

People's Democratic Republic of Algeria
Ministry of High Education and Scientific Research
Dr. Moulay Tahar University, Saida
Faculty of Letters, Languages and Arts
Department of English Language and Literature



The Use of ICT in Enhancing Creativity In Higher Education

Dissertation submitted to the Department of English Language and Literature as a partial fulfillment of the requirements for the degree of *Master* in Didactics.

Presented by:

Miss. A. MALKI

Supervised by:

Dr. N. GHOUNANE

Board of Examiners

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Dr. N. GHOUNANE	(MC-B) Supervisor	University of Saida
Dr. D. BENADLA	(MC-A) Examiner	University of Saida

Academic Year: 2017/2018

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DECLARATION OF ORIGINALITY

I hereby declare that this submission is my own work and that, it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or other institution. I also certify that the present work contains no plagiarism and is the result of my own investigation, except where otherwise stated.

Signature:.....

Name:.....

Date:.....

DEDICATIONS

I am so proud and honored to dedicate the fruit of my studies and efforts to my beloved parents; my father, Maamar for his trust, love and support, my mother; Malika for her pieces of advices and prayers which gave me strength while doing this work.

My thanks and appreciation to my brothers; Ali, Mohamed and Karim, and to my sisters; Souhila and Mai, without forgetting the kids; Ghofran, Noorhan, Assil and Noor El Dine. This research is dedicated to them with love and thanks for all what they have done for me.

I dedicate this research work to all whom I know, and to all the members of my family including my dear aunts and uncles, and grandmothers.

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Abstract

There is no doubt that the existence of Information and Communication Technology has a great impact on different fields, including education. Consequently, the current education receives ICT as new touches, methods, tools, means, and materials in teaching and learning foreign languages especially English language. It is believed to have a positive effect on educational setting, more precisely on teachers and students. Correspondingly, this research work focuses on studying the value of creativity in teaching and learning processes provided by the integration of ICTs at the level of the higher pedagogies. Therefore, the primary and central aim of the current study is to shed light on the role of Information and Communication Technology in enhancing creativity in higher education. To reach these aims, EFL teachers and students, at Saida University, were selected randomly and the data were collected relying on three research instruments; students' questionnaire, teachers' interview and classroom observation. Through the interpretation of the results, the main findings proved that ICT is the helpful technique to assist and improve the teachers' methods of teaching without neglecting the use of the traditional methods. The results also demonstrated that ICT enhances student's motivation and engagement in the learning operation as well as makes them active and autonomous in their studies. Henceforth, it is recommended that the educational environments need to be well equipped with ICT tools as well as both teachers and students should be aware about its effective use.

Keywords: creativity, education, Information and Communication Technology, learning, teaching

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List of Abbreviation

CALL	Computer-Assisted Language
DOI	Diffusion of Innovation
ELT	English Language Teaching
ESL	English as a Second Language
ICT	Information and Communication Technology
IT	Information Technology
IWB	Interactive Whiteboard
OHP	Overhead Projector
PEOU	Perceive Ease of Use
PU	Perceive Usefulness
SI	Social Influence
TAM	Technology Acceptance Model
TFL	Teaching as a foreign Language

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General Introduction

General Introduction

Over the last century, the advent of Information and Communication Technology (ICT) has produced a big and fast change in the society. ICT leads to the development of different fields; one of them is the field of education, more precisely higher education. Therefore, the integration of ICT in higher education is the main discussed issue among many researchers, linguists, teachers as well as institutions. All of them have encouraged the use of ICTs for the advancement of education.

During the globalization process and the growth of ICT, teaching and learning processes have been affected, especially in English language because teaching foreign languages is not an easy task for both teachers and learners. Before the advance of ICT, EFL teachers depended only on traditional teaching methods. However, nowadays new and innovative teaching and learning methods have been introduced due to the integration of ICTs in higher education. Therefore, Information and Communication Technology has the potential to change the nature of education by improving teachers' and students' roles and award them creative techniques which lead to a high quality of education.

The reason behind the interest in this study is the belief that the integration of Information and Communication Technology in higher education supports the pedagogical innovation with new ICT materials and resources. Hence, the main objectives of the current study is that the researcher tries to focus on the transformation that ICT brings to learning and teaching process to be more student-centered. In addition, the investigator attempts to look for the innovative methods provided by ICT to improve teaching process. Finally, the researcher endeavors to reveal the wide range of ICT devices and resources to increase the students' ability to reinforce their personnel linguistic abilities as well as to enhance their creativity in the learning process.

The current study concerning the use of ICT in higher education has a great significant to teachers and learners alike. It investigates and tries to spot light more on effective practices of ICT materials and resources to develop creativity. In fact, some teachers and learners may have full knowledge about the importance of

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integrating ICT in teaching and learning operations, but they cannot put it into practice as effectively as possible. Consequently, this study would put both teachers and students on the right path through enabling them to correct and reformulate their teaching and learning methods toward the use of ICT for the enhancement of creativity.

In order to have a reliable answer to the problem statement, the researcher introduces the following research questions:

- 1- Does the use of ICT influence teaching and learning processes in higher education?
- 2- In which way ICT tools and resources transform teaching and learning operations?
- 3- How can ICT expand creativity in higher education?

The above mentioned research questions lead to formulate the following hypotheses:

- 1- The use of ICT materials and resources as innovative methods and techniques to improve teaching and learning processes in higher education rather than depending only on traditional methods.
- 2- ICT has a crucial role in transforming teaching and learning operations from being highly teacher-dominated to students-centered, this transition will result to increase creativity in higher education.
- 3- The effective integration of ICT enhances teacher' and student's ability to use their creativity.

To handle this investigation, the current study is arranged into three interrelated chapters to enlighten the reader about the field of this research work. In this regard, the first chapter discusses some key-concepts used in the work. It is divided into four parts, the first part tries to give an overview on teaching and learning process, while the second part attempts to investigate a preview on Information and Communication Technology and its components, the third part tends to cover ICT tools and resources. However, the last part provides an overview

General Introduction

about the importance of ICT in teaching and learning process in higher education. On the other hand, the second chapter is divided into four parts, the first part deals with the relation between ICT and creativity. The second part provides two theories on the integration of ICT in education; Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOF). Therefore, the third part presents the use of ICTs in English language teaching; it covers the four skills; listening, speaking, reading and writing. However, the final part attempts to give an apparent picture on the effectiveness of ICT on both teachers and students. Last but not the least, the third consists of four parts, the first part tackles the types of research and research methodology and design. The second part presents the analysis of the data collected from the three research instruments, students' questionnaire, teachers' interview and classroom observation. Indeed, the third part is devoted to give the discussion and interpretation of the main results to answer the research questions through confirming or disconfirming the research hypotheses. The last part concludes the chapter by providing some recommendations and suggestions for further research related to the current study.

Finally, there were a number of limitations which marked the current research, for instance,

- The lack of resources especially Books on ICT.
- The findings of the research are limited to a very small group because the majority of students were not interested in answering the questionnaire and some interviewed teachers refused to cooperate with the researcher probably because the data collection was administered within exams' period.
- The current study does not work on the topic in its particular place, because the majority of the teachers do not use ICT tools due to the absence of ICT materials at the level of the University.

Chapter One:

Integrating ICT in Teaching and Learning

1.1 Introduction

1.2 Teaching Process: An Overview

1.2.1 Traditional Teaching Method

1.2.2 Modern Teaching Method

1.3 Learning Process: An Overview

1.4 Information and Communication Technology (ICT): A Preview

1.4.1 Information Communication

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1.5 ICT Devices

1.5.1 ICT Resources

1.5.2 Teaching and Learning Devices

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1.5.2.2 Presentation Programmes

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1.6 The importance of ICT in Teaching and Learning

1.7 Conclusion

1.1 Introduction

During the past few years, the world has witnessed a phenomenon growth in communication technology, computer network, and information technology; which is called " ICT". It becomes commonplace entities in all aspects of life. According to Daniel (2000) "ICTs have become within a very short time, one of the basic building blocks of modern society" (p. 08). This growth of ICT creates numerous possibilities to use variety of technology tools for teaching and learning system.

In addition, teaching and learning process are two main elements in educational environments. This chapter presents an overview on teaching process and the difference between traditional and modern teaching method, the current chapter also focuses on shedding light on learning process, and especially it puts an emphasis on the learning style.

Moreover, Information and Communication technology (ICT) has an accepted element in our lives and a central role to play in education. In the light of current idea, the following chapter presents an overview of the literature on the integration of ICT in education which seems to be necessary for both teachers and learners; it is devoted to define notions and concepts that are crucial to our research work.

Additionally, this chapter sheds some light on ICT devices and systems that can be used in teaching and learning situations, which is found everywhere in education. It can positively influence the student's performance and the teacher's way of teaching if it is being used effectively by both of them.

1.2 Teaching Process: An Overview

Teaching is an essential part of every one's life because it provides an opportunity for the student to develop strong sense of creativity, high self-esteem and confidence. Thus, Smith (2016, para. 1), " teaching is a process of attending to people's needs, wants, feeling and making intervention to help them learn particular things".

Moreover, teaching has been recognized as a complex process; according

to Tudor (2003, p. 03) "teaching is more complex than producing cars"(As quoted in: Larse-Freeman, & Anderson, 20013, p. 02). Consequently, teaching is not a simple process, it is so complicated because the teacher does not just transform knowledge and make the student understand effectively. He is to be creative for the reason that the teacher finds in his class a diversity of students such as gifted students and students with disabilities...etc.

Furthermore, there is a great variety of methods of teaching foreign language (TFL). In this context, teaching styles have changed significantly over years and teaching English as a second language (ESL) or a foreign language (TFL) entails to use both traditional teaching and modern teaching methods.

1.2.1 Traditional Teaching Method

Traditional teaching method as known as direct instruction relies mainly on the text books and black boards. In this vein, Scrivener (2005, n.p.) observes that "the teacher spend quit a lot of class time using the board and explaining things as if transmitting the knowledge"(As quoted in: Abbasxnovich, 2013, p. 23). It focuses on skills and areas of knowledge in isolation; the content of the course was limited to the specific vocabulary of the chosen field. The main characteristic of traditional teaching method as Broughton (1994, p. 22) claims is "the teacher-dominated interaction"(As quoted in: Sridevi, 2017, p. 236). Thereby, traditional teaching methods are generally associated with teacher-centered approach. In this method, the teacher is the source of the knowledge and the student is a passive element in the learning process and puts all his focus on the teacher. Kuzu (2007, n.p.) asserts that "traditional teaching method based on traditional view of education where teacher serves as the source of knowledge while learners serve as passive receivers" (As quoted in: Sridevi, 2017, p. 236).

Indeed, an important aspect of the traditional teaching method is memorizing the grammatical rules and use them while translating sentences and analyzing rules to English texts. In this part, Tharp (2008, n.p) states that the traditional method consists of "Rules to be memorized, grammatical text analysis, and literal

translation"(As quoted in: Abbasxnovich, 2013, p.19).

To Sum up, the traditinal teaching method is based on direct teaching. The teacher is the dispenser of knowledg, wherease the student plays a passive role. The only technology teachers needed was a black board and a piece of chalk and the teaching method was to read and translate without developing the student's critical thinking and decission making skills.

1.2.2 Modern Teaching Method

From the last decades, the use of modern teaching method is increasing with rapid rate. It is associated with non-inductive method which tends to improve satisfaction with the learning experience. Thus, the modern teaching method is more a student-centered. The teacher helps the learning to happen and encourages the student to explore the learning process and is only acting as a guide and facilitator of learning activities. On the other hand, the students are the most active elements and assume a large share of responsibilities for applying knowledge and making what they have learned. In this context, Kolb (1984, n.p.) maintians:

Learner- centered learning[...]The role of the teacher in student-centered learning will became that the guides and monitors helping student access, interpret, organize and transfer knowledge to solve authentic problems, while student get experts not only in the content areas being studied, but in learning. In fact, teacher became more like a guide on the side of the helping student to find answer to real life problems. (As quoted in: Serbessa, 2006, p. 130)

Moreover, the most important feature of modern teaching method is the use of concrete materials to illustrate things and ideas to the learner, this makes learning real and concrete. Henceforth, the learners become more interesting in learning activities because they interact with one another and participate actively in the learning process.

To nutshell, modern teaching method moves a student from passive receiver of information to active participant in the learning process which emphasizes effective use of concert materials to meet the students' learning goals. Indeed, there are two

ways of teaching, but modern teaching methods are more effective in encouraging the learner to communicate and in creating a positive attitude to the subject than traditional teaching method which makes the learning process based just on the teacher.

1.3 Learning Process: An Overview

One of the most important characteristic of human beings is their capacity to learn. Learning continuous throughout life, starts from birth and continuous until death. Learning is an important part of the process of education, any changes in skills, ideas and feelings is the result of learning. Thus, learning is a process of acquiring or modifying behaviours. In this matter, Woodworth (1945, n.p.) claims that, "any activity can be called learning so far as it develops the individual (in any respect, good or bad) and makes his latter behavior and experiences different from what they would otherwise have been"(As quoted in: Mangal, 2002, p. 142).

In addition, learning is an important part of education. Ones learn in individualistic style, this is because all we learn in various ways and discover the way that is best for us. According to Oxford (1990, p. 08), "strategies can make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situation"(As quoted in: Zare, 2012, p. 164). Hence, there are such significant numbers of varied methods for learning. In this context, Gardner (1982, n.p.) believes that:

The brain has evolved over millions of years to be responsive to different kinds of content in the world. Language content, musical content, special content and numerical content... etc. And all of us have computers that respond to those kinds of contents. But the strength on weakness of one computer does not particularly correlate with the other computer. (As quoted in: CIO. Magazin, 1996, p. 57)

Therefore, learning style is described as a group of characteristics, attitudes and behaviours that define our way of learning. In this sense, there are seven learning styles:

Social Style

It is characterised by learning in groups, explaining, understanding each other and building a sense of collaboration. These categories of learner listen and communicate well.

Solitary Style

In this style, the learning process becomes independently. Thus, the learners prefer a quiet learning environment and have a good concentration.

Visual/Spatial Style

These types of learners tend to observe things, pictures, diagrams, charts and maps...etc. Hence, visual or spatial style is the learning through creating vivid images to retain information. In This style, learners characterized by thinking in pictures rather than in words, they learned easier when the lesson presented in visual such as, presenting the content of the lesson by using PowerPoint or by using Interactive Whiteboard...etc. Generally, the learner with visual/ spatial style learns best when the teacher uses visual media.

Verbal /Linguistic Style

It is learning through hearing, by using words both in speech and in writing. In this style, learners are generally elegant speakers.

Logical/Mathematical Style

It is learning through numbers, the learners prefer logical as their style of learning. They have the capacity to solve problems, classify and categorize information.

Physical/ Kinesthetic Style

This style is learning by doing (moving, touching...etc.) and remembering through interacting with the space around them.

Aural/ Musical Style

This style is characterised by learning through music and those people, who prefer this style, are extremely sensitive to environmental sounds.

As a conclusion, since learning or obtaining knowledge is an important aspect of the student's lives. Thus, the teacher has better to focus on various learning styles and different teaching strategies that can achieve the required change in the student for great advantages.

1.4 Information and Communication Technology (ICT): A Preview

ICT is shortening for information and communication technology, it means all devices related to network component, application, system that allow people and organisation to interact to the digital world and use information. Accordingly, Rouse (2005, n.p.), "ICT is an umbrella term that includes any communication device or application, encompassing: Radio, Television, Cellular Phones, Computer and Network, Hardware or Software Satellite System, and so on" (As quoted in: Kondrat, 2016, p. 06).

In addition, ICT is similar to information technology (IT), but focuses primary on communication technologies. Hence, ICT is an extended term for information technology (IT). Richard (2002, n.p.) states that "[...]The previously dominant generic for interactive electronic media, information technology (or simply IT), is now increasingly being replaced by information and communication technologies (ICTs)" (As quoted in: Jung, 2006, p. 13).

Moreover, ICT is a term used to describe a wide range of tools that not only facilitates communication of information, but also the processing and storing of information. In this sense, according to Frenzel (2004, n.p.):

ICTs are defined as tools that facilitates communication, processing and transmission of communication and the sharing of the knowledge by electronics means; this include the full digital and analog ICT, from radio and television to telephones(fixed and mobile), computers,

electronic-based media such as digital text and audio- video recording and the internet. (As quoted in: Khoubati, 2009. p. 160)

Information and Communication Technology consists two parts:

1.4.1 Information Technology

It refers to anything related to computing technology and the use of electronic equipment for storing, analyzing and sending out information such as, software, hardware, networking and internet...etc. Henceforth, "Information technology (IT) is the application of computers and telecommunications equipment to store, retrieve, transmit and manipulate data,[1] often in the context of a business or other enterprise" (Wikiversty, 2018, para. 01). Whereas, Webster (2018, para. 01) defines the term of IT as "the technology involving the development, maintenance, and use of computer systems, software, and networks for the processing and distribution of data".

1.4.2 Communication Technology

It refers to all the equipment programmes that are used to send, receive, process, and communicate information. Communication technologies include the Internet, multimedia, e-mail, telephone and other sound-based and video-based communication means.

ICT transmits or receives information electronically in digital forms. Therefore, there are some kinds of technologies classified into information and communication technology commonly used in teaching and learning process; we tried to mention some of them.

1.5 ICT Devices

ICT consists of various tools and systems that can be exploited by capable creative teachers to improve teaching and learning situations that facilitate the grasping of courses and motivate the students to improve their abilities through the interaction. There are numerous ICT tools, but the followings are more beneficial to

teaching and learning processes.

