CHAPTER O NE

Introduction

1.0. Study Background:

Information and Communication Technology has become in all aspect of life, specially in educational activities and quality education .but in the past was dominated by strong teachers with high degrees and qualification, so now with world moving, quickly into digital media and Information, the role of ICT in Education is becoming more and more important and this will continue to grow and develop in this century.

So the role of schools and traditional teachers as if they were left behind times with outdated forms of curricular contents and pedagogical practice.

1.1. Statement of the Research Problem:

Sudan like other African developing countries is in its first step towards using ICT in teaching and learning process in spite of the wide spread of Information and Communication teaching tools there is a limited use of them.

This research will shed light on the neglected areas of ICT in education and suggests some simple steps towards using in our schools..

1.2. Objectives of the Study:

This study aims to:

1- The use of the new technology in the classrooms

2. The traditional learning environments do not seem suitable for preparing learners for future job.

3- The use if ICT in education can help improve memory retention and deepen understanding.

1.3. Significance of the Study

This study is considered significant for a number of reasons:

1- The use of ICT in teaching process is new phenomenon and has been the educational researcher's focal point.

2. The use of ICT in the classroom teaching learning is very important for it provides opportunities for teachers and students to operate, store,

3. Encourage independent and active learning and motivate both teachers and students to continue using learning outside school hours

1.4. Research Questions.

The study will attempt to provide answers to the following questions:

1. To what extend do students interact and motivate when ICT use in the classroom.

2. What are the differences between the outcomes of class use ICT and class with traditional way of teaching?

3. How far does ICT develop listening skills?

1.5. Hypotheses of the Study

This study has the following as its hypotheses:

1. Students interact and motivate when the teacher use ICT in classroom

2. There is difference of achievement between class using ICT and the traditional way of teaching

3. ICT teaching techniques develop listening skills

1.6. Research Methodology:

The methodology used to conduct this study is the descriptive, analytical methods as well as the experimental method which is conducted with the student's experimental group, and the second method is control group, and they were given the same test submitted to two samples of students. The Researcher taught the experimental groups using ICT in teaching reading comprehension. The experiment continued for thirty six hours (36hs) three hours per a week but the researcher made equivalence between experimental and control group on the study variables before the application of the proposed way of teaching beside observation checklist.

1.7. The Study Limits

The study has the following limits:

ICT as technology used to communicate in order to create, manage and distribute information it include computers, telephones, radio, and audio-visual equipments.

ICT is any device and applications used to access , manage , integrate , evaluate , create , and communicate information and knowledge that will select one tool suitable for class and environment in Omdurman municipality secondary schools of Musa aldaw and wadi saydna.

1.8 list of abbreviations used in this Study

ICT Information and Communication Technology

SPSS computer program (Statistical Package for Social Sciences)

PC personal computer

EFL English as a Foreign Language

SL Second Language

IM Interactive Multimedia

EFL English as a Foreign Language

ELT English Language Teaching

ESL English as a Second Language

FLL Foreign Language Learners

IT Information Technology

L1 First Language

L2 Second Language

SLA Second Language Acquisition

TESL Teaching English as a Second Language

TESOL Teaching English to Speakers of Other Languages

WBI Web Based Instruction

WBT Web Based Training

Definition of Terms

Cognition is the mental action or process of acquiring knowledge and u Computer machine that processes data according to a set of instructions

Hardware all equipment attached to computer understanding through thought, experience, and the senses. It encompasses processes such

Software the instructions that tell computer what to do

Technology: refers to any computer device or electronic device which is attached to a computer use in classroom

Scholastic Activities any activity performed in or out class and related to school educational aims

Traditional learning chock and talk

Multimedia the combination of various digital types

Com**puter-Assisted Language Learning**: it refers to the use of computers to help people to learn second or foreign language.

Computer-Assisted Language Teaching: it refers to the use of computers to help people in teaching second or foreign language.

Computer- Based Applications: it is known as using computer technology in ESL/EFL teaching and learning.

Computer-Based: "mixed-media" it is a multimedia work or digital work that is accessed through the computer even if parts were created in analog form and then digitized for integration on the computer.

Curriculum Design: the term refers to designing study programmes and courses offered by schools, institutes, etc.

E-Learning: it has been defined as providing courses on the Internet for students so that they can study at home.

Information Technology: it is the use of electronic processes for gathering and storing information and making it available using computer.

International Business Machines: (commonly referred to as IBM) is an American multinational technology company headquartered in Armonk, New York, United States, with operations in over 170 countries. The company originated in 1911 as the Computing-Tabulating-Recording Company (CTR) and was renamed "International Business Machines" in 1924.

Interactive Multimedia: it is known as any computer-delivered electronic system that allows the user to control, combine, and manipulate different types of media, such as text, sound, video, computer graphics, and animation .Interactive multimedia integrates computer, memory storage, digital (binary) data, telephone, television, and other information technologies.

Interactive: it is defined as the one of the features of multimedia is the interactivity or the programming that structures for the viewer's experience. Some level of interactivity is assumed in any computer-based work,

Multimedia: is content that uses a combination of different content forms such as text, audio, images, animations, video and interactive content. Multimedia contrasts with media that use only rudimentary computer displays such as text-only or traditional forms of printed or hand-produced material. In the other words it an be recorded and played, displayed, interacted with or accessed by information ontent processing devices, such as computerized and electronic devices,

Multimedia Games and Simulations: may be used in a physical environment with special effects, with multiple users in an online network, or locally with an offline computer, game system, or simulator.

Multimedia Technology: it refers to computer science; inventions related to computers; new machines, equipment, and ways of doing things that are based on computers. It includes reading software programs, internet-based programs, video projector and digital cameras, audio.

PowerPoint: widely used computer graphics programme for preparing slides and presentations in a Windows environment.

Teaching Performance: how well or badly a teacher does a particular activity, a lesson presentation in classroom.

Video Reality: often refers to virtual reality, a computer technology that simulates an environment with which a user may interact.

Windows: computer-operating system that is based on a graphical user interface and supports multitasking.

Chapter Two

Literature Review

2.0 Introduction

This chapter outlines the concepts of scholastic activities importance, unction, dimension, and components beside the definition of ICT, implementation in classroom as well as the challenges of ICT integrating in education.

2.1 The Concept of Scholastic Activities

Shaw (1990) found that the concept of scholastic activities refers to any activity performed inside or outside school and relate to the school educational aims. Some researchers view scholastic activities as part of the curriculum. Others see them equivalent to the curriculum. Another team of researchers view them as relevant to education without investigating their relation to the school curriculum.

There has been no consensus among researchers as to what the term school activities refers to. The researchers have wondered whether school activities refer to the activities that do not relate to study courses such as scientific and cultural groups, the activities that relate to study courses such as experiments, or the activities organized separately as study courses? Likewise, the researchers have used different terms to refer to scholastic activities, e.g., additional classroom activities, the out-of-classroom activities, the non-classroom activities, the accompanying curricular activities.

Scholastic activities have been given different definitions by different researchers. Shahatah (1992) defined them as “practice that affects the students’ mental, kinetic, psychological and social performance. This practice has various fields and satisfies the students’ physical,

psychological and social needs. It, therefore, helps with the development of the student's personality". Johnson (1964) defined them as the activities originated in the students' spontaneous interests and practiced beyond the school day without retribution. Another definition given by Al-Reshidi (1997) states that scholastic activities mean the programs that address the learner and the mental and physical effort s/he exerts in the activities that suit his/her abilities, inclinations and interests both inside and outside school. This, according to Al-Reshidi, helps students to enrich their experience and acquire desired skills and attitudes which develop their personalities and satisfy the growth requirements and the requirements of the country's progress.

Scholastic activities, according to Hamad (1995), constitute an element of the school curriculum represented in mental, kinetic and social aspects, and help with the achievement of the educational aims by considering the learners' characteristics and their growth requirements and providing them with opportunities for educational, cultural and social practices. Shahatah (1993) mentioned that Scholastic activities remain part of the philosophy of the modern school since they help with the development of habits, skills, value and thinking techniques that are necessary for the completion of schooling.

Perhaps the lack of consensus on the concept of scholastic activities is due to the multiplicity of scholastic activities. The definitions of scholastic activities are as varied as the activities themselves. There is the activity that accompanies the subject matter in order to deepen scientific concepts associating behavioral patterns that students are supposed to accomplish after undergoing specific experience (Adams) 1984. There is also the activity performed by groups of students in order to promote them in the fields of literature, arts, sports and scientific

research. This latter type is more inclusive as to human and material resources and more attractive to the students. This type is the one around which various competitions are held and prizes and appreciation activities are given to enhance talents and make the talented students feel self-confident.

Amabile (1983) mentioned that different visualizations and educational functions attributed to scholastic activities are therefore the rationale for the lack of one comprehensive definition of scholastic activities. In the present study, scholastic activities are operationally defined as the set of educational practices performed by students inside and outside school based on the nature of the activity. These activities are organized and supervised by both the school administration and specialists in order to help the student to develop comprehensively, i.e., cognitively, socially, physically and morally. School activities aim at getting the students to experience life affairs and exploring their creative potentials. They seek to teach the students the fundamentals of leadership, obedience, cooperation and the spirit of teamwork.

2.2 The Importance of School Activities

Shahatah (1992) mentioned that Activity means motion and motion involves work and work in turn leads to growth. Activity is therefore important for the development of personality. Many educational aims are achieved as by-products of performing activities inside and outside schools. Thus, good education requires favorable settings for the performance of scholastic activities since they are necessary for growth. The students who participate in scholastic activities positively are characterized with activity, the spirit of leadership, emotional stability, successful social interaction, the ability to make informed decisions, perseverance, satisfaction with life, the ability to promote relationships

with others, and potential for creativity. Mehrabian (1995). Arieti (1976) wrote that non-classroom activities also inculcate in the students positive attitudes like punctuality, disciple, cleanliness, respect for others, and the conversation of public property

The importance of scholastic activities are summarized in the following points:

1. Providing the students with the experience and skills that are necessary for life.

2. Enhancing the students' talents and abilities.

3. Revealing professional inclinations in students, which can help with professional guidance in the future.

4. Inculcating the collective spirit in the students and training them on leadership, mutual understanding and collaborative work.

5. Training the students on overcoming the problems encountered everywhere.

6. Education the students with the ability to cope and respond to different patterns of behavior.

2.3 The Functions of Scholastic Activities

Scholastic activities perform the following functions:

A. The Psychological: Function Activities develop inclinations, talents and the ability to adapt. They constitute a motive for learning and develop self-confidence.

B. The Social Function: Activities help the students to establish intimate relationships with others and inculcate in them the values of responsibility, cooperation, respect for others' opinions and conformity with laws. Activities involve students in group work, which develops in them social skills and values. These skills and values are developed in the

students as they involve in the group work where they collaboratively and enthusiastically plan, set goals and implement ideas.

C. The Educational Function: Activities provide concrete and direct experiences, and they entail interaction with the components of the activity, which helps with the learning of knowledge and skills and the gratification of the motive to do research. Activities strengthen the motive to learn and enhance the students' scholastic achievement. They encourage the students' active role in learning, allow for personal experience and help the students to learn many skills and attitudes that can not be learnt from formal education. Runco (1991) mentioned that activities strengthen the spirit of research and enthusiasm for work. They also help the students to discover and promote their abilities and inclinations. Finally, the activities make possible self-learning, life-long learning and problem solving.

D. the Achievement Function: Rayan (1985) mentioned that Scholastic activities concern with the educational experiences included in formal education in order to help the students to develop the different dimensions of personality. Research found a significant positive correlation between performing school activities and scholastic achievement.

E. the Recreational Function: This function is represented in art programs, school trips, games, celebration and competitions.

F. the Remedial Function: Scholastic activities help with the remedy of many psychological disorders such as introversion, shyness, speech disorders, etc.

G. the Economical Function: This function is represented in the students' making use of time in doing something useful, encouraging respect for work and raising the level of performance.

2.4 The Dimensions of Scholastic Activities

Researchers of scholastic activities in have concurred that the state of Kuwait adopts a four-dimension system for activities. That is, activity programs are centered on four dimensions. Of these four dimensions, the researchers have agreed on the following three dimensions: The cultural dimension.

The social dimension.

The artistic dimension.

They diverged on the fourth dimension which some researchers named the scientific dimension as Abdellah (1990) Bashir(1990) and others named the sporting dimension as Galal (1995) If the purpose of organizing activities in dimensions is to put common groups of activities under separate dimensions, then the scholastic activities should be categorized in five groups: the cultural, the social, the artistic, the scientific and the sporting dimensions.

1.culal Dimension: This dimension includes the programs of the groups whose activities relate to the development of knowledge, experience, awareness, and literary production in an organized framework. Examples of these groups are the group of the school press, the group of the library, the group of the activities of the Arabic language (handwriting, verse writing, story writing, reading poetry, acting and school broadcasting), and the group of the religious activities (the group of the mosque, and the Quran memorization group)

2.e Social Dimension: This dimension includes the programs of the groups whose activities relate to the development of social skills, values and attitudes. Examples of these groups are the group of the friends of the sick people, the group of school trips, the group of

cooperation, the group of school exhibitions, and the group of cutting down consumption.

