 2006; Weller, 2007). Therefore, ICT integration ought to go beyond adding technology to pre-existing courses. By doing so, policy makers unknowingly enhance its secondary role and ICT adoption remains ineffective. Another strategy that consolidates technology's minor role is the optional basis approach. Policy makers need to consider that the optional integration of ICT will not motivate teachers or students. Thus, studies have shown that teachers' motivation is important for effective ICT incorporation (Alebaikan, 2010; Alebaikan & Troudi, 2010a; Asiri et al., 2012b; Bingimlas, 2009; Mumtaz, 2000). Most importantly, the optional basis approach implies a marginal role for ICT, as its utilization is left to students' as well as teachers' personal interests. In consequence, ineffective utilization is the norm in most educational institutions. Thereby, policy makers need to consider the potential role of technology. More importantly, consideration should focus on the will as well as the way when equipping educational institutions with ICT tools.

The data from the current research show that the 5% bonus marks for students were not sufficient to motivate them to utilize the VLE. Moreover, the data indicate that teachers' absence discourages students from utilizing the VLE effectively. Students' poor utilization of the VLE is coupled with teachers' poor involvement. Consequently, the VLE was not used effectively, despite the stated aims of its advocates. Additionally, many researchers have shown that dealing with the VLE as a self-access repository is a demotivating approach (Al-Shahrani & Al-Shehri, 2012; Alebaikan & Troudi, 2010a; Alhazmi & Rahman, 2012b, 2012a; Britain & Liber, 1999; "JISC Digital Media," 2013; Stiles, 2000, 2007; Weller, 2007). Thus, policy makers should not consider the VLE as a storage place for materials. There must be a focus on student/teacher interaction in the online platform. Without this, the utilization of the VLE will be bounded in most of the educational institutions. The pedagogical practices need to consider students' active role in learning and thus encourage their cooperation and engagement with each other. Additionally, to promote students' interaction, teachers need to have a pivotal role in the online platform (Garrison & Vaughan, 2008; Levy, 2012; Levy & Stockwell, 2008; Reinders, 2012; Vaughan, 2007). The current study results have shown that although the university has invested a large amount of money in order to buy the licence for the commercial Englishtown VLE, the utilization of its features remains very limited. The university provides all students with free access to its online materials but students' utilization is very poor. The data show that providing ICT only is an ineffective approach. Teachers and students need to envision the rationale for the adopted VLE. Most importantly, the VLE should be an integral part of course objectives. Without this, the VLE will remain marginal, as teachers and students are busy with everyday classroom based teaching. Thus, what matters with ICT integration is its implementation strategies not the ICT itself (Fullan, 2007, 2013; Levy, 2012; Okojie et al., 2006; Phipps, Cormier, & Stiles, 2008; Price & Oliver, 2007b, 2007a; Reinders, 2012; Stiles, 2007; Weller, 2009, 2007). Supporting this view, Al-Shahrani & Al-Shehri (2012) conducted a study and found that VLEs were used as an announcement tool rather than a learning tool. The researchers indicated that VLE management features were

implemented, not the interactive tools. The study concludes that poor pedagogical practices have affected the rate of adoption negatively. Thus, pre-existing beliefs and knowledge enhance the rate of adoption (Rogers, 2003). In summary, the pedagogical practices that encourage interaction, dialogue, engagement, discussion from teachers and students, form the basis for effective ICT adoption, not vice versa (Fullan, 2007, 2013; Levy, 2012; Levy & Stockwell, 2008; Okojie et al., 2006; Price & Oliver, 2007b, 2007a; Reinders, 2012; Weller, 2007, 2009).

The findings of the current study confirm previous research findings in terms of poor e-pedagogy regarding VLE utilization. More specifically, the limited use of the VLE in many contexts, is largely due to poor e-pedagogy when teachers lack sufficient integration and consider ICT adoption as a minor activity (Abuhmaid, 2011; Al-Shahrani & Al-Shehri, 2012; Al-Shumaimeri, 2008; Alebaikan, 2010; Alebaikan & Troudi, 2010a; Otter, 2012; Rani & Kant, 2016; Ruales & Adriano, 2011; Tømte et al., 2009). The current study supports the previous studies that highlight the importance of addressing pedagogy before technology. Significantly, the current study findings expand on the previous research results in terms of the importance of an integration strategy for effective ICT adoption. The current study results indicate the importance of an effective strategy for effective ICT implementation. The study highlights that providing documents and aims along with technology tools is not enough. The integration strategy should be based on a sound pedagogy and technology must be an integral part of the curriculum. Without this, the integration of ICT will remain in name only in most educational settings (Asiri et al., 2012b, 2012a; Fullan, 2013; Price & Oliver, 2007b, 2007a).

## 6.7 Summary

The discussion chapter presents a detailed account of the current research findings. The chapter is divided into two sections; the first section states the answers to the research questions explicitly while the second section discusses the research results. The first section provides answers to the research question along with analysis of those answers. The second section explains the research findings in relation to the body of literature. The findings were classified into three categories; teachers, institutional and broader educational culture. Issues like time and attitudes have affected teachers' willingness to adopt ICT. Additionally, teachers' competence and training have been considered as key indicators of effective ICT implementation. Further, institutional factors like infrastructure and ICT resources were considered as key identifiers of effective ICT adoption. Most importantly, policy makers need to go beyond ICT provision as there are many issues that need to be addressed like training and IT support. The results indicate that there are issues that relate to the broader educational culture. Thus, change advocates ought to take into account the fact that typical pedagogical practices are essential for effective ICT incorporation. Traditional educational methodologies along with organizational structure can enhance or inhibit ICT adoption. Thereby, policy makers should have a comprehensive view of ICT adoption i.e. take into consideration that ICT adoption is a process not a one-time product. Regarding effective ICT strategies, the implementation strategy should go beyond adding ICT utilization to a pre-existing course. By doing so, teachers and students alike consider ICT as a burden not a potential benefit. As a result, to envision the impact of ICT, its rationale and aims need to be well explained to the prospective stakeholders. Consequently, ICT should be a major part of the assigned curriculum, not placed in a supplementary marginal position. In summary, planning ICT change is a difficult and complicated process that exceeds a policy production. In other words, policy makers need to go beyond legislation and regulations for aims and objectives. Thus, well-planned ICT integration should be based on a change management strategy that takes into account the fact that teachers' and

students' incorporation of ICT is an ongoing process that needs continuous support.

