Utilization of Information and Communication Technology in English Language Teaching

A case Study of lecturers at the University of Gezira and Sudan University of Science and Technology

Amani El- Tayeb  Hassab El- Rasoul Mohammed

September , 2014
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in    English Language Teaching

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A Thesis
Submitted to the University of Gezira
in Fulfillment of the Requirements
For the Award of the Degree of Doctor of Philosophy
in
Applied Linguistics
Department of Foreign Languages
Faculty of Education – EL- Hassahisa

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Date of Examination: 15/9/2014
Dedication

I would like to dedicate this PhD to my supervisors for their fervent support, unconditional respect and unfailing ethics have always inspired me to seek better and greater personal, ethical and intellectual goals. This thesis would have not been possible without them.
ACKNOWLEDGMENT

I would like to express the most sincere thanks to my thesis supervisors Dr. Abdulgadir Mohammed Ali and Dr. Ahmed Gasm Alseed Ahmed, from the English Department at Gezira University Faculty of Education. Their expert guidance in and devoted dedication to my research have been an invaluable source of motivation in the completion of this thesis. Finally, thanks go to all those who assisted and encouraged me to carry out this study.
Utilization of ICT Information and Communication Technology in ELT English Language Teaching  
(A case Study of University of Gezira and Sudan University for Science and Technology Lecturers)  
Amani El- Tayeb Hassab El- Rasoul Mohammed

ABSTRACT

Using ICT (Information and communication Technology) in teaching English language is very important for universities lecturers in Sudan. The study aims to investigate the role of ICT in teaching English in Sudanese universities represented by Gezira and Sudan university for science and technology (SUST). It is also intended to investigate the extent of using advanced technology in higher education institutions now. The study casts light on the importance of ICT today particularly in the field of English language teaching. Moreover, investigating the problems which face Sudanese EFL teachers in using ICT in classrooms at university level. The study assumes that ICT helps a lot in solving educational problems. Besides introducing ICT into educational curricula helps in understanding it easily. The study followed the experimental analytical method. The data for the study was collected by means of questionnaire and an interview with some ICT experts and technicians. The study used the (SPSS) statistical package for social science programme for analyzing the data. The study reached many important results: There are many problems facing Sudanese English language teachers at university level in teaching English language through using the technology of information and communication because, it is not introduced in the curriculum from the beginning and because most of the teachers are not specialized in the field. Moreover, using ICT in EFL classes increases learners motivation and makes them more attentive for the usage of sound, picture and movement. Also most learners have no previous background about ICT and therefore, they can deal with it with difficulty. In the light of these results the study recommends that: Introducing ICT into educational curricula so as to be understood and used easily by learners and teachers. Also the necessity of training EFL teachers on using these technologies. Moreover, the study recommends the necessity of establishing technical centers and maintenance technicians for maintaining these tools continuously. Finally the study recommends all teachers to have a full knowledge of using ICT in education because it is very important nowadays.
استخدام تقنية المعلومات والاتصالات في تدريس اللغة الإنجليزية: دراسة حالة: أساتذة جامعة الجزيرة والسودان للعلوم والتكنولوجيا، السودان
أماني الطيب حسب الرسول محمد

ملخص الدراسة

يعتبر استخدام تقنية المعلومات والاتصالات مهماً جداً لتدريس اللغة الإنجليزية لأساتذة الجامعات في السودان. تُهدف الدراسة إلى بحث دور تقنية المعلومات والاتصالات في تدريس اللغة الإنجليزية في الجامعات السودانية مثل جامعة الجزيرة والسودان للعلوم والتكنولوجيا (SUST). كما تهدف إلى بحث مدى استخدام التقنيات المتقدمة في مؤسسات التعليم العالي الآن. تسلط الدراسة الضوء على أهمية تقنية المعلومات والاتصالات في التعليم العالي تحديداً في مجال تدريس اللغة الإنجليزية. تسعى الدراسة لبحث المشاكل التي تواجه معلمي اللغة الإنجليزية في استخدام تقنية المعلومات والاتصالات في قاعات الدراسة في المستوي الجامعي. تفترض الدراسة أن تقنية المعلومات والاتصالات تساعد في حل المشاكل التعليمية، إضافة إلى أن إدخالها في المناهج التعليمية يساعد على فهمها بسهولة. اتبعها الدراسة المنهج التجريبي التحليلي. جمعت البيانات لهذه الدراسة بواسطة أدوات الاستبيان والمقابلة مع بعض الخبراء وفني تقنية المعلومات والاتصالات باستخدام نظام SPSS (الحزم الإحصائية للعلوم الاجتماعية لتحليل البيانات). توصلت الدراسة إلى عدد من النتائج الهامة: أولاً هناك العديد من المشاكل التي تواجه أساتذة اللغة الإنجليزية في تدريس اللغة الإنجليزية في المستوى الجامعي باستخدام تقنية المعلومات والاتصالات وذلك لأنها ليست مدروسة في المناهج الدراسية منذ البداية، كما أن الأساتذة غير متخصصين في هذا المجال إضافة إلى أن استخدام تقنية المعلومات والاتصالات يزيد من دافعي الدارسين ويجعلهم أكثر انتباهًا وذلك باستخدام الصورة والصوت والحركة. أخيراً أغلبية الدارسين ليس لهم خلفية سابقة عن استخدام هذه التقنيات لذلك يمكّنهم التعامل معها بصعوبة. على ضوء هذه النتائج توصي الدراسة بضرورة ادخال تقنية المعلومات والاتصالات في المناهج الدراسة حتى يسهل فهمها واستخدامها لكل من الدارسين والمعلمين. ضرورة تدريب معلمي اللغة الإنجليزية على استخدام هذه التقنيات إضافةً إلى تدريبهم بضرورة إنشاء مراكز تقنية وفني صيانة لصيانة المعدات التقنية باستمرار. أخيراً توصي الدراسة كل المعلمين بالمعرفة الناتجة باستخدام تقنية المعلومات والاتصالات في التعليم لأنها مهمة جداً هذه الأيام.
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Definitions of Terms

1- **ASE**: Association for Science Education
2- **BECTA**: British Educational Communication and Technology Agency.
3- **CALL**: Computer Assisted Language Learning.
4- **CD**: Compact Disk
5- **CLE**: Communicative Language Teaching.
6- **CMC**: Computer Mediated Communication.
7- **DATA**: Design And Technology Association.
8- **DDL**: Data Driven Learning.
9- **DVD**: Digital Versatile Disc.
10- **EFL**: English Foreign Language.
11- **ELT**: English Language Teaching.
12- **E. mail**: Electronic Mail.
13- **ESL**: English as a Second Language.
14- **ETNL**: English Teacher News Letter.
15- **HTTP**: Hyper Text Transfer Protocol.
16- **ICT**: Information Communication Technology.
17- **IEC**: Integrated Electronic Control.
18- **IP**: Internet Protocol.
19- **IT**: Information Technology.
20- **LAN**: Local Area net- Work
21- **NCET**: National Council For Teacher Education.
22- **NGFL**: National Grid for Learning And Funding For Training.
23- **NGL**: National Grid For Learning.
24- **NLA**: National Literacy Association.
25- **NRC**: The National Recent Council of US.
26- **ph D.**: Doctor of Philosophy.
27- **TCP**: Transmission Control Protocol.
28- **TEFL**: Teaching English as a Foreign Language.
29- **TESL**: Teaching English as a Second Language.
30- **TPD**: Teacher Professional Development.
31- **TV**: Television.
32- **UK**: United kingdom.
33- **UKOU**: United kingdom Open University.
34- **UNESCO**: United Nation Educational Scientific and Cultural Organization.
35- **URLS**: Uniform Resource Locator.
36- **US**: United State of America.
37- **VHS**: Video Home System
38- **WAN**: Wide Area Network
CHAPTER ONE
INTRODUCTION

1.0 Background

Information communication technology (ICT) has become within a very short time one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of "ICT" as part of the core of education alongside reading, writing and numeracy.

"ICT" Stands for Information and Communication Technologies and defined as resources, decimate, store, and manage information. These technologies include computers, the internet, broadcasting technologies (radio and television) and telephony.

This study aims at investigating the problems that face Sudanese (EFL) teachers when using ICT in ELT English Language Teaching at university level. It also aims at finding solutions to these problems. The main objective of the study is to cast some light on the importance of ICT today not only on teaching and learning but also it introduced and affected every inch of our day-today life willingly or reluctantly. Mastering ICT skills and improved teaching and learning environment is a new learning culture. As the new millennium unfolds itself, most people are by now aware that we are in the midst of one of the most dramatic technological revolution in history that is changing everything, the ways in which we think, communicate, transact, business and spend our leisure time. The technological revolution centers on computer information, communication and multimedia technology is often interpreted as the beginnings of a knowledge or information society and therefore, scribes education central role in the aspect of our life.

Computers have come to play a role in nearly every aspect of our day – today life certainly, including education. They enable learners to interact with others and become engaged in lessons in new meaningful ways because they can not only provide efficient and inexpensive classroom materials but also e-mails between instructors and students and online discussion groups. Teachers, educators, fathers, curricula designers and those who develop educational programmes have become aware of the uncountable facilities that computer provides for enriching educational process. Therefore, we find them spread swiftly in classrooms, homes, schools, offices and training centers as an efficient tool of introducing the educational materials in the
form of enriching programmes particularly in the area of language learning instructions.

Being swept into technological worlds means that with swift move classrooms move to become "LCD" projectors from faculty- share computers and too many floppy disks to laptops, chat and web-based course ware from chalk to power point.

Moreover, the internet has swiftly changed teachers' lesson planning, preparation, students' research and activities forever. It is high time that the teaching community should change its mindset and enthuse the students by means of technology. (Lee, 2005).

1.1 Statement of the Problem

The study aims at investigating the problems that face Sudanese EFL teachers when using ICT information and communication technology in teaching English language at university level. The main factor that has led to this study is the limitation of technology both in its ability and availability of technological resources such as the computer and the internet. Therefore, the most crucial factor that can lead to the failure of ICT or the use of any technology in language education is not the failure of technology, but the failure invest adequately in teacher training and the lack of "ICT" skills and knowledge to take the advantage of technology flexibility.

1.2 Objectives of the Study

This study intends to achieve the following objectives:
1. Casting some light on the importance of ICT today particularly in the field of ELT.
2. Developing problems solving strategies and work skills.
3. Training the ELT teacher in using ICT to benefit from its privileges in developing the content of English language.
4. Investigating the problems which face Sudanese EFL teachers in using ICT in classrooms at university level.
5. Introducing the educational media into the curricula helps in understanding it easily.
1.3 Questions of the Study

This study is trying to find answers to the following questions:

1. To what extent are Sudanese EFL teachers aware of the importance of using ICT in EFL classes?
2. What is the role of ICT in solving the educational problems?
3. How can teacher training affect using ICT in EFL classes adequately?
4. Why do Sudanese EFL teachers encounter many problems in using ICT in classrooms at university level?
5. How can introducing ICT into curricula help in understanding it easily?

1.4 Hypotheses of the Study

1. Most Sudanese EFL teachers are not aware of the importance of using ICT in EFL classes.
2. ICT helps a lot in solving educational problems.
3. Teacher training plays great role in using ICT adequately in EFL classrooms.
4. Sudanese EFL teachers encounter many problems when using ICT in classrooms at university level.
5. Introducing ICT into curricula helps in understanding it easily.

1.5 The Significance of the Study

This study is hoped to be of great help to EFL teachers, learners, technicians and consequently their students. In addition, the study is expected to raise teachers a awareness of the Importance of using ICT in EFL teaching. The study is also intended to be of benefit to the syllabus designers in the field of English language teaching and learning.

1.6 Research Methodology

The experimental analytical and descriptive method will be used for data collection. The tool will be a questionnaire for (50) EFL teachers at university level and an interview with (20) ICT expert and technicians. The data of this study will be analyzed with statistical package for social science programme (SPSS).
1.7 Limits of the Study

The study is limited to the problems that face Sudanese EFL teachers in using ICT Information Communication Technology at university level.
2.0 Introduction

This chapter is carried out to investigate the problems that face Sudanese EFL teachers when using (ICT) information communication technology in (ELT) English Language Teaching at university level. It also aims at finding some solutions to these problems. According to Andrews (2000) ICT stands for new multimedia technologies, including computer software and CDROM, the internet, mobile phone, television, films and other technologies. A large amount of research in ICT has been conducted including many studies on the effects of ICT on students’ motivation. Many of these focus on motivation of use of ICT on students language learning to provide much evidence to demonstrate that ICT has a positive effect on motivation. Many reports show that ICT increases students’ learning including language learning; achievement and enthusiasm in the use of ICT in their lessons, make them stay longer on task, but, many previous unrecognized problems appearing with the use of computers, which suggest that ICT does not increase motivation. Some researchers also considered may other problems in the use of ICT.

2.1 Definition of Technology

According to Stolovich (2006:39) Technology means "applied science." In other words, any valid and reliable process or procedure that is derived from basic research using the "scientific method" is considered a "technology." Educational or Human Performance. Technology may be based purely on algorithmic or heuristic processes, but neither necessarily implies physical technology. The word technology comes from the Greek "Techne" which means craft or art. Another word "technique", with the same origin, also may be used when considering the field educational technology, so educational technology may be extended to include the techniques of the educator.
2.2 Educational Technology

Technology education is a study of technology, which provides an opportunity for students to learn about the processes and knowledge related to technology. As a study, it covers the human ability to shape and change the physical world to meet the needs of learners, by manipulating materials and tools with techniques. As for education, the goal is to teach the knowledge and techniques to develop technological literacy which is accomplished by bringing laboratory activities to students. According to (Richey, 2008) technology education is an innovative approach to technology education in Australia which differs in that it is accomplished by situating students in the context of the need. The term "technology education" is frequently shortened to "teched".

In many countries in the last century, technology education has evolved through craft, or technical skills, education - From Industrial Arts and Manual Training. Industrial Arts programs are also known as "shop classes", a derivation of "workshop". Today, technology education students generally work in labs and perform laboratory activities. In the past, many studies referred to the work areas used in technology education as "shops". However, many teachers have encouraged students to use the term "lab". That follows the hierarchy of science (knowing about the world) technology (applying that knowledge to solve problems, i.e. to improve the world) engineering (applying that knowledge on a large scale to develop systems and structures). Britain was perhaps the first country to include the field of technology in the national curriculum for schools, from 1989 - compulsory for most learners from Year 1 (Grade 1, age 5) to Year 11). At the same time, information technology was made compulsory for all from Year 1 to (more recently) Year 13".

The school subject of technology in Britain includes the traditional craft areas of "craft, design and technology" (working with resistive materials and with pliant materials, and technical drawing) and "domestic science" or "home economics" (working with textiles and food). However, there is an explicit intention to view technology as the all-encompassing human activity of problem-solving; the government introduced the concept of secondary schools (Years 7-11 or 7-13) called city technology colleges in the 1980s and technology colleges in the 1990s. This is to encourage a problem-solving approach to tech study of all subjects; even so, it is very rare to find that in practice. The Association for Science Education (ASE) and the
Royal Society were highly influential in these developments, as were some of the educational IT professional groups as machines or hardware, but it can also encompass broader themes, including systems, methods of organization, and techniques. Some modern tools included but are not limited to overhead projectors, laptop computers, and calculators. Newer tools such as "Smartphones" and games (both online and offline) are beginning to draw serious attention for their learning potential. Those who employ educational technologies to explore ideas and communicate meaning are learners or teachers.