3he Artistic Dimension: This dimension includes the programs of the groups whose activities allow the students to practice activities like playing music, singing and drawing. It includes the groups of music, drawing, hand-made products and theatrical work.

4he Scientific Dimension: It includes the programs of the groups whose activities address scientific thinking and research. Examples of these groups are the science club (this includes various groups), the agriculture group, the scientific projects group, the research group, and audio-visual presentations group.

5he Sporting Dimension: This encompasses the groups whose activities address physical skills. Of these groups are ball teams (football, basketball and handball), swimming teams and scouts.

It is noteworthy that this categorization, though useful for organizational purposes, does not mean that activities are separate in the actual reality. All types of activities serve the same purposes. Besides, the same purpose can be fulfilled through more than one activity type. A theatrical performance, for instance, can involve participants the acting group, the electricity group, etc. That the group and the practice of the various groups are different does not mean that the aim is different. All the activities interact whether in aims and/or practices. Categorization is useful only for the purposes of planning, implementation, follow-up and organization.

An activity achieves the desired aim if given positive elements are secured. These elements or components include the group, the activity supervisor and the organization of the group work:

2.5 Components of Scholastic Activities

1. Ali (2004) asserted that the members of the group: Members of a group are the thinking minds that give the activity meaning and structure. Members join groups that satisfy their inclinations and personal desires. This makes members work positively as individuals and as members of the group.

2. The activity supervisor: The activity supervisor can be a teacher from the school or a specialist who is delegated to school during the time of the activity. What is most required for a supervisor is that s/he should be convinced of the educational significance of the activity. He should have a strong educational background and he should be specialized in what he supervises in order to direct the students well, detect their potentials and help them develop these potentials.
3. The program of the group activity: This program is determined by both the activity supervisor and the students within the organizational rules established by official administrations since any work in the field of schooling has a given place in the whole educational system. Sometimes these rules obstacle the practice of the activity and the successful supervisor is the one who can converse policy makers and persuade them to modify the activity and refine its practice.
4. The organization of work inside the group: This is determined by the supervisor and the group members who all coincide on every detail, e.g., the meeting times and places, and the final product of the activity. They all participate in setting a flexible schedule of the group's work (Ali) 1990.

2.6 ICT Definition

The term has recently become more widely used in many countries, and is not easily defined. There is no globally accepted definition of ICT. This is due to the fact that technology is rapidly changing in nature. In other words, the of ICT is continuously changing with creation of new technologies. For example at one time, the term technology is use to describe only hardware . Now technology refers to hardware and software as well (Anderson.2008).

The short form ICT can be seen as development from two previous unrelated concepts “information technology “and “communication technology ‘’. Information technology (IT) deals with the equipment such as personal computers, scanners and digital cameras and software elements that allow individuals to access “”, retrieve, store, organize, manipulate and present information by electronic means (Zao,Lie &Conway 2006) . while communication technology (CT) is the term used to describe technologies that can access or receive information , these include phones , faxes , modems , and computers (Zhao et al 2006) ICT is then the sequence of the convergence of information technology and communication technology. An example of this convergence is the crossing of mobile phones and computers that led to the of introduction smart phones (Gholami, 2006)

One definition which compasses the relationship between information technology and communication technology is combination of networks, hardware and software as well as the means of communication, collaboration and engagement that enable the processing, management and exchange of data, information and knowledge (Department of Education in South Africa 2004). In this definition, traditional

communication technology and anew range of digital devices are integrated, which in turn, provides a broader understanding of ICT.

The term ICT could be used for “information and communication technology “” or for “information and communications technology “According to Lloyd (2005November). The singular form “communication” refers to “human interaction” while the plural form “communications” is generally connected to “the whole field of data communications infrastructure”. In education, particularly. There are two different uses of the term ICT. First, ICT could be used as a subject when students learn about ICT that is, computer literacy, computer sciences and information literacy. Secondly ICT, refers to the use of various computer applications as a medium to enhance the teaching and learning process, that is, learning with ICT (Law &Plomp, 2006)

For the purposes of this research study, the researcher defines ICT as: All information and communication digital devices that can be used in teaching and learning process, encompassing hardware (such as computers, interactive whiteboards, digital comers, projectors, scanners etc) software (such as word processor programs). And communication networks (such as the internet and email). The study will focus on how these digital technologies are effectively used in Sudan secondary education to enhance teaching and; learning process

It has started in the early twenty century when the silent films entered education the year 1910 then in the year 1927, broadcast radio, and the primary mass communication for the world, was in schools. The year 1939 educational television stated when the BBC began ordinary television broadcasts. After that was the beginning of the computer age when the first computer was used for instruction. ICT has hastily and all the time shifted over the last decades (timerime 20100)

The term Information Technology (IT) was first used in the early 1980s to indicate the convergence of computer technology and communication technology. In the 1990s, the term Information and Communication Technology (ICT) was more widely used to replace IT which is to give a greater emphasis on communication aspect. In Australasia, the term IT&T (Information Technology and Telecommunication) is also used instead of ICT. Singapore uses the term z„Infocomm‰ for ICT. For some people, ICT represents Information an Content Technology, to indicate the convergence of Information Technology and Content Technology.

There are a number of definitions of ICT. The most comprehensive one is given by British Computer Society as follows:

a) The scientific, technological and engineering disciplines and the management techniques used in information handling, processing and disseminating; their applications; computers, networking and communication and their integration with men and machines; and associated social, economic and cultural matter. (British Computer Society)

The definition of ICT as given above is different from the definition given by some American authors. For example, Turban et al defines ICT as

b) Information Technology is an organization Ês collection of information resources, their users, and the management that oversees them; includes the IT infrastructure and all other information systems in the organization. We can also get some informal definition of ICT on the web, such as:

1. ICT (information and communications technology - or technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. ICTs are often spoken of in a particular context, such as ICTs in education, health care, or libraries. The term is somewhat more common outside of the United States

2. ICT is short for Information and Communications Technology; it is the study or business of developing and using technology to process information and aid communications (webopedia.com)

Some important milestones in the development of ICT

2.7 ICT Application for Quality Improvement in Education

ICT applications are becoming indispensable parts of contemporary culture, spreading across the globe through traditional and vocational education. In Indian scenario, mainly education system has three tiers primary (including nursery and preprimary), High school or secondary level (High and senior secondary levels) and the college or higher level (including college, university levels). In all these levels of education ICT can be utilized for better teaching learning process and improving quality of education. Using multimedia in education results in the increasing productivity and retention rates, because people remember 20% of what they see, 40% of what they see and hear, but about 75% of what they see and hear and do simultaneously .Interactive whiteboard helps teachers to structure their lessons, supports collaborative learning, can help to develop student‘s cognitive skills, enables ICT use to be more integrated into classroom. Government of India has announced 2010-2020 as decade of innovation. Reasoning and critical thinking skills are necessary for

innovation .Foundation of these skills can be laid only at primary level of education. Students who enter school are very curious, creative, and capable of learning many things. At this level, statement ‗Picture is worth than thousand of words ‗is very much true in case of teaching –learning process. Befriending ICT in the initial stages of education will help young people come to terms with what lies ahead. Students taught by showing pictures, animals, fruits etc. With the help of ICT tools students at this level are able to grasp a lot by hearing voices or sounds and animated motion of various animals. Language learning is also taught at this level. To know a new language at this age is easier as compared to other levels. Multimedia projector & computer can be used to teach phonetics and pronunciation. Lessons, poems & lectures by eminent scholars stored in computers or other ICT tools can easily be shown to the students time and again anywhere. Such type of teaching and learning retains for long time in the minds of the children. At high school level subjects like History, Geography, Political science, Physics, Chemistry, Biology, Physical education etc are taught. Lessons in these subjects can easily be taught by showing small movie related with the subject to create interest among the students. Such type of movies and related multimedia material is easily available at academic repositories and from various related sites with the help of Internet. Internet is basic tool which can be utilized by teachers and students to find any information on any topic. This type teaching – learning makes the environment very interactive and is liked by students. Educational and practical CD‘s available in the market make this task easier to implement. At college level various facilities like computers, Electronic Board, Edusat . facility initiated by various state Governments, MM projector and other peripheral devices related with teaching learning process are easily available. Easy availability of ‗Aakash‘ tablet will help in providing and getting more education for both teachers and students.

Repositories are libraries where these digital resources are stored and provide teachers, students, and parents with information that is structured and organized to facilitate the finding and use of learning materials regardless of their source location.Various programs running on Edusat are also very helpful for the students. Soft skill program can help students in getting their placements in reputed Multi National Companies (MNCs). State level quiz and seminar can also be conducted with the help of Edusat infrastructure and can be transmitted throughout all institutes. Edusat. can be used for providing training to teachers on the latest subjects and technologies and can save lot of time and money of governments. In Haryana Edusat project is being implemented at school and college level and is being used for transmitting lectures according to syllabi. In Non-formal learning, learners can access information and learning materials from anywhere and at any time. It includes distance education and other open learning systems. There are various functions to be performed with the enrolment of students in any course of distance education in any University or institute. Functions include allotment of unique number (called reference number/roll number), providing books, providing information related with installment of fees and details thereof to name a few. Out of all these activities some of these may be performed well with the help of ICT Tools. In the distance education ICT can be used for better management of records by making a complete database of all the students in various courses. Once the students are enrolled, a unique number is generated called reference number and it is provided to the particular students. Short Message Service (SMS) of Mobile phone may be utilized for this purpose. Mobile phone is one major ICT tool and can be used for the purpose. Other information related the PCP, Exam dates can easily be sent to the students through SMS by Universities/ Institutes concerned. Moreover the enrolled students can be given

username and password for using various online services and resources in the form of academic repositories maintained by institutes. All such instructional material may be uploaded at the University portal and CDs of those lectures may be provided to the students instead of printed or hard copy material. Online fees payment system can also be made on the portal of concerned University or Institute. Students will be saved from a lot of hardships they face in depositing fees, attending PCPs, taking exams and many more. Exam results in such cases may be provided online on the same day as same is happening in case of online exams and entrance tests. This would help to sort out the problem of the delay in declaration of results of various exams by various universities. But all this must be the case for the Non-formal education system. Advantages of utilizing such tools include saving of lot of paper work and help the environment making it pollution free. This will also bring transparency in the whole system of functioning.

2.8 ICT and Teachers Training

In the modern world of ICT there is decentralization of knowledge source. Technology is only a tool and it must be utilized only to remove the barriers and challenges present in the existing system. ICT provides opportunities to complement on the job training and continuing education for teachers in a convenient and flexible manner. Use of ICTs in education requires major shift in the way content is designed and delivered. New technologies cannot be imposed without enabling teachers and learners to understand these fundamental shifts. Ongoing training is necessary for the trainers in institutions and organizations who are engaged in the design of curriculum, teaching materials and delivery of ICT-enabled education [17]. ICT is applied in their teaching practices as well as for delivery for these trainings. In order to implement ICT-

driven distance education programmes, the teachers must first understand and be comfortable with the technologies. They must be given opportunities for acquisition of a new knowledge. This can begin by promoting computer-training programmes for teachers. Use of ICTs for teacher training has been recognized by the governments of most South Asian countries and teacher training programmes like Intel Teach across India, Pakistan, and Sri Lanka; Microsoft Shiksha in India; and several other initiatives in Nepal and Bhutan are focused on using ICTs for training teachers [6].The International Society for Technology in Education (ISTE) has created the most comprehensive set of ICT standards for teachers, students, and administrators [8]. The SSA has taken initiatives to strengthen Computer-Aided Learning (CAL) in collaboration with a number of private organizations after having a look at the advantages of ICT in Education for achieving the goals of SSA. Under the SSA framework, a provision has been made for computer education district-wise and is made available to each State under CAL interventions under PPP mode [11]. ICT can be applied for pre-service and in-service teachers training programmes. Through SSA and RMSA various block resource centre (BRC) offices exist in Haryana. Through these centre and infrastructure available at these centers in service training can be provided effectively. Instead of inviting teachers at district level they can be asked to assemble at least one teacher from every school daily to get certain basic knowledge about ICT and its application in school curriculum. The training batches duration may be on weekly or fortnightly basis by expert in ICT and its implementation for education. In teacher training colleges, computers and the Internet can be used to increase teachers‘ basic skills of teaching and subject related knowledge by accessing the resources that can later be used in classrooms teaching. Visualiser can be easily operated and used by teachers which are an cost

effective, easy to use and time saving tool for education in schools and colleges. It decreases teacher‘s preparation time, increases interactivity with students and student concentration in complex issues. It can also be used even without computer and is budget friendly. Small training sessions on how to use such new tools in educating schools may be arranged for interested teachers.