# **Chapter 7: Conclusions and Recommendations**

There are two approaches to researching ICT integration in education; research about e-learning and research for e-learning, where the former examines it as a social and pedagogical practice and the latter investigates the design process that enhances e-learning in terms of practical design aspects (Cloke & Sharif, 2001; Haythornthwaite & Andrews, 2011). The current research fits into the research about e-learning category, and aims to examine EFL teachers' experiences of ICT integration in terms of their attitude, utilization and the support they receive. Also, the research examines the implementation of change in educational institutions in terms of ICT adoption.

The rationale behind ICT integration in teaching is to revolutionize the learning process, either by facilitating educational challenges that confront instructors and students, or by introducing opportunities that might have not existed before (El-Ghareeb, 2009). The intended outcome of the study is to extend the current understanding of ICT adoption: what it is, teachers' utilization, how to maximize its effectiveness and pedagogy and ICT integration.

## **7.1 Overview of the Research Aims and Methodology**

The main objectives of the study are to investigate teachers' experiences of ICT incorporation at Taibah University in the preparation year. Moreover, the research project studies teachers' attitudes, utilization and the support they receive while incorporating ICT in language teaching in the ELC. Studying teachers' views about technology is very important to assess its effectiveness

as a teaching and learning tool. The research also examines administrators' as well as policy makers' viewpoints about technology adoption in language teaching. The objectives of the study are to investigate the employment of change represented by ICT adoption along with campus-based education. The following research questions have been designed to gain a better conception of the research problem i.e. ineffective ICT adoption:

## **Main Research Question**

What are the factors that affect EFL teachers' adoption of technology in language teaching?

### **A-Policy (context) level:**

- 1 What are the objectives of adopting technology in teaching?
- 2 What are the steps taken to achieve these objectives?
- 3 How does the contextual situation affect the implementation of technology?

### **B-Perception level:**

4. What are the attitudes of EFL teachers towards ICT in teaching?
5. What challenges do EFL teachers face when integrating technology?

### **C- Actual Implementation level:**

6. How do EFL teachers implement technology in English teaching?
7. What support do EFL teachers get from Taibah University when implementing technology?

The research questions aimed to investigate the objectives and the guidelines about technology integration (policy level). Also, the research questions explore the current practices of technology adoption (implementation level). Further, the research questions also investigate teachers' experiences, attitudes, and the challenges of technology implementation (perception level). To answer these

questions, an institutional case study was conducted with a set of qualitative tools. Furthermore, to enhance the credibility of the research findings, data from the study were triangulated using demographic questionnaires, semi-structured in depth interviews, focus group interviews, document review, classroom observations as well as field notes.

The main tool for data collection is a set of semi-structured interviews. This method was supplemented by a focus group, classroom observations, field notes and a document review from the research context. Furthermore, to form a complete picture about the informants' backgrounds, a demographic questionnaire was adopted for EFL teachers. The research participants were twenty EFL teachers working in the foundation year in the ELC at Taibah University. In addition, eight administrators in the ELC were interviewed as well as eight policy makers from inside and outside Taibah University.

## 7.2 Key Findings

In terms of the reasons for weak ICT integration, the research indicates many key results. The obtained data illustrates interesting themes from the research participants. The policy makers highlight many policy related issues. They indicate the lack of an adequate policy that explicitly encourages ICT integration. On the other hand, many policy makers note that there are many ongoing projects to enhance ICT adoption e.g. quality criteria, e-learning awards and the establishment of the Excellence Centre for Teaching and Learning. Conversely, the data show that smart-boards were installed but underused by teachers.

The utilization was below the optimum level and was an example of the difficulty of implementing change. The University has provided many ICT tools in

classrooms but these are hardly used. Thereby, policy makers should adopt well-planned strategies to motivate teachers' uptake of ICT in teaching.

The inadequate pedagogical practices in the research context specifically, and many Saudi institutions generally, have a negative impact on ICT incorporation. Most of the policy makers, if not all, indicate the importance of a pedagogy-led technology approach. As a result, the results reflect that there are deeply rooted educational practices in the research context. These poor practices tend to be an integral part of the sociocultural nature of organizational structure. Examples of weak practices are over-reliance on lecturing, exam-based teaching, single-textbook adoption and a teacher-centred approach. Thereby, policy makers need to take into account that well-informed pedagogical approaches are a key indicator of effective ICT implementation.

Infrastructure and IT support have hindered the effective utilization of ICT, as reported by most of the research informants. The insufficient infrastructure is represented by the lack of computer labs for students, poor Internet access and an unqualified IT support team. Research participants highlight the need for an available IT support team as they have encountered many technical issues. Additionally, teachers and administrators indicate that the structured learning context has inhibited their willingness to integrate ICT. They illustrate that everything tends to be fixed and static like textbooks, marking schemes and the exam-based strategy. More specifically, teachers were not allowed to allocate marks for students, which in turn demotivated students to utilize ICT, apart from the 5% bonus which was approved by the ELC. Furthermore, the reviewed documents point out the mismatch between policies and practices e.g. CPD documents and actual training. Similarly, ICT employment objectives were written in documents without sufficient steps to achieve the stated aims.

In a similar vein, the data show that teachers lack ongoing support in order to use ICT in teaching. They raised issues of time constraints that impede their ICT utilization. Also, students lack time to utilize the VLE as they have overloaded schedules. As a result, they (teachers) suggest a reduction of four

hours classroom-based teaching to compromise between online learning and campus-based teaching.