1.5.1 ICT Resources

Intranet and Internet are two types of network environment; they become a source of vast amount of information and interaction tools. Intranet and Internet are two different sources as presented as follows:

Intranet

It comes from the phrase "Internal Restricted Access Network"; it is like the private internet, which is designed for communication such as sending emails, sharing files, information and viewing webpages ...etc. It also provides information to student such as learning resources, course information, homework and schedules... etc. Hence, intranet becomes popular and a widely used tool especially in sharing information.

Internet

It comes from the phrase "International Network"; it is the worldwide system of interconnected computers around the world to transmit data via various types of media. According to Webster 1985 (n.p.) "An electronic communications network that connects computer networks and organizational computer facilities around the world" (As quoted in: Marco, 2011, p. 244).

In addition, the internet plays a crucial role in the evolution of our educational system. The teacher uses the internet to supplement their lessons and gives the student extra resources and materials from it. It provides multiple outline resources such as:

You Tube

It is a compound noun of "You" and "Tube". It is an American slang means television .Thus, You Tube means something like a TV in show. It is a video sharing service that lets users upload files to You Tube services.

Nowadays, the use of You Tube becomes very important for education. It aims to improve knowledge, demonstrates complex procedures and helps to explain difficult topics. The students are also able to access to the sources of learning anytime, whenever they want without any payment. Hence, You Tube is a beneficial tool in the teaching and learning processes.

EBooks

It is an electronic version of a printed book. It consists of texts, table of contents, numbered pages, images and graphs, which are designed to be read on a personnel computer. According to Oxford Dictionary (2013, n.p.)," EBook is an electronic version printed book which can be read on computer or specific fiscally of designed handheld device designed specifically for this purpose" (As adopted in: Davidson, & Dwyer, 2013, p. 128).

Moreover, eBooks offer students, teachers and scholars with an additional medium of instruction that can be supported to enhance the learning process. There are lots of benefits of eBooks; the student can download an eBook within a minute and starts reading it without the internet connection, it does not any to store them like a big library.



Figure 1.1: EBook, Amazon kindle 3.JPG. (Adopted from: Wikipedia 2010, para. 01)

Blogs

It is a short form for the world weblog. It is a dairy or a journal that is mostly maintained by one person (blogger). Blog posts can contain videos, images, bullet-points, different readings and so on shared on a social network. According to Webster 2009 (n.d.) “blog is a website that contains online personnel reflections, comments, and often hyperlinks, videos and phonographs provided by the writer, also the content of such site” (As quated in: Sofka, Gilbert, & Cupit, 2012, p. 61).

Therefore, Blogs are being used for all sorts of purposes, especially for teaching and learning purposes. Teachers can use blogs to publish assignments, resources and help students master content and improve their writing skills. However, according to Jones & Brader–Araje, (2002, n.p.), "as blogging helps learners to construct knowledge, which refers to the process of constructing meaning from past experiences, it serves as a valuable tool for developing ideas collaboratively with peers and teachers (As quoted in: Aydin, 2014, p. 245). Consequently, blogs allow a more creative response from students.

Creating a Blog

- Visit www.blogger.com



Figure1. 2: A blog. (Adopted from: Blog slides on ICT, 2014, p. 13).

Online Forum

It is an online discussion site where people can hold conversations in the form of messages. According to Cyprus (2010, n.p.):

An online forum is also known as a message board, online discussion group, bulletin board or web forum, it differs from blog. An online forum is a discussion, read and respond to posts by other forum. A forum can revolve around any subject in online community. (As quoted in: Kaur, 2011, para. 08)

Indeed, With the rapid development of computer-mediated communication, education online forum has become more involved in classroom settings to promote the student's critical thinking, knowledge construction and language learning autonomy (Lim & Chai 2004; Marra, Moore & Klimczak, 2004, n.p., As cited in: Kaur, 2011para.03). A number of studies have found that online forums are beneficial in developing communication skills (Abrams 2003; Blake 2009, n.p., as cited in: Kaur, M. 2011, Para. 26). The greatest potential for effective use of online communication as a learning tool is when the students are 'at a distance' from the school and their teachers (Crowell & McCarragher 2007, n.p., as cited in: Kaur, 2011, Para. 26). Also, similarity to Choi et al. (2005, n.p.) also observes that:

In online forums, student develops their learning autonomy in language learning. Each participant is given more authority to shape or lead to the discussion in the direction they prefer, while, teachers they have relatively less control over the learning interactions. (As quoted in: Kaur, 2011, para. 18)

Therefore, the teacher has to encourage the student to use online forum to gain more exposure in the language, as Salmon (2004, n.p., as cited in: Kaur, 2011, para. 35) puts it, teachers need to take time to induct students to the online discussion tools and focus on familiarization and socialization into the online forum from the outset.

The screenshot shows the MetaMorph NX Forum interface. At the top, there is a navigation bar with links for 'MetaMorph NX & Modules', 'Forum', 'Resources', and 'Sales &'. Below this, a banner image is displayed. A red arrow points to the text 'Click here to return to the forum home page' above the 'MetaMorph NX Forums Home' link. Another red arrow points to 'View your public profile' above the 'User Control Panel' link. A third red arrow points to 'User Control Panel' above the 'User Control Panel' link. Below the navigation bar, a welcome message is shown for user 'JoeTest', including a 'Log Out' link. The main content area is titled 'MetaMorph NX Forums' and contains a yellow banner with a welcome message and a 'Register' link. Below this is a 'Category' section with a note about file attachment size limits. A table titled 'Journal Scripts' is shown, with columns for 'Forum' and 'Threads'. The table lists two forum categories: 'MetaMorph Journal Scripts' (5 threads) and 'MetaXpress Journal Scripts' (8 threads). Red arrows point from the word 'Forums' to the forum names in the table.

Forum	Threads
MetaMorph Journal Scripts Share and find MetaMorph journal scripts.	5
MetaXpress Journal Scripts Share and find MetaXpress journal scripts.	8

Figure 1.3: forum. (Adopted from: the basic organization of forum's links by JRich, 2012)

1.5.2 Teaching and Learning Tools

1.5.2.1 Presentation Tools

Interactive White Board

A good example of new technologies used in today classroom, is the electronic interactive whiteboard. It is known as a smart board; it is an instructional tool that is connected to a computer or projector, it can be manipulated by using a mouse or a finger. The British Educational Communications and Technology Agency (BECTA), according to Hall & Higgins (2005, n.p.) provides a clear outline of what an IWB is:

An interactive whiteboard is a large, touch sensitive board which is connected to a digital projector and a computer. The projector displays the image from the computer screen on the board. The computer can then be controlled by touching the board, either directly or with a special pen. (As quoted in: Genesi, 2009, 04).

In addition, interactive whiteboard has been popular over the last few years because it holds various benefits to the teacher, the student and the lesson. Using interactive whiteboard in the classroom increases the teacher's productivity and helps him presents more meaningful lessons to the students in a short time which allows him to move forward to the next important topic. Using it for lessons planning and preparation provides a higher level of organisation. Interactive whiteboard (IWB) not only enhances the way a teacher teaches, but also it enhances the way students learn. BECTA et al., (2008. n.p.), Students reported that the use of the IWB enhances motivation to learn, raises the level of concentration, improves behavior, and enhances learning because it is “fun” and innovative. (As cited in: Manny-Ikan, et al., 2011, p. 251)

Therefore, it supports different learning styles, especially visual and physical styles. In this sense, the beneficial of using interactive whiteboard in the classroom affects both the student and the teacher positively.

OHP

It is a short form of Overhead Projector; it is a piece of electronic equipment used to show information or images onto a wall or a small screen. According Collins English Dictionary (2010), "an overhead projector is a machine that has a light inside it and can be used to make the writing or pictures on a sheet of plastic appear on a screen or wall. The abbreviation OHP is also used" (Para. 01).

Nowadays, OHP still appears to be a useful tool for teaching, showing presentation and information via an interactive projector and gives the teacher the ability to share notes digitally at the end of the lesson, when the student gets the note taking over, they focus more on listening. This reduces taking down incorrect or irrelevant notes.

Therefore, OHO can be a valuable tool for increasing engagement by watching videos together, takes online pop quizzes or views information on the topic you discuss. By using OHP, teachers can more easily prepared all notes prior to class for easy presentation; they may find themselves spending little time repeating or

rewriting information that is now accessible with simple click. Thus, using OHP helps the teacher to give better teaching to the student in order to participate in a real time and interactive activities...etc.

Computer

It is an electronic tool that can store, retrieve and process data. There is no doubt that education and the learning process has changed since the production of computer. It facilitates learning and makes it easier for the student to learn, for the teacher to teach, and for the learning achievements. Computer allows the students to discover the facts for themselves due to the availability of digital books and articles. Thus, it improves the student's research skills by encouraging them to look for various topics on the internet; it also influences their performance by enabling them to become more involved with their school work. According to Gaible, & , Burns (2005):

Computers and the internet can beneficial all parts of education system including student learning, teacher development, school leadership, and management. Teachers may gain benefit from using these tools in the areas of content, curriculum, institution and assessment computer are best used to help teachers build intermediate and advanced skills. (p. 27)

In short, computer is useful in learning and teaching processes, it makes the world like the classroom of education.

1.5.2.2 Presentation Programmes

Utilizing technology in the classroom is always an enjoyable experience to the students. Hence, it is important for the teachers to master the art of presenting engaging lectures that keep students interested in the materials. However, it is equally to the student to master presenting tools. Here are numerous beneficial tools, but the followings are posting slide share online:

Power Point

One of the most common tools of technology in classrooms is the presentational software Microsoft's PowerPoint (Bates & Poole 2003, n.p.). Thus, PowerPoint is a presentation programme developed by Microsoft; it is designed to create series of separate pages on slides. To Anderson (2004, n.p.) electronic slides are becoming an important presentation tool in the classroom. (As quoted in: Abdelrahmana, Attaranb & Hai-Leng, 2013)

Nowadays, Power Point has become the common presentation teaching tool in education. It is a programme that allows teachers to present their lesson in a dynamic way simply than writing on the blackboard, Mason & Hlynka (1998, n.p.) state that PowerPoint helps structure the content and processing of a lesson or lecture. It also enhances students' learning through providing better understanding of a topic (As quoted in: Nouri & Shahid, 2005, p. 55). Therefore, the power point is a useful tool that is now being used in many classrooms, which can be used for initial teaching, for practice and drilling, games and texts...etc.

In short, Potentials of Microsoft PowerPoint include: its ability to do spell check, allowing the user to add, correct, make changes to the lessons, and finally use printout materials for students' personal use (Teachnology.com, 2007, n.p., as quoted in: Gambari, Yusuf & Balogun, n.d., p. 02), it also consists three advantages; organizing thinking about a topic, enhancement the of the impact of spoken information and providing collaboration on presentations. (Roblyer & Doering, 2013, n.p, as quoted in: Nouri & Shahid, 2005, 1320)

Prize

It is a short of (prizes); a tool for presentation which offers some unique features that make a good alternative of other presentation software. Prize presentation captures content in a special context instead of moving slide to slide like Microsoft Power Point; it is also a programme which uses visual learning techniques to create maps of chosen subject matter.

In recent years, prize becomes a great tool for interactive classroom session because it is a fun learning tool which has a visual impact that the learners will instantly engage with by encouraging them to explore new ideas and knowledge. Prize also offers the ability for the student to collaborate in class when using the programme online. In addition, it can be used to create a complicated lecture support that easily shows the connection between the topics. The zooming makes the prize much more existing than other tools; it gives the student the ability to zoom text or images which helps the student on what is important. Therefore, prize is made more accessible for students and instructions through its free online format. They can view it during and after class by using an online link.

1.5.2.3 Social Network

Social media has gained credibility over the years as a trusted source of information in education. It is a tool that offers learners and teachers with multiple opportunities to improve the learning process. Here are some social networks that are useful in education:

Facebook

It is a popular free social network that allows users to interest and collaborate with each other. According to Vigno & Bowen(2013, n.p.)" face book is the largest social networking site, with nearly a billion members that allows people to make connection, share interest and join groups" (As quoted in: Espinosa, 2015, p. 2206).

In addition, Facebook is not only a way to find old friends or to know the last news; it is also a great tool to enhance the learning environment. Thus, if Facebook is used effectively, many of practices and experiences that occur in this social network can enhance learning. It enables the teacher to extend the classroom in a new and interesting way. In another word, it encourages communication and collaboration around areas of common interest. According to Bowman & Ackcodlgher (2014, n.p.), "The connection between teachers and students provided by Facebook can potentially be an addition to learning environments were student's

engagement is limited by the lack of communication between teachers and students" (As quoted in: Da Cunha Jr, Kruistum & Oers, 2016, p. 228).

Besides, Facebook features such as groups and chats enable storing of information. Learners can form groups, share resources on a specific domain within a group. Furthermore, Facebook can be used to enhance critical thinking, collaboration and communication skills among students. It is proved to be an effective tool in enhancing education and encouraging learners and gives clear guidelines and directions. According to Ziegler (2007, n.p.), "Facebook has the capacity to rapidly change the educational system to better motivate students and engaged learners rather than learners who are primarily passive observers of the educational process" (As quoted in: Gamble, 2013, p.21).

Gmail

It is an advertising-supported email service provided by Google. Without doubt, it is one of the most used applications online; it allows users to send emails to people in any place in the world like many Google apps. This application is free and is available to anyone interested.

Moreover, Gmail cannot be used only in business but also in education. It aims to increase innovation, participation and creativity among students and teachers because it offers online storage and email alerts. Indeed, Gmail is easy to use and accessible from all devices (computers, mobile phones and tablets...etc.). It can be used for effective feedback to the instructors, an opportunity to offer online support to their learners. This means, that the feedback becomes more effective as a remark which has a big impact on learners' mind. At the end, the use of Gmail provides a positive impact in the teaching and learning field.

To wrap it up, there are many types of ICT tools that are used in different domains and are special mediums as well as used inside the classroom which can support and impact positively learning and teaching processes. Consequently, integrating ICT in classroom in general has a great importance in education.

1.6 The Importance of ICT in Teaching and Learning

The widespread use of ICT has now an influence in all fields of life, among which education. ICTs can enhance the quality of education in several ways by increasing learners' motivation and engagement, by facilitating the acquisition of the basic skills and by enhancing teachers' training.

It is important to motivate students for language learning, motivation undoubtedly is a key in any learning (Klimova & Poulouva, 2014, n.p., as cited in: Kreutz & Rhodin, 2016, p. 01). Students today have an interest on using ICT devices, based on this interest; the teacher can use ICT as a pedagogical tool to improve student's motivation and engagement towards the learning process. When the teacher integrates ICT into classroom, the student becomes more active and the lesson becomes more interesting. The students also learn more in less time and they like their classes more when ICT based instruction is included. Thus, the use of ICT in education has a significant positive effect on student's attitude and achievement. ICT has a deep positive impact on the learning process by offering new possibilities. One of these possibilities has an impact on the student's motivation, engagement and performance.

In addition, one of the most important uses of ICT in teaching and learning is facilitating the acquisition of the basic skills. ICT has the potential to accelerate, enrich and deepen the four skills. It can help deepen students' content knowledge, engage them in constructing their own knowledge, and support the development of complex thinking skills (Kozma, 2005; Kulik, 2003; Webb & Cox, 2004, n.p., as quoted in: Noor-Ul-Amin, n.d., p. 08). Therefore, ICT becomes as an integral part to help the student to acquire a range of complex skill and interactive media for engaging them.

Furthermore, research indicates that ICT can change the way teachers teach and becomes useful in supporting more student-centered approaches to instruction and in developing the higher order skills and promoting collaborative activities (Haddad, 2003, n.p., as quoted in: Jung, 2005, p. 95). ICT is used effectively to

train teachers to enhance the teaching and learning processes. It emphasizes how teachers use ICT in the classroom; this training selects appropriate ICT devices to promote learning activities like audio videotapes and multimedia programmes for transacting the subject content in the classrooms. Thus, integrating ICT in teachers' training has a positive impact on the teachers in general and on the way of teaching in particular.

To sum up, information and communication technology (ICT) is becoming a crucial tool for teaching and learning. ICT has changed the quality of education; it improves the student's performance and motivation, accelerates the acquisition of skills and impacts positively the teacher's training.

1.7 Conclusion

In recent years, information and Communication Technology has brought important changes to all aspects of our lives especially education. The role of technology in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy (Rosen & Well, 1995; Thierer, 2000, n.p., as quoted in: Mobia, Onyenanub& Ikwuetoc, 2015, p. 136). All possible types of ICT tools are starting to replace a textbook and whiteboard in education especially in higher education. These types of technology are integrated into a classroom and become a great tool to students to get a wide range of knowledge and develop their acquisition of basic skill, achievement and academic attainment; they also give creativity to teachers' method and transform it from teacher-centered approach to student-centered approach.

Therefore, ICT is widespread and essential to play a meaningful role in changing and modernizing educational systems as well as providing new and innovative forms of support to teachers, students and learning process more broadly. Whereas, the negative uses of ICT can affect teaching and learning process in general and student's performance in particular. Hence, it is important to train teachers on how they can control and manage the classroom in ICT generation to effective performance.

To sum up, ICT consists of various tools and systems that can improve teaching and learning situations if it is used effectively in and outside the classroom by both teachers and learners. As such, the following chapter will present an introduction about the appearance of creativity in education especially in English language teaching ELT through the use of ICT.