2.9 Challenges and Solutions of Applying ICT for Learning

Certain challenges also exist for the ICT based teaching learning. One of the great challenges for quality control in education is lack of standards for parameters to measure the quality of education. For the solution of this all the accreditation bodies like NAAC,NBA,AICTE,CBSE and other authorities must sit together and circulate a standard list of parameters to decide the quality of education. Development of ICT has changed the epic centre of knowledge and hence in many of the cases student is more informed than the teacher. Teachers lack adequate qualification and training and their lesson plans are most often outdated or irrelevant. Setting up the ICT devices can be very troublesome. It is expensive to afford it is hard for teachers to use with a lack of experience using ICT tools. These reasons destroy the available quality of education. ICT enabled distance education, to a great extent, can combat this problem. One of the important barriers is lack of trained teachers to exploit ICT proficiently. Most of the teachers are not willing to introduce new technologies to themselves first and subsequently to their students. There is resistant from teachers, basically from older teachers as compared to younger ones, to apply ICT in their subject.. Hence teachers need to update their knowledge and skills as per change in the curriculum and technologies. At present, ICT in school education is strictly limited to a handful of elite schools. Beyond that, it's just a computer lab that's held

apart from the conventional educational process [19].Though computers came to Indian classrooms in the year 1984-85, the level of adoption of modern technology in the teaching and learning process has been limited and uneven[15]. Various ICT tools must be available and it must be accessible at demand. Many schools have limited resources for buying books, stationery, furniture and other classroom materials. Role of private sector providing services in such sectors may be taken into account. Rural population may not be able to pay hefty amount to utilize such ICT resources for education. One of the major challenges in the implementation of ICT in education is the initial thinking that is based on the technology. ICT hardware and software are not designed as per educational purposes rather they are designed for general purpose. One first thinks about the available technology and then a try is being made to apply it into education field, but if we look at in reverse way then possible outcomes may be more useful and may give good results. As per latest tradition only special subject like IT or ICT is available and that is also optional one there is need for to have basic knowledge of computers and IT to utilize various ICT tools to be used for teaching learning. Only computer teachers would not be able to carry this important mission of being agents of change. To sort out infrastructure problems for providing ICT education in schools one can split the screen in half vertically and at two sets of an application can be displayed and used by two users (students) simultaneously. Because one student may use the keyboard and another may use mouse, each student can work independently of the other [9]. The survey [15] done in 2007 in two highly ICT enabled states Gujrat and Karnatka says that Access to government school students to ICT tools outside schools is in general low. The access of private school students to such devices is comparably better. It also shows that one of the challenges to be met is also of digital divide in private and

Government schools and moreover in rural and urban schools also.Major challenge for educators and trainers is how to develop learning materials for delivery on available ICT tools including mobile devices. The learning materials should be in manageable learning chunks and should make use of multimedia. There are many advantages of using learning objects in mobile delivery including: they can be re-used and changed without affecting other learning objects, and they can be stored in an electronic repository for remote access at any time[22]. Barriers include costly supportive infrastructure, developing online material can be expensive and time consuming, quality, validity of online material, lack of flexibility in already prepared study material. A lot of information available online may dissuade student learning. Students can feel isolated in absence of classroom like environment [24]. Computer Programmes at various levels of quality parameters can be used to control, manage and put strict discipline in the campuses through use of computer application for Curriculum development, Teaching and learning, Research and extension, Governance and leadership, infrastructural facilities and use of expert system in suggesting intelligent decisions to top management in policy making and other important areas in higher education.

2.10 History of ICT

It has started in the early twenty century when the silent films entered education the year 1910 then in the year 1927, broadcast radio, and the primary mass communication for the world, was in schools. The year 1939 educational television stated when the BBC began ordinary television broadcasts. After that was the beginning of the computer age when the first computer was used for instruction. ICT has hastily and all the time shifted over the last decades (timerime 20100).

Educators & researchers tend to divide ICT into a number of phases of time when discussing the history of ICT implementation in the fields of knowledge & education. According to Robly & Doering, the development of ICT in schools could be divide into three eras : The pre microcomputer era Microcomputer era Microc Internet era (Robly & Doering 2010). Lambert & Cuper (2008) argue that ICT 'offers today's classroom teachers the opportunity to move from largely linear learning environment to an increasingly nonlinear environment ''

According to Robly & Doering (2010) the pre-microcomputer phase lasted from 1950 until the late 1970s. One of the most important characteristics of this phase was that computers were very large and quite expensive machines and required a great deal of expertise to use. The pre-computer phase began in 1950 when the first computer was used for instruction at Massachusetts Institute of Technology (MIT), followed by the first computer used with children in school to learn arithmetic in New York city in 1959. During 1960 through 1970, faculty and students in universities across the United States used mainframe systems for programming and shared utilities. The computer-assisted instruction (CAI) movement emerged in the early 1970s and Federal funds were issued by the American government for a larger scale mainframe/ minicomputer system in schools (Robly & Doering 2010). In the late 1970s. The computer literacy movement began when computer literacy skills were considered to be important in programming and using software tools like word processing. The belief was that students who lacked literacy in computers would be educationally disadvantaged (Molnar1978) However, at the end of phase, teachers began to dislike the control of CAI applications by universities and districts offices across the country as teachers had too limited control over the applications of

computer- based technologies in their classrooms. Consequently, teachers began to reject the concept that computers would enhance education(Roblyer&Doering 2010)

were invented announcing the beginning of the microcomputers era(Roblyer&Doering 2010) .This allowed teachers to control their 0wn computers within their own classrooms. In the mid 1980s, through the 1990s integrated learning systems (ILSs) emerged. Schools began In the year 1977, the first small, stand-alone desktop microcomputers to consider ILS network system as cost-effective solution for instruction to address required standards which marked movement away from stand-alone systems towards central servers with connected computers (Roblyer 2006).

1. Mid 1990s is considered as milestone in the TheWorld Wide Web (www) by Tim Berners Lee in 1994, the Internet phase was born. The web now called “Web1.0” . Was initially designed as information source and medium for on line publishing. It required an understanding of HTML (Hypertext Markup Language) in order to publish a web page (Rosen & Nelson, 2008). Furthermore, web 1, 0 was one-way communication so the majority of students simply used the Internet to collect information (Albion, 2008). Web 1.0 lasted for more than a decade until 2004 when it turned to what is so called read/ write web or “Web2.0” facilitating collaboration and communication (Solomon & Schrum, 2007). Web 2.0 through its encouragement of user-created content, is much more than simple static information source. It is, rather, considered as interactive tool allowing teachers and students to contribute to website‘s content, so they can share information, collaborate and interact with other (McAfee,2006).Examples of web2.0 tools include web-based communities, social networking sites, video sharing sites, web

applications, wikis, and blogs (McAfee, 2006). With web2.0 teachers and students can use collections of these technology tools that enable creation and posting of content, interacting in social networking, collaborating on tasks with other human agents and sharing work or data results (Solomon & Schrum, 2007). The web 2.0 tools are easy to use and don't require that much knowledge or skills, enabling students to concentrate on information sharing and collaboration (Boulos, Maramba,& Wheeler, 2006). Table 3.1 illustrates the most important inventions during the last 40 years.

Table (1)

Eras	Year	The invention
Pre micro computer	1910	Silent film entered education
	1927	Broadcast radio was in schools
	1936	BBC began television broadcast
	1950	Fist computer used for instruction
	1970s	Computer – assisted instruction emerges
	1970s	Computer literacy movement begins

The history of ICT in education (Roblyer& Doering,2010, ; Timetoast , 2011)

Eras	year	The invention
Microcomputer	1977	The first microcomputer in schools. the apple corporation is founded
	1981	The IMB corporation begins
	1982	The personal computer was introduced
	1990	The mobile phone becomes than just for the government
	1991	The first interactive white board .
	1994	The advent of the World Wide Wib
	1995	Microsoft released windows 1995
	1997	Internet version 4 released
	1998	The search engine Google is founded
	1999	Bluetooth was announced

Table (3)

The history of ICT in education (Roblyer & Doering, 2010 , Timetoast ,2011)

Eras	Year	The I invention
The World Wide Web era	2000	Microsoft released windows 2000
	2001	Apple introduces the ipad Wikipedia
	2004	The advent of Web 2.0
	2007	The first iphone is released "the beginning of smartphones"
	2010	The first generation ipad hits the markets "tablet computing"

Technology, and the fast development Clearly, the development of ICT in the present era is more significant for educators , the beginning of relatively transportable technology ,and the fast development in communication in communication power through wireless networks and the start of browsers that enable everyone to explore and search digital global knowledge sources have brought new opportunities for improving educational in general (Sucker,2004). In other words, ICT can be a source of knowledge, medium for transferring content, and "an interactive resource furthering dialogue and creative exploration" which in turn provides opportunities for changing teaching and learning making them more meaningful and rewarding (Levin & Wad many, 2008). As a result, special attention has been given to the process of ICT

implementation in all aspect of education (Forkhosh-Baruch, Mioduser,Nachmias, & Tobin, 2005

2.11 ICT Policies VS National Policy

In June 1999, the Sudanese national ICT strategy was formulated and a high-level ministerial committee was formed to oversee its implementation. The strategy focuses on five major areas: technology (infrastructure), human resource development, software industry development, content (Arabic reservoir), and geo-information.

Based on the knowledge and recognition of the importance of public-private partnerships in enhancing any development process, the Sudanese government is constantly seeking partners to implement the national strategy, including e-government projects, the development of an electronic smart city, distance learning, and telemedicine.

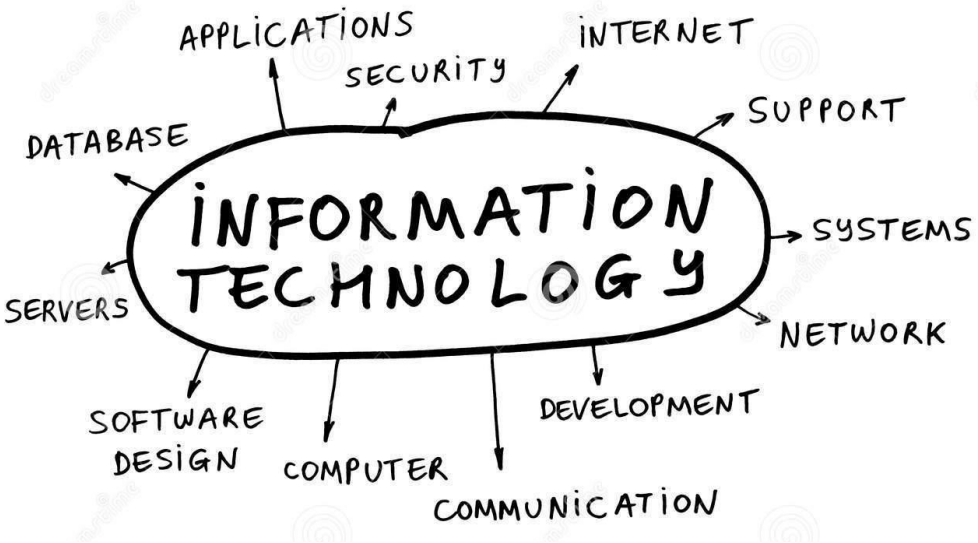
The General Ministry of Education Information Centre is the entity responsible for the development of a strong ICT infrastructure. The national policy encourages the use of ICT in developing local policies to ensure the complete integration of ICT in education and training on all levels, including the development of school curricula, teacher training, managing and organizing educational institutions, and supporting the idea of lifelong learning by designing ICT training programmes to satisfy the educational needs of employees working in the field.7

Education is a light that shows the mankind the right direction to surge. The purpose of education is not just making a student literate but adds rationale thinking, knowledgeably and self sufficiency. When there is a willingness to change; there is hope for progress in any field. Creativity can be developed and innovation benefits both students and teachers.

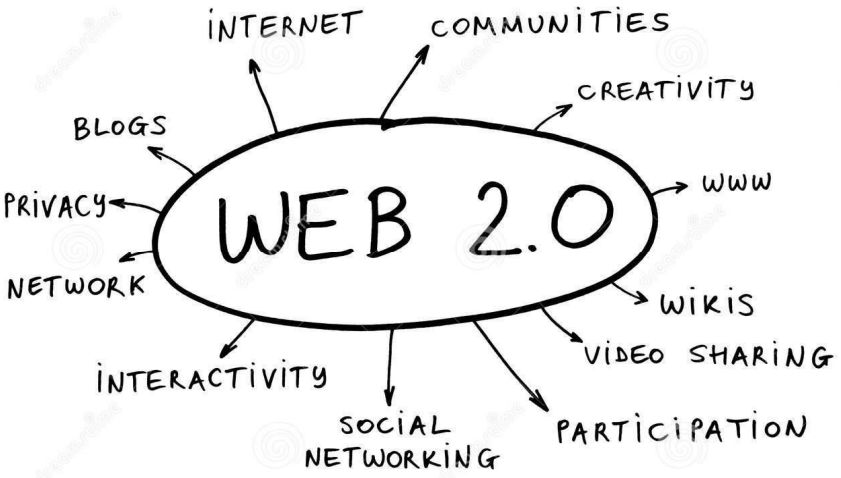
Education is a light that shows the mankind the right direction to surge. If education fails to inculcate self-discipline and commitment to achieve in the minds of student, it is not their fault. We have to convert education into a sport and learning process has to generate interest in the students and motivate them to stay back in the institution than to run away from it. Education should become a fun and thrill to them rather than burden and boredom. It is an integral part of their growth and helps them becomecurrently, many institutions are moving towards problem-based learning as a solution to producing graduates who are creative and can think critically, analytically, and solve problems. Since knowledge is no longer an end but a means to creating better problem solvers and encourage lifelong learning. Problem-based learning is becoming increasingly popular in educational institutions as a tool to address the inadequacies of traditional teaching. Since these traditional approaches do not encourage students to question what they have learnt or to associate with previously acquired knowledge (Teo & Wong, 2000), problem-based learning is seen as an innovative measure to encourage students to learn how to learn via real-life problems (Boud & Feletti, 1999). The teacher uses multimedia to modify the contents of the material. It will help the teacher to represent in a more meaningful way, using different media elements. These media elements can be converted into digital form, modified and customized for the final presentation. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better.