The significance of this research stems from its contribution of knowledge about ICT adoption in language teaching. The study findings enhance our understanding about the effective integration of ICT. First, not many studies to the best of my knowledge, have examined different stakeholders i.e. teachers, administrators and policy makers. The different views of many participants have enriched this investigation. Additionally, most of the studies (Abuhmaid, 2011; Al-Jarf, 2007; Al-Khalifa, 2010b; Al-Shahrani & Al-Shehri, 2012; Albalawi, 2007; Albirini, 2004; Alebaikan, 2010; Alebaikan & Troudi, 2010b; AlMulhim, 2013, 2014; Alshwiah, 2009; Bingimlas, 2009; Mumtaz, 2000) have focused on a teacher-level investigation. In other words, the researcher hardly found a study that had a holistic approach. Secondly, the study adopts a qualitative approach that allows for a deep inquiry. Thus, most of the above mentioned studies have indicated teacher-level factors (attitudes, perception, competence) and institutional level factors (infrastructure, training, administrative support) only. The results of the current study extend our understanding of effective ICT integration. By adopting qualitative tools, the research findings highlight the educational and pedagogical factors. The study clearly illustrates that ICT integration strategy plays a major role in effective incorporation. Unlike other studies, the current study used qualitative tools to examine closely the ICT integration strategy in the chosen context. The optional basis strategy mirrors the marginal role of ICT, which in turn causes ineffective utilization. Thereby, it is not ICT in itself that leads to effective utilization but the approach and rationale. Furthermore, qualitative tools capture the dominant pedagogical practices in the research context. Significantly, many studies indicate the negative impact of poor e-pedagogy on effective ICT adoption. Thirdly, unlike other studies, the study approaches ICT integration as an example of change i.e. adopts change implementation theories. The aim of the study is to examine ICT integration in a campus-based education. Thus, for teachers to utilize ICT there is a need for change in terms of practice and perceptions. Consequently,

adopting change implementation theories boosts understanding of the most effective approach to handling and implementing change in educational contexts. Thus, the potential results enrich our understanding both theoretically and practically. Theoretically, the implementation of a change framework gives guidelines for effective change adoption. The framework provides elements of effective ICT change. Practically, the study suggests recommendations for stakeholders about the components of effective ICT adoption.

### **7.3 Implications and Recommendations**

ICT adoption is an on-going process that needs permanent support from policy makers. Thus, to achieve better integration of ICT in language teaching, the researcher suggests the following recommendations:

Firstly, adequate administrative support is needed, as we should move beyond the production of general aims documents. The complexity of change is due to the human aspects of real change not paper-based change (Fullan, 2007). Thus, many attempts at policy-level change have focused on product development i.e. legislation and documents, and have hardly focused at all on supporting people while implementing the change. Consequently, change advocates need to address teachers' attitudes and beliefs towards ICT. Additionally, policy makers should take into account the poor pedagogical practices of teachers and consider their negative impact on ICT adoption. Further, ICT enhanced teaching requires a new role of teachers as facilitators. Thus, policy makers must consider pedagogy-led technology adoption, not vice versa.

Secondly, at university level, there must be an ICT policy that clearly states the aims of ICT integration in detail. This should go beyond writing general objectives. The university deanship of e-learning should be responsible for ICT policy formulation, implementation, and evaluation. Additionally, the deanship of quality and the deanship of academic development need to have a joint project

to enhance ICT adoption. The developmental projects must include detailed CPD plans to improve poor educational practices. The developmental projects must be continuous in nature and monitored closely by the policy makers rather than one time training sessions. More importantly, at the ELC level, there is a need to have an adequate CPD policy. Similarly, the policy must include detailed projects to develop the ELT in the university. The integration of ICT must include how ICT adoption enhances specific language skills or curriculum related issues. As a result, the implementation of ICT must highlight the potential for language teaching, as the observability of the proposed change is very important to the stakeholders.

Thirdly, policy makers should have a well-developed plan for the adopted change. Thus, strategic ICT adoption should go beyond the provision of ICT tools. In other words, there are many issues that need to be addressed besides ICT resources. Most importantly, providing ICT tools does not result in the instant employment of these tools by teachers. Therefore, teachers and stakeholders need on-going support while implementing change. In addition, ICT adoption entails follow-up support in terms of training, administrative support and allocation of sufficient time. As a result, teachers need careful strategic plans that consider ICT incorporation as a continuous process that needs constant support to integrate it effectively.

Fourth, the quality of the infrastructure is a key indicator of effective ICT employment. Therefore, lack of computer labs, lack of Internet access and lack of ICT resources are the main inhibitors of effective ICT implementation. The inadequate infrastructure negatively correlates with teachers' utilization of ICT. Thereby, policy makers need to develop university infrastructure in order to motivate teachers to utilize ICT. Additionally, students need sufficient public workstations in terms of quantity and quality. The university campus need to be well-developed to motivate students to utilize the VLE effectively. More

significantly, teachers need an on demand IT support team. Thus, policy makers must develop the skills of the IT support team in order to help teachers. The research informants indicate the need for the availability of a qualified IT support team to overcome technical problems. Therefore, state-of-the-art ICT infrastructure is an enabling factor that helps students and teachers to foresee the potential of ICT and experiment with its positive impact.

Fifth, a well-developed training policy is essential for effective ICT adoption. Proper training is considered a key ingredient of effective ICT diffusion. Policy makers need to focus on the quality of the proposed training sessions. The sessions should include pedagogical skills besides technical skills. Thus, a one-time training approach is an ineffective strategy. Additionally, the training planners need to link the curriculum aims with ICT training. For the teachers to anticipate ICT potential, training should focus on how ICT enhances certain language skills (instructional design) i.e. should not be general in nature. Most importantly, a strong policy should state clearly the amount of the training that academic staff need to take. Having a CPD policy motivates academic staff to develop their professional skills. Without a CPD policy, attendance at training sessions will remain poor. Thus, besides publishing, the current Saudi policy must include CPD in order to motivate faculty members to improve their professional skills. Further, a strong CPD policy increases faculty awareness of the importance of training generally and ICT training specifically.

Sixth, lack of time is one of the key obstacles that limits teachers' and students' utilization of ICT. Thus, policy makers need to allocate more time for teachers to integrate ICT. Worse than this, is when ICT employment is a requirement without enough time. Consequently, if policy makers do not allocate time for ICT, teachers will underestimate its role. As a result, there is a need to achieve a balance between classroom based teaching and ICT learning. Moreover, students need a blended learning approach that combines the campus-based education and online learning. Thereby, students need more time to utilize the

VLE effectively. The current strategy of four hours classroom based teaching needs to be adjusted to include the VLE utilization. In addition, teachers complain of heavy teaching loads as the focus is on quantity not quality. In turn, teachers devoted their time to in-class teaching only, which means no allocated time for the utilization of the VLE. Thus, a blended approach is suggested to reduce class time and help teachers as well as students to utilize the VLE effectively. For example classroom-based teaching could be 60% of the formal assessment while 40% could be for VLE utilization. Additionally, teachers need time to learn how to use ICT, time to plan, and time to collaborate with other teachers as well. Thereby, it is suggested to reduce the four hours classroom-based teaching time and allocate two hours to the VLE utilization. By doing so, teachers and students will recognize the importance of the two modes of teaching (classroom-based and online teaching).