2.3 Objectives of Technology Education

According to Lowenthal (2010:37) technology education allows learners to explore a variety of activities related to many areas of marsupial endeavors. Learners can develop problem solving strategies and work habits that will be useful in almost any career or occupation. Learners should develop a greater appreciation for the work of craft workers and the skill required for that work.

Within the scope of this educational program is the effort to develop “soft skills” within the learner, as well as an opportunity for the learner to see how systems work together and the chance to put much of the academic class instruction to work in an applied way.

2.4 E-Content Development: Need and Significance

According to Lee (2005: 61) the need and significance of E-content are:

i) Education is a lifelong process therefore anytime anywhere access to it is the need.

ii) Information explosion is an ever increasing phenomena therefore there is need to get access to this information.

iii) Education should meet the needs of variety of learners and therefore IT is important in meeting this need.

iv) It is a requirement of the society that the individuals should posses technological literacy.

v) We need to increase access and bring down the cost of education to meet the challenges of illiteracy and poverty-IT is the answer.
The Importance of E-content are:

i) access to variety of learning resources
ii) immediacy to information
iii) anytime learning
iv) anywhere learning
v) collaborative learning
vi) multimedia approach to education
vii) authentic and up to date information
vii) Access to online libraries
Viii) Teaching of different subjects made interesting
viii) educational data storage
ix) distance education
x) access to the source of information
xi) Multiple communication channels-e-mail, chat, forum, blogs, etc.
xii) access to open courseware
xii) Better accesses to children with disabilities
xiii) Reduces time on many routine tasks.

The unprecedented advances in the field of ICT have impacted the field of education more than any other field. “Rapid advances in Information and Communication Technology have created unprecedented opportunities in the field of education and have had a profound effect on the way teachers teach and how learners learn. Mastering ICT skills and utilising ICT towards creating an improved teaching and learning environment is of utmost importance to teachers in creating a new learning culture”.

According to Majumdar (2004:26) with the speed at which technology is changing the world, it is impossible to imagine education in the year 2020 not being immersed in technology. As the new millennium unfolds itself, most people are by now aware that we are in the midst of one of the most dramatic technological revolutions in history that is changing everything, the way in which we work, communicate, transact business, spend our leisure time and what not. The technological revolution centres on computer, information, communication and multimedia technologies, is often interpreted as the beginnings of a knowledge or
information society, and therefore ascribes education a central role in every aspect of life. This great transformation poses tremendous challenges to educators to rethink their basic tenets, to deploy the media in creative and productive ways, and to restructure education to respond constructively and progressively to the technological and social changes that we are now experiencing, teachers are the central forces in tapping the learning opportunities created by ICT.

2.5 Benefits of Educational Technology

Anderson (2000:30) states that: Educational technology is intended to improve education over what it would be without technology. Some of the claimed benefits are listed below:

2.5.1 Easy-to-access Course Materials

Instructors can post the course material or important information on a course website, which means students, can study at a time and location they prefer and can obtain the study material very quickly.

2.5.2 Student Motivation

Computer-based instruction can give instant feedback to students and explain correct answers. Moreover, a computer is patient and non-judgmental, which can give the student motivation to continue learning. According to Kulik (2000) who studies the effectiveness of computers used for instruction, students usually learn more in less time when receiving computer-based instruction and they like classes more and develop more positive attitudes towards computers in computer-based classes.

2.5.3 Wide Participation

Learning material can be used for long distance learning and are accessible to a wider audience.

2.5.4 Improved Student Writing

It is convenient for students to edit their written work on word processors, which can, in turn, improve the quality of their writing. According to some studies, the
students are better at critiquing and editing written work that is exchanged over a computer network with students.

2.5.5 Subjects Made Easier to Learn

Many different types of educational software are designed and developed to help children or teenagers to learn specific subjects. Examples include pre-school software, computer simulators, and graphics software.

2.5.6 A Structure that is more Amenable to Measurement and Improvement of Outcomes.

With proper structuring, it can be easier to monitor and maintain student work while also quickly gauging modifications to the instruction necessary to enhance student learning.

2.5.7 Computers

Computers were originally used by scientists for calculating numbers, and have gradually become useful in offices and industries. In recent times, simplified models that can be used by almost everybody have become common in schools and homes for accomplishing many varied tasks and applications (Madu 2000, Fapohunda, 1999) list the uses that computers are now commonly put to: writing letters, and reports, printing books, newspapers, and magazines, drawing pictures and diagrams, doing statistics, mathematics and handling financial records, controlling traffic lights, flying aeroplanes, making and playing music and video, sending messages anywhere in the world.

2.5.8 Internet

The internet in simple term is a network of the interlinked computer networking worldwide, which is accessible to the general public Adesanya, (2002:10-24) states

“The Internet is a global collection of many types of computers and computer networks that are linked together. It is increasingly becoming the solution to many information, problems, information exchange, and marketing”.
Adesanya means to say that internet is a universal mean of communication. It has essential importance today because it solves a lot of problems not only in educational field but also in information exchange and marketing. Eseyin (1997:69) describes the Internet as a mixture of many services with the two most commonly used being electronic mail (e-mail for short) and the World Wide Web (www). It plays a significant role in education, health, political processes, agriculture, economy, businesses and newsgroups. With Internet connectivity, one can do business all over the world without physical contact with the buyer or the need for a business intermediary.

2.5.9 E-mail

Electronic mail (e-mail) is the exchange of text, messages and computer files transmitted via communications networks such as the Internet. According to Nwosu (2004:3) the e-mail system as the equivalent of postal mailing services, with the biggest difference being the time and cost involved and not only written data, but all sorts of information in the form of video, audio, or photographs, can be sent via e-mail.

Oketunji (2000:27) describes e-mail as "an increasing popular method of communication especially in the workplace".

2.5.10 Mobile Phones

Mobile phones are a telephone system that can move or be moved easily and quickly from place to place. Mobile phones were once the tool of rich and busy executives who could afford both the luxury and employment. Mobile phones are now the ICT that is reshaping and revolutionizing the communications globally. Its impact on the economic activities of nations, businesses, and small entrepreneurs is phenomenal.

According to Marcelle, (2000:203) the availability of this new technology has been reshaping the material basis of the society as well as bringing about a profound restructuring of economic, political and cultural relations among states. Tiemo (2006: 90) asserts that
“The importance of information cannot be overemphasized. People need information to plan and carry out their decisions. More than 90 percent of Africa’s population could greatly benefit from information on better choice of food, safe water and basic nutrition, child care, family planning, immunization, prevention and control of endemic diseases. The combination of modern communication devices could play significant roles in the collection and dissemination of global information”.

Tiemo has a very important observation. He mentions the most important points that due to information technology, concerning Africa population, has greatly benefited from information technology on better choice of food, safe water and basic nutrition, child care, family planning (i.e) that is to say modern communication devices could play significant roles in the collection and dissemination of global information Oji-Okoro (2006: 53-56) supports this view by stating that "mobile telephony usage by individuals enables them to communicate with loved ones, clients and business associates". For large businesses, it is a mean of providing a service that leads to an increase in profits. For governments, revenues are gained through taxes and duties. As a tool for sustainable livelihoods, mobile telephones provide employment for many who could have been idle.

2.5.11 Fax Machine

Telefacsimile systems permit the transaction of images (photos, printed images, maps, drawings) and their reproduction on paper at a remote receiver. Facsimile (fax) is not a new service; however, advances in digital imaging technology and microelectronics have caused a sharp drop in prices with a significant increase in capacities O’Brien (1996: 282-285) States. “Long distance copying” might be an appropriate nickname for this telecommunication process. Any document, whether it is handwritten, contains pictures, diagrams, graphs, charts or typed text can be transmitted at a great speed for relatively low cost. The fax system is widely available; most organizations have at least one fax machine.

2.6 Importance of Using ICT in ELT

According to Ames(1992:261) one type of motivation goal reached by using ICT is the performance goal, which is directed towards achieving success in relation to the achievements of one’s colleagues.
Motivation theories have also recognised the effects of the focus of control of the learner. The extent to which learners see events as being under their personal control. However, students will only accept the use of ICT if they find it both useful and easy to use.

Increased motivation through perceived value of an activity might lead to:

- A greater interest and involvement in learning.
- Greater self-esteem.
- Determination to achieve specific tasks.
- Spending more time on the learning task.
- Trying to do better than one’s peers.
- Achieving more control over one’s own learning.

Many researches support the idea that pupils using ICT which is structured to provide progressive achievement in sub-tasks are more likely to be motivated to continue their work than when the tasks themselves are too difficult. This should be taken into consideration in material design. Materials should enable pupils to achieve progression in their learning and thereby be continually motivated.

According to Dukes (1993:427) the ICT experience must be pleasant, rewarding and important. Whereas, other studies (NCET 1994) done on the use of Integrated Learning Systems claim that pupils using this type of software are motivated to stay on task longer and that they take pride in their achievements using the materials. However, these types of exercises are now regarded by many people not to be a good representation of the way in which people learn. Furthermore, there is little substantiated evidence that this type of software improves pupils’ skills other than at a very basic level. However, in a study of the use of two different ILS in primary and secondary schools researchers found that there was an increased commitment and dedication to studying, shown by the higher levels of concentration when using the systems, with fewer non-task interactions taking place, compared to the pupils in non-ILS using classes.

To summarize, evidence from studies in education has shown that the main aspects of pupils’ motivation are an enhanced sense of achievement, increase in self-directed learning, enhanced enjoyment and interest, enhanced self-esteem and an increased commitment to the learning task. However, the need for teacher intervention is essential to avoid leaving the technology to control the lessons. The teacher needs to
see the real effect ICT materials have on the learning process. Furthermore, there should be an appropriate balance between hands-on and other work and the motivational aspects of using ICT will be effective only with appropriate planning and guidance from the teacher.

2.7 Benefits of ICT in Education

In the UK, all researches in ICT in Education is monitored by BECTA (British Educational Communications and Technology Agency). Here are some of the benefits which ICT brings to education according to recent research findings.

2-7-1 General benefits
i) Greater efficiency throughout the school.
ii) Communication channels are increased through email, discussion groups and chat rooms.
iii) Regular use of ICT across different curriculum subjects can have a beneficial motivational influence on students’ learning.

2-7-2 Benefits for Teachers
i) ICT facilitates sharing of resources, experience and advice.
ii) Greater flexibility in when and where tasks are carried out.
iii) Gains in ICT literacy skills, confidence and enthusiasm.
iv) Easier planning and preparation of lessons and designing materials.
v) Access to up-to-date pupil and school data, anytime and anywhere.
v6) Enhancement of professional image projected to colleagues.
Vii) Students are generally more ‘on task’ and express more positive feelings when they use computers than when they are given other tasks to do.
Vii) Computer use during lessons motivates students to continue using learning outside school hours.

2-7-3 Benefits for Students
i) Higher quality lessons through greater collaboration between teachers in planning and preparing resources.
ii) More focused teaching, tailored to students’ strengths and weaknesses, through better analysis of attainment data.

iii) Improved pastoral care and behaviour management through better tracking of students.

iv) Gains in understanding and analytical skills, including improvements in reading comprehension.

v) Development of writing skills (including spelling, grammar, punctuation, editing and re-drafting), also fluency, originality and elaboration.

vi) Encouragement of independent and active learning, and self-responsibility for learning.

vii) Flexibility of ‘anytime, anywhere’ access.

Viii) Development of higher level learning styles.

ix) Students who used educational technology in school felt more successful in school and were more motivated to learn and have increased self-confidence and self-esteem.

x) Students found learning in a technology-enhanced setting more stimulating and student-centred than in a traditional classroom.

xi) Broadband technology supports the reliable and uninterrupted downloading of web-hosted educational multimedia resources.

xii) Opportunities to address their work to an external audience.

xii) Opportunities to collaborate on assignments with people outside or inside school.

2-7-4 Benefits for Parents

According to national literacy Association, (1996) The benefits for parents are:

i) Easier communication with teachers.

ii) Higher quality student reports – more legible, more detailed, better presented.

iii) Greater access to more accurate attendance and attainment information.

iv) Increased involvement in education for parents and, in some cases, improved self-esteem. Increased knowledge of children’s learning and
capabilities, owing to increase in learning activity being situated in the home

v) Parents are more likely to be engaged in the school community.

2.8 Types of ICT Used in Education

ICT stands for information and communication technologies and are defined, as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information.” (Blurton: 2002). These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony.

In recent years there has been a groundswell of interest in how computers and the Internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. But ICT are more than just these technologies; older technologies such as the telephone, radio and television, although now given less attention, have a longer and richer history as instructional tools. (Cuban, 1986) For instance, radio and television have for over forty years been used for open and distance learning, although print remains the cheapest, most accessible and therefore most dominant delivery mechanism in both developed and developing countries. The use of computers and the Internet is still in its infancy in developing countries, if these are used at all, due to limited infrastructure and the attendant high costs of access.

Moreover, different technologies are typically used in combination rather than as the sole delivery mechanism. For instance, radio and Internet use both radio broadcasts and computer and Internet technologies to facilitate the sharing of information and provide educational opportunities in a rural community in Sri Lanka. The Open University of the United Kingdom (UKOU), established in 1969 as the first educational institution in the world wholly dedicated to open and distance learning, still relies heavily on print-based materials supplemented by radio, television and, in recent years, online programming. (http://www.open.ac.uk) Similarly, the Indira Gandhi National Open University in India combines the use of print, recorded audio and video, broadcast radio and television, and audio conferencing technologies. (http://www.ignou.ac.in). According to Tino, (2002:4) types of e learning are:
2.8.1 E-learning

Although most commonly associated with higher education and corporate training, e-learning encompasses learning at all levels, both formal and non-formal, that uses an information network—the Internet, an intranet (LAN) or extranet (WAN)—whether wholly or in part, for course delivery, interaction and/or facilitation. Others prefer the term online learning. Web-based learning is a subset of e-learning and refers to learning using an Internet browser (such as Netscape or Internet Explorer).

2.8.2 Blended Learning

Another term that is gaining currency is blended learning. This refers to learning models that combine traditional classroom practice with e-learning solutions. For example, students in a traditional class can be assigned both print-based and online materials, have online mentoring sessions with their teacher through chat, and are subscribed to a class email list. A Web-based training course can be enhanced by periodic face-to-face instruction. “Blending” was prompted by the recognition that not all learning is best achieved in an electronically-mediated environment, particularly one that dispenses with a live instructor altogether. Instead, consideration must be given to the subject matter, the learning objectives and outcomes, the characteristics of the learners, and the learning context in order to arrive at the optimum mix of instructional and delivery methods.

2.8.3 Open and Distance Learning

Open and distance learning is defined by the Commonwealth (2002) of Learning as:

“a way of providing learning opportunities that is characterized by the separation of teacher and learner in time or place, or both time and place; learning that is certified in some way by an institution or agency; the use of a variety of media, including print and electronic.

Common wealth means that distance learning saves time and place for learners instead of learners seeking for educating. Learning arrives to them in their phases, and all that progress due to electronic media. Two-way communications that allow learners and
tutors to interact; the possibility of occasional face-to-face meetings; and a specialized division of labour in the production and delivery of courses.

2.8.4 Learner-centered Environment

The National Research Council of the U.S. defines learner-centered environments as “pay careful attention to the knowledge, skills, attitudes, and beliefs that learners bring with them to the classroom.” Founts, (2000: 11) states:

“The impetus for learner-centredness derives from a theory of learning called constructivism, which views learning as a process in which individuals “construct” meaning based on prior knowledge and experience. Experience enables individuals to build mental models or schemas, which in turn provide meaning and organization to subsequent experience”.