Chapter Two:

The Use of ICT in Improving Creativity in ELT

2.1 Introduction

2.2 ICT and Creativity

2.3 Theories of Integrating ICT in Education

2.3.1 Technology Acceptance Model (TAM)

2.3.1.1 The Key Elements in TAM Theory

2.3.1.2 The Use of TAM Theory in Education

2.3.2 Diffusion of Innovation Theory (DOF)

2.3.2.1 The Key Elements in DOF Theory

2.3.2.2 The Innovation Decision Process

2.3.2.3 The Attributes of Innovation

2.4 ICT and English Language Teaching

2.4.1 Listening Skill

2.4.2 Speaking Skill

2.4.3 Reading Skill

2.4.4 Writing Skill

2.5 The Effectiveness of ICT in Teaching and Learning

2.5.1 The Effectiveness of ICT on the Teacher

2.5.2 The Effectiveness of ICT on the Student

2.6 Conclusion

2.1 Introduction

This chapter will explore how information and communication technology can be used to support and enhance creativity in the process of English language teaching (ELT). Furthermore, it sheds some light on two theories: Diffusion of Innovation theory (DOI) by Roger (1992) and Technology Acceptance Model theory (TAM) by Davis (2003). These theories encourage the implementation of ICT in teaching and learning English language to enhance creativity and improve the quality of education process.

No doubt, English, being an international, language has been playing a vital role in most of fields and its mastering is essential. The role between English language and ICT is an essential topic which has been discussed by many scholars. In this term, Hartoyo (2010, n.p) states that, "the integration of ICT in the field of language learning is inevitable. He further claims that the ICT and the language are two aspects which support each other like to sides of a coin "(As quoted in: Ntongieh, 2016, p. 27). Thus, this chapter focuses on ICT as powerful tool that helps to address educational problems, supports difficult learning activities and especially enhances basic skills. In addition, ICT has the power to radically change the classroom practice. Therefore, this chapter is concerned with the transformation that ICT brings to the educational environment and its effectiveness on the teacher and the learner.

2.2 ICT and Creativity

In recent years, the era of ICT has changed our mindset in different ways and affects all human activities, but education is affected significantly. Researchers found out that ICT contributes in improving learning by offering opportunities and tools to enhance creativity in the learning process. Hence, one of the most existing aspects of ICT in education is that used to develop creativity.

Creativity has become increasingly one of the most important and needed skill for success. According to Craft (2011, n.p., as cited in: Brooks, Borum, & Rosenørn, 2013, p. 36), "Creativity has become a vital and highly valued aspect of

science, technology, education as well as everyday life by the end of 20st century due to the economic, social as well as technological drivers". While, there is a great expectation about the use of ICT to support learning and creativity in educational as well as professional settings (Loveless, 2002; Shneiderman, 2007, n.p., as cited in: Brooks, Borum, & Rosenørn, 2013, p. 36). However, creativity cannot just happen in its own accord; it is needed to be coaxed out and to be cultivated. Hence, recent advances in ICT make it possible to increase creativity and innovation in education.

Additionally, creativity is stimulated by the co-production of knowledge, where learners have an active role in the exploration and negotiation of meaning (Craft, 2005; Jeffrey, 2005; Runco, 2003, n.p., as cited in: Ferrari, Cachia, & Punie, (n.d.), p. 361). These aspects point towards a learner-centered pedagogy, where personalization and individualization of learning have a growing role, and where pupils have a say in the fashioning of tasks (Craft, 2005; Williamson, 2009, n.p., as cited in: Ferrari, Cachia, & Punie, n.d, p. 361). Therefore, shifting from teacher-centered pedagogy to learner-centered pedagogy through the use of ICT is one of the greatest features of ICT that increase creativity in the classroom. Thus, creativity is a part of teaching method that the teacher must attract learner's interest and intention by providing new ways of teaching. Indeed, another example of creativity is the learner's creativity, when he/she uses a variety of multimedia application to present their work in highly professional format such as using OVP or PowerPoint and then he/she can share with their colleagues or teacher via Email...etc. Hence, ICT allows learners to explore and discover rather than listen and memorize.

To conclude, ICT in one form that has always been a part of the teaching and learning environment. Thus, the role of ICT, in the debate for creativity and innovation in education, is an important one over the past decade. In this context, there are many theories that encourage the integration of ICT in education to improve creativity in teaching and learning process.

2.3 Theories of Integrating ICT in Education

The rapid increase of ICT affects the development of technology implementation in every aspect of life which causes many changes in society. According to Grade (2007, n.p., as cited in: Ghavifekr, & Rosdy, 2015, p. 175)," technology integration nowadays has gone through innovations and transformed our society that has totally changed the way people think, work and live". In line with current digital era, integrating ICT in education becomes one of the most important topics discussed by scholars.

ICT has developed powerful tools for diffusion of knowledge and information. Thus, regarding the learner's need and social condition, it is obviously needed to revise and consider the traditional method and approaches of teaching. Therefore, integrating ICT in education brings a lot of benefits and creates many amazing opportunities for teachers, learners and the learning process. It develops teaching method by enhancing the traditional way of teaching and keeping the learners more engage in the learning process. In general, ICT has the potential to increase access to education and improves its relevance and quality.

While ICT brings lot of benefits to education, it possess as few challenges; Schmidt (2002, p. 06) suggests that "effectively replacing the traditional classrooms is one of the greatest challenges in placing the course on the internet"(As quoted in: John, 2015, p. 234). One of the major problems of using information communication technologies (ICTs) in education is the lack of adequate, ongoing professional development for teachers who are required to integrate ICT into their classroom or base choices on technological possibilities rather than educational needs. The lack of technological equipment, institutional support and time are the major barriers of integrating ICT in education.

Consequently, there are a rising number of studies and theories focused on analyzing the attitudes of the teachers towards the use of ICTs within their classrooms. Researchers have turned to several theories and models with their origins to social psychology. Among these, The Technology Acceptance Model by

David 1989 and the Diffusion of innovation by Roger 2003, which are presented as follows:

2.3.1 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) by David 1989 is one of the most popular research models to explain an individual's acceptance and adoption of information system and technology. It suggests that when users are presented with new technology, a number of factors determine their decision about how and when they will use it. Thus, TAM exploring the interaction among the attitudes, beliefs and interaction to use ICT, according to Taylor & Todd (1995, n.p., as quoted in: Pelet, & Jean-Eric, 2013, p. 90).)" The Technology Acceptance Models has been proven to be parsimonious model with highly explanatory power of variances in users' behavioral intentions related to IT adoption and usage across a wide variety of contexts". In this sense, the TAM theory comprises of various parts, which are representing the process of ICT acceptance by the users including: perceive usefulness and perceive ease of use, which are the main factors in the acceptance process.

2.3.1.1 The Key Elements in TAM Theory

Perceive Usefulness

According to Lee et al. (2003, n.p., as cited in: Farahat, 2012, p. 96)" perceived usefulness is defined as the degree to which a person believes that use of technology will produce better outcomes". This means if students perceive that the online learning system can help to improve their performance, they are more likely to use online learning in their learning process (Yee, Luan, Ayub & Mahmud, 2009, n.p., as cited in: Farahat, 2012, p. 96).

Perceive Ease of Use

Perceive Ease of Use PEOU explains the user's perception of the amount of the effort required to utilize the system or the extent to which a user believes that

using a particular technology will effortless (Alrafi, 2009, n.p., as cited in: Farahat, 2012, p. 97). Davis (1993, p. 477) was defined PEOU as the “degree to which an individual believes that using a particular system would be free of physical and mental effort” (As quoted in: Henderson, & Divett, 2003, p. 385).

These two factors influenced the formation of behavioral intention to use technology and are the most important determinants of actual system use.

Social influences (external variables)

Shen, et al. (2006, n.p., as cited in: Farahat, 2012, p. 97) highlight that the social influence on students' attitudes and on their actual behavior within online learning environment. According to Kripanont, (2007, n.p.), social influence (SI) is defined as "the degree to which an individual perceives that other important persons believe he/she should use the system" (As quoted in: Farahat, 2012. P. 97). The student's referent group plays an essential role in shaping his/her behavior. A referent group is defined as "a social group that is important to an individual and that, consequently, influences his/ her beliefs and behaviors"(Mackie & Queller, 2000, p. 138, as qouted in: Farahat, 2012, p. 97).

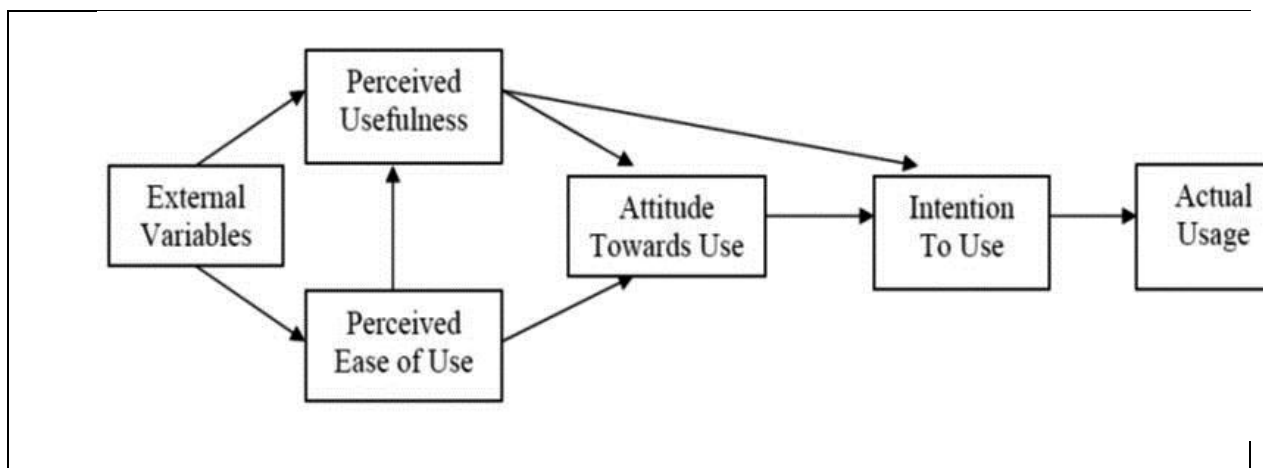


Figure 2.4: TAM model (Adopted from: Farahat, 2012, p. 97).

Figure 2.4 shows that the integration of the external variables (Social Influences SI) effect on Perceived Usefulness PU, Perceived Ease of Use PEOU,

and all the three variables (PU, PEOF and SI) effect on user's intention to use and their attitudes towards ICT use. Attitude has been doubtfully hypothesized to influence the behavioral intention to the technology and was therefore not consider in later assessments of the model (Venkatesh & Davis, 2000, n.p., as cited in: Pittalis, & Christou, (n.d.), p. 02).

2.3.1.4 The Use of TAM Theory in Education

More recently, the TAM theory has been used in educational settings to investigate various issues. According to Drennan et al. (2005, n.p., as quoted in: Teo, 2011, p. 11) TAM includes:

- a) Student acceptance of online courses,
- b) Course Website as effective learning tool,
- c) Online student communication for class project,
- d) ELearning (WebCT) in undergraduate courses,
- e) Gender differences in preserve teachers, and
- c) Student teacher's perceptions of computer technology in relationship to their intention to use computer.

The teaching body plays a key role in the success of the programs for the integration of new technologies in formal education. Therefore, the result of this research may be especially useful both for predicting the future use of a determined technology and for the design of the teacher training program. (Sánchez-Prieto, Olmos-Migueláñez, & García-Peñalvo, 2017, p. 233)

Generally, TAM theory was developed to measure the effectiveness success for ICT in helping understanding the value and efficacy of a particular system and is remarkably most used and applied or predicted individual's acceptance behavior.

In guise of conclusion, the Technology Acceptance Model (TAM) is the most influential theory in ICT field which uses it to study the adoption of various ICT technologies.

2.3.2 Diffusion of Innovation Theory (DOF)

Diffusion of Innovation Theory (DOF) is developed by Rogers (1962), which is the most appropriate for investigating the adoption of technology in higher

education. Diffusion of Innovation Theory focuses on understanding how, why and at what rate innovation idea and technologies spread in a social system (Rogers 1962, n.p., as cited in: Wani, & Ali, 2015, P. 103). According to Fichman (2000, n.p., as cited in: Wani, & Ali, 2015, p. 104) defines diffusion as a process by which technology spreads across a population of organization. The concept of diffusion of innovation usually refers to the spread of ideas from one society to another or from a focus or institution within a society to other parts of that society (Rogers 1962, n.p., as cited in: Wani, & Ali, 2015, p. 104).

2.3.2.1 The Key Elements in DOF Theory

Rogers proposes that four main elements influence the spread of new ideas:

Innovation

In Diffusion of Innovation theory, An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption” (Rogers, 2003, p.12. As quoted in: Sahin, 2006, p. 14).

Communication Channel

For Rogers (2003, p. 05), communication is “a process in which participants create and share information with one another in order to reach a mutual understanding” (As quoted in: Sahin, 2006, p. 14). This communication occurs through channels between sources. Rogers states that “a source is an individual or an institution that originates a message. A channel is the means by which a message gets from the source to the receiver”, (Rogers 2003, p. 204. As quoted in: Sahin, 2006, p. 14).

Time

Time is an important element in the diffusion process. This can involve "The relation speed with which an innovation is adopted by members of social system" (Rogers, 2003, p.23).

Social System

This social system is a set of interrelated unit that are engaged in joint problem solving to accomplish a common goal. The members or units of a social system may be individuals, informal group organization, and/or subsystems (Rogers 2003, p. 23. As quoted in: Sahin, 2006, p. 15). Thus, Diffusion is the "process by which an innovation is communicated through certain channels over a period of time among the members of a social system" (Rogers 1995, n.p., as cited in: Wang, et al., 2007, p. 365).

2.3.2.2 The innovation Decision Process

Rogers attempts to explain how people acquire a new knowledge, how they implement this knowledge, and how the new knowledge becomes sustained practice over time, to describe this process, Rogers creates a model called: The innovation decision process. He states that innovation diffusion is a process through five stages: Knowledge, persuasion, decision, implementation and confirmation. (Rogers, 2003, p.161):

Accordingly the innovation-decision process is a process through which making unit from first knowledge of innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to the implementation of new ideas and, to conformation of this decision.

(As quoted in: Dwivedi, & Yogesh , 2009, p. 200).

Hence, Rogers describes how the diffusion of innovation takes place in a social system as people a five step process to assess the impact of change on their works and lives.

Knowledge Stage

The innovation-decision process starts with the knowledge stage. This is the initial point of introduction when an individual gain awareness of an innovation and how it function. Rogers (2003, p. 173) argues that" if an adequate level of how to-knowledge is not obtained prior to the trial and adoption of an innovation, rejection and discountenances are likely to result"(As quoted in: Gafney, & Varma-Nelson,

2008, p. 35). Hence, as cited in: Sahin, (2006, p. 16), during the phase the individual attempts to determine what the innovation is and how and why it works (Rogers 2003, p.21).

Persuasion Stage

According to Rogers, (2003, p. 175, as quoted in: Vos, 2016, p. 18), Persuasion here is "equivalent to attitude formation and change on the part of an individual, but no necessarily in the direction intended by some particular source". Thus, this step occurs when an individual has a positive or negative attitude toward innovation. However, a favorable or unfavorable attitude toward an innovation does not always lead directly or indirectly to an adoption or rejection, (Rogers, 2003, p. 169).

Decision Stage

At the decision stage of the innovation-decision process, an individual interacts with an innovation in such a way that leads to a choice to adopt or reject the innovation, while, adoption refers to " full use of an innovation as the best course of action available", rejection "means not to adopt an innovation"(Rogers, 2003, as cited in: Wani, & Ali, 2015, p. 111).

Implementation Stage

This stage occurs when an innovation is put into service. According to Rogers (2003, p. 179)"All stages prior to the implementation stage are strictly mental exercise of thinking and deciding"(As quoted in: Alasfor, 2016, p. 08). Rogers (2003, p. 180) declares "the completion of the implementation stage is marked by a point when a new innovation becomes institutionalized as a regular part of the adopter's ongoing operations"(As quoted in: Campbel, 2015, p. 21). Another thing occurs in the implementation stage is referred to as reinvention. It occurs when an innovation is in some way as" changed or modified by the user in the process of its adoption and implementation" (Rogers, 1983, P. 16, as quoted in: Larsen, & McGuire, 1989, p. 320). Result from a national survey of innovation in public

school revealed that when an educational innovation was reinvented by a school, its adoption was more likely to be continued, (Berman & Polly, 1975, n.p. As quoted in: Campbel, 2015, p. 22).

Confirmation Stage

In this stage, the individual looks to support his or her decision. According to Rogers (2003, p. 189), "This decision can be reversed if the individual is exposed to conflicting messages about the innovation"(As quoted in: Cheboi, & Mberia, 2014, p. 355).