Seventh, effective ICT diffusion strategy is a prerequisite for better adoption. In respect to the optional basis strategy of VLE utilization, the integration will remain poor. The optional strategy illustrates the marginal role of technology. Furthermore, the optional basis strategy indicates that less consideration has been given to ICT by policy makers. Therefore, ICT integration should be an integral part of the curriculum. Additionally, ICT adoption must be part of the formal assessment. By doing so, teachers and students will recognise the potential of ICT. In other words, ICT incorporation should be based on explicit pedagogical aims. Moreover, for students to utilize ICT effectively there is a need to enhance their motivation. Further, online learning entails a new learning approach that necessitates training in collaborative learning. The online platform presupposes the new roles of teachers and students. Teachers are facilitators for autonomous, motivated students. Thus, the absence of teachers demotivates students and results in them not using the VLE, as they need support from teachers. Thereby, it is suggested that teachers should be involved in VLE utilization. Consequently, better engagement will create an enhanced experience.

Eighth, for teachers to utilize ICT effectively there should be incentives and rewards. Policy makers need to encourage teachers' adoption of ICT by allocating financial incentives. Building an ICT course takes effort and is a time consuming process. Thus, teachers need a motivational strategy to help them to reduce the possible difficulties. There are many strategies to reward teachers who adopt ICT. This might be additional pay for developing and deploying the online materials. Furthermore, due to the dynamic nature of online courses, teachers should monitor and update their ICT courses constantly. Thereby, a reduction of classroom based time is an effective motivational strategy. By doing so, teachers can devote more time to building and monitoring their online presence. Most significantly, teachers need a degree of autonomy to enhance ICT adoption. The too structured learning context demotivates teachers' and removes their creativity. Thus, the rigid fixed environment restricts teacher initiatives as they have a very limited role. Consequently, teachers must be involved in ICT planning and implementation. They should have a key role as they are important stakeholders. Thus, neglecting teachers is the main reason for poor ICT incorporation.

Ninth, policy makers need to cooperate with English language school leaders in Saudi universities to develop teachers' pre-service programs. The current programs in most of the Saudi universities are mainly a combination of English linguistics and literature modules. Thus, there are no ICT related modules, which in turn, negatively affects the ICT skills of most teachers. Thereby, it is suggested that ICT modules should be included in Saudi EFL programs. Consequently, teachers will have an awareness of the importance of ICT adoption in language teaching. Also, teachers will develop their soft skills and pedagogical skills as well. Thus, the in-service training will be based on quality sessions i.e. not basic ICT operational skills.

Lastly, to gain a deeper understanding concerning ICT integration, policy makers should consider the sociocultural issues in the educational institutions. Teachers need a culture of sharing and collaboration with each other. They need to build a learning community to develop their ICT practices. Thus, policy makers might assign ICT expert teachers to train other teachers on ICT

adoption strategies. The ICT expert teachers would be motivating role models for other teachers. Moreover, peer observation is a good strategy where teachers explore and reflect on each other's practices. Most importantly, policy makers need to take into account that some pedagogical practices (lecturing) are deeply rooted and have become an integral part of the institutional culture. The over-reliance on these practices (lecturing & a teacher-centred approach), as they turned out to be the only mode of teaching, is a major hindrance to ICT implementation. Thus, poor e-pedagogy has been reflected in most of the traditional educational organizations. In other words, these traditional practices are part of the structure and culture of these organizations. Consequently, policy makers ought to consider and address the sociocultural norms in typical Saudi institutions.

#### **7.4 Limitations of the Study**

Usually all human research is subject to many limitations and practical issues that affect the research. The researcher encountered many challenges while conducting the research. Most of the participants were not used to the qualitative research approach. In Saudi Arabia, there is a popular trend for the positivist approach where there are many survey-based studies. Thus, obtaining the data was difficult, although the researcher enjoyed the data collection stage a lot.

The current study is limited to its chosen context i.e. Taibah University (Medina city) as most of the participants were from this institution, apart from the General Director of NCeLDL. Additionally, all the teachers in this study were EFL female instructors working at the ELC. Thus, the study is limited to female teachers only because of the difficulty of accessing male teachers in typical Saudi educational institutions. Further, the obtained data were from the ELC in Taibah University and were limited to the period of data collection i.e. second

semester, 18 weeks, 2014-2015. Moreover, all the policy makers and administrators were from Taibah University except the General Director of NCeLDL.

On the other hand, generalisation is a main limitation of the current research project. Due to the nature of the qualitative study, the generalization of the findings is a major obstacle. However, qualitative-based research usually gives the researcher a great opportunity to understand the phenomena being researched. By adopting qualitative research, the research examines the context closely, listens to the participants and captures small details. Consequently, the researcher was able to examine the contextual factors of the research context e.g. teaching loads and traditional pedagogy.

The research participants are mainly teachers, administrators and policy makers. Thus, the current research is limited to the experience of the above-mentioned informants. Studying the student experience is beyond the scope of this study. In turn, the findings of the study are limited to its subjects' viewpoints.

Another limitation of the research project is the adopted Col model. The researcher chose this model to investigate educational experiences, namely cognitive presence, social presence and teaching presence. To examine online experiences in blended teaching and to exemplify the meaningful learning process, the Col was selected. The model was developed by Randy Garrison and Terry Anderson to conceptualize the learning experience in an ICT mediated context. The major limitation of the research project is the underused adopted model (Col). The lack of utilization of the VLE besides teachers' absence hindered the application of the selected model (Col). The main findings have shown that teachers are not involved in the utilization of the VLE i.e. there is no teaching presence. Additionally, students' participation and utilization of the VLE was very poor, which means no social or cognitive presences. As a result, there was insufficient data for the Col model to be used. Further, there were many issues that led to the weak involvement of students and teachers such as time, integration strategy, infrastructure and administrative support. Thus, to have meaningful online learning, there is a need to develop the three

interdependent elements; social, cognitive and teaching presence. Thereby, teachers' involvement is very important to motivate students to utilize the VLE effectively. In addition, teachers ought to have a key role in online learning to maintain social and cognitive presence through well-planned activities. Most importantly, the optional basis strategy reflects the marginal role of ICT. Thus, policy makers need to go beyond ICT provision in order to address its potential and rationale. If ICT is integrated into a campus-based education, its essential role should be very clear. The role of ICT needs to consider cognitive, social, and teaching presence. Without that, the implementation of ICT will be limited.