Thus knowledge is not “out there”, independent of the learner and which the learner passively receives; rather, knowledge is created through an active process in which the learner transforms information, constructs hypothesis, and makes decisions using his/her mental models. A form of constructivism called social constructivism also emphasizes the role of the teacher, parents, peers and other community members in helping learners to master concepts that they would not be able to understand on their own. For social constructivists, learning must be active, contextual and social. It is best done in a group setting with the teacher as facilitator or guide.

2.9 The Uses of ICT in Education

Education policymakers and planners must first of all be clear about what educational outcomes are being targeted. These broad goals should guide the choice of technologies to be used and their modalities of use. The potential of each technology varies according to how it is used. (Haddad,1995) identifies at least five levels of technology use in education: presentation, demonstration, drill and practice, interaction, and collaboration. Each of the different ICTs—print, audio/video cassettes, radio and TV broadcasts, computers or the Internet—may be used for presentation and demonstration, the most basic of the five levels. Except for video technologies, drill and practice may likewise be performed using the whole range of technologies. On the other hand, networked computers and the Internet are the ICTs that enable interactive and collaborative learning best; their full potential as
educational tools will remain unrealized if they are used merely for presentation or demonstration.

2.10 ICT Integration in Learning Environments

A critical component of theories of constructivism is the concept of proximal learning, based on the work of Vygotsky (1978) which posits that learning takes place by the learner completing tasks for which support (scaffolding) is initially required. This support may include a tutor, peer or a technology such as the applications of computers. This has led to use the term computer supported learning. Computer supported learning environments are those in which computers are used to either maintain a learning environment or used to support the student learn in this sense.

Therefore the technology is used to help create the types of learning environments and the types of support for learning that are known to be ideal, that Glickman (1991:1-10) argues have been ignored or failed to be implemented widely in the past. The aim is to create learning environments centred on students as learners and a belief that they learn more from what they do and think about rather than from what they are told. If the aim is to offer new learning opportunities, or to improve the way in which current learning activities are implemented, then the overall effectiveness of learning environments and episodes is of paramount concern, not whether they are more effective with or without computers. It is important that the ever changing nature of computer-based technology not overshadow the enduring nature of learning and the solid and ever increasing base of knowledge about learning. This knowledge is not superseded by new technologies; rather, it can inform the use of new technologies when applied to learning. Therefore, in implementing computer support for learning it is necessary to start by deciding what a student, teacher or school wants to achieve. To achieve these outcomes, teachers can then rely on long traditions of educational theory, their own experience and knowledge of the educational situation (e.g. student attributes) to make decisions about what the learning environment should look like, and what inputs into the learning process are required. Finally, teachers can identify what problems are associated with providing these environments and inputs, and tailor computer and other support to provide solutions. In essence, the judgement of teachers and their support structures are relied upon to choose appropriate strategies. This approach ends with decisions concerning
computer support rather than starting with such decisions. The Committee on Developments in the Science of Learning (2000) suggested five ways to use ICT to establish and sustain effective learning environments:

1. Real world problems
2. Scaffolding
3. Feedback, reflection and guidance
4. Local and global communities
5. Extending teacher learning

They assert that many aspects of ICT make it easier to create environments that fit the current understanding of the principles of learning. They “Design a Constructivist Learning Environment”. They provide theoretical frameworks to implement the use of computers to support high quality learning environments.

2.11 ICT in Learning and Teaching

Andrews (2000:85) claims that: technology allows for clearer visualization, and saves time the lecturer needs to spend on writing. However, lecturers need to be aware of the following:

- Text on the screen should be economical.
- The text should not be read from the screen; screen text is a tag to what is being said.
- A little time for an audience to absorb each slide.
- It is often helpful to give listeners a printed copy of all slides from a presentation.

To take away with them (for example, these can be printed six slides per page). The natural screen image of a lecture usually calls for two screens: one to enlarge the figure and face of the speaker, and the other for the visual-textual part of the speech of course, digital video images can accompany transmitted and recorded lectures, placing the lecturer’s face or figure on part of the screen, and surrounding it with other material, or simply using the lecturer as a background voice. Electronic digital textbooks let us consider the best possible canned (recorded) course of lectures. They have good video-audio quality, and may be accompanied by a printed text since the substitute of text-on-screen is not completely satisfactory today. Typically, lectures and accompanying textbooks can contain educational material of an advanced level or
some optional information. In a lecture, this material can be relatively short and marked by a special introductory statement. In a textbook, it can be printed in smaller letters or placed in an appendix. In both cases, the options are limited, because of limits of material time and paper. In the case of electronic media, these limitations do not exist Modern electronic digital media such as DVD can accommodate hundreds of thousands of text pages. The digital lecture-textbook can thus be organized to display different levels of material, both in the sense of depth and breadth of subject matter and in the sense of how it is presented to the student. It can contain references or links to other related material whereas the lecturer has to point to the blackboard or show a slide again. The digital video textbook can also provide links to another part of the course, or to another course, or indeed to any piece of information available in the school library and beyond on the Internet. This technology allows for clearer visualization, and saves time the lecturer needs to spend on writing.

2.12 The Value of ICT in Education

Information and Communication Technologies (ICT) have been utilized by education ever since their inception, but they have been massively present in schools only since the early 1980s. Developed countries have applied them in education for a variety of reasons, most of which are still valid today, although in many cases they have remained unfulfilled expectations. Some of the reasoning found in the literature is as follows: A new society requires new skills: ICT increasingly pervade every aspect of life (work, learning, leisure, and health). Because ICT are the preeminent tools for information processing, new generations need to become competent in their use, should acquire the necessary skills, and therefore must have access to computers and networks during their school life. There is an equity issue in this argument related to the need to prioritize access to ICT resources to the more underserved population, which is being left behind on a digital divide. Productivity enhancement: Schools are information- and knowledge-handling institutions; therefore, ICT should be fundamental management tools on all levels of an educational system, from classrooms to ministries . A quest for quality learning: Schools should profoundly revise present teaching practices and resources to create more effective learning environments and improve life-long learning skills and habits in their students. ICT are versatile and powerful tools that can help in this purpose and should therefore be
present in every classroom, library and teacher room. It must be said, however, that so far ICT have not provided any large-scale breakthrough in learning improvements. They are still promises with great potential.

2.13 Main Advantages of ICT

According to Anderson (2000:8) in creating this new teaching and learning environment, ICT offers numerous advantages and provides opportunities for:

a. facilitating learning for children who have different learning styles and abilities, including slow learners, the socially disadvantaged, the mentally and physically handicapped, the talented, and those living in remote rural areas;

b. making learning more effective, involving more senses in a multimedia context and more connections in a hypermedia context; and

c. providing a broader international context for approaching problems as well as being more sensitive response to local needs. In summary, we believe that ICT enable teachers and students to construct rich multisensory, interactive environments with almost unlimited teaching and learning potential.

From the learning-teaching perspective, ICT should support:

d. Access to online resources that use a powerful combination of video, text and graphics, prepared by specialists in a centralized facility and delivered to individuals or groups by technology;

e. Provision for the teacher to teach a whole class or part of a class, assisted by technology as appropriate;

f. provision for all students to learn the same way or to choose ways that suit their individual learning styles, assisted by technology as appropriate; access to individualized curriculum pathways, managed by technology;

g. Access to individualized diagnostic testing and assessment of progress, managed by technology;

h. allowing students to move independently between learning areas as necessary, managed by technology;
i. Large screen video display (projector);

j. Individualized access to network resources including wireless networking;

k. Continuity of access to network resources away from school.

2.14 Using ICT in ELT Positive Factors- and Negative Factors

ii) Positive Factors

Teachers should not use computers all the time. Reading and writing skills currently emphasized in computer use. This is despite the availability of audio files, such as Voice of America, from which teachers can make http://www.voanews.com listening activities. Up-to-date and authentic information support autonomous learning an alternative to a library of books available on-line. Useful for self-access, studying at own pace, etc. On-line tests and exams. For teachers, ease of preparation with downloadable exercises, lesson plans. Mixed ability work can be going on simultaneously in the same classroom. Students who might otherwise be reluctant in face-to-face activities (non-virtual) are often willing to participate in chat activities online. Students participate in activities with other schools, other countries. Email and chat communication facilities for intercultural projects. Net-meeting has been found to be advantageous for these cultural activities. Students highly motivated, especially when they have a new audience to talk about themselves! Linguistic activity – tri-lingual dictionary creation. Subconscious vocabulary enrichment through using them in context of activities.

Motivation cannot be taken for granted.

Computer savvy students adapt very quickly to new programmes.

Multi-media lab for pronunciation allows sound waves to be visualised. Students need to be trained to use sophisticated means.

iii) Negative factors

Students need to differentiate between multi-media as a game and as a learning tool. They must learn to learn from computers, which is often not what computer savvy students typically use them for. It can be important to focus a lesson on the language point, not a computer-for-its-own-sake lesson. Is there so much input available, over which you are in control, that students cannot deal with it and take it beyond the
classroom? It is the teacher’s responsibility to focus them. Develop critical thinking and judgements. Students do a lot of inessential activities at the computer – they needn’t sit in front of the computers all the time. They need to process away from the computer.

Students suffer the delusion at the beginning of computer use in language learning, that they have been busy without learning any English. Some concern about the interpersonal effects of computer use … group dynamics under threat which may not be appropriate to expect during a computer session. Students can spend a lot of time being “busy” without learning. The quality of learning is not necessarily the first priority of decision makers also teacher training is not given much consideration.


2.15 The Role of the Teacher in the Use of ICT

A great deal of research and development has been conducted in order to bring Information and Communication Technology (ICT) to its current state of art. ICT was originally intended to serve as a means of improving efficiency in the educational process Jones(1993). Furthermore, it has been shown that the use of ICT in education can help improve memory retention, increase motivation and generally deepen understanding. ICT can also be used to promote collaborative learning, including role playing, group problem solving activities and articulated projects. Generally, ICT is promoting new approaches to working and learning, and new ways of interacting. Consequently, the introduction of ICT into UK and US schools has provoked a host of new questions about the evolving nature of pedagogy. Whether or not changes in pedagogy are contingent on trends and innovations, is a moot point. The question that should be asked, however, is: What will be the long term impact of ICT on the teaching and learning process? It is well documented that ICT changes the nature of motivation to learn.

2.16 Teachers’ ICT Skills and Knowledge Needs

In the light of current developments such as the National Grid for Learning (NGfL), and funding for training recently becoming available for teachers and librarians, it is clearly vital to understand teachers’ ICT skills and knowledge needs, to discover their priorities for future development and to establish what will encourage
teachers to adopt ICT where appropriate in their professional lives as classroom practitioners, as planners and managers and as learners.

As might be expected, the majority of teachers are also currently very much focused on their role in the classroom. Their views of the potential and value of ICT tend, therefore, to be concerned with its use with pupils. Yet the effective teacher, as in any other profession, plays a number of roles: s/he is not only a classroom practitioner but is also a manager, a planner, and a learner. If ICT is to be used to its full potential, future training initiatives will need to reflect these four roles.

Many teachers in this study are at the stage of using ICT to enhance their effectiveness, however, very few show evidence of radically questioning the way they teach and the educational environment in which they operate. Future approaches to training should therefore encourage reflection; should emphasise benefits to teachers as well as pupils; and should encourage more decision making and self assessment on the part of teachers.

2.17 Framework for ICT in Teacher Education

UNESCO Planning Guide on ICT in Teacher Education proposed a generic framework for ICT in Teacher Education, which is composed of four clusters of competencies encircled by four supportive themes. The curriculum framework suggests that each teacher may be allowed to interpret the framework within his or her context and personal approach to pedagogy. This may always be related to the subject discipline or content area, rather than to the technology itself.

According to Shirley(2000:64) the holistic framework defines areas of ICT competency organized in four groups:

1. **Content and Pedagogy** focus on instructional practices of teachers and their knowledge of the curriculum. It requires that teachers apply ICT in their respective disciplines to support and extend teaching and learning.

2. **Collaboration and networking** showcase the communicative potential of ICT to extend learning beyond the classroom and necessitate the development of new knowledge and skills.

3. **Social issues**, which imply that teachers can acquire an understanding of social issues, including the recognition and understanding of legal and moral codes such as copyright and intellectual property rights; participation in debates on the impact
of ICT on society; and the use of ICT in the promotion of a healthy society. Awareness of such issues will lead to suitable application of ICT in pedagogy and development.

4. **Technical issues** include technical proficiency and the provision of both technical infrastructure and technical support for ICT integration throughout the curriculum. These core competencies can be seen as ‘cluster objectives that are critical for the successful use of ICT as a tool for learning’. They can be developed and utilized in technology-pedagogy integration in the following four supportive themes:

- **Context and culture** identify social, cultural and other contextual factors to be taken into account in infusing ICT into teacher education curriculum. This will include the use of ICT in culturally appropriate ways with respect to pluralistic and diversified cultures and contexts.

- **Leadership and vision** are essential for the effective use of ICT in teacher education and will benefit greatly from the support of the administrations of the teacher education institutions concerned.

- **Lifelong learning** recognizes the nature of capacity building as a long-term process, rather than as a one-stop-for-all training course.

- **Management of change** signifies the importance of planning in effective management of the changing process involved in the use of technology for educational purposes.

As seen in the above framework, it is the ‘content and pedagogy’ that stands as the competency of prime importance in the process of technology-pedagogy integration. Such prime importance, given to ‘content and pedagogy’ underscores the change in the teacher’s role from that of a knowledge transmitter to that of a facilitator, knowledge navigator, co-learner and courseware developer, all rolled into one. The new role does not diminish the importance of the teacher but requires new ways of thinking that will culminate in ICT-enhanced pedagogy. The paradigm shift from traditional model of teaching to the new model of teaching and its technology implications, as illustrated by Shirley (2000) deserves a close study in this context.
**Table Indicates The Implications of New Technologies**

**According the UNESCO Planning Guide (2002)**

<table>
<thead>
<tr>
<th>‘Traditional’ Model of Teaching</th>
<th>New Model of Teaching</th>
<th>Technology Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Lectures</td>
<td>Individual Exploration</td>
<td>Availability of networked Computers with guided access to online information and learning Materials.</td>
</tr>
<tr>
<td>Teacher as Deliverer of Information</td>
<td>Teacher as a Guide</td>
<td>Teaching via programme websites and online learning environments; access to external experts over the Internet</td>
</tr>
<tr>
<td>Individual Work</td>
<td>Collaborative Learning</td>
<td>Access to email and online ‘conferencing’ tools</td>
</tr>
<tr>
<td>Face-to-face Teaching</td>
<td>Flexible and Distance Learning</td>
<td>Student access to networked computers for materials delivery and support</td>
</tr>
<tr>
<td>Consistent Content</td>
<td>Fast-changing Content</td>
<td>Availability of networks, web space and web publishing tools; sharing of computer-based learning materials with other institutions</td>
</tr>
</tbody>
</table>

nominates pedagogy, along with content, as the most important aspect of infusing technology in the curriculum.

**2.18 Will ICT Replace the Teacher?**

According to Hannafin (1993:26) the answer is a resounding NO! In fact, with the introduction of ICT in the classroom, the teacher’s role in the learning process becomes even more critical. What can and should change is the kind of role that the teacher plays.

The role of students, in turn, also expands. And since ICTs can open up the classroom to the outside world, the community can also play a new role in the classroom.