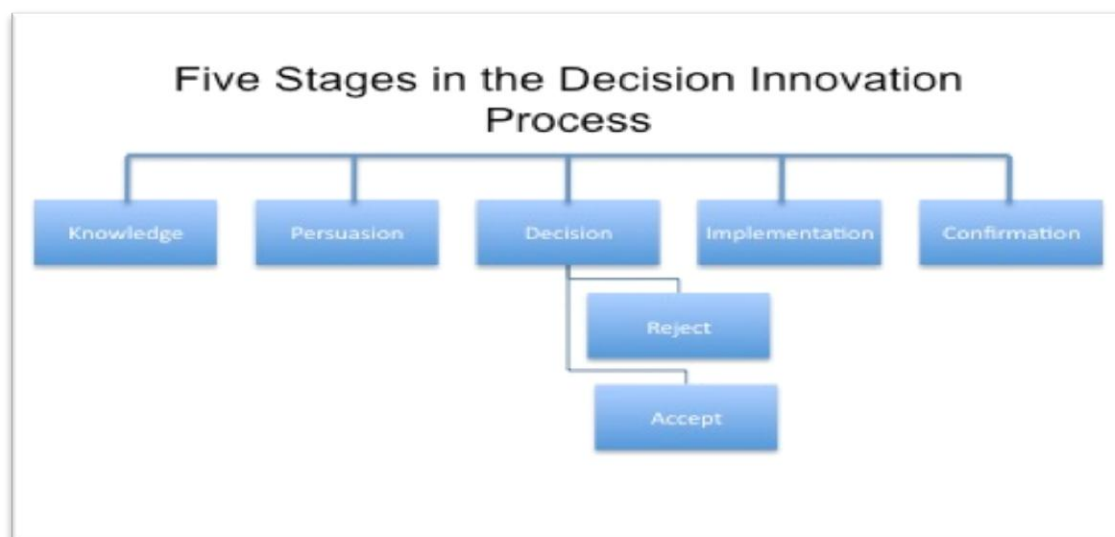


Figure 2.5: Five stages in the diffusion of innovation (Adopted from: Sunnyloha, 2014. P. 01)

To wrap it up, figure 2.5 shows five stages in the decision innovation process which requires the potential of collecting information regarding ICT and examining the technology and considers whether it gives sufficient improvement or not, finally puts it into service and confirms it.

2.3.2.3 The Attributes of Innovation

Spreading of a new innovation can be achieved through considering five qualities related to the innovation from the perspective of the innovators; based on Rogers (2003, n.p., as quoted in: Jwaifell, & Gasaymeh, 2013, p. 141), these five

qualities are presented as follows:

Relative advantage

The greater the released relative merit of an innovation, the more quick its rate of adoption is likely to be. It related to the facilitation of the educational process into gaining student's attention, displaying the content in different forms and saving teachers as well as students' time and efforts.

Compatibility

It refers to the degree to which an innovation is perceived as being consistent with the values, past experiences, and the needs of adopters", (Rogers, 1983, n.p, as cited in: Johnson, 2017, p.30). In education, the process of adopting an innovation can be accelerated if the teacher and the student fell that this new innovations compatible with their needs and experiences.

Simplicity vs. Complexity

New ideas are simple to understand for the potential adopter is adopted more rapidly than innovation that requires the adopter to develop new skills and understanding. While, Complexity measures the degree to which an innovation is perceived as difficult to use and understand (Rogers, 1995, n.p., as cited in: Musa, Ezra & Monsurat, 2015, p. 83). For instance, if teachers note that sometimes their students know how to use ICT tools better then themselves, which reflects that teachers' lack of experiences on how to use ICT tools even though it is easy to use, whereas the students can know how to operate them without training.

Trialabilty

"It refers to the degree to which an innovation can be experimented with on a limited basis", (Rogers & Shoemaker, 1971, p.155, as quoted in: Larsen, & McGuire, 1998, p. 153). Thus, some results show that the teachers are not forced to use ICT tools for their teaching, although they use it all the time in every class.

Obeservability

This concept refers to which the results of an innovation are visible to others, (Rogers, 2003, p. 16, as cited in: Mannan, 2014, p. 1381). This means that, the teachers and students have the chance to examine ICT tools in their educational practice and to take advantages of it.

Finally, the five characteristics of innovation mentioned in Roger's Diffusion of Innovation theory (2003), has a greater role in motivating and encouraging teacher and students to use ICT in teaching and learning process. Hence, DOI theory is one of the most theories that lead to the enhancement of creativity in education. Besides, Rogers' diffusion of innovations theory is the most appropriate for investigating the adoption of technology in higher education and educational environments (Medlin, 2001; Parisot, 1995, n.p., as cited in: Sahin, 2006, p.14).

2.4 ICT and English Language Teaching

Nowadays, ICT plays a crucial role in ameliorating knowledge acquisition in general and enhancing English language mastering in particular. English is one of the most important languages which has particular role in the process of globalization and knowledge explosion. According to Säljö (2002, p. 15)," when technology changes the way in which we get in contact with and act in this world changes", (As quoted in: Lindner, n.d., p. 01). Therefore, in this age of information and technology, ICT has certainly brought many changes in teaching English.

As a matter of facts, The effective use of Information and Communication Technology requires innovative teaching skills. Hence, ICT is highly useful tool in which benefits both the learner and teacher especially in improving the four skills, namely listening, speaking, reading and writing.

2.4.1 Listening Skill

It is the ability that receives and interprets messages in the communication process. Nachoua (n.d, n.p., as cited in: Drigas, & Charami, 2014, p. 104), reports that "the skill of listening is a key significance for English language learner to

acquire". Hence, listening skill is the most important part of communication, because if the learner has understood the messages being expressed, he will provide a substantial and meaningful response.

In this sense, to achieve listening skill, the teacher needs to achieve creative ways to design activities in the classroom that will help the students to develop English listening skill as much as possible. One of the greatest creative tools of teaching listening is ICTs tools, in order to facilitate learners' understanding listening materials.

Several ICT techniques and tools have been introduced and employed in ELT setting, in order to enhance students' listening skills. One of the most ICT tools that affect significantly listening skill is Computer -Assisted Language (CALL). CALL has played a key role in personalizing education (Ghalami Nobar & Ahangari, 2012, as cited in: Fatemi, Alishahi,& Seifi, M. 2015, p. 211). Nachoua (2012, n.p.) in a study entitled "Computer-Assisted Language Learning for Improving Students' Listening Skill finds that CALL is a motivating method and computers are valuable instruments in second/foreign language classes to improve students' listening skill (As quoted in: Fatemi, Alishahi, & Seifi, 2015, p. 212).

The teaching learning process can be facilitated by using some forms of teaching multimedia. The use of multimedia makes it more applying and motivating to learners, especially to train listening comprehension. According to Meskill (1996, n.p),

Multimedia could improve listening skill focused on: (a) visual and text roles as a tool to organize language in aural treks; (b) video motivation aspect as a profit for language teaching; (c) a fact that those media combinations could reach language target so that they could give important input to language acquisition process (d) comfortable environment to describe chart and discourse strategy for the students" (As quoted in: Arono, 2014, p. 63).

For this reason, integrating multimedia in the classroom is an alternative tool for improving listening skill and motivating students by attracting their intentions and confidence. Furthermore, podcasting as online communication, as a new way

to inspire learning technology, becomes very popular because it offers language learners extra listening practice both inside and outside the classroom.

In the guise of conclusion, the development of listening skill through the use of ICT is very important because it is probably the most frequently used language skill in the classroom setting. However, the use of ICT tools in the classroom is not only essential for providing opportunities for students to enhance listening skill; it is also an effective tool to improve speaking skill.

2.4.2 Speaking skill

Speaking skill is one of the most important skills that needs to be required especially for English language teaching ELT, because it aims at developing abilities in producing oral discourses; according to Widdowson (1994, n.p., as cited in: Somdee, & Suppasetseree, (n.d.). p. 167) "speaking is the active productive skill and use of oral production". It reflects people thoughts and opinions, Byaget (n.d.), says that "speaking is the skill by which we are usually judged, it is the crucial tool that we can express ourselves through it", (p. 26).

Moreover, speaking skill appears to be a difficult skill to be developed in EFL classes because students need to build social relationship to interact with each other, according to Gutierrez (2005, p. 03), claims that:

Learners often need to be able to speak with confidence in order to carry out many of their most basic instructions. It is the skill by which they are most frequently judge and through which they make or lose friends.

Thereby, one of the major responsibilities of any teacher working with English language learners ELL is to enable them to communicate effectively through oral language. In order to solve all these problems, the teacher can use methods or techniques that are suitable and interesting to students, Mulyanto (1974, p. 14), confirms that," techniques depend on the teacher, imagination, his creativity and the condition of class. A certain problem can be solved with various techniques. For

that reason, the teacher can integrate ICT in language learning especially in teaching speaking skill because ICTs provides more opportunities for students to engage as creators and manipulators in the learning process. In this context, Bygate (Vilimec, 2006, n.p), highlights that, "Speakers are forced to use devices which help them make the oral production possible or easier through "facilitation", or enable them to change words they use in order to avoid or replace the difficult ones by means of "compensation"", (As quoted in: Kirisri, Jenwitheesuk, & Boontong, 2015, p.04).

In facts, the use of technology has a great influence on EFL learners 'speaking ability inside and outside the classroom. In this context, one of the ICTs tools that are used to develop speaking skills is visual aids, according to Neeraja (2011), "an audio visual aid is an instructional device in which the message can be heard as well as seen", (p. 02). In the same context, McKean & Roberts (2000, p. 03, as quoted in: Zaamoune, 2016, p. 33) add that: "audio visual aids are supplementary devices by which the teacher, through the utilization of more than one sensory channel is able to clarify, establish and correlate concepts, interpretations and appreciations".

Consequently, visual aid is a useful material which helps both teachers and students in the teaching and learning process. It helps students to improve their pronunciation and understanding languages by making them contact directly by objects, that it is to say, i.e., to create realistic world. This means, visual aid helps students to acquire the foreign language and develop their speaking skill.

In addition, blogging has become an exploding passion among Internet communities (GAO; Tian, & Huang, 2010, n.p., as cited in: Rakhmanina & Kusumaningrum, 2017, p. 27). Blogs emerge as effective tools for developing students' speaking abilities. There are numbers of studies related to the influence of blogging to students' speaking ability. Those studies argue that blogs are effective tools for developing students' speaking skills, (Wikipedia, 2008, n.p., as cited in: Rakhmanina & Kusumaningrum, 2017, P. 28).

Moreover, Power Point projector is also good for teaching spoken English.

PowerPoint presentations can be used in many ways in the ESL or EFL classroom as well as in other classrooms. Presentations can be used for initial teaching, for practice and drilling, for games, for reviews, and for tests.

As a sum to what precedes, the teaching learning English speaking process could only succeed by having good learning facilities such as, teaching use visual aids, blogs, and Power Point.

2.4.3 Reading Skill

It refers to the ability to understand written text; it aims at enhancing the student's vocabulary, help them understand how to write. Reading skill develops fluency, concentration, imagination and creativity; it also enhances vocabulary knowledge, and improves syntax.

Reading skill is perhaps the most complex skill because it involves many skills; according to Hancock (1998, p. 69), the process of reading “comprehension involves understanding the vocabulary, seeing relationships among the words and concepts, organizing ideas, recognizing the author’s purpose, evaluating the context, and making judgments” (As quoted in: Ashrafzadeh, Mohd Don & Meshkat, 2015, p. 524) . Therefore, reading is complicated skill because it involves the process of understanding vocabulary in the context in text and it includes the skill of fluency which plays an important role in the overall reading success.

Although, ICT could be an important tool to enhance the teaching of reading skill, according to Kasper (2003, n.p)" Through technology, students are able to build their overall knowledge base and develop literacy skills", (Noorizah, et al. n.d., p. 19). Thus, ICT is affecting how reading is being taught inside or outside the classroom

Indeed, various computer software programmes such as, Internet resources can be one of the great ICTs tools to improve students' English reading skills. The learners can improve their reading abilities; they can search more about the reading topics in order to fully comprehend the texts; for example, when the students are

reading a certain article online, they can look up the meaning of unknown words in online dictionaries, in this matter, the student can understand the reading text and learn many words from the Web. Thereby, there are several aspects of a hypertext which can be an effective tool for developing reading skill. As Horney (1994, n.p.) argues:

Hypertexts are electronic versions of texts presented via a computer. Hypertext versions of texts include resources that the reader can access while reading the text [...] including such resources as enrichment material, vocabulary support, prompted writing assignments, self-monitoring questions, and graphic overviews, (As quoted in: Korabiak & Mete, 2004, p. 07).

In this context, hypertext can offer many benefits to the student because it especially provides easy access to multiple documents on related topics.

In addition to internet resources, eBooks are more beneficial tools to use for reading comprehension which leads to gain students' interest and motivate them to complete reading the task at hand. Consequently, e-books have become so prevalent that publishers now offer e-book alternatives for most of their textbooks (Woody, Daniel & Baker, 2010, n.p., as cited in: Sackstein, Spark & Jenkins, 2015, p.01). However, in e-book readers can find specific content more easily and more efficiently than p-book, (Shelburne, 2009, n.p., as cited in: Jeong, 2010, p. 391). Thus, eBook is an alternative to printed book which affects positively students' reading skill.

Moreover, a website offers both visual and auditory supports for reading and vocabulary building. Such websites will offer graphics and sounds to develop pronunciation; understanding and mastering of words, using PowerPoint software for presenting the reading texts to attract the student's attention to be more attentive. For example, through using PowerPoint slides, the student can point out the words, phrases or structures instead of just reading from the text.

To sum up, reading is one of the most important skills for learning English language; it is one of the founding pillars of making students. According to Larson

(2010, p. 15), “the International Reading Association emphasized the importance of integrating information and communication technologies (ICTs) into current literacy programs” , (As quoted in: Reid, 2016, p.04); i.e. , to improve reading skill, there is nothing better than ICT to provide a wide range of opportunities and resources which leads also to enhance writing skill.

2.4.4 Writing skill

It is a form of communication that allows the student to put ideas on papers and to convey meaning through well-constructed texts. It helps the learner to gain independence, comprehensibility, fluency and creativity in learning. In this sense, writing has always been seen as an important skill in English language acquisition. However, it is a highly complex language skill to be mastered because it requires bringing many skills together .This difficulty, according to Richards & Renandya (2002, p. 303) ,”lies not only in generating and organizing of ideas but also in translating these ideas into readable texts” , (As quoted in: Masaeli & Ali Heidari-Shahreza, 2016, p.09).

Additionally, writing skills can be developed when the learners' interests' are acknowledged and when they are given frequent opportunities to actually practice writing (Ismail, 2007, n.p., as cited in: Cole & Feng, 2015, p. 05). Therefore, integrating ICT in teaching writing skill attack learner's interest, encourage learner's independence and self-discovery like searching for related material online. New ICT tools have an important role in teaching writing skills.

Moreover, one of the popular tools commonly adopted in the teaching of the writing skill is integrating blogs in to classroom. Nadzrah & Kemboja (2009, n.p., as cited in: Said, et al., 2013, p. 96) find that blogs let students compose writing with specific purposes that can encourage them to enhance their writing in language. Most blog writers use their blog as a platform for self-expression and empowerment, and this helps them to become more thoughtful and critical in their writing (Armstrong & Retterer, 2008, n.p., as cited in: Said, et al., 2013, p. 96). Asking the students to write a blog about something meaningful and that they are

interested in, will inspire them to write more and write better, in this matter, students' writing skills are improved when they blog. This creates an environment for an active learning among students that can present positive impacts on the writing skill as well as increase the learner's autonomy respectively (Darabi, 2006, n.p., as cited in: Said, et al., 2013, p. 96).

In addition, computer has also a profound effect on English language learning and teaching and can be used in developing writing skill by building the students' mind and proving good basic structures of the English language or by reinforcing the acquisition of new a vocabulary. In addition to this, word processing, speech recognition, speech feedback, word prediction, and other varieties of software packages may help students with learning disabilities to participate in well-developed classroom writing programmes (Williams, 2002, n.p, as cited in: Ulusoy, 2006, p. 01). As a matter of fact, the computer is a very useful tool for helping students to develop their writing skill.

Moreover, E-mail has become the predominant means of communication of information and an indispensable tool in education. Therefore, e-mail has been established as an indicator of collaboration and knowledge exchange (Whittaker & Sinder, 1996, n.p., as cited in: Turner & Minnone, 2011, p. 104). In other words, E-mail provides an opportunity for students to develop the habit of writing through different activities and the different opinions of spelling and grammar check which makes the students aware about the mistakes. In short, the use of ICT tools in writing makes a supportive and an encouraging environment for the students to increase their writing skill.

In short, in English classroom, one of the latest approaches of teaching and learning English is by integrating technology in the classroom environment (Mutmainna 2016, p.27). Thus, ICT has brought new opportunities in developing learning and teaching English in general and improving the four skills in particular. Consequently, the effect of ICT on the teacher and the student are numerous; we tried to mention some of them.

2.5 The Effectiveness of ICT in Teaching and Learning

The field of education has been affected by ICTs, which have undoubtedly affecting teaching, learning and research (Yusuf, 2005, as cited in: Vitanova, Atanasova-Pachemska & Pachemska, 2014, p. 461). Hence, information and communication technologies for education refer to the development of information and communications technology specifically for teaching and learning purposes. In this context, ICTs are transforming the face of education, and affect teachers and learners since they are the main categories of the educational environment.

2.5.1 The Effectiveness of ICT on the Teacher

Many studies argue that most of the teachers especially of higher education perceived ICT as very useful and as making teaching and learning easier because this area has a lot of benefits and positive effectiveness that ICT brings to the teacher. Balanskat et al., 2006, n.p., as cited in: Almas & Krumsvik, (2008, p. 106) point out that teachers use ICT to support their existing pedagogies. Besides, some researchers highlight that ICT does not only help teachers to transmit knowledge to students or to get diverse information in their subject areas but also to use ICT actively as a learning tool to develop the teacher's style and method of teaching.

Accordingly, teachers from all the disciplines have widely integrated information and communication technology to improve their teaching style (Liu et al., 2011, n.p., as cited in: Shamim & Raihan, 2016, p.13). Therefore, the effective of ICT significant contributes to the emergence of reforms in teaching and learning process in all sector of education (Pulkkinen, 2007; Wood, 1995, n.p., as cited in: Shamim & Raihan, 2016, p. 13).