## **7.5 Potential for Further Research**

In light of the results of this research, the researcher recommends the following for further research:

The research project is limited to its context (ELC, Taibah University) as most of the participants were from Taibah University except the General Director of NCeLDL. Thus, another study could be conducted in another university; a study that broadens our view about how ICT is integrated in other institutions to compare and contrast the possible findings with the current project.

All the participant teachers in this study were EFL female teachers, thus another study is suggested to address the viewpoints of male teachers about ICT integration. Accordingly the differences between male and female teacher points of view could be investigated.

In terms of ICT integration, a study is suggested to examine how ICT is implemented in the same context (Taibah University) but in different schools i.e. the School of Biology or Education.

Additionally, as the current research has focused on EFL teachers only, a study about science or other subject teachers is suggested. To investigate the

possible similarities and differences of ICT integration when teaching other subjects e.g. Physics or Geography.

A pedagogy-based study is recommended to examine closely the adopted teaching methods in typical English classrooms. This kind of study helps to provide a broader understanding of the role of pedagogy in technology integration.

Further, all the policy makers and administrators were from Taibah University except the General Director of NCeLDL. Thereby, it is suggested that another study should be conducted to examine the viewpoints of policy makers and administrators in other universities.

Moreover, an extended study about students' utilization of the VLE is suggested, especially in the current context to form a more profound picture that might support or contrast the results of this research. Also a study about the role of the curriculum and exam-oriented teaching in relation to the utilization of the VLE is recommended.

Lastly, a document based study is suggested, especially in relation to ICT adoption; a study that reviews the documents in other Saudi universities, to investigate the match or the mismatch between policy and practice

# Appendices

# Appendix A: Snapshot of Englishtown VLE

The screenshot displays the EF Englishtown website, featuring a dark-themed header with the EF logo and the word "Englishtown". The top navigation bar includes links for "REDEEM CODE", "MORE FROM EF", "SWITCH LANGUAGE", "LOG IN", "HOW IT WORKS", "ONLINE ENGLISH COURSES", "OUR TEACHERS AND STUDENTS", and "PRICES". A prominent pink "TRY US FOR £1" button is located in the top right corner.

The main content area features a large image of a hand holding a tablet displaying a course interface with video thumbnails. To the left, a dark box contains the text "LEARN ENGLISH WITH CONFIDENCE" and a list of features: "Interactive courses and real teachers available 24/7", "Lessons for all levels from beginner to advanced", and "Customised study plan and certified results". Buttons for "TRY US FOR £1" and "WATCH A DEMO" are present.

Below this, the website layout includes a "HOW IT WORKS" section with images of a coffee cup and a laptop, a "OUR TEACHERS" section with a photo of a teacher, and a "STUDY OPTIONS AND PRICES" section with a photo of a student. A "TRY US FOR £1" button is also located in the top right of this section.

The footer section contains the "EF Research Unit at University of Cambridge" logo, a brief description of the research unit's mission, and logos for "Trusted by: HSBC", "PETRONAS", "IBM", and "Lufthansa". It also includes a "ABOUT US" link and a "CONTACT US" form with fields for "How can we help you?", "I need information about...", and "Join the conversation". The footer also features a "The EF Englishtown Blog" section with a photo of a woman and a link to the blog.

At the bottom, a note states "\*Information drawn from the EF EPI 2013 report.", and the footer links include "CHANGE COUNTRY", "HELP", "CONTACT US", "ABOUT US", "OUR COMMUNITY", "PRIVACY POLICY", "TERMS & CONDITIONS", "AFFILIATE", and "SITE MAP".

Name of the teacher		Date	
Name of the observer		Venue	
Course/level of students		No. of students	
Observer Signature		Length of Observation	Start Time
			End Time

## Appendix B: Classroom Observation Protocol

Teaching characteristics – Comments
<p><b>1. Planning and start of session</b>  Appropriateness of aims and outcomes (where it is possible to evaluate this). Communication of these to students. Continuity with other sessions and students' prior knowledge made explicit.</p>
<p><b>2. Presentation</b>  Structure. Relevance and organisation of content. Attitude to subject matter. Clarity of presentation. Emphasis of key points. Pace of session (time management). Tone, volume, clarity of speech. Links made to other aspects of course (e.g. lectures, seminars or tutorials). Summary</p>

<b>Teaching characteristics – Comments</b>
<p><b>3. Methods and approaches &amp; use of additional resources (Technology)</b>            Choice/variety of teaching/learning methods. Use and design of instructional materials (overhead projector, hand-outs, supplementary materials etc.) Use of appropriate reinforcement. Dealing with problems/disruptions.</p>
<p><b>4. General</b>            Were the aims and outcomes achieved? Appropriateness of teaching/learning methods (particularly in regard to meeting the diverse needs of learners and accommodating differences in approach). Was effective communication achieved?</p>
<p><b>5. Classroom settings</b>            Normal classroom or language lab, whiteboard &amp; markers, overhead projector, data -show, Internet access, data projector screen, microphone &amp; speakers, other facilities... etc.</p>
<p><b>6. Weaknesses</b>            Comment in terms of both teaching style and content (if possible) and use of additional resources</p>
<p><b>7. Strengths</b>            Again, comment in terms of both teaching style and content (if possible), use of technology</p>
<p>Signed by observer: ..... Date: .....</p>

Form adapted with permission from:

(Educational Development Centre, 2011)



## **Appendix C: Demographic Questionnaire**

**Date:**.....

**1- Name**.....(optional)

**2- Venue:**

- a) Main Campus (Medina)
- b) Alsalam Campus (Medina)

**3- Age:**

- a) Less than 25
- b) 26-36
- c) 37-47
- d) 48 and older

**4- Nationality:**

- a) Saudi
- b) Non-Saudi (specify please).....