As learning shifts from the “teacher-centered model” to a “learner-centered model”, the teacher becomes less the sole voice of authority and more the facilitator, mentor and “guide on the side”. The teacher’s primary task becomes to teach the students how to ask questions and pose problems, formulate hypotheses, locate
information and then critically assess the information found in relation to the problems posed.

And since ICT-enhanced learning a new experience even for the teachers, the teachers become co-learners and discover new things along with their students. Additionally, it is not uncommon to see students in an ICT-enabled classroom assume both formal and informal roles as teachers of their peers and younger students, sometimes even of their own teachers. Teachers and students from different schools, subject-matter experts, parents, community and business leaders, politicians, and other interested parties also become involved in the learning process—as resource persons, critics, mentors, and cheerleaders. They also comprise a public, and hopefully critical, audience for students’ work published on the Web or through other media. Yet many teachers are reluctant to use ICT, especially computers and the Internet. (Hannafin,1993) identifies some of the reasons for this reluctance: poor software design, skepticism about the effectiveness of computers in improving learning outcomes, lack of administrative support, increased time and effort needed to learn the technology and how to use it for teaching, and the fear of losing their authority in the classroom as it becomes more learner-centered. These are all issues that must be addressed by both pre-service teacher education and in-service teacher professional development programs if schools and other educational institutions are to fully exploit the potential of computers and the Internet as educational tools. At the in-service level, ICT teacher professional development (TPD) should be long-term, teacher-directed, and as flexible as possible. For many under-qualified, overworked, and underpaid teachers in developing countries, effective adoption of ICTs hinges on being given continuous opportunities to learn what they need to learn based on their specific circumstances and experience, when they have the time to learn it. Institutionalized incentives and support for teachers to pursue ICT TPD are also critical. This may take the form of promotions for teachers who innovate with (as opposed to merely using) ICT in the classroom or simply making sure those teachers have adequate access to technology after training.

2.19 Drawbacks of ICT

Anderson, (2000:195) mentions that: “Besides the undoubted advantages of ICT, it is rather important to draw attention to certain drawbacks of ICT. Computer games. Part of the attractiveness of computer games is based on having a feeling of
control over a quasi-reality, being in the thick of the action, and the ability to raise self-esteem by achieving goals, power and success in the-screen world (a desire to win, or win back), and a

Curiosity about the unknown. If something goes wrong, the person in control tries to fix it. In the worst case, this fixing is chaotic and essentially irrational. In that aspect, computer games are similar to other types of hazard games or stock market games. Another dimension of their attractiveness can be associated with purely psycho-physiological mechanisms and a reflexive physiological adrenalin reaction to moving images.

Some of this excitement takes place when one is getting accustomed to new software applications, or while creating programs (especially by hackers). Some programmers may perceive the world and events they are working with in an entirely irrational manner. The process of winning a game, or debugging the program they create, may depend on the positions of planets or some ritual actions of men! Loss of orientation and the destructive behaviour of a hacker are other negative consequences of ICT use. However, it would be unjust to blame computer-driven information culture for all negative phenomena of contemporary life connected with ICT. The cure for these problems lies not inside ICT themselves, but in building a solid moral orientation for youth in how to use this new information sphere. In other words, we must give them a good upbringing.

2.20 Computer-Assisted Language Learning (CALL)

Daves (2007:1-12) explains that Computer-assisted language learning as a form of computer-based learning which carries two important features: individualized learning and bidirectional learning. It is not a method. CALL materials are materials for learning. The focus of CALL is learning, and not teaching. CALL materials are used in teaching to facilitate the language learning process. It is a form of student-centered learning materials, which promote self-paced accelerated learning. CALL is not a software application, but rather courseware that is designed specifically for language learning for a specific group of learners. CALL originates from CAI and was invented in 1960s. Computer-Assisted Instruction was first viewed as an aid for teachers. The philosophy of CALL puts a strong emphasis on student-centered lessons that allow the learners to learn on their own using structured and/or unstructured
interactive lessons. These lessons carry 2 important features: bidirectional (interactive) learning and individualized learning. It is a tool that helps teachers to facilitate language learning process. CALL can be used to reinforce what has been learned in the classrooms. It can also be used as remedial to help learners with limited language proficiency.

The traditional face-to-face teaching which is based on interpersonal communication between the teacher and student is gone. However, the industrialized teaching is able to offer teachers with the opportunity of sourcing from the computer internet rather than being faced with the problem of materials. It may include the search for and the investigation of applications in language teaching and learning. Mark (2008: 4-11) states: except for self-study software, CALL is meant to supplement face-to-face language instruction, not replace it.

Computers have been used for language teaching ever since the 1960s. This 40-year period can be divided into three main stages: behaviorist CALL, communicative CALL, and integrative CALL. Each stage corresponds to a certain level of technology and certain pedagogical theories. The reasons for using Computer-assisted Language Learning include: (a) experiential learning, (b) motivation, (c) enhance student achievement, (d) authentic materials for study, (e) greater interaction, (f) individualization, (g) independence from a single source of information, and (h) global understanding. The barriers inhibiting the practice of Computer-assisted Language Learning can be classified in the following common categories: (a) financial barriers, (b) availability of computer hardware and software, (c) technical and theoretical knowledge, and (d) acceptance of the technology.

Introduction.

2.21 Technology in the Classroom

According to Loucky(2009:49) there are many kinds of computer and non-computer technologies currently in use in traditional classrooms. Among these are:

- **Computer in the classroom**: Having a computer in the classroom is an asset to any teacher. With a computer in the classroom, teachers are able to demonstrate a new lesson, present new material, illustrate how to use new programs, and show new websites.
• **Class website:** What better way to display your student’s work, than to create a web page designed just for your class. Once a web page is designed, teachers can post homework assignments, student work, famous quotes, trivia games, and so much more. In current day society, children know how to use the computer and navigate their way through a website, so why not give them one where they can be a published author. Just be careful as most districts maintain strong policies to manage official websites for a school or classroom.

• **Class blogs and wikis:** These are some of a variety of Web 2.0 tools that are currently being implemented in the classroom. Blogs allow for students to maintain a running dialogue, like a journal, of thoughts, ideas, and assignments that also provide for student comment and reiterative reflection. Wikis are more group focused to allow multiple members of the group to edit a single document and create a truly collaborative and carefully edited finished product.

• **Wireless classroom microphones:** Noisy classrooms are a daily occurrence, and with the help of microphones, students are able to hear their teachers clearer. Children learn better when they hear the teacher clearly. The benefit for teachers is that they no longer lose their voices at the end of the day.

• **Mobile devices:** Mobile devices such as clickers or smart phone can be used to enhance the experience in the classroom by providing the possibility for professors to get feedback.

• **Smart Boards:** An interactive whiteboard that provides touch control of computer applications. These enhance the experience in the classroom by showing anything that can be on a computer screen. This not only aids in visual learning, but it is interactive so the students can draw, write, or manipulate images on the Smart Board.

*Online media:* Streamed video websites can be utilized to enhance a classroom lesson.

There are many other tools being utilized depending on the local school board and fund availability. These may include: digital cameras, video cameras, interactive whiteboard tools, document cameras, or LCD projectors. According to Tino (2005:6) technology in the classroom does have many benefits; there are clear drawbacks as well. Lack of proper training, limited access to sufficient quantities of a technology,
and the extra time required for many implementations of technology are just a few of the reasons that technology is often not used extensively in the classroom.

Similar to learning a new task or trade, special training is vital to ensuring the effective integration of classroom technology. Since technology is not the end goal of education, but rather a means by which it can be accomplished, educators must have a good grasp of the technology being used and its advantages over more traditional methods. If there is a lack in either of these areas, technology will be seen as a hindrance and not a benefit to the goals of teaching.

Another difficulty is introduced when access to a sufficient quantity of a resource is limited. This is often seen when the quantity of computers or digital cameras for classroom use is not enough to meet the needs of an entire classroom. It also occurs in less noticed forms such as limited access for technology exploration because of the high cost of technology and the fear of damages. In other cases, the inconvenience of resource placement is a hindrance, such as having to transport a classroom to a computer lab instead of having in-classroom computer access by means of technology such as laptop carts.

Technology implementation can also be time consuming. There may be an initial setup or training time cost inherent in the use of certain technologies. Even with these tasks accomplished, technology failure may occur during the activity and as a result teachers must have an alternative lesson ready. Another major issue arises because of the evolving nature of technology. New resources have to be designed and distributed whenever the technological platform has been changed. Finding quality materials to support classroom objectives after such changes is often difficult even after they exist in sufficient quantity and teachers must design these resources on their own.

### 2.22 Role Changing in Teachers and Students

Although the integration of CALL into a foreign language program can lead to great anxiety among language teachers concerning teachers. Leigh(2007: 12-15) claims that CALL changes, sometimes radically, the role of the teacher but does not eliminate the need for a teacher altogether. Instead of handing down knowledge to students and being the center of students’ attention, teachers become guides as they construct the activities students are to do and help them as students complete the
assigned tasks. In other words, instead of being directly involved in students’
construction of the language, the teacher interacts with students primarily to facilitate
difficulties in using the target language (grammar, vocabulary, etc.) that arise when
interacting with the computer and/or other people.

Nunnan (1989: 10-12) believes that Elimination of a strong teacher presence
has been shown to lead to larger quantity and better quality of communication such as
more fluidity, more use of complex sentences and more sharing of students’ personal
selves.

However, teacher presence is still very important to students when doing
CALL activities. Teachers should be familiar enough with the resources to be used to
anticipate technical problems and limitations.

Students need the reassuring and motivating presence of a teacher in CALL
environments. Not only are they needed during the initial learning curve, they are
needed to conduct review sessions to reinforce what was learned. Encouraging
students to participate and offering praise are deemed important by students. Most
students report preferring to do work in a lab with a teacher’s or tutor’s presence rather
than completely on their own.. The students too are able to enjoy various opportunities
which are not enjoyed before invention of computer; there are opportunities for slow
learners to still learning what is not clear to them in the school lesson if the computer
based system is applied.

As for students Greany (2006:16) sees that Students, too, need to adjust their
expectations, of their participation in the class in order to use CALL effectively.
Rather than passively absorbing information, learners must negotiate meaning and
assimilate new information through interaction and collaboration with someone other
than the teacher, be that person a classmate or someone outside of the classroom
entirely. Learners must also learn to interpret new information and experiences on
their own terms. However, because the use of technology redistributes teachers’ and
classmates’ attentions, less-able students can become more active participants in the
class because class interaction is not limited to that directed by the teacher. Moreover,
more shy students can feel free in their own students'-centered environment. This will
raise their self-esteem and their knowledge will be improving. If students are
performing collaborative project they will do their best to perform it within set time
limits.
2.23 Using PowerPoint Presentation for ELT

PowerPoint is an incredibly popular piece of software, mainly because it comes with Microsoft packages. PowerPoint files are easy to create and can be e-mailed as attachments. They can be posted on or downloaded from websites. Not only can PowerPoint presentations be traded and exchanged, they can also be modified to fit any individual classroom setting. Although PowerPoint has been around for years, it’s just begun to spread to schools and ELT classrooms as more and more classrooms and teachers have access to computers and the hardware to use PowerPoint. For these reasons, PowerPoint is becoming an increasingly popular medium in ELT. 

2.23.1 Advantages and Disadvantages of Using PowerPoint

<table>
<thead>
<tr>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can easily be repeated</td>
<td>Ts (and ss) need to learn how to use it</td>
</tr>
<tr>
<td>Can easily be modified</td>
<td>Hardware requirements - computer and digital projector</td>
</tr>
<tr>
<td>Can be put on the Internet</td>
<td>Software requirements – PowerPoint</td>
</tr>
<tr>
<td>Can be transmitted digitally (eg as an attachment, on a floppy,etc)</td>
<td>Technical hitches and need for technical support</td>
</tr>
<tr>
<td>Can be printed as a document, eg In Word (using File, Send to, MS Word)</td>
<td>Could be seen as showing off in some contexts</td>
</tr>
<tr>
<td>Can be used to print handouts and OHTs</td>
<td>Can be distracting if too many animations and sounds are used</td>
</tr>
<tr>
<td>Its use teaches ss real life skills</td>
<td></td>
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<tr>
<td>Can help you to be succinct and create clear visuals</td>
<td></td>
</tr>
<tr>
<td>Can display pictures, graphs, show videos, play sound</td>
<td></td>
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<tr>
<td>Motivating for (some) students</td>
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http://www.lonelyplanet.com/destinations
2.24 Using Original Video and Sound Effects to Teach English

According to Bedjou (2006:28-31) Creating specific lessons for different language skills is challenging and time consuming for English teachers, but it is definitely worth the effort. Teaching language skills through mechanical exercises and traditional fill-in-the-blank, true/false, and multiple-choice assessments does not interest students as much as we expect. This fact inspired the researcher to consider lively, interesting, and meaningful contexts and materials. Although the mechanical exercises and supplementary materials in resource books are useful, they do not energize students. But when teaching grammar in a way students do not expect you can clearly see the difference. Teachers can suggest ways to teach grammar with audio visual techniques, with an example of a lesson on teaching modals of speculation that express degrees of certainty (e.g., may, might, could, couldn’t).

2.24.1 Media in the Language Classroom

A well known way to create meaningful context for teaching English is through using media, which can be delivered through a wide variety of print, audio, and visual formants. The current information age requires teachers to be familiar with media and media literacy. Thoman (2003) argues that media literacy has an influential role in educational programs, including second language learning. Media can be integrated into language lessons in a variety of ways by developing activities based on radio programs, television shows, newspapers, and videos.

Rucynski (2011:5-17) integrates television into English as a Second/foreign language (ESL/EFL) instruction by demonstrating how a variety of English lessons can be taught with the Simpsons. A famous American animated TV series with more than 400 episodes. Radio programs are also an excellent source for teaching ideas because “it is well accepted that language is better acquired or learned where the focus is on interesting content, and radio can certainly provide interesting content” Bedjou: (2006, 28). introduces a number of English teaching activates that can be organized around radio programs, specifically VOA special English programs, and points out the significance of radio as an English teaching tool: “radio can bring authentic content to the classroom, especially in the EFL environment, where it may not be easy to meet and talk with native speakers of English”. Newspapers are another authentic and readily available source for pedagogical material, Pemagbi (1995:28)
notes that the availability, affordability, and relevance of newspapers make them good teaching tools.

2.25 Advantages and disadvantages of digital video in language learning Software

According to Thoman.(2003:278) the key to using video in Computer-Assisted Language Learning (CALL) software is the near-instantaneous call-up and playback it offers. With video tape, finding a precise location involves much fast forwarding and re-winding, making intensive use of video in language exercises unwieldy. In contrast, digital video in a software package can be programmed to run exactly as and when it is required, repeatedly if necessary. It is this principle of "random access" video files which makes the integration of digital video into software such a success: teachers can specify when video extracts should be made available to the student, and exactly what those extracts should be.

One other advantage is that, the use of digital video offers in CALL software is flexible subtitling: this can be done whenever the teacher thinks it is appropriate, in the source or target language, and added or removed as required by the students.

The production of video-based software expands the scope of video-based language learning: video material can be studied more closely and flexibly than ever before.

The disadvantages are that the quality of the video in use for most CD-rom or Internet software is poor compared even to household VHS tapes: its display area is limited to a few square inches, and its appearance is much inferior. Full-screen high-quality digital video is now the mainstay of large broadcasters such as the BBC, but such quality still requires considerably more storage space than a current CD-rom will ever be able to offer.