The integration of ICT in English language teaching has the ability to support student-centered and constructivist learning environments and the increase of instructional technologies used in the classroom. As a matter of fact, Honey & Moeller (1990, n.p., as cited in: Machnaik, 2002, p. 10) claim that "integrating technology into classroom allowed teachers to make changes in their teaching". Honey & Moller also add that the teachers' practices had changed over time; the use

of ICT in the classroom allowing them to teach differently as they were moving from a more teacher directed approach to an interactive approach involving the students.

In addition, due to the development of ICT devices and wide access inside and outside classroom, the roles and relationships of the teachers are changing in the classroom. Jenkins (2009, n.p., as cited in: Salavati, 2016, p. 49) argues that when new technologies are introduced, the relationship between the teacher and the learner and their relationship with traditional tools, such as pencils, pens, chalkboards and blackboard...etc., is changed. As Gibson (2001, p. 40, as cited in: Salavati, 2016, p. 49) states, the teacher has to become “the ‘guide on the side’ and not the ‘sage on the stage’”, which has now become commonly known.

In short, Gibson (2001, p.40, as cited in: Salavati, 2016, p. 52) in his investigation of the forms of learning and teaching most favorable to using digital technologies, describes digital technology supported learning environments that influence and affect teachers is a number of ways. The teachers:

- expect more from their students and believe the students to understand more difficult concepts.
- can meet the needs of individual students more effectively.
- are more student-centered in their teaching.
- present more complex material and are willing to experiment.
- are open to multiple perspectives on problems.
- feel more professional since they help their students to learn rather than distribute and transmit knowledge.

2.5.2 The Effectiveness of ICT on Students

Increasing the quality of student learning is the main goal of the learning process, therefore; it becomes the integration and use of ICT in the educational process to have a good result.

ICTs have the potential to innovate accelerate, enrich and deepen skill, to

motivate and engage the students, to help relate school experience to work practices, create economic viability for tomorrow workers, (Davis & Tearle, 1999; Lemke & Coughlin, 1998, n.p., as cited in: Yusuf, 2005, p. 316).

The development of ICT in education indicates a connection between collaboration learning and ICT. The important roles of collaborative learning also come up in research concerning technology integration (Ertmer, 1999; Becker, 2000, n.p., Valtonen, 2011, p. 08). ICT offers new possibilities to create collaborative learning environment that allows the student to see situations from different situations encourage each other to ask questions put their opinions, motivates, improves their learning skills and provides satisfactory learning experience that significantly reduce anxiety. According to Forchenia & Malfino, (2000, n.p., as cited in: Wheeler, 2001.p. 08), "ICT can also use to promote collaborative learning including role playing, group problem solving activities and articulated project".

ICT use has also been correlated with increase learning as it promotes better interaction between teachers and students. For Carno (2007, n.p.), "collaborative learning is simply very useful way of teaching in that student and teachers work together, whatever the subject matter "(As qouted in: García-Valcárcel, Basilotta & López, 2014, p. 67). In addition, motivation undoubtedly is the key in any learning (Klumova & poulova, 2014, p. 53). Therefore, it is important to motivate a student for language learning in English. According to the Swedish national curriculum, "Teaching of English should aim at helping pupils to develop knowledge of the English language and of the areas and contexts where English is used, (Skolverket, 2011, n.p., as cited in: Leijon, 2016, p. 03). Consequently, the use of ICTs shows that students' engagement and motivation levels are enhanced as well as the use of the different media by combining text, sounds, colors, and moving images that enhance content for easier learning.

Moreover, CT presents an entirely new learning environment for students, thus requiring a different skill set to be successful. Critical thinking, research, and evaluation skills are growing in importance as students have increasing volumes of

information from a variety of sources, (New Media Consortium, 2007, n.p., as cited in: Noor-Ul-Amin, n.d, p. 05).

In short, the main feature of ICT is to enable learners to be creative. Thus, ICTs tools supports creativity in the classroom, because it allows the student engage in meaningful creative activities and explore their own potential. Hence, information and communication technology in the classroom has a significant effect on students' outcomes and it creates the student's love for education.

As a conclusion, ICT provides several ways to support teaching and learning (Koschman, 1996; Lehtinen, 2006, n.p., as cited in: Valtonen, 2011, p. 01). In this sense, several studies argue that the use of ICT affects positively both teachers and students, it is essential for providing opportunities for the teachers to improve their teaching methods and strategies and to enhance students' learning process, in this matter, all the educational process will be more creative.

2.6 Conclusion

Creativity has always been a part of successful education; therefore, the integration of ICT in the classroom setting is one of the most prominent factors that lead to improve creativity of both teachers and students especially in English language teaching ELT. Thus, it is a medium through which the teacher can teach effectively and the learner can learn better.

In this context, this work selects two information system theories, which are appropriate to this research, are Technology Acceptance Model theory TAM and Diffusion of Innovation theory DIO. TAM theory is used in the acceptance and usage of information technology. While, DIO is a theory that seeks to explain how new ideas and technology spread through environment. This research helped to provide a general understanding about the key element and challenges affecting adoption of ICT in higher education

Moreover, the important role of using ICT in educational environment is to achieve the development of the four skills: listening, speaking, reading and writing.

Hence, the main purpose of using ICT is its contribution in improving English language teaching.

To wrap it up, using information and communication technologies in teaching and learning process has a great effect on both teachers and students. It transforms teacher's method from teacher-centered approach to a student-centered approach which creates a sense of creativity in the classroom through students' engagement, motivation, and collaboration in the learning process. Thus, ICT presents new creative educational environments.

Chapter Three:

Data Analysis and Interpretation

Chapter three:

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3.1 Introduction

3.2 Types of Research

3.2.1 Quantitative Research (Questionnaire)

3.2.2 Qualitative Research (Interview & class observation)

3.3 Research Methodology and Design

3.3.1 Sampling and Population

3.3.2 Data Analysis

3.3.2.1 Student's Questionnaire Presentation

3.3.2.2 Teachers' Interview Presentation

3.3.3.3 Classroom Observation

3.4 Results Discussion and Interpretation

3.5 Recommendations

3.6 Conclusion

3.1 Introduction

The integration of ICT in higher education is considered as an innovative practical tool, especially in foreign languages classroom. In fact, this leads to enhance creativity to both teachers and students.

First of all, the third chapter is devoted for an explanation of the research methodology and design, focusing on data collection and analysis. It provides an overview about the use of ICTs to enhance creativity and its effects at the Department of English, at Saida University. This enables us to have an idea about the different attitudes toward this issue. Then, it describes the research methodology and then, it is followed by a full description of data collection. In order to carry out this study, I relied primarily on a questionnaire, an interview and classroom observation which was used for more information. Finally, it concludes the discussion and interpretation of the main results as well as some suggestions and recommendations.

3.2 Types of Research

The research instruments used in the present research produce two types of data: quantitative data (questionnaire) and qualitative data (interview and classroom observation). Both methods which have been appreciated are important because they provide ways of analyzing and they have been considered a good strategy that produces better results in terms of quality and quantity.

3.2.1 Quantitative Research (Questionnaire)

Quantitative methods as Babbie (2010, Para 1) emphasizes objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Thus, the questionnaire is one of the most prominent methods used to gather quantitative data.

Questionnaire is an instrument used for data collection. It is a set of questions to be filled out by the respondents in order to obtain their personal views and interests (Brehob, 2001, p. 34). In addition to this definition, the questionnaire is defined in more structural way as "a method for the elicitation, and recording and collecting information" (Kirakowski, 1998, p. 34).

3.2.2 Qualitative Research (Interview & class observation)

For the sake of getting reliable data, Qualitative research is another method of data collection that we have to conduct it in the current research, Seliger & Shohamy (1989) state that it is "usually in the form of words in oral or written modes" (p. 205). In this sense, qualitative research focuses on two instruments which are interview and class observation.

Besides, an interview is one of the data collection instruments used in order to obtain deeper understanding of a specific topic. Kvale (1996, 14) defines the interview as "an interchange between two or more people on a topic of mutual interest, sees the centrality of human interaction for knowledge production, and emphasizes the social situatedness of research data" (As quoted in: Frederick, 2013, p. 36). While class observation is a research instrument mostly valuable in qualitative research, it is used to validate and examine students' and teachers' practices. Indeed, it can be used to collect information about activities, behavior as well as other aspects of teaching independently of respondents' interests to answer questionnaires (Taylor-Powell & Steel, 1996, p. 61).

3.3 Research Methodology and Design

The next step of any research design is to move to something more practical. The method followed in this research is the descriptive method because it permits us to describe a current situation. To carry out the research, we decided to adopt a mixture of research methods between quantitative and qualitative.

3.3.1 Sampling and Population

To accomplish the present work, the researcher selected three main data collection to be used. On one hand, a questionnaire was submitted to students of Moulay Tahar University; they represent 70 students, the interview was addressed to teachers of the same university by making voice-recording, they represent 5 teachers. On the other hand, the researcher attended three sessions of different levels at Saida University as a passive observer using an observation checklist. The results of the obtained data are shown in simple tables and graphs which are numbered and entitled and followed by the corresponding analysis.

3.3.2 Data Analysis

3.3.2.1 Student's Questionnaire Presentation

The questionnaire was designed for the third year and first Master students (for both specialties Didactic and Civilization) for English department, the researcher chose about 70 students randomly as participants. This questionnaire is a semi-structured questionnaire consisting of 17 questions, which are arranged in a logical way. They are either closed questions requiring from the students to choose "yes" or "no" answer, or to pick up the appropriate answer from a number of choices or open questions requiring from them to give their own answers and justify them.

The questionnaire was addressed to third year and first year Master students, but not all the students cooperate with us, probably because the questionnaire was administered within a period that we have no courses, and most of the students were busy with their second semester exams.

Section one: Student's Profile

Item One: Gender

Table 3.1 Student's gender

Gender	Number	Percentage
Male	24	34%
Female	46	66%
Total	70	100%

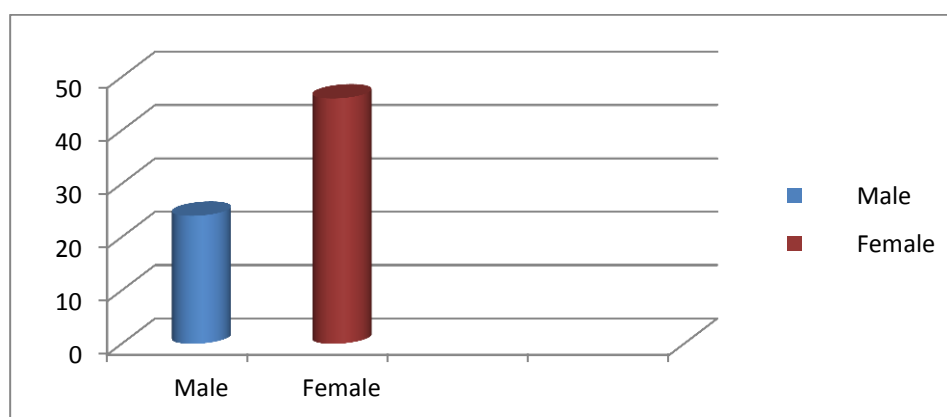


Figure 3.6 Student's gender

This question is asked to know the gender of the students participating in this research work. As shown in table & figure 3.1, the female students were more than males. In fact, the examiner had recorded 24 (34%) male and 46 (66%) female. This means that females are more interesting in using ICT tools than males.

Item two: Age

Table3.2 Student's age

Age	Frequency	Percentage
20-22	15	21%
23-25	51	73%
More than 25	04	06%
Total	70	100%

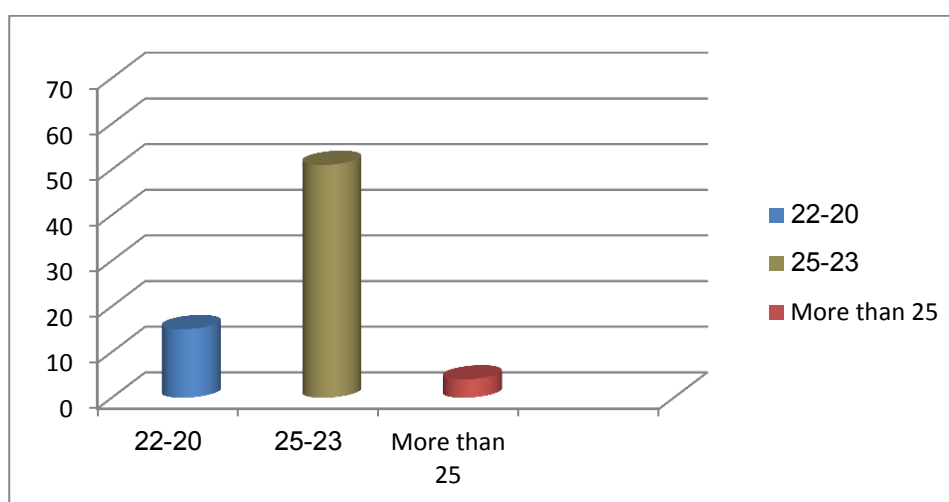


Figure 3.7 Student's Age

This question tried to look at the different ages of the students in order to know if they are familiar enough to be aware about the use of ICTs. As shown in Table & Figure 3.2, there were three age groups of students, the first group aged between twenty (20) to twenty two (22) years old contained of 15 (21%) students, the second age group contained of 51 (73%) students varied from twenty three (23) to twenty five (25) students, while the last group included 04 (06%) whose age was more than twenty five (25). Thus, according to these results, we notice that most of students are enough to be aware and mature with the use of ICT tools and

resources.

Item three: student's level

Table 3.3 Student's level in English

Level	Frequency	Percentage
Advanced	16	23%
Upper-intermediate	24	34%
Intermediate	13	19%
Pre-intermediate	10	14%
Elementary	07	10%
Total	70	100%

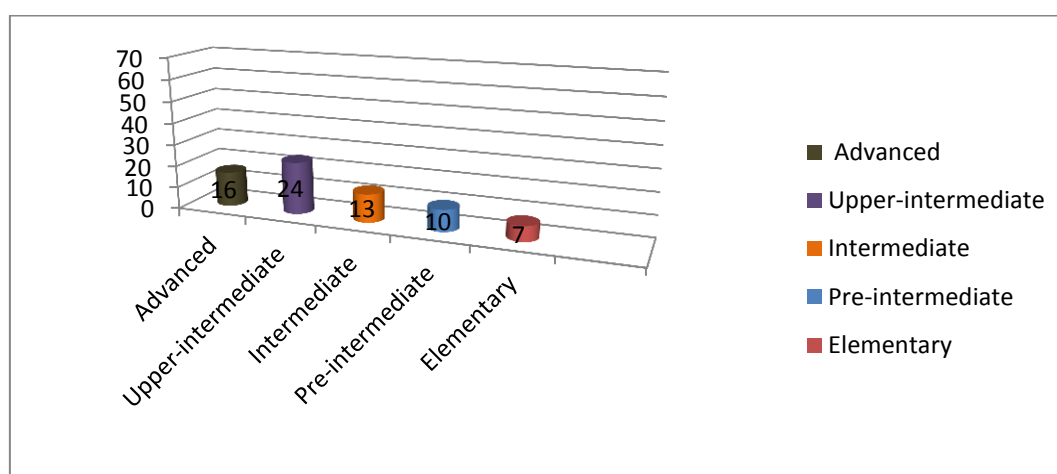


Figure 3.8 Student's level in English

This question aimed at testing the students' level in English. As shown in the above table & figure, most of the students have upper-intermediate level which was about 24 (34%), while the upper percentage indicated elementary level which was about 07 (10%) students. Others 16 (23%) claimed that they have an advanced level in English, some others 13 (19%) said that they are intermediate in English; while others 10 (14%) maintained that they are Pre-intermediate in English.