**5- Teaching Experience:**

- a) Less than 6 years
- b) 6-10 years
- c) 11-15 years
- d) More than 15 years.

**6- Educational Background Level:**

- a) BA Degree
- b) MA Degree
- c) PhD Degree
- d) Others specify please

.....

**7- Name of higher education institutions**

Which university or college did you graduate from?

- a) King Saud University
- b) King Abdul-Aziz University
- c) Taibah University
- d) Imam Muhammad bin Saud Islamic University
- e) Umm Al-Qura University
- f) Other (specify please).....

**8- When did you graduate from university / college?**

**9- Computer Skills:**

How do you rate your computer skills?

- 1. Basic
- 2. Good
- 3. Very Good
- 4. Proficient
- 5. Expert

**10-Have you taken any course about using technology in language teaching during your previous study BA, MA, or PhD?**

- a) No
- b) Yes, (specify please)
  - a. BA.....
  - .....
  - b. MA.....
  - .....
  - c. PhD.....
  - .....
  - d. Other.....
  - .....

**11- How long have you been in Taibah University?**

- a) 1-5 years
- b) 6-10 years
- c) 11-20
- d) 21 and more

## الاستبيان باللغة العربية

التاريخ.....

1- الاسم.....(اختياري)

2- المكان

ا. المدينة المنورة الفرع الرئيسي

ب. المدينة المنورة فرع السلام

3- العمر

ا. اقل من 25 سنة

ب. من 26-36

ج. 47-37

د. 48 و اكثـر

4- الجنسية

ا. سعودية

ب. غير سعودية (اذكري).....

5- سنوات الخبرة في التدريس

ا. اقل من 6 سنوات

ب. من 6-10 سنوات

ج. من 11-15 سنة

د. اكثـر من 15 سنة

6- المؤهلات العلمية

ا. بكالريوس

ب. ماجستير

ج. دكتوراه  
د. اخرى حدد .....

#### 7- الجامعة التي تخرجت منها

اذكري اسم الجامعة او الكلية التي تخرجت منها

- ا. جامعة الملك سعود
- ب. جامعة الملك عبدالعزيز
- ج. جامعة طيبة
- د. جامعة الامام محمد بن سعود
- ع. جامعة ام القرى
- و. اخرى(ارجو ذكر اسم الجامعة).....

#### 8- سنة / تاريخ التخرج

.....

#### 9- مهارات الحاسوب

اذكري مهاراتك في استخدام الحاسوب

- ا. مبتدئ
- ب. جيد
- ج. جيد جدا
- د. محترف
- و. خبير

10- في دراستك السابقة مرحلة البكالريوس, الماجستير او الدكتوراه هل درستي مادة عن استخدام التقنية في تدريس اللغة الانجليزية

- ا. لا.....
- ب. نعم (اذكري اسم المادة و اي مرحلة).....

البكالريوس.....

الماجستير.....

الدكتوراه.....

## 11- سنوات العمل في جامعة طيبة

اذكري سنوات العمل في جامعة طيبة

ا. من 1 - 5 سنوات

ب. من 6 - 10 سنوات

ج. من 11 - 20 سنة

د. 21 سنة و اكثـر

## Appendix D: Interview Questions

### Teacher Interview (D-1) - Arabic

#### اسئلة المقابلة الشخصية- المعلمات

1 ما هو رأيك في تبني التقنية في التدريس عموماً و تدريس اللغة خصوصاً؟

2 إلى أي مدى أنتي ململة أو مطلعة في استخدام التقنية في التدريس؟

3- في اعتقادك ما هي مميزات استخدام التقنية في تدريس اللغة؟

4- هل استخدمتني التقنية في التدريس و لماذا لا؟

5- هل جامعة طيبة لديها ارشادات او سياسة عن اهداف استخدام التقنية؟ اذا كانت نعم هل قمت بقرائتها؟

6- ماذا عن سياسة التقويم السنوي للمعلمات في مركز اللغة بجامعة طيبة؟

7- ما هي معايير او محاور استماراة التقويم السنوي للمعلمات في مركز اللغة؟

8- هل استماراة التقويم تحتوي على بند او معيار عن استخدام التقنية في التعليم؟

9- هل تشاركي في اتخاذ قرار في ما يخص اختيار الكتب، توزيع الدرجات، استخدام نظم ادارة التعلم، اذكري اي نشاط من الممكن ان تتخذي قرار فيه؟

10- اخبرني عن مشاركتك في التخطيط لبني التقنية على مستوى القسم؟

11- ما هي الصعوبات التي تعتقد انها من الممكن ان تحد او تعيق تبني التقنية في التدريس؟

12- هل تعتقد ان استخدام التقنية فعال (مؤثر) في التعليم العالي في المملكة من خلال جامعة طيبة كنموذج؟ و لماذا لا؟

13- كيف يمكن للبيئة التعليمية أن تؤثر على استخدام التقنية في التدريس؟ مثال ( الكتب الدراسية، الاختبارات ، طرق التدريس، دور المعلم/ المعلمة، نصاب المعلم / المعلمة، دور الاداريين .... الخ. / طريقة التقييم

14- كيف تصفي استخدامك الحالي للتقنية في التدريس؟

15- ما هي الجوانب الايجابية لاستخدام التقنية في التدريس؟

16- ما هي الجوانب السلبية لاستخدام التقنية في التدريس؟

17- ما هو رأيك عن وضع مركز اللغة الانجليزية في جامعة طيبة فيما يختص باستخدام التقنية في التدريس ؟

18- هل درستي مادة او مواد عن استخدام التقنية في التدريس في مرحلة البكالوريوس او الماجستير ؟

19- اشرحي عن واقع التطوير المهني لكم كمعلمات لغة في مركز اللغة الانجليزية في جامعة طيبة ؟

20- كم عدد الدورات المقدمة عادة لكم من مركز اللغة الانجليزية في جامعة طيبة ؟

21- ما هي نوعية الدورات المقدمة لكم من مركز اللغة الانجليزية في جامعة طيبة ؟

22- هل لديك علم عن دورات عمادة التعليم عم بعد / عمادة التطوير الجامعي؟

23- هل تحتاجي دورات فيما يتعلق باستخدام التقنية في التدريس؟

24- ما هو الدعم المقدم من جامعة طيبة لكي تستخدمي التقنية في التدريس ؟

25- ماهي العوائق التي تواجه التعليم الالكتروني في المملكة ؟ (البنية التحتية، عوائق تربوية، عوائق تتعلق بالتقنية... الخ

26- ماهي اقتراحاتك او توصياتك لتطوير التعليم الالكتروني في المملكة ؟

27- هل لديك اضافات او تعليقات؟

### **Teacher Interview- English**

- 1 What do you think of technology integration in language teaching?
- 2 From your viewpoint, what are the advantages of using technology in language teaching?
- 3 How is technology integrated into your language teaching?
- 4 Do you think you are fairly confident about using technology in your teaching?
- 5 Have you implemented technology in your mode of teaching? Why or why not? Give me examples?