Within the Italia 2000 project, this disadvantage is offset by the fact that students are expected to watch the source programmes, either by television transmission or by viewing taped recordings, before embarking on the CD software: the lesser-quality video then becomes to some extent a reminder of the original programme rather than a substitute for it. However the CD video quality is such that students who have not seen the original programs will find it adequate to learn from the software and the small size means that the exercises and the video display.
2.26 Barriers to Integration of ICT into Education

The act of integrating ICT into teaching and learning is a complex process and one that may encounter a number of difficulties. These difficulties are known as “barriers”. Schoepp (2005: 2) defines barrier as “any condition that makes it difficult to make progress or to achieve an objective”.

The objective being analyzed in this paper is successful ICT integration in science education. Classifications of the barriers different categories have been used by researchers and educators to classify barriers to teacher use of ICT in classrooms.

Several studies have divided the barriers into two categories: extrinsic and intrinsic barriers. However, what they meant by extrinsic and intrinsic differed. In one study, Ertmer (1999: 47) referred to extrinsic barriers as first-order and cited access, time, support, resources and training and intrinsic barriers as second-order and cited attitudes, beliefs, practices and resistance;

whereas, Al-Alwani (2005:58) sees extrinsic barriers as pertaining to organizations rather than individuals and intrinsic barriers as pertaining to teachers, administrators, and individuals. Another classification found in the literature is teacher-level barriers versus school-level barriers. Becta (2004) grouped the barriers according to whether they relate to the individual (teacher-level barriers), such as lack of time, lack of confidence, and resistance to change, or to the institution (school-level barriers), such as lack of effective training in solving technical problems and lack of access to resources. Similarly, Balanskat et al. (2006) divided them into micro level barriers, including those related to teachers’ attitudes and approach to ICT, and meso level barriers, including those related to the institutional context. The latter added a third category called macro level (system-level barriers), including those related to the wider educational framework.

2.26.1 Teacher-Level Barriers

Lack of teacher confidence, several researchers indicates that one barrier that prevents teachers from using ICT in their teaching is lack of confidence. Dawes (2001:16) sees this as a contextual factor which can act as a barrier. According to Becta (2004), much of the research proposes that this is a major barrier to the uptake of ICT by teachers in the classroom. In Becta’s survey of practitioners (2004), the issue of lack of confidence was the area that attracted most responses. Some studies
have investigated the reasons for teachers’ lack of confidence with the use of ICT. For example, Beggs (2000:62) asserted that teachers’ “fear of failure” caused a lack of confidence. On the other hand, Balanskat et al. (2006) found that limitations in teachers’ ICT knowledge makes them feel anxious about using ICT in the classroom and thus not confident to use it in their teaching. Similarly, Becta (2004) concluded their study with the statement “many teachers who do not consider them to be well skilled in using ICT feel anxious about using it in front of a class of children who perhaps know more than they do”.

In Becta’s (2004) survey, many of the teacher respondents who identified their lack of confidence as a barrier reported being particularly afraid of entering the classroom with limited knowledge in the area of ICT with their students knowing that this was the case. It was argued that lack of confidence and experience with technology influence teachers’ motivation to use ICT in the classroom.

On the other hand, teachers who confidently use technologies in their classrooms understand the usefulness of ICT. (Cox, 1999a) found that teachers who have confidence in using ICT identify that technologies are helpful in their teaching and personal work and they need to extend their use further in the future.

Lack of teacher competence, another barrier, which is directly related to teacher confidence, is teachers’ competence in integrating ICT into pedagogical practice (Becta, 2004). In Australian research, (Newhouse, 2002) found that many teachers lacked the knowledge and skills to use computers and were not enthusiastic about the changes and integration of supplementary learning associated with bringing computers into their teaching practices.

Current research has shown that the level of this barrier differs from country to country. In the developing countries, research reported that teachers’ lack of technological competence is a main barrier to their acceptance and adoption of ICT (Pelgrum, 2001, Al-Oteawi, 2002). In Syria, for example, teachers’ lack of technological competence has been cited as the main barrier (Albirini, 2006: 373-398). Likewise, in Saudi Arabia, a lack of ICT skills is a serious obstacle to the integration of technologies into science education (Al-Alwani, 2005; Almohaissin, 2006). Empirica (2006) produced a report on the use of ICT in European schools. The data used for the report came from the Head Teachers and Classroom Teachers Survey carried out in 27 European countries. The findings show that teachers who do not use
computers in classrooms claim that “lack of skills” are a constraining factor preventing teachers from using ICT for teaching. Another worldwide survey conducted by Pelgrum (2001), of nationally representative samples of schools from 26 countries, found that teachers’ lack of knowledge and skills is a serious obstacle to using ICT in primary and secondary schools. The results of a study conducted by Balanskat et al. (2006: 50) have shown that “in Denmark ... many teachers still chose not to use ICT and media in teaching situations because of their lack of ICT skills rather than for pedagogical/didactics reasons” while “in the Netherlands ... teachers’ ICT knowledge and skills is not regarded any more as the main barrier to ICT use”. Hence, lack of teacher competence may be one of the strong barriers to the integration of technologies into education. It may also be one of the factors involved in resistance to change. Watson (1999:29) argued that integrating the new technologies into educational settings requires change and different teachers will handle this change differently. According to him, considering different teachers’ attitudes to change is important because teachers’ beliefs influence what they do in classrooms. Becta (2004) claims that one key area of teachers’ attitudes towards the use of technologies is their understanding of how these technologies will benefit their teaching and their students’ learning. Schoepp’s study (2005) found that, although teachers felt that there was more than enough technology available, they did not believe that they were being supported, guided, or rewarded in the integration of technology into their teaching. According to (Empirica,2006), teachers who are not using new technology such as computers in the classroom are still of the opinion that the use of ICT has no benefits or unclear benefits.

Resistance to change seems not to be a barrier itself instead; it is an indication that something is wrong. In other words, there are reasons why resistance to change occurs. According to (Earle, 2002), the change from a present level to a desired level of performance is facilitated by driving (encouraging) forces such as the power of new developments, rapid availability, creativity, Internet access, or ease of communication, while it is delayed by resisting (discouraging) forces such as lack of technical support, teacher expertise, or time for planning. In their study, Cox et al. (1999a) found that teachers are unlikely to use new technologies in their teaching if they see no need to change their professional practice. They showed that teachers who resist change are not rejecting the need for change but lack the necessary education in accepting the
changes and are given insufficient long-term opportunities to make sense of the new technologies for themselves.

Obviously, not all communities have this barrier. In Europe, for example (Korte 2007: 1-5) state that only very few teachers can be regarded as fundamentally opposing the use of ICT in the classroom. Only a fifth of European teachers believe that using computers in class does not have significant learning benefits for pupils.

2.27 Problems and Criticisms of CALL Instruction

According to Davies (2001:133) Educational technologists have promised that great advances and improvements in learning and instruction would occur on account of new and emerging technologies. Some of these promises have been partially fulfilled, but many have not. The last decade of the previous century witnessed the consolidation of new approaches to learning and instruction under the banner of constructivism. This so-called new learning paradigm was really not all that new, but renewed emphasis on learners and learning effectiveness can clearly be counted as gains resulting from this constructivist consolidation within educational research. At the same time, technology was not standing still. Network technologies were increasing bandwidth, software engineering was embracing object orientation, and wireless technologies were extending accessibility. It is clear that we can now do things to improve education that were not possible twenty years ago. However, the potential gains in learning and instruction have yet to be realized on a significant global scale. Critical challenges confront instructional designers and critical problems remain with regard to learning in and about complex domains. Moreover, organizational issues required translating advances in learning theory and educational technology into meaningful practice have yet to be addressed.

The current situation in the field of educational technology is one of technofiction. New educational technologies are usable only by a scarce cadre of technocrats. Constructivist approaches to learning have been oversimplified to such a degree that learning effectiveness has lost meaning. As a consequence, education is generally managed in an ad hoc manner that marginalizes the potential gains offered by new learning technologies. Educational program management must be integrally linked with technology and theory in order for significant progress in learning and instruction to occur on a global scale.
The impact of CALL in foreign language education has been modest. Frazad (1998: 45) claims several reasons can be attributed to this. The first is the limitations of the technology, both in its ability and availability. First of all, there is the problem with cost and the simple availability of technological resources such as the Internet (either non-existent as can be the case in many developing countries or lack of bandwidth, as can be the case just about anywhere).

However, the limitations that current computer technology can be problematic as well. While computer technology has improved greatly in the last three decades, demands placed on CALL have grown even more so. One major goal is to have computers with which students can have true, human-like interaction, esp. for speaking practice; however, the technology is far from that point. Not to mention that if the computer cannot evaluate a learner’s speech exactly, it is almost no use at all.

However, most of the problems that appear in the literature on CALL have more to do with teacher expectations and apprehensions about what computers can do for the language learner and teacher.

Reluctance on part of teachers can come from lack of understanding and even fear of technology. Often CALL is not implemented unless it is required even if training is offered to teachers. One reason for this is that from the 1960s to the 1980s, computer technology was limited mostly to sciences, creating a real and psychological distance for language teaching. Language teachers can be more comfortable with textbooks because it is what they are used to, and there is the idea that the use of computers threatens traditional literacy skills since such are heavily tied to books. These stem in part because there is a significant generation gap between teachers (many of whom did not grow up with computers) and students (many of whom did grow up with computers).

Also, teachers may resist because CALL activities can be more difficult to evaluate than more traditional exercises. For example, most Mexican teachers feel strongly that a completed fill-in textbook “proves” learning. While students may be motivated by exercises like branching stories, adventures, puzzles or logic, these activities provide little in the way of systematic evaluation of progress.

Even teachers who may otherwise see benefits to CALL may be put off by the time and effort needed to implement it well. However, “seductive” the power of computing systems may be like with the introduction of the audio language lab in the
1960s; those who simply expect results by purchasing expensive equipment are likely to be disappointed. To begin with, there are the simple matters of sorting through the numerous resources that exist and getting students ready to use computer resources. With Internet sites alone, it can be very difficult to know where to begin, and if students are unfamiliar with the resource to be used, the teacher must take time to teach it. Also, there is a lack of unified theoretical framework for designing and evaluating CALL systems as well as absence of conclusive empirical evidence for the pedagogical benefits of computers in language. Most teachers lack the time or training to create CALL-based assignments, leading to reliance on commercially-published sources, whether such are pedagogically sound or not.

However, the most crucial factor that can lead to the failure of CALL, or the use of any technology in language education is not the failure of the technology, but rather the failure to invest adequately in teacher training and the lack of imagination to take advantage of the technology's flexibility other serious problems are: Unlimited access to information and losing traditional skills.

### 2.28 Solutions to the Problems with ICT in Education

Some researchers have suggested the following solutions to the above problems and criticism of call:

1. There should be cooperation between the ministry of education and the government. They should establish special ICT companies and direct some of their income to enable all teachers and learners to obtain them.

2. The ministry of education should introduce ICT in all levels of education from basic education to postgraduate education and make it compulsory.

3. Directors of education should held continuous workshops in order to teach, culture and make teachers aware of the importance of technology and its usage in educational sector nowadays because it is inevitable.

4. There should be extensive training and well trained instructors to teach and train teachers how to use ICT adequately in education.

5. There should be extra time for lectures require integration of ICT inside the classrooms.
6- Every classroom should be well equipped with a desk embedded computer, internet connection, microphone, video, projector and remote controlled screen to be used by the teacher for multimedia presentation.

7- It would be also crucial to teach students how to learn by themselves and develop the capacity to practice self evaluation and enhance intrinsic motivation.

8- Teachers using call should be computer literate and trained continuously, ideally each foreign language department using call should hire an experienced computer scientist who could assist teachers that expert should demonstrate dual expertise both in education and learning technologies.

2.29 The Internet

The internet in simple terms is a network of the interlinked computer networking worldwide, which is accessible to the general public. These interconnected computers work by transmitting data through a special type of packet switching which is known as the IP or the internet protocol.

Internet is such a huge network of several different interlinked networks relating to the business, government, academic, and even smaller domestic networks, therefore internet is known as the network of all the other networks. These networks enable the internet to be used for various important functions which include the several means of communications like the file transfer, the online chat and even the sharing of the documents and web sites on the WWW, or the World Wide Web.

It is always mistaken to say that the internet and the World Wide Web are both the same terms, or are synonymous. Actually there is a very significant difference between the two which has to be clear to understand both the terms. The internet and World Wide Web are both the networks yet; the internet is the network of the several different computers which are connected through the linkage of the accessories like the copper wires, the fiber optics and even the latest wireless connections. However, the World Wide Web consists of the interlinked collection of the information and documents which are taken as the resource by the general public. These are then linked by the website URLs and the hyperlinks. Therefore World Wide Web is one of the services offered by the whole complicated and huge network of the internet.
The use of IP in the Internet is the integral part of the network, as they provide the services of the internet, through different layers organization through the IP data packets. There are other protocols that are the sub-classes of the IP itself, like the TCP, and the HTTP.

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

2.29.1 Internet in Education

Education these days has been the top priority for any family or individual person, and no doubt amongst the latest technologies to promote and maintain the education standards the internet comes first.

Internet is not only an access to websites, these days there is knowledge and information on every aspect of the educational world over the internet. The resources provided on various web pages are indeed very informative and useful for professionals and students related to every field of work. The only pre-requisite is the research over the internet for a specific educational topic, and then this information just needs to be filtered to gain the basic knowledge of what you are looking for. Therefore, there are true internet resources which deal with every individual's educational needs.

Internet has also provided the opportunity to study online. There are virtual universities set up, in which the students can take classes sitting on the computer seat opening the university's website video section according to the topic, and then study at home.

The most amazing thing about internet education is that the international education is no more a chance for only the wealthy and high profile family students because now via internet no matter if one can afford to study in top most universities, people can easily benefit from the international quality education and gain a respectable university degree sitting at home through the online educational courses provided by the world universities.

Internet education thus also provides the individuals to balance their{\textcolor{red}{\underline{time}}} according to their own needs, as there is no fixed time to attend the{\textcolor{red}{\underline{lecture}s}}. This also allows the poor class of people to work and study at the same time through internet education.

http://www.yourmaindomain.com/web-articles/what-is-networking.asp
2.29.2 Uses of Internet

Internet has been the most useful technology of the modern times which helps us not only in our daily lives, but also in our personal and professional lives developments. The internet helps us achieve this in several different ways.

For the students and educational purposes the internet is widely used to gather information so as to do the research or add to the knowledge of any sort of subject they have. Even the business personals and the professions like doctors, access the internet to filter the necessary information for their use. The internet is therefore the largest encyclopedia for everyone, in all age categories.

The internet has served to be more useful in maintaining contacts with friends and relatives who live abroad permanently. The easiest communication means like the internet chatting systems and the emails are the best and the most common for maintaining contacts with the people around the world.

Not to forget internet is useful in providing with most of the fun these days. May it be all the games, and networking conferences or the online movies, songs, dramas and quizzes, internet has provided the users with a great opportunity to eradicate the boredom from their lives.

Internet is also used to upgrade the internet and use special software to work on the projects and documentation works as the internet enables the user to download a myriad of different software for a variety of different purposes, making it much easier than buying the costly software CDs.

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

2.29.3 Role of Internet in the Modern Era

The modern era has been now extremely advanced and well-developed and the basic reason for this development is actually the launch of the internet and its applications which have provided the individuals with the easiest routine in their daily lives.