Section two: Student's attitude toward integrating ICT in higher education

Item one: Integrating ICT in teaching English

Table 3.4 Student's rate toward integrating ICT in teaching English

Option	Frequency	Percentage
Strongly Agree	30	43%
Agree	32	46%
Disagree	06	08%
Strongly Disagree	02	03%
Total	70	100%

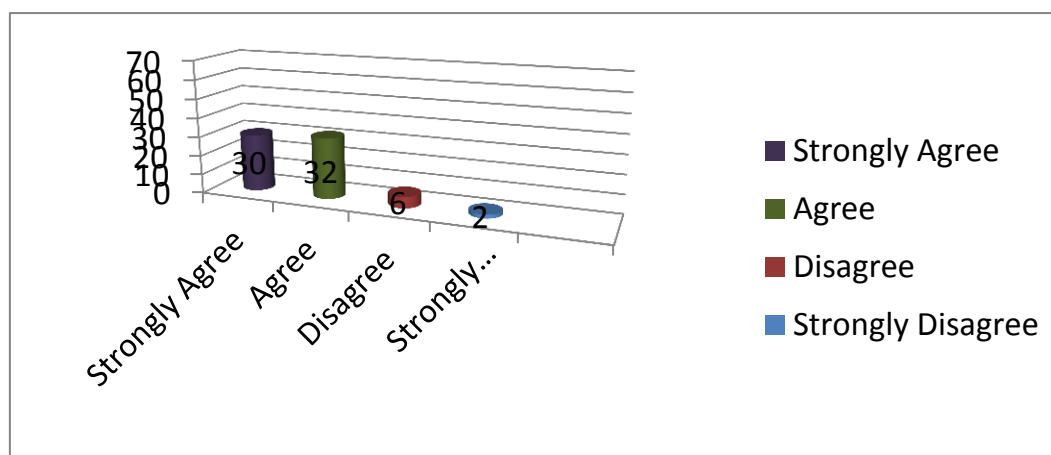
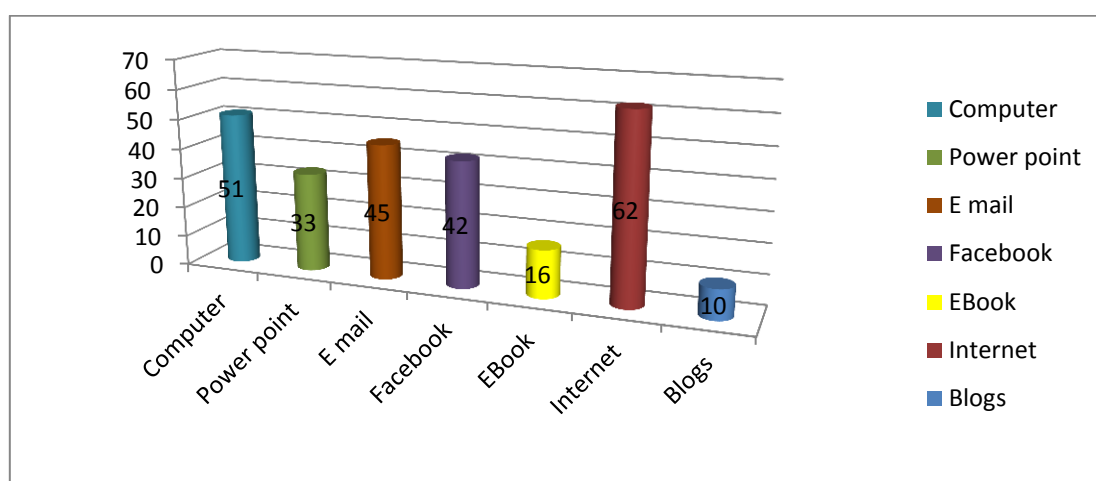


Figure 3.9 Student's rate toward integrating ICT in teaching English

This question is aimed to investigate whether the students prefer the integration of ICTs in teaching English or not. As presented in the previous table & figure, most of the students 32 (46%) agreed on the integration of ICTs and about 30 (43%) of them strongly agreed. While only 06 (08%) of students disagreed and 02 (03%) learners strongly disagreed. The result above indicates that more than half of the participants are with the integration of ICT in teaching English.

Item two: Types of ICTs used**Table 3.5 Types of ICTs used**

Types	Frequency	Percentages
Computer	51	59%
Power point	33	47%
E mail	45	64%
Facebook	42	60%
EBook	16	23%
Internet	62	89%
Blogs	10	14%

**Figure 3.10 Types of ICTs used**

The second question attempted at looking on various ICT tools and resources that the students have often an access to them. In this item, the participants were able to choose more than one ICT tool. The data in the previous table & figure indicated that most of the participants have more access to internet resources; which were about 62 (89%) and computer has also a big rate 51 (59%) and about 33 (47%) of participants used Power point. About 64% of the students used E-mail, while 60 % of them employed Facebook as social media source. Besides, the data showed that some of the students were not familiar with EBook (only 16 (23%) of them used it) and blogs (only 10 (14%) students used it). Therefore, these numbers

shows that the access to ICT tools and resources is very higher among the participants.

Item three: The use of ICT tools and resources in the classroom

Table 3.6 Student's use of ICT in the classroom

Options	Frequency	Percentages
Usually	37	53%
Sometimes	30	43%
Rarely	3	04%
Total	70	100%

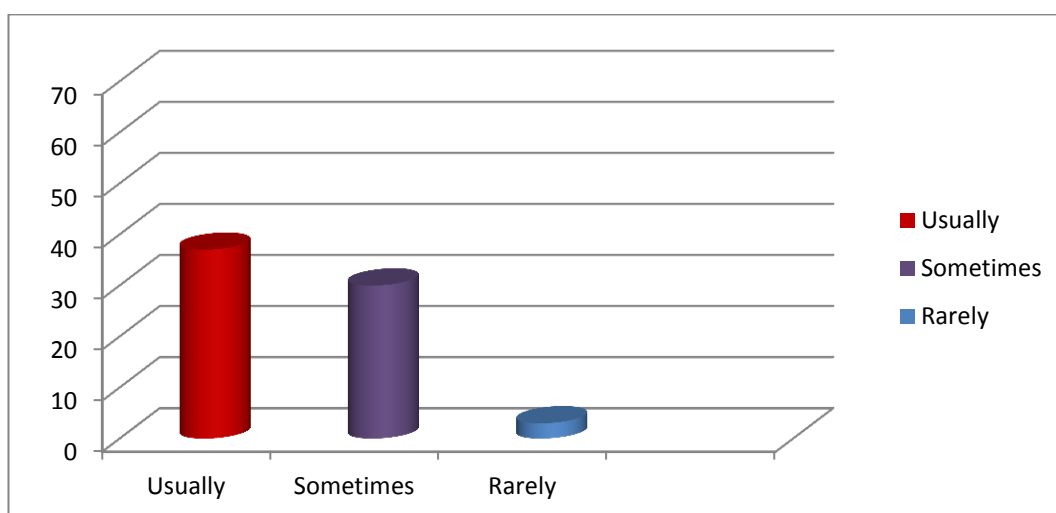
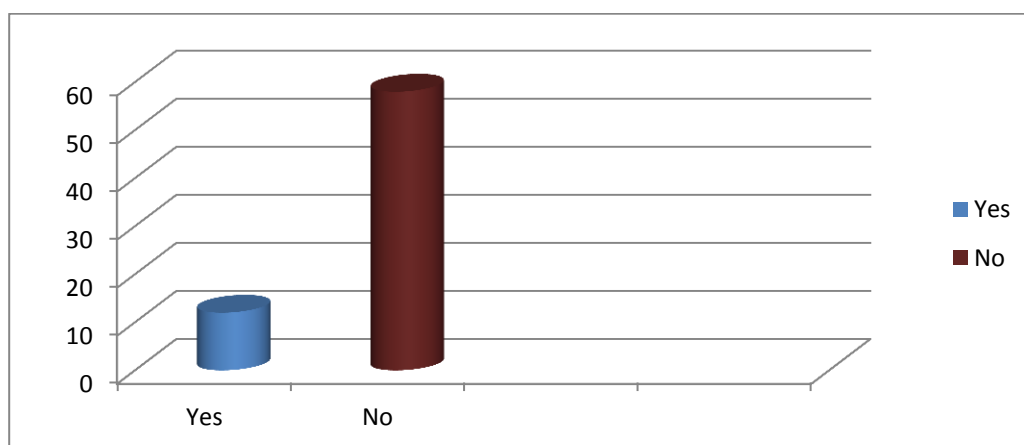


Figure 3.11 Student's use of ICT in the classroom

This question intended to elicit information on Student's use of ICT in the classroom. From the above table & figure, one can notice that most of the respondents (37) representing about 53% confirmed that they usually used ICTs; while, other students representing 43%, reported that they sometimes used it. Three students (04%) claimed that they rarely used ICT tools and resources. Thus, the above results state that the majority of the students usually use ICT and few of them sometimes employ it.

Item four: Using ICT in the classroom is time consuming**Table 3.7 Students' opinions about the use of ICT in the classroom**

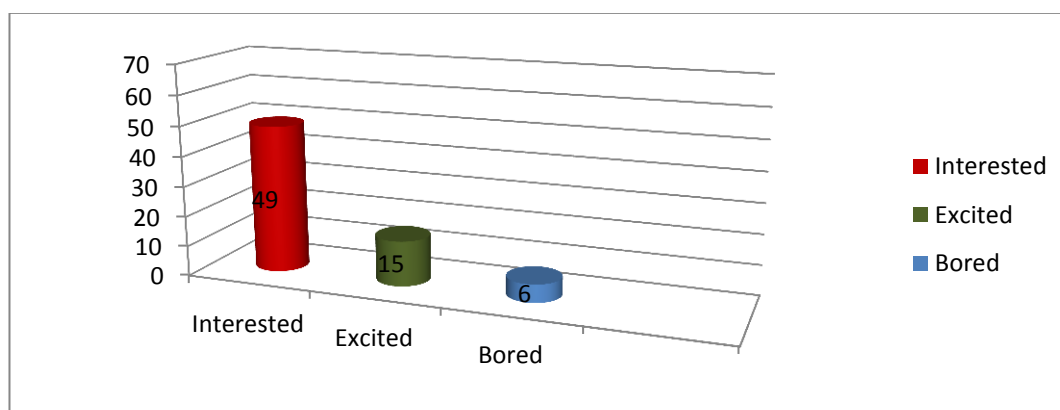
Option	Frequency	Percentage
Yes	12	17%
No	58	83%
Total	70	100%

**Figure 3.12 Students' opinions about the use of ICT in the classroom**

The aim behind formulating this question was to prove if the students think that the use of ICT tools in the classroom is time consuming or not. The data in Table & Figure shows that the majority of students (58), representing 83% confirmed that using ICT in the classroom is not time consuming, while 12 students, representing 17% saw that it was. The results also demonstrate that ICT perceives time not consumes time in the classroom.

Item five: ICT based lesson**Table 3.8 Student's reaction toward ICT based lesson**

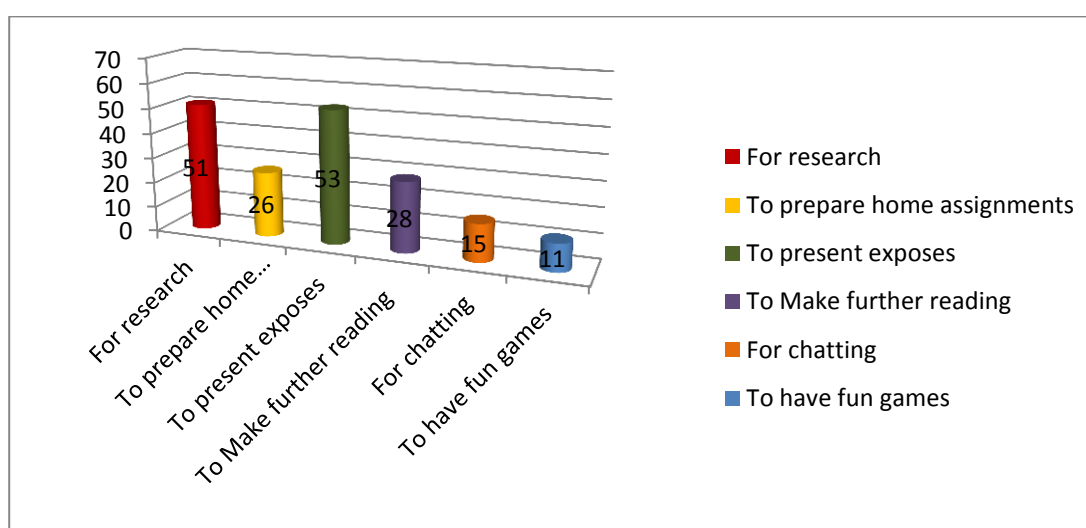
Option	Frequency	Percentages
Interested	49	70%
Excited	15	21%
Bored	06	09%
Total	70	100%

**Figure 3.13 Student's reaction toward ICT based lesson**

The purpose behind this question was to explain the attitudes of students regarding the use of ICT during the lesson. In fact, the results presents in table 3.8 & figure 3.13 illustrated that most of the participants representing 70% argued that they are greatly interested toward ICT based lesson, and fifteen students, representing 21% claimed that they feel so excited toward lessons with ICTs. On another hand, six students (09%) reacted negatively; they feel bored when dealing with such tools. The data shows that the students reacte positively toward ICT based lesson.

Item six: The use of ICT to support learning**Table 3.9 The purpose of using ICT**

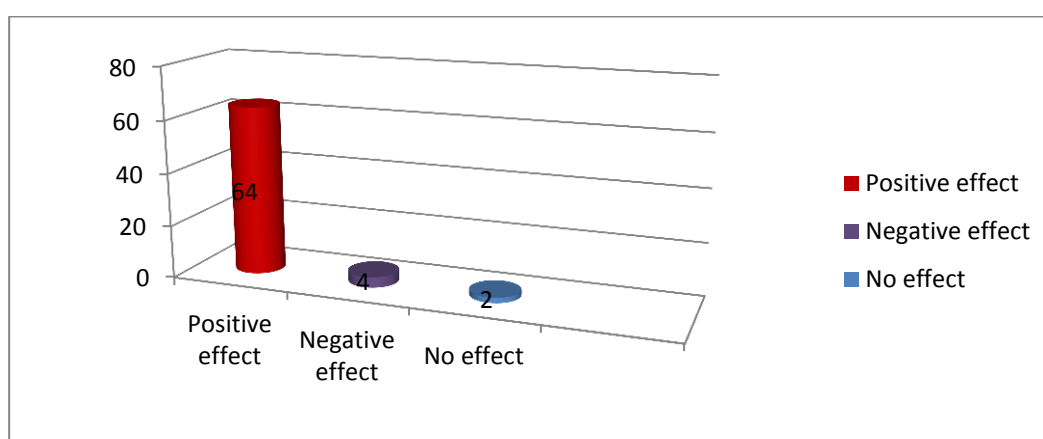
Options	Frequency	Percentage
For research	53	76%
To prepare home assignments	26	37%
To present exposes	51	73%
To Make further reading	28	40%
For chatting	15	21%
To have fun games	11	16%

**Figure 3.14 The purpose of using ICT**

The current question intended to find information about the purpose behind using ICT; this item gave the students the opportunity to choose more than one option. The results, as presents in table 3.9 & figure 3.14 revealed that they use ICT mostly for research (73%), to present exposes (76%), and to make further readings; whereas about 37 % of the learners declared that they employ to prepare home assignments. In contrast, between 16% and 21% of them maintained that they utilize ICT for chatting and enjoying games. Henceforth, the results confirm that the students used ICTs for learning purposes.

Item seven: Effects of ICT on the learning process**Table 3.10 Effects of ICT on the learning process**

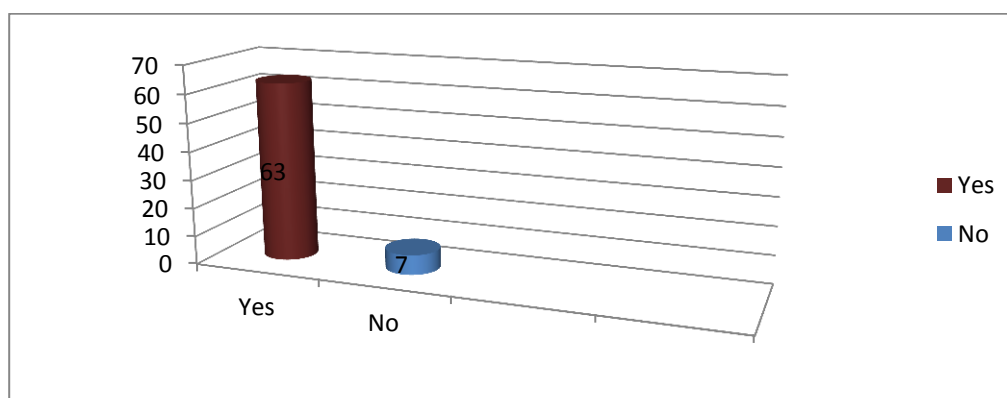
Options	Frequency	Percentage
Positive effect	64	91%
Negative effect	04	06%
No effect	02	03%
Total	70	100%

**Figure 3.15 Effects of ICT on the learning process**

The current question intended to know more about the students' opinions toward the effects of ICT on the learning process. As shown in table 3.10 & figure 3.15, the majority of the respondents (64), representing about 91% totally agreed that the use of ICT has a positive effects whereas, four students, representing 06% claimed that it has a negative affect and the remaining respondents (02), representing 03% affirmed that it has no effect. Hence, the results reveal that the majority of the students have one intention that the use of ICT has positive effects on the learning process.

Item eight: ICTs improve learning skill**Table 3.11** *The impact of ICT on learning skill*

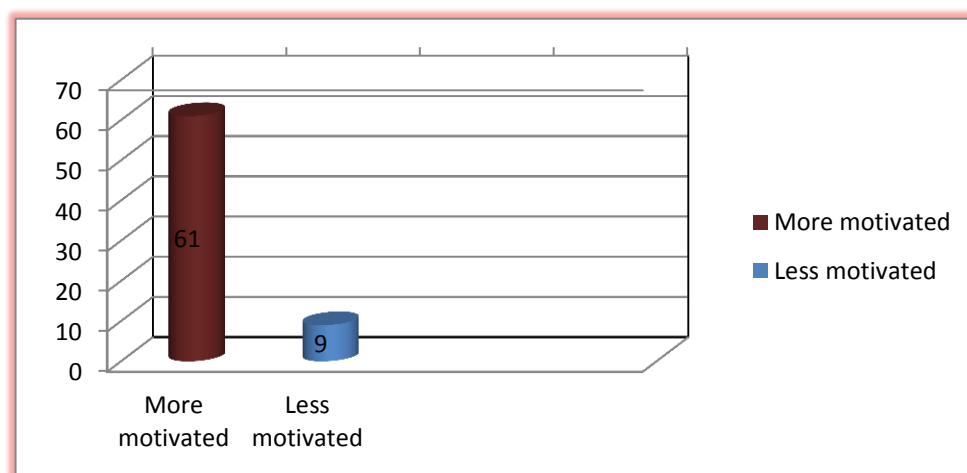
Options	Frequency	Percentage
Yes	63	90%
No	07	10%
Total	70	100%

**Figure 3.16** *The impact of ICT on learning skill*

This question aimed to know if the use of ICTs will develop the student's learning skill, the participants were supposed to explain why the use of ICTs will improve it. According to table 3.11 & Figure 3.16, all students (63), representing 90% believed that the use of ICT will enhance the learning skill, while the rest (07), representing 10% ignored that it will not develop the learning skill. The majority, who said "Yes", shared the same views that ICT gives extra knowledge through its resources such as developing listening skill by watching videos and enhancing reading and writing skills by reading eBooks... etc. They also claimed that ICT facilitates accessing to different sites. While the remaining, who said "No", they stated that ICT has no relation to learning skill, it is just a tool. These results affirm that the great majority of students agreed totally that the use of ICT develops the learning skill.