- 6** Does Taibah University have any guidelines and policies about the use of technology? If yes, have you read them?
- 7** Tell me about the annual evaluation policy for the teachers in ELC at Taibah University?
- 8** What are the components of the evaluation sheet of the teachers?
- 9** Does the evaluation sheet contain any requirements for the use of technology in language teaching?
- 10** Did you take part in any decision-making? Regarding the textbooks, students' marking criteria, online VLE ...etc. can you think of any activity that you may take decisions about?
- 11** Tell me about your involvement in technology planning at departmental level.
- 12** What are the challenges that you think might limit or hinder the integration of technology in language teaching?
- 13** Do you think that the implementation of technology is effective in the Saudi Higher Education system (Taibah University as an example)? Why or why not?
- 14** How does the contextual situation affect the use of technology? (Context i.e. textbooks, exams, teaching methodologies, teachers' roles, administrators' roles, teaching loads, etc.).
- 15** How would you describe your current technology practices?
- 16** What are the negative issues of using technology in education?
  
- 17** What is your opinion of the situation in the English Language Centre at Taibah University regarding the implementation of technology?
- 18** What do you think of Taibah University's infrastructure?
- 19** Have you taken any course about the use of technology in language teaching during your previous study (BA or MA)?
- 20** Tell me about the continuous professional development (CPD) for EFL teachers at the English Language Centre in Taibah University?
- 21** How many training sessions do you usually have in ELC at Taibah University?
- 22** What kind of training sessions do you have in ELC in Taibah University?

- 23** Have you been told about the deanship of e-learning training sessions? / or the deanship of academic development training sessions?
- 24** What kind of support do you get from Taibah University in order to use technology?
- 25** What are the barriers/obstacles facing using technology in education in KSA?
- 26** What are your suggestions/recommendations for the improvement of technology in education in KSA?
- 27** Any further suggestions or comments?

## **Administrators & Policy Makers Interview Questions (D-2)**

- 1** What do you think of technology integration in teaching and language teaching specifically?
- 2** From your viewpoint, what are the advantages of using technology in language teaching?
- 3** Does Taibah University have any guidelines and policies about the use of technology?
- 4** What are the steps taken to achieve these objectives?
- 5** When do you think most of these objectives will be achieved e.g.in 5 years or 10 years? Where is the use going?
- 6** What are the challenges that you have encountered when trying to achieve these objectives?
- 7** What efforts have been made to overcome these challenges?
- 8** Do you think teachers are aware of the objectives of technology integration?
- 9** Do teachers take part in any decision-making? Regarding the textbooks, students' marking criteria, online VLE ...etc.?
- 10** Tell me about teachers' involvement in technology planning at departmental level?
- 11** Do you think that teachers have implemented technology in their mode of teaching? Why or why not?
- 12** What are the challenges that you think might limit or hinder the integration of technology?
- 13** Have you faced any difficulties while promoting the use of technology?
- 14** What do you think of Taibah University's infrastructure?
- 15** Do you think that the use of technology is effective in the Saudi higher education system (Taibah University as an example)? Why or why not?

- 16** How does the contextual situation affect the use of technology? (context i.e. the textbooks, exams, teaching methodologies, teachers' roles, administrators' roles, teaching loads,,,etc.
- 17** Looking at teachers' current technology practices, how could it be improved?
- 18** What are the factors that help teachers to have effective implementation of technology in teaching?
- 19** What are the negative issues of using technology?
- 20** What is your opinion of the situation in the English Language Centre at Taibah University regarding the implementation of technology?
- 21** Have you run any courses about the use of technology in language teaching at the English Language Centre in Taibah University?
- 22** Explain the continuous professional development (CPD) for EFL teachers at the English Language centre in Taibah University?
- 23** How many training sessions do you usually have in ELC at Taibah University?
- 24** What kind of training sessions do you have in ELC in Taibah University?
- 25** Have you informed the teachers about the deanship of e-learning training sessions?/ deanship of academic development sessions? Do you think teachers are aware of these sessions?
- 26** Tell me about the annual evaluation policy for the teachers in ELC at Taibah University.
- 27** What are the components of the evaluation sheet of the teachers?
- 28** Does the evaluation sheet contain any requirements for the use of technology in language teaching?
- 29** What kind of support do you give for EFL teachers at Taibah University in order to use technology?
- 30** What are the barriers/obstacles facing using technology in education in KSA?
- 31** What are your suggestions/recommendations for the improvement of technology in education in KSA?
- 32** Any suggestions or comments?

## Appendix E: Focus Group Questions

Themes	Questions
<b>Objectives of Using Technology in English Language Centre</b>	What are the objectives of technology implementation in English teaching?
<b>Obstacles to Technology Implementation</b>	What are the challenges that you face as teachers when adopting technology in English teaching?
<b>Support from Taibah University</b>	What support do you get from Taibah University in order to use technology in teaching?
<b>Attitudes and Perceptions</b>	What do you think of technology integration in English teaching?
<b>Implementation Level</b>	How do teachers implement the use of technology in English teaching?
<b>Effective Implementation</b>	What are the conditions to have an effective implementation of technology in education?
<b>Sufficient Infrastructure</b>	What do you think of Taibah University's infrastructure?

## Appendix F: Researcher's Field Notes

<b>Name of teacher/ administrator</b>		<b>Date</b>	
<b>Interview/focus group</b>		<b>Venue</b>	

ملاحظات الباحث الميدانية

اسم المعلم / الادارية	التاريخ		
المكان	مقابلة / حلقة نقاش		

## Appendix G: Ethical Forms

### CONSENT FORM (A)

**Study title:** IMPLEMENTING CHANGE; ICT INTEGRATION IN AN ENGLISH FOUNDATION  
YEAR IN TAIBAH UNIVERSITY, SAUDI ARABIA  
, Saudi Arabia.