The modern era of the internet has made even the most tiring and physically demanding works on the finger tips. For example the shopping which is indeed a very complicated affair, can be easily done on the internet in the modern times, via e-commerce. This technology has emerged as one of the breakthrough uses of the internet.
The internet has changed the face of the lives of people, turning them completely into the modern and latest lifestyle with its developments. Today, instead of the newspapers, people use the internet to access the e-news which provides with not only the news papers completely but also various different news channels from all over the world. Even the live video news from the news channels can be accessed through the net, overpowering the other media, even including the television.

The modern developments through the internet have also widened the opportunities for business and professional developments. The need to advertise the products of any business companies are no more a major problem, as the companies can develop their own website and information regarding the products to convince the customers with their works.

There are also several open opportunities of making money through the internet, with the most common profession being the web site development with the increasing demand of web-development personalens used to develop the websites to promote their business and companies.

Internet is indeed the major advancement in the modern era, enabling the common people to sit at home and rule the world

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

2.29.4 Using the Internet for Teaching English

The Internet is very useful for teaching English. Teachers can use it for gathering information for their classes, including teaching plans and materials for classroom use. They can subscribe to mailing lists related to TEFL/TESL, and exchange information with other teachers. They can subscribe to electronic journals or newsletters either by e-mail or using the World Wide Web and keep up with new trends of English teaching, finding new or interesting publications. They can consult with publishers on teaching materials.

There is a wide variety of ways that the Internet can be used in the classroom. Teachers can organize "key pal" exchanges, and students can exchange letters with their key pals and have the experience of corresponding with people from all over the world. Students can use a mailing list, IECC-Survey, to conduct surveys for class projects. They can subscribe to student lists to exchange ideas with other students around the world. There are many learning materials on the World Wide Web, and
students can use them to study English. They can read news in English using either by
e-mail or on the World Wide Web. Students' newspapers or newsletters can be posted
on the World Wide Web. Using the Internet for English teaching is new, and there are
few books and papers on the subject, though there are many resources on the Internet.
We need to explore ways to find materials on the Internet and experiment with using
them to improve our teaching.

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

2.29.5 The Internet for Teachers

Teachers can use the Internet for gathering information. For example, Martin Luther
King is the topic for a class, a teacher can use search engines:

1. To look for information related to MLK. There are many sites that have information
about him, including ones with his photos, information about his life, and the texts of
his speeches. There is even a web page made to teach about the holiday .
http://www.aec.ukans.edu/LEO/holidays/kingday.html) which has materials for
teaching and quizzes. The largest mailing list, TESL-L, has a huge archives, and there
is a file [HOLIDAYS BIRTHDAYS] which includes a reading passage on King's
birthday with some exercises. If one needs additional teaching/learning materials for
the class, he can find a quite large number of materials on the web. There is a huge
amount of material for listening, reading, writing, grammar, vocabulary, and culture.

2. One can select appro
priate materials for your students' interests and level of English
proficiency. There are some teaching plans which include materials may help him to
teach his students.

3. It is a good idea to go over those materials when having free time, and classify the
ones that have interest according to their topic or how one might use them. Since there
is a huge amount of material available on the web, there should be many useful
materials for the students, if one looked for. Useful information for classes one obtains
on the World Wide Web is easy to present to the class, if one has a computer which
can access the World Wide Web and a large monitor or device to show it. The World
Wide Web makes use of multiple media, and many resources are very realistic,
colorful and attractive.

4. One can read descriptions of those lists and tries subscribing the lists he thinks
might be useful.
By subscribing to those lists, one can get useful information on conferences, new products, materials, etc., but if one really wants to benefit from a list, he has to participate in discussions. Ask questions, if he wants information. Bring up issues that concern him, and find out what other people think. If he just waits until something useful drops into his lap, he may wait a long time. React to what other list members post, and answer their questions if you have the information. Also if he subscribes big lists or many lists, we strongly suggest setting them to digest mode, so that he receives only one file for each list each day with all the messages for that day, rather than many individual messages.

5. Many of them carry useful articles, announcements, etc. one can also contribute his articles to share his experiences, research findings, lesson plans, teaching materials, etc., with other teachers of English. Other web sites. One can visit web sites of professional organizations and check on their activities and publications. They have conferences, workshops, publications, etc., for language teachers.

6. Many foreign publishers, particularly American and British publishers, distributors, and large book shops have web pages, and one can find out about their products and get their e-mail addresses. One can order their materials and ask questions by e-mail.

2.29.6 The Internet for Students

Teachers can arrange key pal experiences for their students, and the students can exchange e-mail with key pals individually or as a group, like corresponding with pen pals. IECC is a good mailing list to find key pals for K-12, and IECC-HE is good for university students. There are of course other places teachers or students can find key pals.

Students can subscribe IECC-Survey to conduct their own surveys for class projects. If they are interested in wedding customs in certain countries, they can make questionnaire to ask various questions about wedding customs and post it to the list. They will probably receive some answers, and they can use them as resources for their projects.

(http://ilc2.doshisha.ac.jp/users/kkitao/online/www/referenc.htm#sites)
2.29.7 Reference Materials

Students can use the Internet as a resource for their projects. That is, the Internet can provide access to such resources as dictionaries or encyclopedias. Students can also find these courses and various reference materials for writing papers.  
(http://ilc2.doshisha.ac.jp/users/kkitao/online/www/referenc.htm#sites)

2.29.8 Student Lists and Kid link

Students can subscribe to student lists. There are different lists, and students can participate in general discussions for low and high level English students, or discussions on business, economics, current events, movies, music, sports, science, technology, and learning English. One can give students assignments to obtain certain information on lists, and students can bring the information back to the class. Just telling students to subscribe to these lists may not work well. Student Lists are for college students, but there is Kid link, which is for teenagers. Teachers need to take greater care of orientations, since students are younger and their English proficiency is lower. Kid link is at http://www.kidlink.org/.

2.29.9 Materials

There are many learning materials to help students to study English. Some of them are just traditional drill types, but some are very creative and attractive, so that students will have higher motivation to learn English. Of course, you can make your own materials and post them on the web. Simple web pages are easy to make, but complicated and artistic web pages are not only difficult but also time-consuming to make. They are some collections of links at  
http://ilc2.doshisha.ac.jp/users/kkitao/online/www/student.htm#material

2.29.10 Journals and Newsletters

Students can read journals or newsletters for students of English. Many of them have readings and fun activities to do as well as useful information. It is worth investigating these and making plans for what your students read, and how you can use the materials for your class.
2.29.11 News

Students can get news from various sources on the Internet, one source is of news by e-mail is Daily Brief, a daily summary of U.S. and world news. The Daily Brief is a 2-3 page news summary sent out by e-mail every weekday morning. Included in the Brief are summaries of major news events that occurred during the 24 hours prior to distribution. To subscribe to the Daily Brief, one can send an empty e-mail message to incinc@tiac.net with "db" (without quotation marks) in the subject line. Teaching the English Newspaper Effectively. It is possible to read hundreds of newspapers in English around the world through. One can read not only major newspapers around the world, but also countless minor newspapers as well.

"News Sources" (http://ilc2.doshisha.ac.jp/users/kkitao/online/ www/referenc.htm#mass)

2.29.12 Web Pages

A simple web page is fairly easy to make. It can be accessed by anyone in the world. Thus, it is a good device to publicize information, for example, making newsletters for students, local people or even people from all over the world. It is shown how to make simple web pages. They have been used to present students' compositions to show to the class homework, reading material and exercises http://ilc2.doshisha.ac.jp/users/kkitao/online/www/kitao/int-www.htm

2.30 The Advantages & Disadvantages of the Internet

The Internet or the World Wide Web is indeed a wonderful and amazing addition in our lives. The Internet can be known as a kind of global meeting place where people from all parts of the world can come together. It is a service available on the computer, through which everything under the sun is now at the fingertips of anyone who has access to the Internet. To get ‘online’, means to connect to the Internet, you need to have:

- A Computer: Computer equipment is a sizeable investment and thus one should select a computer carefully. Before buying a computer, one has to understand his needs and then choose one accordingly. it should come with a warranty and that after sales service is available in case you need it.

- Internet Service Provider: This is the software that will be required to get online. One can now choose from a dial-up service or 24-hour broadband
services. This is the service that will help to connect to the Internet and start surfing experiences.

2.30.1 Advantages of the Internet

The Internet provides opportunities galore, and can be used for a variety of things. Some of the things that you can do via the Internet are:

- **E-mail:** E-mail is an online correspondence system. With e-mail one can send and receive instant electronic messages, which work like writing letters. Messages are delivered instantly to people anywhere in the world, unlike traditional mail that takes a lot of time.

- **Access Information:** The Internet is a virtual treasure trove of information. Any kind of information on any topic under the sun is available on the Internet. The ‘search engines’ on the Internet can help you to find data on any subject that you need.

- **Shopping:** Along with getting information on the Internet, you can also shop online. There are many online stores and sites that can be used to look for products as well as buy them using your credit card. You do not need to leave your house and can do all your shopping from the convenience of your home.

- **Online Chat:** There are many ‘chat rooms’ on the web that can be accessed to meet new people, make new friends, as well as to stay in touch with old friends.

- **Downloading Software:** This is one of the most happening and fun things to do via the Internet. You can download innumerable, games, music, videos, movies, and a host of other entertainment software from the Internet, most of which are free.

2.30.2 Disadvantages of the Internet

There are certain cons and dangers relating to the use of Internet that can be summarized as:

- **Personal Information:** If you use the Internet, your personal information such as your name, address, etc. can be accessed by other people. If you use a credit
card to shop online, then your credit card information can also be ‘stolen’ which could be akin to giving someone a blank check.

- Pornography: This is a very serious issue concerning the Internet, especially when it comes to young children. There are thousands of pornographic sites on the Internet that can be easily found and can be a detriment to letting children use the Internet.

- Spamming: This refers to sending unsolicited e-mails in bulk, which serve no purpose and unnecessarily clog up the entire system.

Such illegal activities are frustrating for all Internet users, and so instead of just ignoring it, we should make an effort to try and stop these activities so that using the Internet can become that much safer. It is said, the advantages of the Internet far outweigh the disadvantages, and millions of people each day benefit from using the Internet for work and for pleasure.


2.31 Previous Studies

Researchers have conducted several educational studies in the field of implementation of the educational technology in the teaching process; some of those studies have been carried out in the foreign countries and the others in the Arab world. Among the most important studies which have generally contributed in this field:


The study aimed at investigating the problems, which face schools in the field of using educational media and the constraints that impeded its usage. Also recognizing the trends of the teachers concerning the educational mean. The researcher has used the experimental methodology. This study has come out with the most important following results: The need of more concern given by the competent bodies towards using educational media by the teachers and the emphases of the teachers on the impact of using educational media in making the teaching process a successful.
The difference between the above study and this study, is that the above study aimed at investigating the problems, which face schools in the field of using educational media and Constance that imbedded its usage whereas, this study aimed at investigating the problems that face EFL teachers (English foreign language teachers) when using ICT information communication technology in English language teaching.


The aim of the study was high lighting using of educational media, in the educational process, which clarifying the difference between the educational media and technology of education using, in that concern the descriptive methodology. Among the results of that study are: Using audio and visual mean, will provide more opportunities in attaining teaching skills, through shortening the time duration in repeating and replicating for education positions. One of the most important recommendations was the work to minimize the cost of the management of the educational technology programme and the production integration of the educational media among the specialized centre.

The difference between the above study and this study is that the above study amid at highlighting using of educational media, in the educational process, whereas, the present study highlighting the importance of using ICT (Information communication technology to English language teaching).

Tariq Ahmed Gasm Al Seed, (2001) "The impact of using of the technology of sound recording on the academic learning pupils of Grade Nine of the basic education". M.Ed thesis (unpublished) University of Yemen, Faculty of Language Arts and Education.

The objectives of the study were: Identification of the impact made by the technology of sound recording on the academic learning for pupils of Grade Nine of basic education (Grade One in secondary school). Also the possibility of setting up a model of how can you design a companying lesson, through usage of the technology of sound recording (the recorder). In this respect, the researcher used the experimental methodology. The main results of that study were: Usage of sound recording, lead to positive results in the student tendency to learn the details of the curriculum. Besides
saving much time and effort which have been wasted in the traditional educational methods.

The similarity between the above study and this study, is that both of them recommended the necessity of establishing laboratories of languages and appointing technicians, to operate and maintain the educational media.

Abdal Moniem Hassan Babiker, (2005) "The impact of the educational media, in the promotion of scientific thinking skills, in physics with reference to the student of secondary stage in Omdurman Province" thesis (published), faculty of Education, University of Khartoum.

The objectives of the study were represented in: Knowing of the conception of scientific thinking and its skills. Besides experiencing investigations on the effectiveness of educational media, in promoting those skills with reference to, secondary stage in Sudan compared with the usage of the traditional method currently followed. The most important results of the thesis were: Using educational media in teaching the scientific subjects has proved its effectiveness in promotion of scientific thought skills, for the students of secondary stage in Sudan, compared with the use of the traditional method in teaching. Also adopting no programmes based on using the contemporary educational media, in training the teachers of scientific subjects in Sudanese secondary schools, were found to be of the most important reasons, which led to deterioration of educational results.

The difference between the above study, and this study, is that the objective of the above study is investigating the effectiveness of educational media, while the objective of this study is investigating the problems which face EFL teachers in using these media.
CHAPTER THREE
METHODOLOGY OF THE STUDY

3.0 Introduction

The current chapter focuses on the methods used in the study as well as presenting the subject being studied, the instruments and the procedures involved in eliciting the research data. The methodology adopted in the study includes experimental analytical methods. The tools used to collect data include questionnaire for EFL teachers and an interview with some ICT technicians and experts. The data collected is classified and analyzed statistically in terms of tables to be described.

3.1 Study Design

This study aims at investigating the problems that face Sudanese EFL teachers when using ICT in English language teaching at university level specifically, represented by Gazira university and Sudan university for science and technology. The data have been collected by two tools questionnaire and an interview with some ICT experts and technicians. Then statistically analyzed in forms of tables and results are used for generalization.

3.2 Population of the Study

The population chosen for this study represents Sudanese EFL teachers at University level. They are enrolled in Gezira university and Sudan university for science and technology.

3.2.1 Sample of the Study

The sample of this study consisted of 50 Sudanese EFL teachers at the department of English language from Gezira University and Sudan University for Science and Technology and (20) ICT experts and technicians from UNESCO institute and the Academy of Health Science who teach ICT as a major specialization.
3.3 Instruments

The data of this research has been elicited through two instruments. Questionnaire for EFL teachers at University level and an interview with some ICT experts and technicians who are specialized in the field of ICT.

3.4 Tools of Data Collection

There are two procedures which were followed in collecting the data for this study. They were questionnaire for EFL teachers and an interview with some ICT technicians. The information was collected through a self administered questionnaire distributed personally to the subject of this study. Also the researcher held the interview with the technicians.

3.4.1 The Questionnaire for EFL Teachers

A questionnaire is designed for EFL teachers at university level to collect information about using ICT (Information and communication technology) in English language teaching at the faculties sample of this study (Gezira University and Sudan University for Science and technology). To elicit teachers opinions and attitudes towards using these new technologies in English language teaching, the questionnaire is also given to some EFL experts for validation, then it is distributed to EFL teachers at University level after making amendments suggested by experts. Teachers' responses to the statements of the questionnaire were statistically treated and analyzed.