Item nine: The impact of ICT on students' behavior (motivation)**Table 3.12** *The impact of ICT on students' behavior*

Options	Frequency	percentage
More motivated	61	87%
Less motivated	09	13%
Total	70	100%

**Figure 3.17** *The impact of ICT on students' behavior*

The purpose of asking this question was to know whether the use of ICT motivates the students or not. Due to the data presented in Table 3.12 & Figure 3.17, most of the participants, representing 87%, affirmed that ICT makes the students more motivated, whereas nine learners (13%) disagreed with this view and claimed that ICT makes them less motivated. According to these percentages, ICT is a source of motivation for students.

Item ten: ICT enhances creativity in learning English**Table 3.13** *The effect of ICT on student's creativity*

Options	Frequency	Percentage
Yes	63	90%
No	07	10%
Total	100	100%

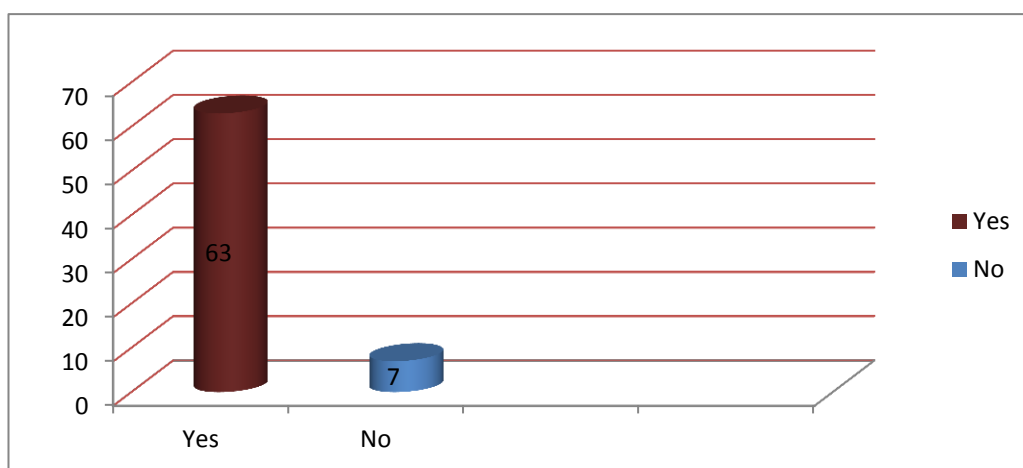


Figure 3.18 The effect of ICT on student's creativity

Concerning question thirteen, the students were requested to state whether the use of ICT enhances their creativity or not and they were supposed to clarify their answers. Table 3.13 & Figure 3.18 revealed that sixty three of the students, with the percentage of 90% confirmed that the use of ICT enhances their creativity. On the other hand, seven participants, with the percentage of 10%, said that ICT has no relation with the improvement of creativity in learning English. Most of the respondents, who answered "Yes", claimed that ICT develops creative thinking by reading especially eBooks and gats the learner familiar with different thoughts and cultures and makes him eager to know many things at any time by using various methods, this leads them to be confident while learning English. On the other side, the remaining respondents, who said "No", claimed that ICT makes the students lazy and neglects their capacities and relies only on it; thus, it reduces their creativity. This result shows that ICT enhances creativity in learning English.

Item eleven: Students' attitudes toward ICT materials available in English Departments

Table 3.14 Students' attitudes toward ICT materials available in English Departments

Options	Frequency	Percentage
Yes	70	100%
No	00	00%
Total	70	100%

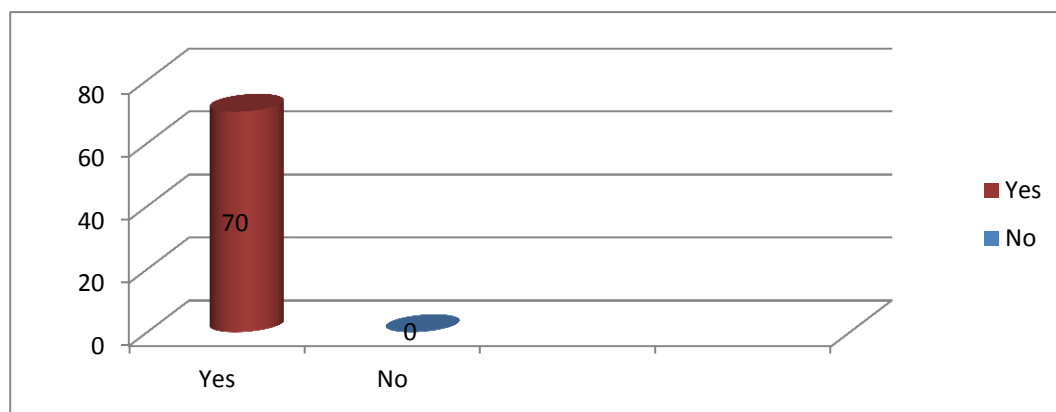


Figure 3.19 Students' attitudes toward ICT materials available in English Departments

This question was intended to elicit information on whether students' English department is equipped well with ICT materials or not. From the above table & Figure, one can notice that all the respondents (70), with the percentage of 100%, affirmed that their English department is not well equipped with ICT materials. This data demonstrates that the English Department is not equipped with enough ICT materials.

Item twelve: the ICT equipment available in English Department

Concerning question eleven which was an open question, the participants were asked to state the ICT equipment available in their English Department. All the respondents totally agreed that there is only one data show in the whole Department and they were really disappointed toward the absence of ICT tools.

Item thirteen: advantages and disadvantages of using ICT in teaching and learning

The current question was supposed to be analyzed qualitatively. The participants were asked to list some advantages and disadvantages of using ICT in teaching and learning. Most of the students confirmed that ICT is a helpful tool to gain knowledge from authentic sources; it motivates them and enhances their creativity in the learning process. It aims at developing the learning skills as well as improving their English level. They totally agreed that due to ICT tools and resources, the lesson is presented in concrete forma which makes it very enjoyable, attracts students' attention and enriches the discussion with their teachers. According to all these views, one can notice that ICT is a source of teaching and

learning.

On the other hand, some respondents listed the disadvantages of ICT on the learning and teaching process. They claimed that ICT hinders students' abilities and makes them lazy and relying only on it by neglecting their mind and capacities; thus, it distracts the learning process and makes them behaving as passive students rather than productive ones. They also affirmed that the lack of proficiency to use ICT materials will cause problems and waste time. All the data above confirms that the disadvantages of ICT make by the user himself not by ICT itself.

Item fourteen: students' comments on integrating ICT in higher education

The last question aimed at knowing students' comments and suggestions toward this issue. Most of the respondents suggested that the English Department should be equipped with additional ICT materials and provides them with extra sessions concerning the way of using ICTs from first year to meet the learners' needs and make the rooms well equipped concerning the electricity to work with ICT tools, especially data show. Some participants claimed that the teacher should make training on the ICT to become more confident on using ICT tools and resources.

3.3.2.2 Teachers' Interview Presentation

Item one: teachers' attitudes toward the integration of ICT in higher education

Teacher 1

Of course, I am for the integration of ICT because the new generation belongs to ICTs and it is a life style for them and will be a reality in Algerian classrooms. It also facilitates and makes teaching easier, and students become more innovative with the help of ICTs.

Teacher 2

In fact, I am for the use of ICT in all levels of education not only in higher education, because it facilitates the access to learning materials, avoids boredom, and diminishes stress, so that the learner develops self-confidence.

Teacher 3

I believe that the use of ICT in higher education is really beneficial because it helps promoting the teaching and learning effectiveness and makes teaching enjoyable especially English lessons and when they are incorporated them with multimedia applications they can create powerful motivation and provide bored students with new exciting ways to learn.

Teacher 4

Yes, I am for the integration of ICT in higher education because it will solve lot of problems as far as communication is concerned; it will develop the learner's motivation; drill and practice may likewise be performed using this range of technologies, the exchange not just of voice and graphics but also moving images.

Teacher 5

I am for using ICT in higher education in order to keep up with new technological devices and to challenge the current era to face many difficulties such as time management, get rid of students' demotivation i.e. you motivate them.

This question aimed at revealing the teachers' opinions about the integration of ICT in higher education. As shown in these views, all the respondents strongly agreed to use ICT in education. Most of the teachers confirmed that ICT facilitates teaching process and delivery of educational resources.

Item two: the problems that could be solved through integrating ICT

Teacher 1

ICTs can be integrated at many levels from presentation, to testing, to reporting in order to gain contact to your students and solve many problems in the teaching/ learning process; for examples, we can use in order to eliminate lectures and helps students who leave far from university. There is also the problem of overcrowded classrooms; it is often difficult for teachers to be effective in such situations because they have to deal with the classroom management; in this situation the only solution is using ICT tools and resources.

Teacher 2

There are many problems that the only solution to them is using ICT, among

which:

- Student's demotivation.
- Lack of sufficient number of hand copies.
- Sharing many resources and materials in a limited time.

Teacher 3

In general, it is much easier to scale things with ICT then in physical world, in this case to "deliver knowledge". With transferring some parts of educational process, you can make learning more flexible. You can learn whenever and gather whatever you wish at your own pace. With education being through ICT, you can collect much more data which you can use to enhance learning materials.

Teacher 4

I think that the only problem is communicating tasks to students. When we use ICT; it can make students' and teachers' work with current and authentic sources.

Teacher 5

There are problems that cannot be solved without using ICT; for example, we have various types of learners, who are workers; thus, it is hard for them to assist all the time. The lesson gives instructions and the interaction with the lecture should be done at home; henceforth, in such a particular case ICT is the solution because it allows the learners to access to the learning information regardless of their conditions.

This question attempted to elicit information on the problems that could solve them just by using ICTs. The results above shown that there are a lot of problems among them , overcrowded classrooms, problem of distinction and time, Student's demotivation and problem of communicating tasks...etc. The participants strongly agreed that the only solution is integrating ICTs in teaching and learning process.

Item three: the effects of ICT on the way of teaching English

Teacher 1

Honestly, I started teaching at Saida University this year and I am working in another University for the last three years. I teach written expression using ICTs, I think that it is much more than just a tool for presentation; it should be integrated in a deeper level. ICT has transition from teacher centered classroom to student

centered classroom, the only problem that we do not use it in that way, we use it just in basic level (Data show projector). For me, I am not using it in a way that influences my teaching, I hope in the future but not yet.

Teacher 2

ICT can be also a tool. It is a contributor of the content; therefore, the role of teachers is changing in the sense that they become guiders, or facilitators of knowledge, so that the students can learn independently, although there is no way to replace the teacher in the teaching process.

Teacher 3

I am not knowledgeable enough to use ICT in the way that it affects my traditional teaching method, but I use it just to improve the teaching process by enhancing students' outcomes, integrating them in the process of teaching and learning as well.

Teacher 4

I think that ICT can help the teacher in teaching English in various ways:

- ICT enables effective education.
- It provides instruction according to the students' needs.
- It provides educational activities in large geographical areas.
- It encourages individual study and research.

Teacher 5

ICT influences positively the way of teaching English such as facilitating the complex task, attracting the students' attentions and developing the speaking skill by using audio recorded materials with native English speaker's accents especially in listening and speaking.

The purpose of asking this question was to know the effectiveness of ICT in teaching English. In the interviews hold between the respondents and the interviewer, the majority of the participants revealed that they are not knowledgeable enough about the use of ICT, and they use it just as a tool, whereas most respondents replied to this question by eliciting its impact: ICT has transition from teacher centered classroom to student centered classroom, changing in the sense that for teachers to become guiders, or facilitators of knowledge, they have to

provide instruction according to the students' needs. According to these opinions, the educational system has changed positively through the introduction of ICTs, but without neglecting the presence of the teachers.

Item four: ways of supporting ICT use in the classroom

Teacher 1

Personally, I believe in blended learning incorporating ICT but also mix it with traditional face to face teaching method, incorporated effectively in the way that facilitates the learning process and help the students experience the language at authentic level not only at mechanical level.

Teacher 2

Making education online could be one major application of ICT. Automation and technology enhanced (Power Point, video... etc.). Presentation allows flexible, self-paced learning where students are, to an appreciable extent, able to choose what they would like to focus on and spend variable amounts of time on it based on the perception of their learning needs and positions.

Teacher3

Once you use ICT, you become the source of influence in the classroom. It also encourages them to use online education; for example, employing online education portfolios to evaluate students because these portfolios allow them to express creativity and have assess subjects.

Teacher 4

The teacher can support the use of ICT in the classroom by using:

- PowerPoint presentation.
- Data show animation.
- The use of the computer in order to share content with the students.
- The use of audiovisual materials that best fit the students' differences.

Teacher 5

I usually stop from time to time playing the role of traditional teacher i.e. explain the difficult ideas, give some concrete examples by using ICTs, this one way to support ICT in the classroom, whereas in another way, I always feel

confident while using ICTs. In this way, I show to students that ICT is not complicated at all and is easy and so helpful.

The question aimed to investigate the way the teacher supports the use of ICTs in the classroom. According to the previous views, almost all participants claimed that the only way to encourage the use of ICT is totally integrate in the classroom such as PowerPoint presentation, using computer to share content with students.... etc. Teachers must feel confident toward ICT. They also confirmed that the teacher should push the students to use online education, in all these ways ICTs will be supported in the classroom.

Item five: ICT enhances student's engagements and motivation in the learning process

Teacher 01

Of course, it does. The novelty of the tool itself sometimes helps the students to engage actively in the lesson. There are some blended learning models that help students to progress at their own pace and when they make progress it is enough for them to go further and work harder in the learning process. For example, in Duplex model, the students have a unit they study independently from the others and they can start with whatever element they want to start with; every one moving in their own pace, when they finish their units, they can exploit things they like, this are one way that motivates them.

Teacher 2

Yes and no, it sometimes does when the lesson is boring and long. Hence, ICT gives potential for innovative ways to encourage students to become more engaged in their learning. In contrast, it does not because it sometimes makes the learners deviate from the learning objectives.

Teacher 3

ICT is a powerful tool for transcend time and space. It helps us not to rely on printed books and other materials and prepare students for workplace. Using ICT across different curriculum subjects can have a beneficial motivational influence on the students' learning.

Teacher 4

Of course yes, I considered ICT as a motivational tool because the use of videos, computers, multimedia, and pictures help raising the student's attention and participation.

Teacher 5

Yes, to some extent because they are using traditional methods and students like innovative ones, the use of ICT may attract their attention especially if the material used (types of text, videos, recordings and so on) serves the aims of the lecture.

The goal behind asking this question was to know whether ICT affects the student's motivation and engagement. The response to this question was different; the majority of teachers affirmed that ICT materials and sources (videos audios, computers, multimedia, recordings and so on) are a source of motivation and engagement to students because learners consider them as innovative ways which attract their attention. On the other hand, one teacher responded negatively and said that ICT makes the students deviate from learning objectives. Almost all the results above prove that ICT is a motivational tool for the students.

Item six: ICT has a great role in enhancing creativityTeacher 1

I strongly agree with this idea; ICT leads to creativity in both teaching and learning process. I have seen a model in Australia where the teacher encouraged the students to create a project that should be interactive and supported by images and videos, and the students should go out to take those videos and look for information and then arranged everything in form of Wiki (like page in Wikipedia). Thus, this is a way of creativity. In other terms, ICT encourages the students to be beyond the process of creativity not just setting and writing the lesson.

Teacher 2

Yes, for me ICT is a great way for the development of creativity. It leads to add abilities for self-regulated learning and reduces stigma of failure. An online environment provides enough privacy and space for learners, so that they do not feel miserable about minor failures that come along the way and thus helps keep up

motivation and encourages students to think out of the box and creatively.

Teacher 3

Yes, it does when students take a part in the process. ICT tools boost students' creativity and provide them with different ways to interconnect their thoughts, for example, they can create their own videos and share them with their class, which can be a great opportunity for them to develop their creative skills.

Teacher 4

In my opinion, ICT increases the speed of the creative process. In traditional teaching method, the students do not need much creativity, they just require reading the textbook or the lesson and then filing out a standardized test. However, using ICT in the teaching and learning process enlarges students' imagination as well as improves their creativity.

Teacher 5

No, I do not think because using ICT inside or outside the classroom makes the students lazy and choosing not to get involved in the learning activities.

This question was very important as it investigated the role of ICT to improve creativity in the teaching and learning process. Almost all teachers strongly agreed that ICT opens a wide door to creativity; it gives students opportunities to mix their imaginations and thoughts with ICT resources. On the other hand, one teacher argues that ICT has nothing to do with creativity because it leads students to laziness. The majority of the above views confirm that ICT is a source of creativity in education.

Item seven: the factors that encourage the teacher to use ICT in the classroom

Teacher 1

ICT should be available, not only for the teacher but also for the learner. The most important factor is the flexibility of the curriculum, there are such curriculums that enable the teacher to use ICT, and others are just restraining it. Then, students are a huge factor, when they are motivated and engaged while using ICTs; it also encourages teachers to use it.