Chart (-1)

MULTMEDIA ELEMENTS



Creating multimedia projects is both challenging and exciting.



Fortunately, there are many multimedia technologies that are available for developers to create these innovative and interactive multimedia applications (Vaughan, 1998). These technologies include Adobe

Photoshop and Premier to create edit graphics and video files respectively, Sound Forge and 3D Studio Max to create and/or edit sound and animation files, respectively. They can also use an authoring tool such as Macromedia Director or Author ware to integrate and synchronies all these media elements into one final application, add interactive features, and package the application into a distributable format for the end-user. Another advantage of creating multimedia projects in the classroom setting is that when students create multimedia projects, they tend to do this in a group environment. By working in a group, the students would have to learn to work cooperatively and collaboratively, using their group skills and a variety of activities to accomplish the project's overall objectives.

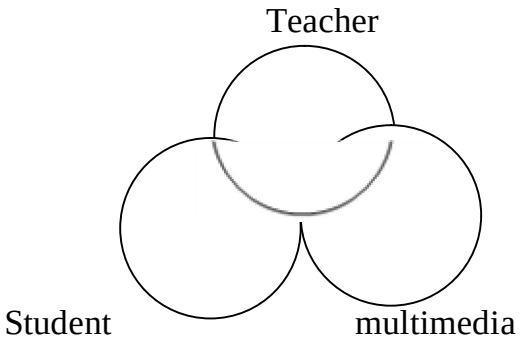
Chart 2

Traditional and multimedia differences

1- Traditional method – A one way flow

Chart (3)

Multimedia learning- An interactive learning process



In the pre-technology education context, the teacher is the sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the “chalk-and- talk” method and overhead projector (OHP) transparencies. This directed instruction model has its foundations embedded in the behavioral learning perspective (Skinner, 1938) and it is a popular technique, which has been used for decades as an educational strategy in all institutions of learning. Basically, the teacher controls the instructional process, the content is delivered to the entire class and the teacher tends to emphasize factual knowledge. In other words, the teacher delivers the lecture content and the students listen to the lecture. Thus, the learning mode tends to be passive and the learners play little part in their learning process It has been found in most universities by many teachers and students that the conventional lecture approach in classroom is of limited effectiveness in both teaching and learning. In such a lecture students assume a purely passive role and their concentration fades off after 15-20 minutes. Some limitations which may prevail in traditional teaching method are¾ Teaching in classroom using chalk and talk is “one way flow” of information.

The ICT policy for education was launched in 2002. The Information Directorate and Curriculum Centre and Training Directorate are the entities managing the implementation. In 2004, ICT was introduced in secondary education curricula. A number of computers were installed in schools (around 50% of secondary schools), at an average of 10 computers per school. In schools the connectivity is mainly through dial-up and ADSL. However, in higher education systems, it is through ADSL only. The country is planning to have computers available in all education

levels by the year 2015 as agreed to at the ICT summit in Geneva. The ICT curriculum has been introduced at Grade 4. The teachers have been trained on the basics of ICT. Both the government and the private sector provide access to the Internet as a learning resource.

2.12-Benefits of Using ICT in Education

the merits of ICT in education have been extolled in the literature. The use of ICT has been found to: Assist students in accessing digital information efficiently and effectively As Brush, Glazewski and Hew (2008) have stated, ICT is used as a tool for students to discover learning topics, solve problems, and provide solutions to the problems in the learning process.ICT makes knowledge acquisition more accessible, and concepts in learning areas are understood while engaging students in the application of ICT. Support student-centered and self-directed learning Students are now more frequently engaged in the meaningful use of computers (Castro Sánchezand Alemán 2011). They build new knowledge through accessing, selecting, organizing, and interpreting information and data. Based on learning through ICT, students are more capable of using information and data from various sources, and critically assessing the quality of the learning materials. Produce a creative learning environment ICT develops students' new understanding in their areas of learning (Chai, Koh and Tsai 2010). ICT provides more creative solutions to different types of learning inquiries. For example, in a reading class, eBooks are commonly used in reading aloud activities. Learners can access all types of texts from beginning to advanced levels with ease through computers, laptops, personal digital assistants (PDAs), or iPads. More specifically, these e-books may come with some reading applications, which offer a reading-aloud interface, relevant vocabulary-building activities, games related to reading skills and vocabulary acquisition, and more. Therefore, ICT

involves purpose designed applications that provide innovative ways to meet a variety of learning needs. Promote collaborative learning in a distance-learning environment Koc (2005) mentioned that using ICT enables students to communicate, share, and work collaboratively anywhere, any time. For instance, a teleconferencing classroom could invite students around the world to gather together simultaneously for a topic discussion. They may have the opportunity to analyze problems and explore ideas as well as to develop concepts. They may further evaluate ICT learning solutions. Students not only acquire knowledge together, but also share diver learning experiences from one another in order to express themselves and reflect on their learning. Offer more opportunities to develop critical (higher-order) thinking skills Based on a constructive learning approach, ICT helps students focus on higher-level udying with ICT and the acquisition of critical thinking skills. A longer exposure in the ICT environment can foster students' higher critical thinking skills. Thus, schools are strongly advised to integrate technology across all of the learning areas and among all learning levels. Where this is done, students are able to apply technology to the attainment of higher levels of cognition within specific learning contexts. Improve teaching and learning quality As Lowther et al. (2008) have stated that there are three important characteristics are needed to develop good quality teaching and learning with ICT: autonomy, capability, and creativity. Autonomy means that students take control of their learning through their use of ICT. In this way, they become more capable of working by themselves and with others. Teachers can also authorize students to complete certain tasks with peers or in groups. Through collaborative learning with ICT, the students have more opportunity to build the new knowledge onto their background knowledge, and become more confident to take risks and learn from their mistakes. Further, Serhan (2009) concluded that ICT fosters autonomy by allowing

educators to create their own material, thus providing more control over course content than is possible in a traditional classroom setting. With regard to capability, once students are more confident in learning processes, they can develop the capability to apply and transfer knowledge while using new technology with efficiency and effectiveness. For example, in an ESL listening and speaking class, students may be asked to practice their pronunciation using an online audio dictionary. They are required not only to listen to the native pronunciation from the dictionary, but also to learn the definitions and examples of a new vocabulary item. They then have to make a recording of their own pronunciation and provide examples of how this new word is used in context. Before completing this task, they have to know which browser to use in order to search a suitable online audio dictionary. They will have to browse several online dictionaries, and select the one that best meets their learning needs. In addition, finding good software to record their voice is another prerequisite for these learners. Therefore, the whole learning process enriches students' learning skills and broadens their knowledge beyond what they already know. By using ICT, students' creativity can be optimized. They may discover new multimedia tools and create materials in the styles readily available to them through games (Gee 2007, 2011), CDs, and television. With a combination of students' autonomy, capability, and creativity, the use of ICT can improve both teaching and learning quality. Support teaching by facilitating access to course content Watts-Taffe et al. (2003) found that teachers can act as catalysts for the integration of technology through ICT. If the encouragement, equipment, and necessary technological support are available from institutes for the teachers, developing an ICT class will be easier for them. The main responsibilities of these teachers will be changing their course format, creating and explaining the new assignments, and arranging for the computer lab through their technology learning specialists

or assistants. In sum, as Reid (2002) has indicated, ICT offers students more time to explore beyond the mechanics of course content allowing them to better understand concepts. The use of ICT also changes the teaching and learning relationship. Based on the findings of Reid's study, teachers reported that the relationship between teacher and learner is sometimes reversed with regards to information technology. This relationship boosts students' confidence when they are able to help teachers with technical issues in the classroom. Therefore, ICT changes the traditional teacher centered approach, and requires teachers to be more creative In customizing and adapting their own material.

While ICT is changing teaching and learning for the better in several ways, the existing literature has also identified some barriers. In the following sections, these barriers are classified into four categories based on the perspectives of students, teachers, administrators, and ICT infrastructure. A variety of strategies for addressing these barriers is also discussed. ICT in Education "[Current] graduates began their school career being taught the literacies of paper, pencil, and book technologies. Many will finish their secondary school careers familiar with the new literacies demanded by a wide variety of ICTs: wikis, blogs, avatars, podcasts, mobile technologies, and many others unimagined at the beginning of their schooling" Although action research reveals that ICTs can empower teachers and learners, provide a learning environment that helps address different learning styles, and foster the development of '21st century skills', current peer reviewed studies to support these beliefs are still limited. Much of the literature dates from 2005 or earlier, which is a number of generations in 'technology years'. At that time, data was often obtained by testing students' computer skills, or by measuring changes in their achievement after using specific computer-assisted learning applications. Due to the short 'shelf life' of studies related to the impact of ICT on

student achievement and engagement, this analysis examines mainly studies published in the last five years and is based on the following two caveats ICTs should not be seen as the focus of the learning process

ICTs are generally not, and should not be considered, the focus of the teaching and learning process. Manitoba's Literacy with ICT (LwICT) model encourages "infusion" of ICT in teachers' instruction and in students' learning, whereby ICTs are not the focus of learning, but rather are supportive of critical, creative, and ethical thinking. Many peer-reviewed studies focus specifically on certain types and titles of instructional software. This focus is too narrow to give a generalize-able view of the use of ICT to support and enhance learning and engagement across the curriculum.Pedagogy must be put ahead of ICT

One of the ongoing challenges of technology use in education is that, until recently; educational leaders and technology advocates thought of ICTs first and investigated the pedagogical component only later. There are still only a limited number of peer-reviewed studies which avoid this pitfall.

Over a dozen research studies and meta-analyses (see references) were reviewed in order to answer the following two guiding questions.

In general, and despite thousands of research studies, most of those conducted before2005; the impact of ICT use on student achievement has remained difficult to measure. Now that ICT is used more and more in classrooms as a means to access information, support learning and communicate understanding (Literacy with ICT) rather than as a tool to be learned (ICT Literacy), research looking at student achievement seems to have become more qualitative-based. "Measuring ICT impact against students' attainment and improvement of their basic skills is one way of assessing impact assessment, but one which assumes a fixed

education system in which school learning is primarily about mastering of a pre-determined body of knowledge, skills and understanding." ("...most reputable educational researchers today would agree that there will never be a direct link, because learning is mediated through the learning environment and ICT is only one element of that environment."

Research has described how ICTs can have positive effects on student achievement when used appropriately to complement a teacher's existing pedagogical approaches. "...technology interacts with many variables: student preparation and motivation, how the student or instructor uses technology, and how well the environment supports learning.... Instead of asking what impact technology has on student learning; ask how you can incorporate the best-known principles about teaching and learning, using technology as a tool for innovation."

In Manitoba, the Literacy with ICT Developmental Continuum links ICT to pedagogy by focusing on Inquiry across the curriculum. ICT is infused into inquiry where critical and creative thinking is supported through the ethical and responsible use of ICT. "Individuals, groups and societies who can identify the most important problems, locate useful information the fastest, critically evaluate information most effectively, synthesize information most appropriately to develop the best solutions and then communicate these solutions to others most clearly will succeed in the challenging times that await us."(Leu et al, 2011) "Technology has been shown to positively influence student learning when students explore technology-rich tasks that simultaneously require them to use higher-order thinking skills (HOTS), such as analyzing or evaluating information or creating new representations of knowledge." (Polly, 2011) "Most of the reviewed studies show that ICT impacts on competency development – specifically team work, independent learning and higher

order thinking skills – that are not yet recognized by many education systems"

Transmission-type teacher-centered pedagogies are sometimes seen as more efficient than more 'constructivist' student-centered pedagogical styles, likely because their level of effectiveness may be more easily measured. Conversely, the use of ICT for teaching and learning is seen to be most effective when employed as part of a student-centered approach, which by nature is more difficult to measure. "Factors that impede the successful implementation of ICT in teaching [include] … teachers' poor ICT competence, low motivation and lack of confidence in using new technologies in teaching [which] are significant determinants of their levels of engagement in ICT [and reveal that such] teachers' practice is not changing much when they use ICT. What is the likely scenario when e-confident children become frustrated in e-immature schools?"