3.4.2 Interview

This study concentrates mainly on using ICT in ELT teaching at university level. Teachers and technicians are chief manger who influence and control these two factors (ICT) and (ELT), therefore the researcher has interviewed some ICT technicians because they are specialized and know the surroundings of ICT field. They were asked about different related points in order to know their opinions attitudes, suggestions and advice will be of great help.
3.4.3 Validity and Reliability of the Questionnaire

i. Reliability

Reliability is a term that used when the assessment tool has the ability to perform accurately its intended purpose when it is applied again over time. The basic idea of reliability as stated by Huck and Cornier (1996:76) is summed up by the world consistency. The same thought on reliability has also granted before by Black and Champion (1976: 232) as "ability to measure consistently". The consistency here, is simply used to mean that the same questionnaire gives same outcome when it is repeated again, so it is a consistency of the results. A number of methods have been adopted in measuring the reliability, the researcher uses the “Split-half reliability” method. First, the common measure of correlation “Pearson’s Correlation Coefficient” is applied with its following formula:

\[ R_{xy} = \frac{N \sum X Y - \sum X \sum Y}{\sqrt{\left[ N \sum X^2 - (\sum X)^2 \right] \left[ N \sum Y^2 - (\sum Y)^2 \right]}} \]

Where
- \( r \) = correlation
- \( R \) = Reliability of the test
- \( N \) = number of all items in the test
- \( X \) = odd scores
- \( Y \) = even scores
- \( \sum \) = sum

\[ R = \frac{2r}{1+r} \]

\[ \text{Val} = \sqrt{\text{reliability}} \]

Correlation = 0.75

\[ R = \frac{2(0.75)}{1+0.75} = \frac{1.5}{1.75} \]

Reliability = 0.86
Based on this statistical result, it is clear that the questionnaire has adequate reliability.

**ii Validity**

While reliability refers to stability of measured results in other repeated application, validity is used to mean the degree to which a questionnaire reflects reality. According to Joppe (2000: 1) validity determines "whether the research truly measures that which it was intended to measure or how truthful the research results are".

This study uses a questionnaire to investigate attitudes and motivation. The items it contains are designed to assess directly these two variables, such kind of appropriateness is known as 'content validity'. Content validity cannot be measured statistically, rather, it was created by the researcher and approved by referees who adjusted the questionnaire.

The questionnaire, as mentioned later, is classified into two main sections with different subdivided groups that related to the independent variables. The questions in these groups are in a harmonized relationship to each other. Moreover, each group corresponds to the domain it belongs to, therefore, the questionnaire is 'internally valid'. Since the questions are designed to obtain results to be generalized to all population and other related populations within the same area, it is easy to declare that this questionnaire is 'externally valid'.

The implementation of validity based on the presence of reliability; that is, if a questionnaire is unreliable, it is not possible to proof its validity. "Reliability analysis is often viewed as a first-step in the test validation process" (Wells and Wollack, 2003: .“Spearman-Brown” constitute a formula which is applied (based on the calculation of reliability) to calculate the validity (v), it is simply:

\[
v = \sqrt{r} = \sqrt{0.86} = 0.88
\]

This statistical result reflects an ideal questionnaire validity.
4.0 Introduction

This chapter is intended to present, analyze and discuss the data which has been collected by means of the questionnaire. It is also intended to test the research hypotheses against the research findings. It includes the analysis of the teachers’ questionnaire, testing the hypotheses of the study and the answer to the research questions. The data was analyzed statistically by SPSS program (statistical Package for social science).

4.1 Results of the Questionnaire

The questionnaire consisted of thirty-five questions. They were designed in a way that can help to find out the real problems facing the EFL teachers. Fifty EFL university teachers answered the questionnaire. The results are shown in the following tables:

Q1: Lack of access to resources of ICTs such as computer and internet.

Table (4.1) Lack of access to resources of ICTs such as computer and internet.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>8</td>
<td>16.0</td>
</tr>
<tr>
<td>agree</td>
<td>12</td>
<td>24.0</td>
</tr>
<tr>
<td>neutral</td>
<td>27</td>
<td>54.0</td>
</tr>
<tr>
<td>disagree</td>
<td>3</td>
<td>6.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>
From the above table it is noticed that (3%) of the teachers disagree that there is a lack of access to resources of ICTs such as computer and internet where as (40%) of them agree. This means that the majority of the teachers agree that there is a lack of access to resources of ICTs such as computer and internet.

**Q2:** Operating ICTs poses a problem for most ELT teachers in Sudan.

**Table (4.2) Operating ICTs poses a problem for most ELT teachers in Sudan.**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>agree</td>
<td>28</td>
<td>56%</td>
</tr>
<tr>
<td>neutral</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Figure (4.2) Operating ICTs is poses a problem for most ELT teachers in Sudan.

The above table indicates that (44%) of the teachers disagree that operating ICTs is poses a problem for most ELT teachers in Sudan, while (62%) of them agree. This emphasizes that the majority of the teachers agree that operating ICTs is a problem for most ELT teachers in Sudan. This may be due to the fact that, most of ELT teachers are not professional in the field of ICT.

Q3: Most teachers are confused when using ICTs in education.

Table (4.3) Teachers confusion in using ICTs.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>agree</td>
<td>31</td>
<td>62%</td>
</tr>
<tr>
<td>neutral</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>disagree</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The above table shows that (14%) of the teachers disagree, while (68%) of them agree that most teachers are confused when using ICTs in education; this is because there are not enough teachers training centers and most of them are not used to using ICTs in education therefore, they are confused when using it in education.

**Q4: ICTs are not made available in all schools in Sudan.**

**Table (4.4) Availability of ICTs in Sudan.**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>9</td>
</tr>
<tr>
<td>Agree</td>
<td>40</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>
Figure (4.4) Availability of ICTs in Sudan.

(2%) only of the teachers disagree that ICTs are not made available in all schools in Sudan while, (98%) of them agree that ICTs are not made available in all schools in Sudan. This certifies that most teachers agree that ICTs are not made available in all schools in Sudan except in few private schools in the capital and big cities in Sudan and this is due to financial problems.

Q5: Many schools in the country lack very basic ICTs.

Table (4.5) Lack of basic ICTs in the country.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>Agree</td>
<td>27</td>
<td>54%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
From the above table it is clear that, (2%) only of the teachers are neutral whereas (98%) of them agree that many schools in the country lack very basic ICTs particularly the schools in remote places there is no even one computer.

Q6: Many universities in the country lack basic ICTs.

Table (4.6) Lack of basic ICTs in the Sudanese universities

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>agree</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>neutral</td>
<td>39</td>
<td>78%</td>
</tr>
<tr>
<td>disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.6) Lack of basic ICTs in the Sudanese universities

It is clear from the above diagram that (18%) of the teachers agree that many universities in the country lack basic ICTs while, (78%) of them are neutral which means the majority of the teachers are not sure whether basic ICTs is existed in many universities in the country or not.

Q7: Students do not know how to operate ICTs tools in the class.

Table (4.7) Operating ICTs by Students in the class.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>agree</td>
<td>24</td>
<td>48%</td>
</tr>
<tr>
<td>neutral</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>extremely disagree</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>disagree</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The above table indicates that (34%) of the teachers disagree while (50%) of them agree that students do not how to operate ICTs tools in the class. This is because they have no previous training on using and operating ICTs tools inside or outside the classroom.

**Q8:** Using ICTs solves the problem of the crowded classes in schools and universities

**Table (4.8) Using ICTs in solving the problem of the crowded classes**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>agree</td>
<td>23</td>
<td>46%</td>
</tr>
<tr>
<td>neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>disagree</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.8) Using ICTs in solving the problem of the crowded classes

According to the statistical treatment in the preceding table, agree scores the highest percent (90%) while (8%) of them disagree. This means that the highest number of the teachers agree that using ICTs really solves the problem of the crowded classes in schools and universities because it gives a wide chance to all students to see, hear and participate well in the lectures.

Q9: There are enough trained instructors to teach ICTs courses in Sudan.

Table (4.9): Sufficiency of ICT instructors in Sudan.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>agree</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>neutral</td>
<td>15</td>
<td>30%</td>
</tr>
<tr>
<td>extremely disagree</td>
<td>13</td>
<td>26%</td>
</tr>
<tr>
<td>disagree</td>
<td>15</td>
<td>30%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
With reference to the results obtained in the above table (14%) of the teachers agree that there are enough trained instructors to teach ICT courses in schools while (55%) of them disagree which certifies that really there are not enough trained instructors to teach ICT Courses in Sudan.

Q10: Teacher training programmes are not to blame for the failure of using ICTs in ELT

Table (4.10): The responsibility of teacher training programmes in ICT failure

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>agree</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>extremely disagree</td>
<td>23</td>
<td>46%</td>
</tr>
<tr>
<td>disagree</td>
<td>20</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The responsibility of teacher training programmes in ICT failure

The statistical analysis to the above statement indicates that (14%) of the teachers agree where as, (86%) of them disagree that teacher training programmes are not to blame for the failure of using ICTs in ELT which means that teachers training programmes are to blame. It might be ICTs are not available or are not quite enough for teaching a large number of teachers.

Q11: Most universities are not equipped with ICTs.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>21</td>
<td>42%</td>
</tr>
<tr>
<td>Agree</td>
<td>15</td>
<td>30%</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>24%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
According to statistical treatment in the preceding table, it is clear that only (4%) of the teachers disagree where as, (72%) of them agree that most universities are not equipped with ICTs. This may be due to the financial problems and the lack of ICTs tools except in some private universities.

Q12: There are no trained technicians to operate and maintain ICTs tools in schools.

Table (4.12): Availability of trained technicians for operating ICTs in schools

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>agree</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
According to the above table only (4%) of the teachers disagree that there are no trained technicians to operate and maintain ICTs tools in schools. While the highest percent (94%) of the teachers agree that there are no trained technicians to operate and maintain ICTs tools in schools. This is due to the fact that the base construction t of ICT is not well built in Sudan because we are one of the developing countries.

Q13: The internet has great influence on lesson planning and preparations.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>Agree</td>
<td>20</td>
<td>40%</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.13): The influence of internet on lesson planning

It is clear from the above table that (6%) of the teachers disagree, where as (74%) agree. That means the highest number of the teachers agree that, the internet has great influence on lessons planning and preparations because the internet has a variety of materials which enable teachers to choose the suitable ones for their lessons.

Q14: The internet helps a lot of students in scientific researches.

Table (4.14): The role of internet in students’ scientific researches.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>extremely agree</td>
<td>40</td>
<td>80%</td>
</tr>
<tr>
<td>agree</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>neutral</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.14): The role of internet in students’ scientific researches.

As it is seen in the above table (4%) of the teachers disagree that the internet helps a lot of students in scientific researches, where as (92%) the highest number of them agree that the internet helps a lot, of students in scientific researches because all choices are available and do not cost much money, time or effort. Moreover, students can search books magazines, references and libraries via internet.

Q15: Using ICTs in education solves various severe educational problems.

Table (4.15): The effect of ICTs on solving severe educational problems.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>Agree</td>
<td>22</td>
<td>44%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.15): The effect of ICTs on solving severe educational problems. From the above table it is clear that (10%) of the teachers disagree, whereas, (84%) of them agree that means the majority of the teachers agree that using ICTs in education solves various severe educational problems for example using (SPSS) programmes for analysis without the help of computer it will be very difficult to solve such problems.

Q16: Most people think that the computer can replace the teacher.

Table (4.16): Computer replacing the teacher.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>21</td>
</tr>
<tr>
<td>Disagree</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>
From the above table (6%) only of the teachers agree that the computer can replace the teacher where as (70%) the highest number of the teachers disagree that the computer can replace the teacher. This emphasizes that computer can never replace the teacher because the teacher's role in the learning process becomes even more critical. What can and should change is the kind of role that the teacher plays, the teacher becomes co-learner and discovers even new things with his students.

Q17: Most teachers depend on traditional teaching materials even in the age of advanced technologies.

**Table (4.17): Teachers’ dependence on traditional materials**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>46%</td>
</tr>
<tr>
<td>Neutral</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Figure (4.17): Teachers' dependence on traditional materials

The above table indicates that (14%) of the teachers disagree that most teachers depend on traditional teaching materials (74%) of them agree, so the statistical results indicate that the majority of the teachers depend on traditional teaching materials because they are easy to use whereas, ICTs costs them much time and effort and some of them do not know even how to use it.

Q18: Using ICTs activities requires more time and effort.

Table (4.18): Time and effort required for ICTs activities.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Agree</td>
<td>24</td>
<td>48%</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>13</td>
<td>26%</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
According to the statistical treatment in the preceding table it is clear that (38%) of the teachers disagree whereas, (54%) agree. This means the majority of them agree that using ICTs activities require more time and effort. However, they only believe that because they are not professional on it and they do not know how to use it properly.

Q19: Using ICTs in ELT increases students’ participation in EFL classes.

Table (4.19): The Role of ICTs in increasing students’ participation

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Agree</td>
<td>24</td>
<td>48%</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>13</td>
<td>26%</td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The above table shows that (8%) only of the teachers disagree whereas, (82%) agree which means the highest percent agree that using ICTs in EFL classes increases students participation because it attracts and brings kind of interaction inside the classrooms. Moreover, it is very easy and useful.

Q20: Using ICTs leads to learner's autonomy.

**Table (4.20): ICTs and learner's autonomy.**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>23</td>
<td>46%</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.20): ICTs and learner's autonomy.

The statistical analysis of the above table shows that (2%) only of the teachers disagree while the highest percent (96%) of them agree that using ICTs leads to learner autonomy because when they are able to use ICTs alone they depend on themselves. This builds their personalities and makes them feel highly self confident of themselves.

Q21: There is no problem with financial cost and availability of hardware and software.

Table (4.21): Availability of ICTs hardware and software

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>36%</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>Disagree</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
(38%) of the teachers agree, whereas the majority (52%) of them disagree that there is no problem with financial cost and availability of hardware and software, which emphasizes that there is really a problem with financial cost and availability of hardware and software because we are not in advanced country where ICTs is available everywhere.

Q22: Most teachers have positive reaction to introducing technology in EFL.

Table (4.22): Teachers' reaction towards introducing technology in EFL.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>6</td>
<td>12%</td>
</tr>
<tr>
<td>Agree</td>
<td>29</td>
<td>58%</td>
</tr>
<tr>
<td>Neutral</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>Extremely disagree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.22): Teachers' reaction towards introducing technology in EFL.
The above table indicates that (12%) only of the teachers disagree while (70%) of them agree that most teachers have positive reaction to introducing technology in EFL because teachers remain suffering from using traditional materials. So, they are really in need of using advanced technology so as to be coping with the outside world.

Q23: The internet provides a lot of resources for teachers.

Table (4.23): The internet as a source of resources for teachers.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>40</td>
<td>80.0</td>
</tr>
<tr>
<td>Agree</td>
<td>10</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
According to the above table (100%) a full percent is given to this statement which emphasizes that with out even a doubt the internet provides a lot of resources for teachers because it is the most available device of all ICTs and the strongest one which can provide various materials.

**Q24: Using ICTs in education is very important to every teacher.**

**Table (4.24): Importance of using ICTs in education**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>33</td>
<td>66.0</td>
</tr>
<tr>
<td>Agree</td>
<td>17</td>
<td>34.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.24): Importance of using ICTs in education

The above table shows that (100%) a full percent is given to the answer of this statement which means all teachers agree that using ICTs in education is very important to every teacher because, using ICTs in education is really very important not only to every teacher but also to everyone because we are now in the age of information technology particularly teachers have to be copying with the least and up-to-date information in their field.

Q25: Using ICTs in ELT increases EFL learners' motivation for more and better learning.