**Researcher name:** Reem Al-Marwani  
**Staff/Student number:** 24153958  
**ERGO reference number:** 5640    **date:** 7-05-2013

*Please initial the box(es) if you agree with the statement(s):*

I have read and understood the information sheet (insert date /version no. of participant information sheet) and  
have had the opportunity to ask questions about the study  
I agree to take part in this research project and agree for  
my data to be used for the purpose of this study

I understand my participation is voluntary and I may  
withdraw at any time without my legal rights being affected

#### *Data Protection*

*I understand that information collected about me during my participation in this study will be stored on a password protected computer and that this information will only be used for the purpose of this study. All files containing any personal data will be made anonymous.*

Name of participant (print name).....

Signature of participant.....

Date.....

If you have any concerns about this research, feel free to contact me.

Reem Al-Marwani, rsam1e11@soton.ac.uk.

Supervisor of the research, Dr.Alasdair Archibald, aa3@soton.ac.uk

## Taibah University Approval Letter

KINGDOM OF SAUDI ARABIA  
Ministry of Higher Education  
TAIBAH UNIVERSITY  
Deanery of Academic Services  
( 039 )



المملكة العربية السعودية  
وزراة التعليم العالي  
جامعة طيبة  
عمادة الخدمات التعليمية  
( ٠٣٩ )

مركز اللغة الإنجليزية  
English Language Center

الأستاذة / ريم صلاح المرוואني

السلام عليكم ورحمة الله وبركاته... وبعد،

بناءً على طلبكم ورغبتكم بإجراء رحلة علمية لغرض جمع البيانات لمدة ثلاثة أشهر من

٢٠١٤/٣/١٥ إلى ٢٠١٤/٥/١٤ الموافق ١٤٣٥/٤/١٤ إلى ١٤٣٥/٧/١٥ في مركز اللغة الإنجليزية

بعمادة الخدمات التعليمية بالسنة التحضيرية بجامعة طيبة، نفيدكم بأنه لا مانع لدينا

شربيطة حصولكم على الموافقة الرسمية من إدارة الجامعة عن طريق مخاطبة سعادة الملحق

الثقافي السعودي في المملكة المتحدة وأيرلندا لمعالي مدير جامعة طيبة حسب الأنظمة

والإجراءات المتبعة.

المشرف على مركز اللغة الإنجليزية

د. غسان بن محمد عسيلان

ملحق جامعات طيبة

المشفوعات : ..... التاريخ : ..... الرقم : .....

Ref : ..... Date : ..... Attachments : .....

## Appendix H: Academic Plan of the Department of European Languages and Literature

### Distribution of Major Groups of Courses

code/ no.	اسم المقرر داخل التخصص	اسم التخصص	رقم التخصص
LANE 211	Listening and Speaking I	Language Skills	1
LANE 212	Reading I		
LANE 213	Writing I		
LANE 214	Listening and Speaking II		
LANE 215	Reading II		
LANE 216	Writing II		
LANE 321	Introduction to Linguistics	Linguistics Section	2
LANE 422	Sociolinguistics		
LANE 423	Applied Linguistics		
LANE 424	Seminar in Linguistics		
LANE 331	Research Methods	Linguistics plan	3
LANE 332	Phonetics		
LANE 333	Morphology		
LANE 334	Syntax		
LANE 335	Phonology		
LANE 438	Semantics		
LANE 341	Introduction to Literature	Literature	4
LANE 342	Fiction		
LANE 343	Drama		
LANE 446	Literary Criticism		
LANE 447	Poetry		
LANE 448	Shakespeare		
LANE 449	Modern Literature		
LANE 350	Introduction to Translation	Translation	5
LANE 461	Practicum in Language	Skills Training	6

## **Appendix I: Articles of Rules and Regulations of the Saudi Academic Staff**

### **المادة الحادية والعشرون**

يشترط للتقدم للترقية من رتبة أستاذ مساعد إلى رتبة أستاذ مشارك:

- 1- خدمة لا تقل عن أربع سنوات في رتبة أستاذ مساعد في جامعة سعودية أو جامعة أخرى معترف بها، على ألا تقل مدة الخدمة في الجامعات السعودية عن سنة واحدة.
- 2- استيفاء الحد الأدنى من الإنتاج العلمي المطلوب للترقية وفقاً لأحكام المادة الثانية والثلاثين من هذه اللائحة.
- 3- أن يكون ما تقدم به من إنتاج علمي قد نشر أو قبل للنشر أثناء شغله لرتبة أستاذ مساعد.

### **المادة الثانية والعشرون**

يشترط للتقدم للترقية من رتبة أستاذ مشارك إلى رتبة أستاذ:

- 1- خدمة لا تقل عن أربع سنوات في رتبة أستاذ مشارك في جامعة سعودية أو جامعة أخرى معترف بها، على ألا تقل مدة الخدمة في الجامعات السعودية عن سنة واحدة.
- 2- استيفاء الحد الأدنى من الإنتاج العلمي المطلوب للترقية وفقاً لأحكام المادة الثالثة والثلاثين من هذه اللائحة.
- 3- أن يكون ما تقدم به من إنتاج علمي قد نشر أو قبل للنشر أثناء شغله لرتبة أستاذ مشارك.

### **Article XXI**

An Assistant Professor who is candidate to the upgrade to an Associate Professor need to have the following qualifications:

1. Working experience of not less than four years as an Assistant Professor at a Saudi university or another accredited university, and working in Saudi universities should not be less than one year.

2-Fulfilment of the minimum requirements for scientific publishing according to the rules of Article thirty-second of these Regulations.

3. The scientific research papers should be published or accepted for publication while working as an Assistant Professor (p.7).

## **Article XXII**

An Associate Professor who is candidate to the upgrade to full professor need to have the following qualifications:

1. Working experience of not less than four years as an Associate Professor at a Saudi university or another accredited university, and working in Saudi universities should not be less than one year.

2. Fulfilment of the minimum requirements for scientific publishing according to the rules of Article thirty-second of these regulations.

3. The scientific research papers should be published or accepted for publication while working as an Associate Professor (p.7).

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