The connection between the use of ICT and the achievement of students is only valid when the means of measurement is congruent with the means of teaching and learning. In some studies there is a mismatch between the methods used to assess the effects of ICT on student achievement and on how ICT is actually used in the classroom. For example, some studies have looked only for improvements in traditional teaching and learning processes, and in mastery of knowledge, instead of looking for the new processes and higher order thinking skills related to the infusion of ICTs. Students who use ICTs often and regularly in their learning, but are evaluated using traditional methods such as pen and paper, may show little to no significant improvement in their achievement because they are not able, in the testing situation, to use the ICT-infused strategies they have become comfortable and successful

with.“...current education systems hinder ICT impact and, correspondingly, impact studies and evaluations often measure against traditional systems. Are researchers looking at the wrong outcomes? And are policy-makers clear or realistic about what they expect the results of ICT investment to be.

Classrooms are considered face-to-face learning environments, but classroom learning can be supplemented with the use of ICTs such as web-based courses and other online technologies. This is considered a ‘blended learning’ situation. “Classes with online learning, whether completely online or blended, on average produce stronger learning outcomes than learning face-to-face alone.” (Underwood, 2009) “In recent experimental and quasi-experimental studies contrasting blends of online and face-to-face instruction with conventional face-to-face classes, blended instruction has been more effective, providing a rationale for the effort required to design and implement blended approaches.” (U.S. Dept. of Education, 2009)

In studies that rely largely on self-reporting, most students feel that using ICTs makes them more effective learners. This may be due to the satisfaction felt by students when they use tools with which they are comfortable.

“..Students see the use of relevancy-based digital tools, content and resources as a key to driving learning productivity, not just about engaging students in learning”

There appears to be some consensus that both teachers and students feel ICT use greatly contributes to student motivation for and engagement in learning.

“A very high 86% of teachers in Europe state that pupils are more motivated and attentive when computers and the Internet are used in class... ICT has a strong motivational effect and positive effects on behavior, communication and process skills.”.

Students who use ICTs at home, and for personal use, also use them in school more frequently and with more confidence than students who have no home access.“Young people with a computer at home are less likely to play truant at ages 14 and 16 than those without computer access. For example, having access to a computer at home is associated with a 5.8 per cent reduction in the likelihood of playing truant at age Placing portable technology in classrooms and allowing students to bring personal mobile devices to school for learning enables more effective use of ICTs than placing computers in separate labs where it is difficult to align time of access with the ‘teachable moment’. School divisions in Manitoba are now allowing students, on a trial basis, to bring their own technology to school and to connect to the divisional network for access to the Internet. Dakota Collegiate in Louis Riel SD is reporting a high level of both teacher and student engagement by allowing students to bring their own technology to school.

Evidence exists that use of ICTs can increase learner autonomy and self-regulated learning for certain learners. “Students assume greater responsibility for their own learning when they use ICT, working more independently and effectively... ICT offers learners assignments better suited to individual needs and makes it easier to organize their own learning, through the use of, for example, digital portfolios” (Balanskat, 2006)

“Peer-based learning has unique properties that suggest alternatives to formal instruction.”

2.13 The Advantages of using ICT in education

A lot of researches have examined how the educational process is affected by the integration of ICT in learning environments. In traditional teaching, students are observers and listeners; ICT enables the students to take an active role in their learning. IT becomes a teaching assistant for the students and helps them to construct their own understanding and knowledge of the topic (Oyaid, 2009) ICT could increase students' enjoyments of learning and confidence in their ability as fun and games are being brought into classroom (Lee, 2000) in a study by Lee (2007). More than 18% of secondary students surveyed emphasized that they found technology useful because of "using games and other fun". Also ICT provides students with tools for organizing, visualizing and treatment of the problem to make educational decisions more quickly and effectively. This makes it possible for students to become more active and highly motivated (Chen. Jia , & Wang , 2009, August). Individually or in groups, students, through ICT, are given ability to develop multiple strategies and solutions to the problems and receive immediate feedback. The traditional method of feedback needs students to wait for a long time to receive feedback about their work and sometimes, students may not receive feedback at all, . ICT provides students with immediate feedback that provides the students encouragement to continue exploring and trying out new ideas until they find the answers they are looking for (Cheng& Chen , 2007;Clement 2000). Hennessy , Ruthven , and Brindlely (2005) emphasize that using ICT support the students to check , trial and refine their work which means ICT facilitates immediate feedback and encourages self-correction. Becta(2009) indicated that students were highly motivated towards achieving personal learning goals and towards acquiring positive feedback on individual competence. According to Hamilton and O'Duffy (2009)

using ICT can support teachers in delivering assessment and gaining immediate feedback on student' progress which allows them to provide personalized learning opportunities with the use of remediation and enrichment to transmit more differentiated instruction that better meets student's needs (Hamilton and O'Duuffy,2009) ICT also provides an open environment for interaction and collaboration on projects . In traditional group work, there is often one student who functions as a group leader so some students may get lost .ICT helps shy and weak students to participate in a way that is more safe and comfortable for them

2-14 ICT implementation

The lack of effect or a negative impact of ICT as described by Trend, Davis and Loveless (1999) a reality –rhetoric gap. This refers to the difference between the claims made for ICT and its actual impact on education (Condie& Munro , 2007, Twinge, 2008) Vallance and Matsue (2009) commented on this issue stating that educational reforms that promote ICT use lack solid rationale for the adoption of ICT or in spite of the efforts the teacher to ICT in their teaching , teachers lack direction about how ICT might best be integrated into schools and classrooms practices . this view is supported by Varian(2000) who indicated that "the introduction of ICT into education has often been carried out with vague and confused conceptions of the desired model of learning which the new technologies were supposed to enhance and without clear conceptions of any guiding educational values "(332)

Some research (Department for Education and Skills, 2004,; Moyle ,2006 Twinges 2007) mentioned what is known as " shared vision" about the role of ICT should play in education. For instance Discussion ICT aspiration and targets for education project (2007) Is an international project that examined ways of enhancing the impact of investments in

educational ICT. “Reality rhetoric gap” seems to be a lack of shared with and confused understandings (visions) within education community (including among policy makers, researchers and practitioners) about why we are using ICT in education. Through conducting a literature review and analyses of over 9000 responses to the ICT at education online questionnaires from respondents in 94 countries the ICT at education project identified 19 reasons given for the use of ICT in education grouped in three main categories. These categories are:-

1-supporting students learning.

2-improving technological literacy.

3- Improving productivity. (Twings-2007)

These three main rationales are supported by other research literature (Department of Education Science and Training) Moyle (2006) asserted that:-

…before any school or school system can have effective policies and practices to incorporate [ICT] to support learning and teaching .the must have a clear vision of the learning it is aiming to foster and organization it is aiming to be….(5)

It can be seen that it is important to develop an explicit rationale for using ICT in education (Van Melle, Cimellaro, &Shulha, 2003).clearly, there is little or no point in equipping schools with more ICT unless such a rationale has been confirmed (Newhouse.2002)

2.15 Aspects of Effective ICT Implementation

There a number of significant aspects required for effective implementation of ICT in the classroom the first aspect of effective ICT implementation is that educators should avoid techno-centric thinking. Student's involvement within ICT- rich classroom "does not necessarily correlate with productive learning" (Geisert & Futreli, 2000- 10)Without appropriate directions, making ICT available in classrooms does not "in itself" lead to better education (Curriculum Corporation, 2005).changes in classroom practices will not occur simply because ICT is more available in the classrooms . On its own, ICT does not improve education. The availability of ICT in classrooms might not matter; rather , the significant issue here is how ICT improves the educational process (Bingimals, 2010) research suggests that there is no direct link between the use of ICT and a positive impact on students outcomes(Cuban 2001;Newhouse, 2002; Ungerleider& Burns2003;Waxman; 2003; Wozney, 2006) "unless" ICT are used effectively (Becta,2002). ICT has to be used in an effective way; otherwise it may be waste of time (Romeo, 2006).for example, according to Leach and Moon(200) using computers only for word processing or presentations, does not indicate the "effective" implementation of computers. It is agreed that ICT should not solely be used for replicating existing practices (Leu, Jr, Kinzer, Coiro& Cammack, 2004; Stole. 208).For instance, using digital presentations rather than a chalkboard for presenting notes. Dockstader (1999) argued what is considered to "not" ICT implementation:

(Implementation is not substituting 30 minutes of reading for 30 minutes of computer skill development. it is however, using computers to teach 30 minutes of reading. Implementation is not providing application software like electronic encyclopedias .spreadsheets, databases, , without a purpose.

It is not prepackaged programs that are often unrelated activities cluster around a particular topic that address few higher concepts or goals. Nor is it teacher created programs that cover special interests and \or technical expertise but do not fit content- area curriculum. Defining what technology implementation is and is not the first step in deciding how to integrate it into the classroom.

The second important aspect for effective ICT implementation is that educators should start with identification of educational problems. The use of ICT to support the educational process should start from "dissatisfaction with the educational opportunities offered to [students] and striving to do better" (Newhouse, 2002) . Educators should move from focusing merely on technology itself (or starting from the existence of ICT), and instead be able to do systematic analysis of educational problems that need to be solved (Van Melle, 2003). For instance, educators should start with asking questions such as "what are the educational problems facing our students?"And "Do our students need to improve better educational skills?". Then educators carefully choose ICT paying attention to advantages and limitations in supporting clear, well-defined educational objectives (Collins & Berege). Collins (2001) suggested that teachers cannot make good use of ICT until they know which ICT is relevant .Furthermore; ICT is less effective when the educational objectives are unclear (Honey,Culp& Spielvogel ., 2005). They agreed instead of concentrating on ICT use in itself, those who successfully implement ICT "show a clear and meaningful connection between technology and educational goals" (13)

The third aspect of effective use of ICT is that promoting constructivist learning environments. There is a growing tendency in the literature to encourage teachers to change form traditional teacher –centered

classroom to more student - centered learning or what known as constructivism (Pedersen& Liu2003). Constructivists believe that “humans construct all knowledge in their mind by participating in certain experiences, and learning occurs when one constructs both mechanism for learning and one’s unique version of the knowledge colored by background experiences and aptitudes ”(Roblyer & Doering 2010(35)).

Constructivism in education involves the process of how students construct knowledge. This depends upon what students already know. Which depend s on the kind of experiences that they have had how they have organized those experiences into knowledge structures, and what they believe about what they know (Jonassen, Carr,& Yueh ,1998). Thus, in constructivist learning environments, students learn through purposeful activities in which they are active participants rather than passive receptors of information. So the students involve in intentional and students centered activities that enable the students to engage actively in setting their own goals for learning and determining the resources and process for reaching those goals (Brown, 2004; Pedersen& Liu 2003)

Effective ICT implementation reflects using ICT as knowledge construction tools rather than instructional tools (Janassen 1998) advocated the use of ICT as mind tools to assist students in organizing and interpreting what they learn, instead of as instructional tools to present facts and information to them .which allowing students ”function as designers ”, and ICT as cognitive amplification tools” for interpreting and organizing their personal knowledge ” (Janassen, 1998- 24) mindtools are computer applications that engage students in critical .higher order thinking about content (Janassen , 2000, Kirschner , 2006) . these tools include databases, semantic networks, spreadsheets, system modeling tools , intentional information search engines visualization tools , multimedia publishing

tools , live conversation environments , and computer conferences (Janassen ,2000 , Kirschner & Erkens, 2006). These applications are only considered as mind tools when students use them as cognitive tools to learn. That is where students actively involved in constructing teir knowledge using the application that facilitates engaging them in and many thinking tasks. Janassen(1998)explain for instance, using databases to organize students 'understanding of content organization necessarily engages them in analytical reasoning, where creating an expert system rule base requires them to think about the causal relationship between ideas . Students cannot use Mind tools as learning strategies without thinking deeply about what they are studying (24Avoiding techno-centric thinking, starting with identification of educational problems, and considering constructivist learning, are the most important aspects of effective use of ICT in education . However, there are numerous and diverse factors affecting the successful implementation of ICT in schools and classrooms.

ICT is not a product; it is rather a process (Yalin , Karadeniz &Sahin, 2007) the success of ICT implementation in education means implementing ICT and ''effectively efficiently in all dimensions of the process'' (Yalin, 2007). this includes ensuring that the process requirements are met. It is emphasized that ICT implementation processes "work best when optimal conditions are in place to support them" (Roblyer& Doering, 2010) the research literature witnesses a growing body of research studies that aims to investigate what prevent the successful implementation of ICT in education (Afshari, Bakar ,Luan,Samah,& Fooi, 2009,;Baek, Jung, &Kim 2008, Balanskat,2006; Becta, 2004, Cox, Cox& Preston, 2000, ; Ertmer, Ottenbreit-Leftwich,& York, 2007,Mumtaz,2000,; Tezci, 2011,Van Braak,2001).