Teacher 2

For me, the main factor that leads me to use ICTs is that they are visually rich, they better convey information. They facilitate the teaching for the teacher and the learning and grasping for students. Due to ICT, the teacher gains time to do other activities and discuss new issues.

Teacher 3

Almost all students tend to use technology inside and outside the classroom such as: Cell phones, Tablets and Laptops. This interestingness toward the use of ICTs encourages the teacher to employ it.

Teacher 4

The use of Information and Communication Technology in teaching and learning is essential for both the teacher and the learner. I use ICT as a teacher to search for relevant materials for my lesson especially when I find difficulties in explaining the lecture. The students are also more involved and active in comparison to the traditional method.

Teacher 5

I think that the main factor is that students can learn and get access to educational resources. Then, I see that ICT has a great potential in enhancing students' achievements, the learning process and can also encourage communication and collaboration between the teacher and his students. All these factors push me to integrate ICT in the classroom.

This question aimed to elicit information on the different factors that encourage the students to use Information and Communication Technology in the classroom. Most respondents replied by enlisting the possible factors that leads to the integration of ICTs, the list included: the accessibility and availability of ICT resources, students' engagement and achievement while using it.

Item eight: the conditions that hinder teacher's ability to successfully integrate ICT in the classroom

Teacher 1

For me, I am not knowledgeable enough to use ICT; I find it hard to integrate it in my lesson. Thus, lack of ICT competence and skill is a major factor that

hinders my ability to ICTs. As teachers, we should have training on how to integrate ICT in our teaching subjects. I believe if I have proper training on how to use it, I will integrate as soon as possible.

Teacher 2

Lack of materials or the absence of ICT tools at the level of the university, especially the unavailability of data shows stands as hinders in our integration.

Teacher 3

I am so disappointed about the worst classroom environments in Saida University; especially the total absence of electricity layout and the unavailability of string internet debate.

Teacher 4

First of all, not mastering ICTs; the technologies involved, not all teachers are capable of using ICT. Secondly, there is a lack of ICT materials in our university. These two factors prevent me from using ICTs.

Teacher 5

Students sometimes displace negative attitudes toward the use of ICT. If the teacher observed that his students are demotivated and become lazy while using ICT, he will not use it. The flexibility of the curriculum is also a great factor that influences the teacher's ability to integrate ICTs in the classroom.

The purpose behind asking this question was to investigate the factors that hinder the teachers' ability to successfully use ICT in the classroom. Most of the interviewed teachers confirmed that the lack of ICT training and competence is the major factor. While, others confirmed that the absence of ICT resources, the unavailability of string internet debate, and classroom environments (absence of electricity layout) are great conditions against the use of ICTs. On the other hand, students demotivation and laziness while using ICT plays a prominent role in this issue. All these views above affect negatively teachers' ability toward integrating ICT in their classroom.

Item nine: the disadvantages of integrating ICT in higher educationTeacher 1

ICT, as a tool, has no disadvantages. It can be only one disadvantage which is the way it is used by the teacher or the students. For example, if there is internet connection in this university, students can get access when they need information. It is also found that some students use internet connection in order to access to social media like Facebook. Thus, ICT has not advantages or disadvantages; it is the responsibility of the user.

Teacher 2

When the teacher relies only on ICT material, students may lose concentration as they will say that all what is provided by the teacher can be found in internet so when I return home, I will check. However, students rarely study when they are home and the lecture on the net needs further explanations that is generally provided by specialists i.e. teachers.

Teacher 3

ICT may not help disorganized learners who need more details, structure and routine in classroom setting, whereas it is better for those who are able to keep on their self-regulate in the learning process.

Teacher 4

ICT makes the learners lazy and leads them to plagiarize; there are numerous cases of students downloading information from the Net and taking them as if they belong to them. Thus, it contributes to ineffectiveness of learning process and transforming them into inefficient learners.

Teacher 5

The only disadvantage of using ICT is the necessity to get all the teachers well experienced and trained in the use of ICT since not all of them are experts in ICT.

This question was conducted to gain different viewpoints concerning the disadvantages of integrating ICT in higher education. In responding to the interview, a respondent affirmed that ICT has no disadvantages; it depends on the

user himself either he employs it in a positive or a negative way. Others stated that ICT makes the learner lazy, loses his concentration and leads him to plagiarize. On the other hand, other participants confirmed that the only disadvantage is the lack of training. The different perspectives above argued that ICT has no disadvantages in itself; it is affected by the user himself either positively or negatively.

Item ten: other comments in relation to integrating ICT in higher education

Teacher 1

I think that we have a very long way in order to integrate ICT, the problem is that in Algeria we are still talking about the integration of ICT, whereas in the West they are talking about normalizing it, it is not something new for them, we should overcome the mentality that ICT is new and we need time to integrate it in an effective way.

Teacher 2

ICT is no more a new approach and we need material at university of Saida for the sake of improving its use and moving to new and unlimited ways of teaching.

Teacher 3

ICT gives explanations in a motivated form not only texts and henceforth raising interactivity as active learning through simulation or trial error using ICT, knowledge and problem base learning unlimited and broadness from space and time.

Teacher 4

No comment.

Teacher 5

The use of ICT should not be at the expense of traditional education. The latter

has showed positive learning and achievements as well.

This question dealt with some suggestions concerning the study of integrating ICT in higher education. Almost all respondents commented that the governments should jump to the movement of ICTs; others stated that the university should be equipped with enough ICT materials, while others confirmed that ICT makes the learning more interactive and active and should not be at the expense of the traditional education. The above suggestions serve positively the field of information and communication technology.

3.3.2.3 Classroom Observation

In order to better understand and assess the application of ICTs in the classroom and complement the information provided by the respondents concerning the availability and the use of ICT resources, the researcher directly observed ICT materials and resources.

The observations consist of three sessions (one and half hour to every one); the first session was with Didactic module, the second session was ICT module and the third one with Oral expression module, all these sessions were at different levels and the researcher was a passive observer. When attending these sessions with different teachers, several remarks have been observed that had a relation with the use of ICT in enhancing creativity in higher education; those remarks will be discussed in this section:

First of all, the researcher observed that the degree to which ICT is actually being introduced within the course and its related content. The teachers used Data show and PowerPoint at basic level just to present the lesson; there were no relation between ICT use and course's content, unclear course design using ICT and unclear pedagogy how to teach English with ICT. Concerning the availability of ICTs equipment, there was only one Data show at the level of the English Department.

As a second remark, the teacher started explaining his lesson, using traditional teaching method, after that he used the data –show /projector to demonstrate and illustrate his explanation; this created new interesting debates that had a relation with the tackled topics. In another hand, the researcher observed in oral production session that the teacher considered the use of ICT as a medium for language development. In another course, which was ICT lesson, the teacher was explaining how to create a PowerPoint presentation by giving a sample presentation; the teacher was more confident and comfortable with the use of ICTs. Thus, in all the sessions the teachers played the role of the controller and the guider of the learning process and added explanations and clarifications if necessary.

Third noticeable point, which is interesting in these observations, was students' motivation and engagement. The students were more attentive and interested through the use of ICTs more than in traditional teaching method. Moreover, they used PowerPoint when they were asked to present exposes which facilitated for them the task of speaking and explaining their topics and their performances were better. They could easily take notes from the slides. After each presentation, students gave their remarks about the presentation of their classmates. Therefore, the researcher observed that through the use of ICT, the students acquired new vocabularies which leded them to practice inside the classroom.

As a result to these observations, one can clearly see that the use of ICT creates new topics, conversations and facilitates teaching and learning operations better than the traditional teaching method.

3.4 Results Discussion and Interpretation

To develop this research work, the researcher had proposed a set of hypothesizes. It was suggested as a first hypothesis that the use of ICT enhances the teaching and learning processes in higher education. After analyzing the results of the questionnaire, Interview and classroom observation, the present research work proves this hypothesis because the teacher confirmed that the use of ICT is a beneficial strategy, which improved teaching and learning operations in higher

education especially in EFL classrooms. On the other hand, the students seemed to be more interested, motivated, and engaged to use ICTs because they were totally agreed that it has positive effects on their learning process. These results nullify the first hypothesis.

In the second hypothesis, the researcher suggested that ICT transforms the teaching and learning process from being highly teacher dominated to student centered; this transformation will result in increasing the learner's creativity. The obtained results shown that the majority of teachers and students claimed that ICT has a transition from teacher centered classroom to student centered classroom because they affirmed that incorporating ICT into daily classroom instructional process will attract their attentions and make them involved in the learning process and the teacher will be the monitor of the knowledge base. In this respect, the results derive from the teachers' interview and classroom observation confirm the second hypothesis.

In the last and the foremost important hypothesis, the researcher proposed that ICT increases students' ability to use their creativity in the learning process. The results obtained from the student's questionnaire, the teacher's interview and classroom observation validate this hypothesis. The majority of students approved that ICT has positive effects on the improvements of creativity. In this context, they claimed that ICT brings a lot of opportunities to develop the student's ability to enhance creativity; by making him eager to know many things in any time by using various methods, this leads him to be confident while learning English and provides him by different resources to develop their creative thinking. On the other hand, almost all teachers supported this hypothesis; they corroborated that ICT encourages the students to be beyond the process of creativity and is the only source and way for it. All these above-explained results confirm the third hypothesis put by the researcher.

Finally, the majority of teachers and students sustained that the use of ICT enhances creativity in higher education especially in EFL classroom. They recognized the importance of its use inside and outside the classroom.

3.5 Recommendations

In the light of the findings of this research work, the researcher provides some suggestions for the improvement of the integration of ICT in enhancing creativity in higher education. Hence, based on the analysis, it is considered very important to make the following recommendations:

First of all, Universities should be well equipped with ICT materials and classroom environments should be well prepared especially in term of electricity layout and the string internet debate to cope with all the latest ICTs. Indeed, they need to include ICT in the English language curriculum and make connection between curriculum content and learning processes. Therefore, Universities need to impose teachers to make training on the use of ICT tools and resources.

Secondly, teachers are invited to transform their teaching techniques through the use of ICTs in the classroom and should select the appropriate materials according to the learners' needs which can make the classroom environment more enjoyable. In addition, the use of ICT requires the teacher to be more creative in choosing well-designed, authentic and interactive activities in teaching English language, this can be simply done by attending a periodic training on the use of ICT materials and sources to be accustomed with the new available equipment, to supply an understanding of the concepts of ICTs and to be confident while using them.

Thirdly, Learning English is not an easy task, thus, students need to incorporate ICTs with their learning English but they need to be creative in using it to develop their abilities without ignoring reading books and doing their homework. They should be active, attentive, and interacted with ICTs in the classroom to facilitate the teacher's task. Indeed, students should be knowledgeable about the method of research to avoid plagiarism and they need to exploit ICT resources in creative ways.

Finally, Information and Communication Technology is an important issue, not only in English language, but in all educational systems. Hence, it should be integrated appropriately for the advancements of teaching and learning processes.

3.6 Conclusion

The current chapter presented the data collection obtained through three different research tools; students' questionnaire, teachers' interview and classroom observation. The ongoing study focused on the analysis of the collected data both qualitatively and quantitatively. It was followed by a discussion of the main findings obtained from all the results of the research instruments which led us to confirm our hypotheses.

This research work has focused on linking teaching and learning with ICT tools and resources which is obvious that they introduce something new as creativity especially in higher education; this creates new pedagogical roles to both teachers and students.

Therefore, on the basis of the results obtained, the current chapter presents a brief explanation about some solutions and suggestions that had been recommended by the researcher which supports the successful integration of ICT in higher education.

General Conclusion

General Conclusion

Generally speaking, the realm of teaching and learning in higher education, more precisely English as a foreign language needs ones creativity to be more successful in the present decade. Therefore, since the appearance of Information and Communication Technology (ICT) in all fields, especially in education, teaching and learning processes become more innovative; they are enhanced and facilitated due to its effective use by both teachers and students, hence, the operation of creativity will be achieved and the educational situation will be more powerful.

This study was conducted in the Department of English at Saida University to investigate whether the integration ICT in higher education helps teachers and students in enhancing their creativity in the teaching and learning process or not. Therefore, this research work confirms the hypothesis by demonstrating that the use of ICT materials and resources as innovative methods and techniques improve teaching and learning processes in higher education by transforming them from being highly teacher-dominated to students-centered which results in increasing teachers' and students' abilities to use their creativity.

The current study started dealing with giving an overview on teaching and learning process and a preview on ICT and its tools and sources. In the second chapter, the researcher provided details about theories on ICT integrating and its role in improving creativity in English language teaching and learning. In the last chapter, the data were collected from three research instruments; student's questionnaire, teachers' interview and classroom observation, they were analysed qualitatively and quantitatively and concluded by offering interpretations of the results and suggestions.

As far as the results are concerned, the majority of the participants totally agreed on the use of ICT in higher education, they revealed that ICT is a beneficial strategy which improves teaching and learning operation, especially in EFL classrooms and makes a sense of transaction in teachers' and students' roles; teachers behave as guides and facilitators of the output, whereas the students generally get motivated to interact with the ICT resources which create a relaxing and enjoyable atmosphere, as well as develop the level of creativity inside and

General Conclusion

outside the classroom to both of them . These results and findings of the study have positively answered our research questions and validated our hypotheses. Hence, for that ICT improvement, classroom environments should be well equipped with ICT materials, ICT should be integrated in the curriculum and the teachers and students have to be aware with these techniques to achieve successful teaching as well as learning. This leads ICT ranks first as positive impacts on teachers and learners in enhancing creativity in higher education.

It should be noted that there are some limitations in this research work. It was recognized that the totally unavailability of resources restricted our study. Indeed, the researcher marked some difficulties in data collection; students' indifference toward the questionnaire, teacher's discarded to fulfill the interview. In the other hand, the study does not compatible with the setting due to the absence of ICT materials at the level of Saida University. All these limitations mainly result in obstructing our study and restraining the obtained outcomes.

To sum up, we strongly recommended that Information and Communication Technology should be implemented in higher education, especially in teaching and learning English language, not only as an aid for classroom management but also as a source of creativity. Therefore, the integration of ICTs is a necessity in higher education and EFL teachers and learners are supposed to be aware of the use of these techniques to achieve successful, effective and creative education. Nevertheless, this study attempted to raise attention towards future research about ICT and the future of English language teaching and learning.

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Appendices

Appendix A

Learners' Questionnaire

This questionnaire is an attempt for gathering information needed for the accomplishment of a Master dissertation. It aims at exploring the use of ICT to enhance creativity in higher education.

Dear learners, I have some questions concerning the use of ICT in teaching and learning English language, I would be so grateful if you give me few minutes to share some experience by answering the following questions. Your answers are very important to reinforce the validity of the current research.

Please, circle the appropriate answer and make full statement whenever necessary.

Section 01: student's profile

1. Are you a male or a female?.....
2. What is your age?
3. What do you think your current level of English is?
a: Advanced, b: Upper-intermediate, c: Intermediate, d: pre-intermediate, e: Elementary.

Section 02: The Student's Attitude towards Integrating ICT in Higher Education (Tick what you see it is appropriate).

1. Do you prefer integrating ICT in teaching English?
a: Strongly agree, b: Agree, c: Disagree, d: Strongly disagree.
2. What types of ICT do you use?
A. Computer, b. Data show, c. power point, d. Email, e. Facebook, f. Ebook, g. internet, h. Blogs, g. Anything else (please specify)
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3. How often?

- a. usually, b. sometimes c. rarely.

4. Do you think that using ICT in class is a time consuming?

- a. Yes, b. No

5. How do you feel to ICT based-lesson?

- a. Interested, b. Excited, c. Bored.

6. In what ways do you use ICT to support your learning?

- a. For research, b. To prepare home assignments, c. To present exposes d. to make further reading about the lesson, e. For chatting, f. To have fun (games) g. Anything else (please specify).....

7. Does the use of ICT have an effect on your learning process?

- a. Positive effect, b. Negative effect, c. No effect.

8. Do you believe that ICT tools or resources will improve your learning skills?

- a. Yes, b. No

Please state why.....

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...

19. Does the use of ICT make you motivated?

- a. More motivated, d. Less motivated.

10. Does the use of ICT enhance your creativity in learning English?

a. Yes,

b. No

Please state why.....

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11. What are the actual ICT tools available in your English department?

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12. Do you think that they are enough?

a. Yes,

b. No.

13. What are the advantages and disadvantages of using ICT in teaching and learning?

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14. Do you have any other comments you would like to add in relation to integrating ICT in higher education?

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Great Thanks to your cooperation!

Appendix B

Teachers' Interview

This interview intended to collect information on the use of ICT to enhance creativity in higher education. This is purely an academic work conducted in partial fulfillment of Master degree.

1. Are you for or against the use of ICT in higher education? Please state why?

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2. What are the problems that you face and could solve them just by integrating ICT tools and resources?

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3. How does ICT influence the way you are teaching English language?

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4. How can the teacher support the use of ICT in the classroom?

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5. Do you believe that ICT enhances students' motivation and engagement in the learning process? Please state how it can be done?

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6. Does ICT have a great role in enhancing creativity in teaching and learning process? Please state how and why?

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7. What are the factors that encourage you to use ICT in the classroom?

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8. What are the conditions and factors that hinder teacher's ability to successfully integrate ICT in the classroom?

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9. What are the advantages and disadvantages of integrating ICT in higher education?

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10. Do you have any other comments you would like to add in relation to integrating ICT in higher education?

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Thanks for your cooperation!!