Table (4.25): The Role ICTs in increasing learners' motivation

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>16</td>
<td>32%</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Neutral</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.25): The Role ICTs in increasing learners' motivation

According to the above table (4%) only of the teachers disagree, where as (82%) the majority of them agree that using ICTs in ELT increases learners' motivation for more and better learning because it has more attraction and interaction for using sound, pictures and movement therefore, it motivates learners for more and better learning because they remain sitting on the computer for a longer time.

Q26: ICTs will be come the most dominant tool of teaching and learning in Sudan.

Table (4.26): The dominance of Internet in Sudanese teaching

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Disagree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.26): The dominance of Internet in Sudanese teaching

The statistical analysis of the above table indicates that (50%) of the teachers are neutral and (50%) of them disagree. That means the most of them either are neutral or disagree that ICTs will become the most dominant tools of teaching and learning because we are in a developing country, we use ICTs but not to the extent that it becomes the most dominant tool but in the future may be.

Q27: All learners in Sudan are able to deal with ICTs in EFL classes.

Table (4.27): The ability of Sudanese learners to deal with ICTs in EFL classes.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Disagree</td>
<td>43</td>
<td>86%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.27): The ability of Sudanese learners to deal with ICTs in EFL classes.

According to the above table (14%) of the teachers are neutral, where as, (86%) of them disagree with this statement which means not all learners, but only of them are able to deal with ICTs in ELT classes in Sudan because learners need some one to teach them.

Q28: The internet is over powering all teaching materials in Sudanese universities.

Table (4.28): The dominance of internet all tools of teaching in Sudanese Universities.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>Neutral</td>
<td>35</td>
<td>70%</td>
</tr>
<tr>
<td>Disagree</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
From the above table the majority of the teachers (70%) are neutral and (20%) disagree. Which means that the majority of the teachers are not sure whether the internet is overpowering or the other ICTs tools like overhead projector, TV, radio and recorder.

Q29: Most Sudanese EFL teachers are not aware of the importance of using ICTs in EFL classes.

Table (4.29): The awareness of Sudanese teachers of the importance of ICTs in classes.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Agree</td>
<td>39</td>
<td>78%</td>
</tr>
<tr>
<td>Neutral</td>
<td>9</td>
<td>18%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.29): The awareness of Sudanese teachers of the importance of ICTs in classes.

The above table indicates that (13%) of the teachers are neutral, while (82%) of them agree that most Sudanese EFL teachers are not aware of the importance of using ICTs in EFL classes because ICTs is not introduced adequately into Sudanese curricula from the beginning. If it is introduced it will become compulsory and all teachers and students will be aware of its importance.

Q30: ICTs helps a lot in solving educational problems

Table (4.30): The role of ICTs in solving educational problems

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
**Figure (4.30): The role of ICTs in solving educational problems**

According to the above table (100%) a full percent is given to the option agree; that means all teachers agree that ICTs helps a lot in solving educational problems. This emphasizes that ICT really helps in solving educational problems because there are materials which are not available but the internet can present substitutions for them.

**Q31: Teacher training plays a great role on using ICTs adequately in EFL classrooms.**

**Table (4.31): The effect of teacher training on using ICTs adequately in EFL classrooms.**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>34</td>
<td>68%</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure (4.31): The effect of teacher training on using ICTs adequately in EFL classrooms.

It is clear from the above table that (2%) only of the teachers disagree to this statement, while (96%) of them agree. This means the highest percent agree to this statement which emphasizes that teacher training really plays a great and very important role in using ICTs adequately because teachers reflect their ideas and experiences through using ICTs.

Q32: Sudanese EFL teachers encounter many problems when using ICTs in classrooms at university level.

Table (4.32): The problems facing Sudanese teachers in using ICTs at classrooms

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>35</td>
</tr>
<tr>
<td>Neutral</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>
Figure (4.32): The problems facing Sudanese teachers in using ICTs at classrooms

According to the statistical treatment in the preceding table, agree scores the highest percent (80%) whereas, (20%) of the teachers are neutral which emphasizes that Sudanese EFL teachers encounter many problems when using ICTs in classrooms because most of them are not professional in the field of ICTs and they do not have enough training courses on it.

Q33: Introducing ICT in educational curricula raises teachers and learners awareness in dealing with advanced technologies.

Table (4.33): Involving ICT in education and teachers’ and learners’ awareness.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>36</td>
<td>72%</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>28%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The above table indicates that (100%) percent of the teachers, agree that introducing ICT in educational curricula raises teachers and learners' awareness in dealing with advanced technologies because it will be compulsory if it is introduced in educational curricula and all teachers and learners will be accustomed and have more training and practice on it. Thus their awareness will be increased.

Q34: All teachers should undertake advanced certificate courses in ICTs.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>23</td>
<td>46%</td>
</tr>
<tr>
<td>Agree</td>
<td>27</td>
<td>54%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Figure (4.34): Getting advanced certificate courses in ICTs.

The above table shows that (100%) of the teachers agree that all teachers should undertake advanced certificate courses in ICTs because they are in real need of these training courses since they are not professional on it. They give them great help and make using ICTs very easy for them.

Q35: A certificate in ICTs should be a prerequisite in recruiting teachers.

Table (4.35): The ICTs certificate as a prior required condition.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Agree</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>
The above table shows that (100%) of the teachers agree. That means all teachers agree that recruiting teachers should be asked for a certificate in ICTs before starting to teach because if they are asked of this certificate they will be compelled to study so many ICTs courses which enable and help them a lot in dealing with these new advanced tools in their teaching.

4.2 The Answers to the Research Questions

1- To what extent are Sudanese EFL teachers aware of the importance of using ICTs in EFL classes?

According to the answer of the questionnaire table (4.29) (82%) of the teachers answers indicate that most Sudanese EFL teachers are not aware of the importance of using ICTs in classes, because ICT is not introduced adequately into Sudanese curricula.

2- What is the role of ICT in solving the educational problems?

On the bases of the data collected and results obtained in table (4.30) (100%) agree. That means all teachers with out any doubt agree that ICT helps a lot in solving educational problems.

3- How can teacher training affect using ICTs in EFL classes adequately?

With reference to table (4.31) the result obtained indicate that teachers training plays a great role in using ICT adequately in EFL classes.
4- Why Sudanese EFL teachers encounter many problems when using ICTs in classrooms at university level?
According to the teachers answers to this question table (4.32) (80%) of the teachers agree that Sudanese EFL teachers encounter many problems when using ICTs in classrooms at university level because they themselves are not professional in ICT.

5- How can introducing ICT into curricula help in understanding it easily and copying with the technological development?
On the bases of the data collected and results obtained in table (4.33) (100%) means that all teachers agree that introducing ICT into educational curricula raises teachers and learners awareness in dealing with advanced technology, because they will be accustomed and have more practice on it. Thus they will understand it easily.

4.3 Testing the Research Hypotheses

**Hypothesis One:** *Most Sudanese EFL teachers are not of aware of the importance of using ICTs in EFL classes.*
Table (4.29) shows that (82%) of the teachers agree, which means that the majority of the respondents agree with this hypothesis therefore, this hypothesis is accepted.

**Hypothesis Two:** *ICT helps a lot in solving educational problems.*
Table (4.30) indicates that all the respondents (100%) supported this hypothesis. This emphasizes that ICT helps a lot in solving educational problems, so this hypothesis is accepted.

**Hypothesis Three:** *Teachers training plays a great role in using ICTs adequately in EFL classrooms.*
Table (4.31) indicates that the majority of the respondents (96%) supported this hypothesis. This emphasizes that teachers training plays a great role in using ICTs adequately in EFL classroom, so this hypothesis is accepted.

**Hypothesis Four:** *Sudanese EFL teachers encounter many problems when using ICTs in classrooms at university level.*
Table (4.32) shows that (80%) of the teachers agree which means the majority of the respondents agree with this hypothesis therefore, this hypothesis is accepted.

**Hypothesis Five:** *introducing ICT into curricula helps in understanding it easily and copying with technological development.*
Table (4.33) indicates that all teachers (100%) agree that introducing ICT into curricula helps in understanding it easily and coping with technological development. This emphasizes, so this hypothesis accepted.

3.3 The Discussion of the Interview

According to technician's interview all the interviewees (20) agree that involving ICT into educational curricula helps in developing education because the usage of sound, picture and movement will be more attractive and motivated learners. Also most of them agree that the most serious problem is that most EFL teachers are not professional in the field of ICT. They just take some ICT courses and start teaching with it. Moreover, all of them agree that there are no enough laboratories for more practice sometime we find ICTs engineers but they do not have sufficient practice. Most of them agree that most learners have no previous background about ICT and therefore they can operate and deal with it with difficulty. However, when asking them if can learners deal with the computer without studying it, they all answered absolutely no, unless he finds someone to help, direct and consult him. Finally all the interviewees emphasize the necessity of the existence of at least one technician as co-operator with every EFL teacher at university level because technicians have more experience and more practice in ICT field. Moreover, they are following up -to date and least edition in these technologies because it is their field.
CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS

5.0 Introduction
This chapter is a conclusion in which the researcher presents the main findings, recommendation and suggestions. The researcher hopes that, these findings, recommendations and suggestions will be of great help for both learners and teachers.

5.2 Conclusion
The present study aimed at investigating the difficulties facing EFL lecturers in using ICT (information and communication technology) at university level. The main objectives of the study are: To investigate the problems facing EFL lecturers when using ICT in ELT English language teaching at university level. In addition to cast some light on the importance of ICTs in ELT. The experimental analytical method was adopted. Two tools were used for collecting the data of the study they were a questionnaire for EFL teachers at university level and interview with some ICT experts and technicians. The questionnaire was given to 50 English teachers at university level. The data was analyzed with (SPSS) programme (statistical package for social science). The results of the questionnaire clearly illustrated the weak performance of the teachers because they are not professional in the field of ICT, so there are many difficulties face them in using ICT in ELT at university level.

Rapid changes in technology will ensure that ICT will proliferate in the classroom. It is predicated that there will be many benefits for both the learner and the teacher. Including the promotion of shared working space and resources, better access to information, the promotion of collaborative learning and radical new ways of teaching and learning. ICT will also require a modification of the role of class room teaching will have other skills and responsibilities. Many will become specialists in the use of distributed learning technique. The design and development of shared working spaces and resources and virtual guides for students who use electronic media. Ultimately, the use of ICT will enhance the learning experiences for students and help them to think and communicate creatively.
5.3 Findings of the Study

According to the statistical treatment in chapter four the researcher finds out the following findings:

1- ICT is not introduced adequately into educational curricula.
2- There are not enough trained instructors to teach ICT courses in schools.
3- Teacher raining plays a great role in using ICT adequately in EFL classrooms.
4- Using ICT in education is very important to every teacher.
5- Using ICT in ELT increases EFL learner motivation for more and better learning.
6- Computer can never replace the teacher.
7- Most EFL teachers are not professional in the field of ICT.
8- There are not enough ICT laboratories for more practices at university.
9- Most learners have no previous background about ICT.

5.4 Recommendations

Based on the findings of the study the researcher suggests the following recommendations:

1- ICT should be introduced adequately into educational curricula, because if it is introduced it will raise teachers and learners' awareness in dealing with advanced technologies.
2- There should be enough trained instructors to teach ICT courses in Sudan, if so all learners and teachers will know how to deal and operate ICTs in schools and universities.
3- Training teachers on using ICTs in education and benefiting from the privileges of the computer in developing the content.
4- Having a full knowledge of using ICTs in education is very important to every teacher in order to be coping with the technological development because students are coping with it.
5- Using ICT in ELT increases EFL learners motivation for more and better learning because they will be more attentive for the usage of sounds, pictures and movements. Thus their participation and interaction will increase.
6- Computer can never replace the teacher because teacher's role in the learning process becomes even more critical. What can and should change is the kind of role that the teachers play.

7- EFL Teachers should undertake advanced ICT courses since they are not professional in the field.

8- Universities should establish more ICT laboratories so that students can find a wide chance for practices.

9- All learners should undertake advanced ICT courses so that they can deal with it easily.

5.5 Suggestions for Further Studies

According to the findings and recommendation the researcher suggested the following:

1- ICT should be introduced into educational curricula and even becomes compulsory so that all teachers can know how to deal with it adequately.

2- All teachers should undertake advanced certificate courses on ICT, so as to operate it easily.

3- Re-qualifying and training of EFL teachers and technicians in modern technical ways to play their assigned role in an efficient way.

4- Training teachers on using ICTs in education and benefiting from the privileges of the computer in developing the content.

5- The necessity of establishing ICTs laboratories of languages at university level and appointing technicians to operate and maintain them.

6- Establishing workshops for maintaining ICTs at EFL section and provide access of computer and internet to meet the needs of teachers and learners at university level.

7- Allocating special amount of money for EFL section, so as to meet its needs.

8- Teachers and students should be coping with the least and up-to-date technology because every day there is a new edition.

9- There should be at least one technician with EFL teacher at university level.
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http://www.yourmaindomain.com/web-articles/what-is-networking.asp

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

http://www.yourmaindomain.com/web-articles/what-is-networking.asp

(http://ilc2.doshisha.ac.jp/users/kkitao/online/www/referenc.htm#sites

http://www.kidlink.org/.

(http://ilc2.doshisha.ac.jp/users/kkitao/online/www/referenc.htm#sites)

http://ilc2.doshisha.ac.jp/users/kkitao/online/www/student.htm# material

http://ilc2.doshisha.ac.jp/users/kkitao/online/www/teacher.htm#material f or

http://ilc2.doshisha.ac.jp/users/kkitao/class/material/.

Teaching the English Newspaper Effectively

(http://www.aitech.ac.jp/~iteslj/Lessons/Kitao-Newspaper.html)

Newspapers, TV, and Radio in Japan (http://ilc2.doshisha.ac.jp/users /kkitao/)
online/www/teij.htm#news)
"News Sources" (http://ilc2.doshisha.ac.jp/users/kkitao/online/www
/referenc.htm#mass)
http://www.aitech.ac.jp/~iteslj/ Links/StudentProjects
Web Projects for the ESL/EFL Class” at http://www.kyoto-
su.ac.jp/people/teacher/trobb/projects.
URL:http://www.aitech.ac.jp/~iteslj /Links/StudentProjects.html)
Appendix (2)

Dear Technicians,

The propose of this interview is to know your point of view on using ICT in teaching English language for EFL students. Your answers would be of great help in accomplishing this PhD degree in a applied linguistic which aims at investigating the problems that face Sudanese EFL teachers in using information communication technology at University level.

Your faithfully
Amani ELtayeb Hassab ELrasoul

1. Can a learner deal with the computer without studding it?

2. What are the obsticales that hinder using ICT in education?

3. Can technicians help teachers in dealing with these technologies, in this field?

4. How can we involve ICT into educational curricula?

5. Do you think involving ICT into educational curricula helps in developing education?

6. What is your advice for ICI teachers?

7. What are the main obstacles that face you in teaching with ICT

8. What is the most serious problem in dealing with ICT do you think?
9. What are your suggestions for involving these advanced technologies in education?

10. Do you think that students are interested in ICT lectures?

11. Are these ICT available everywhere?

12. Do you think the time is enough for preparing ICT activities?

13. What is the average size of the class you teach?

14. Do you have enough ICT laboratories for more practice?

15. Are there enough maintenance technicians?

16. Are all students able to deal with it easily?

17. How do you describe learners awareness of the importance of ICT?

18. Do you think students have enough time for practice?

19. What is the drawback of using ICT in education?

20. Do you think ICT will become the most dominant tool of learning in Sudan?