The most common finding is that ICT implementation is a complex process and involves a large number of influencing factors. Usually, in the literature, these factors are known as “barriers “which can define as “any condition that makes it difficult to make progress or to achieve an objective”, in this case the successful implementation of ICT in education (Schoepp, 2005) the barriers were classified into , first-order (extrinsic)and second-order (intrinsic) . Extrinsic factors relate to organizational support, policy and planning or access to equipment, while intrinsic barriers refer to more emotional, personal issues related to the teachers’ beliefs and attitudes towards ICT.(Ertmer, 1999, 2007). Another way of classifying to successful implementation of ICT is by grouping them according to whether they are relating the individual (teacher- level barriers) or to the institutions (school –level barriers). The teacher –level barriers include lack of time, lack of confidence and negative attitudes, whereas, school-level barriers include lack of access to ICT resources and lack of effective training and technical problems (Becta, 2004). Other studies classify the barriers into three main groups: system level barriers, school level barriers and teacher level barriers (Balanskat 2006). Finally Hew and Brush(2007) use six categories classifying barriers according to whether they relate to : resources, institution , attitudes andbeliefs , knowledge , and skills, assessment and subject culture (Hew &Brush, 2007) so the purpose of this study is to explore the impact of ICT on promoting scholastic activities in Sudanese schools therefore this review will classify the barriers into: teacher-related factors and non-teacher-related facto Non- teacher - related factors that impact the effectiveness of ICT implementation in education like infrastructure, policy, and planning, support and management are the most frequently cited factors in the literature and they well discussed in the following:

In study by Korte and Huing (2006) the majority of teachers stated that the lack of ICT infrastructure in schools prohibited them from using ICT in the practices. Hew and Brush (2007) conducted a Meta –analysis to identify, the general barriers affecting the use of computing devices in schools for educational purposes, both in the United States as well as other countries. The examination of48 studies revealed that a lack of resources was the most frequent barrier mentioned with a percentage40% compare to other categories the ranged from 23% to two percent , according to Hew and Brush (2007) , a lack of resources may include the lack of availability of technology in schools as well as the lack of access to this technology . Hew and Brush (2007) commented that "without adequate hardware and software, there a little opportunity for teachers to integrate technology into the curriculums. Even in cases where technology is abundant, there is no guarantee that teachers have easy access to those resources"

2.16 Previous Studies

The last few years have seen an increase in research studies on the impact an effectiveness of digital technologies in the teaching and learning of English as a foreign language. The studies identified in this review that are concerned with changes in learning outcomes as a result of technology use tend to focus on a particular aspect of the learning process.

2.16.1 Research and studies conducted in Sudan Sadig Y. Ezza, Gamar A. El-Booni, Mahammadain. Y (2013)

In their paper entitled (Integration of the Internet in a Sudanese EFL Classroom). Explored the integration of the web resources into the EFL classroom activities at the University of Khartoum, Sudan. In this connection, the study aimed at achieving three objectives. Firstly, it sets out to give insight into the nature of the Internet as a rich educational resource that can provide EFL classrooms with authentic situations of language use. Secondly, it intends to popularize internet in the traditional educational system not only in the EFL classroom but also in all disciplinary tracks. Thirdly, and most importantly, it calls on Sudanese tertiary institutions to take on either or both forms of web-based learning, i.e. e learning and blended learning, since they have been proved to accommodate all types of learners unlike traditional education which is conceived to put a good deal of learners at disadvantage. The study made three predictions about the use of the Internet in the EFL classroom: 1. Most EFL teachers use web-based materials to enrich courses content; 2. Most EFL teachers integrate their students' Internet skills in the classroom activities; and 3. there are no gender differences with respect to the integration of web-based materials into the EFL course content. A questionnaire was designed and distributed to 25

respondents who were randomly drawn from the total of 41 EFL faculty members who are currently in the service of the University of Khartoum. The data obtained was analyzed using SPSS.

The findings confirmed the three hypotheses and the study found that unfortunately despite the early introduction integration of internet service into the University of Khartoum, it has not adopted a clear policy to enforce the integration of the internet in educational system, bearing in mind that there is high level of digital literacy among its teaching staff.

This paper tackles the same area of the present research EFL class and both of the study followed the same methodology to obtain the responses.

2-16.2 Badawe, E.B. Hassan (2014)

in his study entitled "EFL Teachers' Attitudes towards using computer Assisted language learning in classroom", which attempts to investigate Sudanese EFL teachers' attitudes towards using CALL, the researcher used a descriptive analytical method, the data collected from English teachers (n50) working in three universities: Sudan university of science & technology, Omdurman Islamic university, and Al-Ahfad university for women through questionnaire which analyzed through descriptive statistics in SPSS. The study illustrated a positive inclination towards benefiting from computer in EFL classrooms. The results also indicate that computer use in considered highly advantageous. The study suggests that computers accessibility in classrooms is crucial so, EFL classes should be equipped with computers and teachers should have training courses in using ICT. Both of the studies reveal the importance of using technologies for EFL

teachers. Furthermore, they share some of the recommendations.

2-16.3 Kmanour, E.L (2001)

in his study entitled as "Developing Higher Education at Sudanese University with the utilization of instructional Technologies" mentions that the main objective of his study has arisen from the fact that higher education in the universities of Sudan being the driving force in achieving progress- for urgent development via current challenges manifest in the technology development and information explosion, taking into consideration, the growing number of students at the Sudanese universities. The main question addressed in his study was: (1) How can the utilization of instructional technology develop and improve university education in Sudan? (2) To what extend can the instructional technologies contribute in problem solving and critical thinking. The hypotheses of his study were: (1) Teaching staff at Sudanese universities have strong positive attitudes towards solving all the problems concerned with higher education with the help of instructional technologies. (2) Using instructional technologies represented novel ways and ideal solution for problem solving compared with traditional ways and methods and (3) Using instructional technologies have a deeper impact on improving Sudanese university education. The data was obtained and processed through appropriate statistical method by applying (SPSS) and on the bases of the descriptive method by depending on its analytical qualities in the field of instructional technologies. His research has yielded a number of findings such as (1) the utilization of instructional technologies in Sudan universities instruction lacks a definite clear perspective concerning the concepts of instructional technology, despite the complete satisfaction and the firm conviction of all those who would be directly or indirectly concerned with the adaptation and the utilization of instructional technologies and (2) the study showed positive

attitudes to the teaching staff towards the possibility of developing university intuition and solving its problem by using instructional technology issues. Depending on the results of the study, the researcher put forward some suggestions and recommendation, with hope they contribute to a suitable infrastructure for developing university instruction in the Sudan.

The recent study is in the same line with the current research in term of area and the method. Moreover, they are shared some recommendations.

2.16.4 Elsadig Y. Ezza, Mohamed A. H., Abbas M, B. (2012),

Their paper entitled “Social Media and EFL Learning among Sudanese Students”. Their paper particularly intended to assess the educational dimension of Sudanese EFL learners' use of these applications given the general observation that the competing Internet providers in Sudan offer mobile Internet services at low rates that are accessible to all subscribers. This paper argues that participation in SM could provide EFL learners with avenues to practice their English in ways that are more authentic than their artificial classroom environment. The main questions addressed in their study were (1) Do Sudanese EFL Learners use SNs for academic purposes? (2) Does the students' academic level affect their use of SNs for academic purposes? (3) Does the students' gender affect their use of SNs for academic purposes? A questionnaire was used as an instrument. Research findings indicated that the vast majority of the students use SM for educational purposes as evidenced by the first two columns despite some undecided and disagreement preferences expressed by many participants "girls tend to have less positive beliefs about the value of ICT" Vekiri (2010:17). This choice reflects high awareness of the significance of innovation in language education, which could, of course, be further reinforced institutionally. However, except for the University of Khartoum,

websites of Sudanese universities do not inform of any attempt to legitimize the use of LMSs and, thus, SNs into the existing educational system. Apparently, the participants see no educational value brought about by communication in English with Arabic-speaking interlocutors. Also, they do not consider blogs as appropriate educational avenues. The study concluded that despite the non-academic nature of most SNs, they can contribute to EFL learning in significant ways. For instance, they can enable learners not only to practice their English on native speakers and other EFL/ESL learners across the globe but also provide them with rich spaces, e.g. blogs, wikis, podcasts, etc., to create and share content. In other words, LMSs employ the interactive, nonthreatening nature of SNs in implementing online classes where learners can sign in anytime to access classes and contribute to the ongoing course-related discussion. The participants of this study optionally employed SNs to improve their EFLperformance. This study reflects high awareness of the significance of innovation in language education, which could, of course, be further reinforced institutionally. However, except for the University of Khartoum, websites of Sudanese universities do not inform of any attempt to legitimize the use of LMSs and, thus, SNs into the existing educational system. With reference to the recent study, it shares some points concerning same area and methodology.

2.2.5 International Researches and Studies

Al-Hammadi (2007), in her study, measured the effectiveness of multi-media software for developing some listening skills among EFL Saudi secondary school students. To achieve this purpose, three tools were used. Firstly, a list of listening skills was collected from literature to determine the necessary listening skills needed by third year Saudi secondary school students. Secondly, a pre/posttest was prepared and programmed to

measure the effectiveness of the software in developing some listening skills. It was administered at the beginning and end of the experiment to measure students' listening skills. Thirdly, multi-media software was designed, programmed, and administered by the researcher for developing students' listening skills. The results of her study showed the following:

1 -The software has proved to be effective in developing some listening skills among EFL secondary school students.

2-Superiority of students' performance in the post-test measures is due to the effective use of multimedia annotations and the variety of activities that have been used.

3-Shy or inhibited students can be greatly benefited by individualization; student-centered learning. Computer can offer new opportunities for better language learning.

4- Multimedia is a great treasure for teachers and students because it has exactly what you need, whether it is for an activity in class, an activity out of class, topractice a-10 International Research and studies. This study results reveal and confirm many of the current study result, in term of that both of them discuss the opportunities provided by using digital technologies to EFL students, and they get the same results that using digital technologies open a world of opportunities for the learners to practice the language freely.

2-1-6 Ibrahim Mohamed Al-Faki (2014),

In his study entitled “the difficulties that teachers experience when they use the interactive whiteboard in English language classes” in Saudi context, the study aimed to investigate the interactive whiteboard if it is use or not, and to mention the difficulties occur when teachers use it. The study finds out While ICT presents new challenges for teachers; it also offers

great opportunities for teacher education. ICT's media can improve training through providing access to educational resources, breaking the traditional isolation of teachers, and enabling individualized training opportunities. The study revealed that here are a few research studies, which investigate the drawbacks of IWB.

The study focused on the difficulties, which teachers faced in the classrooms in the Saudi contexts. Those difficulties are categorized into four groups. These are: teachers', school administrations', technical support's and students' factors. Each factor entails a number of challenges. The main questions addressed in his study were:

(1) what computer skills do teachers have?

(2) What type of professional training do teachers have in using the IWB?
(3) What type of technical support do teachers have?

(4) How do teachers and learners co-operate to use the IWB?

(5) What problems do teachers face when they use the IWB in English language classes? The hypotheses of his study was based were:

(1) Most teachers lack computer competency.

(2) There is a lack of pedagogical in service training in using IWB.

(3) Ongoing technical support is insufficient.

(4) Learners know technology better than teachers do.

(5) Teachers face several types of difficulties when they use the IWB in teaching English language.

The data was obtained through a questionnaire consisting of twenty-five statement besides the researcher's observation and his own experience. The subjects were chosen purposively from Jeddah Schools' English language teachers.

The researcher conducted a pilot survey and used statistical techniques through which validity and reliability of the questionnaire were verified. The overall research method used was the descriptive analytic method.

The findings of the study have revealed that there are many challenges that teachers faced when using the interactive whiteboard. Those challenges interact together to hinder IWB integration into teaching and learning. With reference to this study it is confirmed some findings of the current research that digital technologies provide many active opportunities for English learners.

2-1-7Abdallah A. (2013)

In his study which entitled "Effect of Using Internet Tools on Enhancing EFL Students' Speaking Skill" aimed to examine the effect of using shared online oral diaries on the EFL Saudi First year university students' speaking proficiency. It used one male and one female EFL Saudi First year university student's classroom sections to represent the experimental group and one male and one female classroom sections to represent the control group.

An equivalent speaking proficiency test, developed by the researcher, was applied on the control and the experimental groups before the study started to ensure their equivalence; and was also used as a post-test. The results of the post-test revealed significant differences between the mean scores of the experimental group and the mean scores of the control group in favor of the experimental group. The clustral random sampling method was used because it was impossible to redistribute students into new classroom sections. All of the participants were of level two in the English language proficiency placement test which the English Language Skills Department in the Preparatory Year Deanship usually runs at the beginning of each academic year.

This study agrees with the current study in the term of both of them tackle the importance of using digital technologies to enhance students' English skills.

The both studies get the same results that using digital technologies have clear impact on handling students' skills.

2-1-8 Sultan A. M. Arishi (2011)

In his study entitled: "attitudes of students at Saudi Arabia's industrial colleges towards computer – assisted language learning (CALL). This paper identified attitudes toward CALL of students studying English as a foreign language (EFL) at industrial colleges in Saudi Arabia. Seventy students who were enrolled in the orientation year of an English program were chosen to participate in this study by expressing their attitudes toward CALL. Standardized and local instruments were used along with interviews and observation techniques to collect data. The results of the study revealed that students had positive attitudes toward CALL. Looking at the daily hours students spend using a computer, a slight correlation was found between this variable and the students' attitudes toward CALL. Other variables, such as students' background knowledge of English, ownership of a computer, and their computer knowledge, were found to be irrelevant to their attitudes toward CALL. These results were in line with previous research conducted by Al-Shammari (2007), Alrumaih (2004), and Almekhlafi (2006). The results reinforced conclusions about CALL revealed by researchers, such as Chen (2003), Chikamatsu (2003), Egbert (2005) and Levy (2005), who found that it helps students learn better and more independently, and gives them the ability to have more control of their learning and to have more opportunities to practice English. To some extent this study has some features that make it agreed with the recent study, but the current one tackle the teachers' attitudes as art of the

study unlike this study deals with students' attitudes.

2-1- 9 Al-Balawi, M, S (2007)

In his thesis entitled as "Critical Factors Related to the implementation of web- based instruction by higher- education faculty at the universities in the kingdom of Saudi Arabia, university of West Florida, college of professional Studies is occupied with the current use of web-based instruction (WBI) at Saudi Institutions and the facilitating and the impending factors affecting faculty decision to participate or not in (WBI). The instrument used was a questionnaire. The purpose of his study was to investigate the attitude of the faculty members at three Saudi universities towards web- based instruction (WBI) and to provide the Saudi universities and the faculty with insight into the use of WBI. The main questions addressed were: (1) what are the attitudes of Saudi Faculty towards web-based instruction, and (2) how do the factors related to barriers influences faculty participation in web- based instruction. He concluded that, Saudi faculty has positive views about potential incentives when implementing WBI. Based on the findings of his research, he suggested a number of recommendations: (1) This study should be replicated and similar study should be conducted using additional Saudi Universities and (2) further studies should be conducted to determine if there are other factors affecting the implementation of WBI at Saudi universities beyond those investigated in his study. Both of this study and the current study discussed the teacher's attitudes towards using digital technologies, and they followed the same method to collect the data. Moreover, they get the same results.

The Asian Conference on Education (2013)

Official Conference Proceedings ISSN: 2186-5892 Xuan Nguyen, Unitec Institute of Technology, New Zealand in study entitled (English Language Teachers' Digital Literacy Development: A Case Study of English as a Foreign Language Teachers at a Vietnamese University). The paper discussed the Digital technology has significantly contributed to the shaping of an increasingly digitalized landscape of English language teaching (ELT) over past decades. Recent years have seen initial changes in the technology-supported English as a Foreign Language (EFL) education in Vietnam including a number of emerging initiatives aiming to developing teachers' technological competencies. With this purpose, a case study into the digital literacy professional development of a group of EFL teachers at a Vietnamese tertiary organization was proposed. The intent of this article is to provide an overview of this current research project. The paper starts with a critical review of literature on English language teachers' digital literacy and technology-focused professional development. In the second part, the rationale for and significance of this research are justified, giving rise to its aims and questions. Following this is a brief specification of planned methodology and methods of data collection as well as data analysis. The subsequent section is dedicated to a brief discussion of research relevant ethical issues. Finally, a concise summary completes the paper. This paper discussed the Digital technology has significantly contributed to the shaping of an increasingly digitalized landscape of English which has some features shared with the recent study that both of them discussed one issue concerning digital literacy at the university level. But the current study examined the digital literacy among teachers and students unlike this paper takes the teachers side only.

2-1-0 Emhamed, Ebraiek Deen Hamed; Krishnan,K,Sarojani Devi (2011))

Their study (Investigating Libyan teachers' attitudes Towards Integrating English in Sebha Secondary Schools). This study aimed to investigate Libyan English language teachers' attitudes towards integrating technology in teaching EFL students, and the difficulties faced in using technology in secondary schools in Sebha city. This research adopted a mixed method design. The conceptual framework of the study was adopted from Saaid (2010). A questionnaire adapted from Wozney and Abrami (2006) was administrated to 40 selected Libyan teachers in Sebha city to elicit information to their attitudes towards integrating technology in teaching EFL students, their preparation to integrate technology, the types of technology used and the difficulties they faced in integrating technology, A semi- structured interview was also conducted with eight respondents selected randomly from the sample to collect in – depth data on their attitudes towards integrating technology and problem faced. The findings suggested that the most of the teachers had positive attitudes towards integrating technology in teaching EFL students. However, they faced problems related to time constraints and the lack of administrative supports. The findings of the study have implications for Libyan English Language teachers to improve the use of technology in their teaching to enhance student' learning. This study aimed to investigate Libyan English language teachers' attitudes towards integrating technology in teaching EFL students. It has relation to current study that they are tackled the same topic but they are followed different methods.

2.16.1Cunningham, K, (2000),

His on- line article entitled “integrating CALL into writing Curriculum”, Osaka Seikei Women’s Jounior College (Osaka,Japan), 2000. The main objective of his study is to describe and analysis the ways in which the technology can enhance writing development. The main questions addressed in his study were: (1) can computer applications help improve students’ performance in basic skills and bother key areas? (2) For what specific areas, grades, levels and content areas are computer applications most effective? (3) Which kinds of computer applications are most effective for which skill and content areas? And (4) can computer applications improve students’ attitudes and their abilities to learn? Many hypotheses were set in which (1) writing quality of students can be improved by using word processing, (2) higher grades tend to be achieved for word processed assignments, (3) effective factors such as attitudes towards writing and motivation can be improved, and willingness to write multiple drafts is higher when word processing is used. The researcher has adapted experimental method. He introduced a system of computer usage which he designated the name “Work Station”. The students were assembled in pairs, triads, quads or many even work alone depending upon the criteria of the particular programme and its goal. A total of thirty- seven EFL learners enrolled in writing classes completed survey questionnaire eliciting their attitudes towards their experience in the computer assisted classroom. The researcher has provided many findings of which (1) analysis of the data indicated that the students in general, found the word processing class to be challenging and non-threatening and believed that the word processing benefited their performance in writing, (2) They also felt that using word processing helped concentrate their attention on certain aspects of their writing and (3) Ideally, learners in a control group (taught

in traditional classroom) should be taught by the same teachers and with the same material and curriculum as learners in thecomputer classroom. This study is Agee in term with the present study in topic itself and how digital technologies provide many sorts of opportunities to practice language skills.

2.16.2 Piano– Silver, J. (2006)

In his paper entitled as" Extensive reading through the Internet" Is it worthwhile? Is occupied with a new scheme involving the use of the Internet for developing Reading skills? The main focus of the paper is to describe the 3- phase gradual process that led to the current design of the web based Extensive Reading (ER) scheme. The objective of the paper is to describe a web- based ER program (W-ERP), which evolved from an earlier page-based version) P- ERP, both carried out with college students enrolled at Universidad Simon Bolivar, Caracas, Venezuela. The main question addressed in his study is to which extend can the Internet develop students reading abilities. A questionnaire of ten open ended questions on the potential benefits of downside of web-ER was constructed. One of the most important results of the paper is that, web projects provide opportunities for the students and teachers to work together by finding materials on the web they would like to read or lean about. He suggested that it is necessary to emphasize the role of web-based ER, as a new way of delivering instruction in contrast to paper-based procedures. This study is in the same line with the current study that both of them look for the opportunities that provided by digital technologies either for EFL learners or teachers.

2.16.3Anglin, Vaez, and Cunningham, (2004)

reported a research on the effectiveness of the visual multimedia used in the learning environment showed that they can improve learning. Visuals can help raising the reader's interest, curiosity, motivation. promoting creativity, serving as Usage of Multimedia Visual Aids in the English Language Classroom. Mental scaffolding and fostering aesthetic appreciation.

2.16.4Studies carried out by Mukherjee and Roy (2003)

have found that the use of multimedia to contextualized spoken speech it's a great help for students, given that they can understand 30% more than without the visual support. Following this path,

Canning-Wilson (2000)

research suggested that visuals can be used to enhance the meaning of the message conveyed by the speakers as kind of the paralinguistic cues. Another important thing to note is that visuals may help in order to build mental models, and communicate relationships among content objects in a more efficient way than can word alone. According to Canning

Wilson (1997) the importance of the visual aids is highlighted when focusing on the way language is processed.

2.16 .5 Oguz. S, (2006)

searched in the effects of the computer-based instruction on the achievements and problem-solving skills of the ESL/EFL students. This is a study based on the pre-test/post-test control group design. The outset of the study to find out the whether the levels of the two groups were equivalent in terms of their achievements and problem-solving skills and the Kolmogorov-Smirnov single sample test to find out whether the data follow a normal distribution and finally, the covariance analysis to evaluate the efficacy of the experimental process. The result of the study reveals that there is a statistically significant increase in the achievements

and problem-solving skills of the students in the experimental group hat received the computer-based instruction.

2.16.6Hendrickson. C, Asia. M, Pasquale. A Robinson and M. Rossi-Velasco, (2000),

Conducted a study in applications of modern technologies aided instruction. They ame up with Computer-aided instruction (CAI) offers numerous advantages for education and training when properly designed and implemented. Recent computer developments in hardware and software enhance the effectiveness and reduce the cost of CAI. They reviewed recent developments, using CAI programs designed and developed by the writers as examples. Experience with the use of CAI in a large general contracting and construction management firm is also reported. The survey also concludes that CAI can now be widely adopted for training and education supplements in civil engineering.

2.16.7Fawwas Al-Abed Al-Haq, Mahmoud Ali, (2007–2010), Studied the effect of the computer-based writing instructional EFL program on enhancing the performance f Jordanian secondary school students. They reported that to achieve the bjectives of the study the researchers used a pre-post achievement test. The xperiment lasted for two months (16 normal classes).The results of the study evealed statistically significant differences at (α= 0.05) in the students' mean scores of the overall English writing achievement post-test in favor of the experimental group. The results also revealed that there were statistically significant differences at (α= 0.05) due to gender in favor of the female students compared with males. The results further revealed that there was significant difference at (α = 0.05) among the mean scores of the students' achievement post-test for the discoursed component "content" in favor of the experimental group

2.16.8.Reina. A, (2004)

conducted a survey of the effects of computer-based Learning on struggling EFL college writers. The survey aimed at finding out whether there were significant differences between EFL freshman students exposed to traditional in-class writing instruction depending on the textbook only, and those exposed to a combination of traditional in-class writing instruction and computer-based instruction in their writing achievement. Before instruction, both groups were pretested.Both studied the same writing textbook for 12 weeks. In addition, experimental students received online instruction in which they posted their own threads, short paragraphs, stories or poems on the discussion board. They located information related to themes covered in the book from internet sites like “Yahoo movies” and “WebMD”. They word-processed their paragraphs and checked theirown spelling using MS WORD. At the end of the treatment, both groups were posttested. Results of the paired and independent T-tests and Analysis of covarianceare reported.

2.16.9Bassma. B (2013),

conducted a research in the impact of using multimedia technology in teaching English as a second language. The research highlighted the role of using modern technology in teaching English as a second language. It discussed different approaches and techniques which can assist English language students to improve their learning skills by using technology. Among these techniques are online English language learning websites, computer assisted language learning programs, presentation software, electronic dictionaries, chatting and email messaging programs, listening CD-players, and learning video-clips.

2.16.10A case study

Has been done to appreciate the response of typical English language classroom students for using technology in the learning process. Upon this practical study, the research diagnosed the drawbacks and limitations of the current conventional English language learning tools and concluded with certain suggestions and recommendations.

2.16.11Chan. N and Jeong. B, (2003)

studied implementing computer-assisted language earning in the EFL classroom: teachers' perceptions and perspectives. he aim of the study was to investigate factors affecting English as a foreignlanguage (EFL) teachers' use of computers in their classrooms and to find out EFL teachers' perceptions of computer-assisted language learning (CALL) and ways to improve CALL practice in school settings... The results of the study indicate that the teachers have positive and favorable attitudes toward the use of the computers.

They consider computer technology as a useful teaching tool that can enhance ways of teaching by offering students a variety of language inputs and expanding students' learning experiences in real and authentic contexts. It is also reported that external factors such as lack of time, insufficient computer facilities, rigid school curricula and textbooks and lack of administrative support negatively influence the implementation of CALL in the classroom. Internal factors such as teachers' limited computer skills, knowledge about computers and beliefs and perceptions of CALL also seem to significantly affect teachers' decisions on the use of CALL. Based on the findings of the study, implications are made for the effective implementation of CALL in EFL contexts.

2.16 .12Ali Farhan, (2006),

Report in the study of the use of word processor for teaching writing to EFL learners in King Saud University. It was conducted to explore the effect of using word processor on the development of EFL learners' performance in writing and investigating their attitude towards computer-aided writing

. The results of the study indicated that the experimental group achieved better results in the writing test than the control group did. The study also revealed that members of the experimental group had a positive attitude towards using computer-based writing. Finally, the study concluded that the use of word processor was a functional method for teaching the skill of writing.

2.16.13Naser (2005)

conducted a study to find out how much teachers benefit from computer and the Internet in education and to find a solution for the problems of the availability of this information technology devices in Sudan. The researcher applied the descriptive-analytic method. The subjects of the study consisted of the Education College students of Khartoum University, AlzaeemAlazhari University,Sudan University, and Juba University. The researcher chose a random sample and some educationalists and specialists in the field from each university. It included116 students (male and female). The questionnaire and the interview were the tools used to collect the data. The results revealed that: 1) using information technology participates in education development, 2) the trained cadre in the mentioned field is not available, 3) this technology is not available widely for institution in orderto gets benefit out of it and, 4) using the Internet participates in solving problems ofthe university students, by using it in the system of distance learning.

2.16.14Abd El Basit (2004)

Conducted a research to investigate the utilization of PowerPoint presentation in teaching the English language, compared to the traditional method of teaching at secondary level in Carrara Locality- Omdurman - Sudan. Another purpose was to examine the effect of PowerPoint in immediate and delayed achievement for two groups of second-year secondary school students.

Ninety students were selected and divided into two groups. The experimental group and control group consisted of 45 students in each group. The experimental group was taught by the teacher aided by a computer, whereas, the control group was taught without the help of a computer. Each group took 15 teaching hour's to complete their task. The results showed that: 1) there was the statistically significant difference between the means of the experimental group and control group in immediate achievement. 2) There were statistically significant differences between means of experimental group and the control group in delayed achievement, in favor of the experimental group.

2.16.15The Discussion of the Previous Studies

The previous studies have been checked to find out the previous procedures and cases studies to bring new research which contribute at side of this research.

They largely match with the most views discussed in the literature reviews. This shows and indicates the importance of using digital technologies in EFL learning and teaching fields. All of the previous studies that were checked by the researcher related to the recent study that they tackle the importance of digital technologies as an introduction means. These results were in line with some previous studies which carried inside and outside Sudan. This results in the same linewith the study carried out

by Kmanour, E, L(2002) that his study entitled the developing higher education at Sudanese university with the utilization of instructional technologies. His study showed positive attitudes of the teaching staff towards using the instructional technologies. Likewise, Y.Ezza. Gumma, Mohammed.Y (2000), their paper investigated the internet in Sudanese EFL classroom, their findings showed that there is a high level of digital literacy among its teaching staff. Also, Badawi, E, B, Hassan (2014), their study attempted to investigate the EFL teachers' attitudes towards using computer Assisted Language Learning in the EFL classroom. The researchers used descriptive and analytical methods. Their study illustrated a positive inclination towards benefits from using computer in EFL classroom. The researcher observed that: -

It is remarkable to say that when the researcher compared the cited previous studies with the current study, however, it is agreeable to say that there are many points in previous studies corresponding with the present study such as research entitled. -Most of the selected previous studies followed the analytical method in their studies as the recent study. -Most selected previous studies directly and indirectly have relation with the researcher study objectives. -Most previous studies suggested and recommended the use of digital technologies in EFL learning and teaching. -Most of the studies agree that teachers have positive attitudes towards using digital technologies in their English classroom instruction. (Digital literacy).-

-Some of previous studies mention the crucial role that played by digital technologies at the university EFL classroom.

- Most of the previous studies have close relation with the present study and most of them are match the conclusion and the results and literature reviews.

- All of the previous studies that mentioned above their sample either from EFL students or teachers, unlike the present study which include the both.
- Most of the studies agree that using digital technologies and the internet open more opportunities for both EFL students and teachers.

All of the stated points above show the validity of this study, and also show the contribution of this study in improving learning and teaching via digital technologies.

Chapter Three

Research Methodology

3.0 Introduction

This chapter describes the methodology that was used to study the Sudanese students of Omdurman Municipality first year secondary school the impact of ICT on promoting the scholastic activities. The chapter consists of the following sections: research design, population, and sample. Size and sampling procedure, instrument data collection and data analysis

.3.1 The Methodology

The methodology used to conduct this study is the descriptive and analytical methods, as well as the experimental method which is conducted with the student's experimental group, and the second method is control group, and they were given the same test submitted to two samples of students.

This chapter includes the methodological procedure involved in this study, which are divided into following categories: A description of the population of the study, the sample study, the design of the study, the validity and reliability of the test the variables of the study, the instrument of the study beside the statistical design.

3.3 The Population of the Study

The population of the study consists of First Secondary School year in Khartoum State. Omdurman Educational Office, Musa aldaw and Wadi saydna secondary schools in the second semester of the scholastic year 2016/2017 the whole population was (160) secondary school students as explained in the table (1)

Table (1) Population Distribution

Percentage	Total	No of students	No of students	School
50%	80	40	40	Musa aldaw
50%	80	40	40	Wadi saydna
100%	160	8o	80	Total

A total of (160) secondary school students from four classes in two state secondary schools in Omdurman municipality participated in the study. At the beginning of study, in, November, during the scholastic year 2016/2017 the students ages were the same, then the participants were randomly divided into two groups experimental and control the experimental group consisted of (80) students, control group included (80) students the sample of the society was chosen randomly to represent the whole society equivalently .shown in table (2)

Table (2) Sample Distribution

:percentage	Total	Wadi saydna Boys	Musa aldaw boys	school
		No of students	No of students	Group
50%	80	40	40	experimental
50%	80	40	40	Control
100%	160	80	80	total
	100%	50%	50%	percentage

2.3. The Research Design:

The study was carried out with (160) students of First secondary Year School from two secondary schools in order to explore the impact of ICT in Scholastic Activities on other hand those of the control group were taught reading comprehension skills using traditional way of teaching , , that is reading skills . The measure used in testing the participants reading skills.

3.3. The Instruments.

Two instruments were used in this study for the purpose of data collection

3.3.1. A test

The test was designed in order to spot out the areas of problems in the student's performance. The test went through strict procedures to ensure its validity and reliability

Table (3) Reliability Statistics

Reliability Statistics

N of Items	Cronbach's Alpha
6	.074

The above table shows that six items have co-relation coefficient between them using Alpha measurement that coefficient is 074 is considered as positive strong coefficient between the whole skills.

3.4. Test Validity:

The reading comprehension test had been prepared and then passed to the piloting run members PhD holders in the fields of ELT to judge the designed test. Then after a time the researcher had received the member's opinion on the face validity of reading test. The subjects have answered all the questions of the test to establish discriminate validity. The researcher conducted pilot study on (20) students and there are distributed according to average for two groups distinguish and distinguish and the test was distributed to both groups.

3.5. Test Reliability

Selligier and Shohamy (1989. 82) stated that. Reliability and validity are "Significant criteria in establishing accurate data collection procedures"The test was distributed for the same subject to answered in order to prove whether the collected data will achieve the purpose of the research then testing the reliability of the collected data. A test of split – half was carried out.As for reliability, the test and retest method was used. That is a number of students were chosen to have the test and it should be noted that those students were excluded from the sample of the study. The reliability of the test was calculated using Pearson, reliability coefficient. The total value was (0.94) this result is considered high and achieves the purposes of the study

The pre-test was conducted for both groups and data was collected for analysis using SPSS. Then, an experiment was carried out for both groups. For the Treatment Group, they have to use ICT during their Learning English language lessons for 6 weeks whereas, for the Control Group, their lessons were carried out without use of ICT. Following the experiments, a post-test session has been conducted for both groups for data collecting.

Table 1 The comparison of students' achievements in pre-test sessionBetween the experiment Group and the Control Group

Test	Group	N	Mean	Standard Deviation	Standard Error		Sig
Pre-test	experiment						
Pre-test	control						.

3.6. Post test:

A post was administered by the researcher immediately after the experiment .the experimental and control groups had the same test. After (36) hours the experimental and control groups were retested on the same test.

-Pronunciation

-Vocabulary

- Accuracy

-Communication

- Interaction

- Fluency

Table 2

Students' achievements in post-test session between the Treatment Group and the Control Group

Test	Group	N	Mean	Standard Deviation	Standard Error		Sig
post-test	experiment						
post-test	control						

In co. ordination with school principal and the students parents letters were written (see appendix) as well as the researcher gave clear explanation about the purpose of the study and the nature of the experiment. The control groups were taught by their regular teachers some reading comprehension passages were prescribed for the second semester of first secondary school year curriculum SPINE (4). The teachers of the control groups used the traditional way of teaching reading. The Researcher taught the experimental groups using ICT in teaching reading comprehension. The experiment continued for thirty six hours (36hs) three hours per a week but the researcher made equivalence between experimental and control group on the study variables before the application of the proposed way of teaching.

The reading comprehension test is formed from (_30__) questions is given to the students. Using simple and clear language, the researcher set up questions with great awareness to present the needed information and lend a hand for students to give comprehensible answers in which testing understanding meaning(evaluate speaking abilities) e.g. pronunciation , vocabulary , accuracy , communication , interaction , fluency .beside listening the pre and post tests have one passage , as the researcher developed a reading test that was used two times one before the study started and anther at the end of study . The function of the pre – test was to make sure that the sameness of the experimental group before the study started as well as the post- test expected to evaluate the students' abilities to comprehend texts toward the end of the study, and compare the outcome of the experimental group .the test which considered as ability measurement, consist of one passage of (_4) paragraphs. The students were given two hours to finish the test, which built-in parts. There is not less than full mark and test- runner were scored on global scale from

1-3. The passage was divided into (4) paragraphs (A ,B , C, D) the questions were made to test : pronunciation , vocabulary, Accuracy, communication, interaction, fluency. The same passage was used in equally the pre-test and post test .the questions were several choices test (Read the following passage carefully then answer the questions that follow: A, B, C, or D) beside other testing techniques

Table 4

The comparison of students' achievements in pre- and posttest session between the experiment Group and the Control Group

Test	Group	N	Mean	Standard deviation	Standard Error	Sig
post-test	experiment					
post-test	control					

Table 4

Correlation between ICT use and students' achievements

	Students' achievement	Use of ICT	
		Pearson	Use of ICT
	.	Pearson	Students' achievement

B. the classroom Observation

The researcher also set up classroom observation for faction of students about (160) the classroom observation extend to three months for the first secondary school in Omdurman Locality (Musa el Daw and Wadi Saydna)

3.7 The classroom observation Checklist:

The classroom observation checklist was used to check the students interaction ,motivation when the teacher use ICT in classroom and where as ICT develop listening skills as well as the difference between ICT classroom and traditional classroom .

Table (3) the classroom observation

Date of observation	Teaching method	Number of subjects	class	lesson
20/10/2016	Traditional	40	Osman	Merowe
5/12/2016	With ICT	40	Ali	Town plan
20/11/2016	Traditional	33	Omer	David
15/1/2016	With ICT	39	Bubakar	Migration

Observation of participants in the context of a natural scene was made. Observation provided knowledge of the context in which events occurred, and enabled the researcher to see things that participants themselves were not aware of. The researcher set a classroom observation checklist for observation seen by the supervisor.

Table (4) Students interact and motivate when ICT use in classroom

Percentage	excellent	V. good	Good	Poor	Example
					Attendance
					Participation
					Motivation

Table(5) the difference between ICT learning and traditional learning

Percentage	excellent	V. good	Good	Poor	Example
					Vocabulary
					Fluency
					Communication

Table (6) how ICT develop listening skills

Percentage	excellent	V. good	Good	Poor	Example
					Pronunciation
					accuracy
					Interaction

Chapter Four

Data Analysis, Results, and Discussions

4.0 Introduction

This chapter Presents the statistical analysis for the Impact of the Information and Communication Technology on Promoting the Scholastic Activities of the for First Year Secondary School of Omdurman Locality Schools of Muasa Aldaw and Wadi Saydana Secondary Schools for Boys. The researcher has used two instrument for data collection Per-post tests as well as observation checklist .and this is the statistical analysis for the following items:-

- Pronunciation

-Vocabulary

-Accuracy

-Communication

-Interaction

-Fluency

4.1 Statistical Analysis

The analysis shows the students' grades and percentages in the first (pre-test) and second (post-test) tests for the control and experimental groups and also Paired sample T. Test for the control and experimental groups.

4.1.1 Item (1) pronunciation

4.1.1.1 Pronunciation of the control group

Table (4.1) pronunciation (control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
11.4	11.4	11.2	9	0	Pre Valid
27.8	16.5	16.2	13	2	
57.0	29.1	30.0	24	4	
79.7	22.8	22.5	18	6	
97.5	17.7	17.5	14	8	
100.0	2.5	2.5	2	10	
	100.0	100.0	80	Total	
2.5	2.5	2.5	2	0	Post Valid
23.8	21.2	21.2	17	2	
46.2	22.5	22.5	18	4	
65.0	18.8	18.8	15	6	
86.2	21.2	21.2	17	8	
100.0	13.8	13.8	11	10	
	100.0	100.0	80	Total	

Figure (4.1) the percentages of the responses of the control group students to the pronunciation question are shown in the pre-test

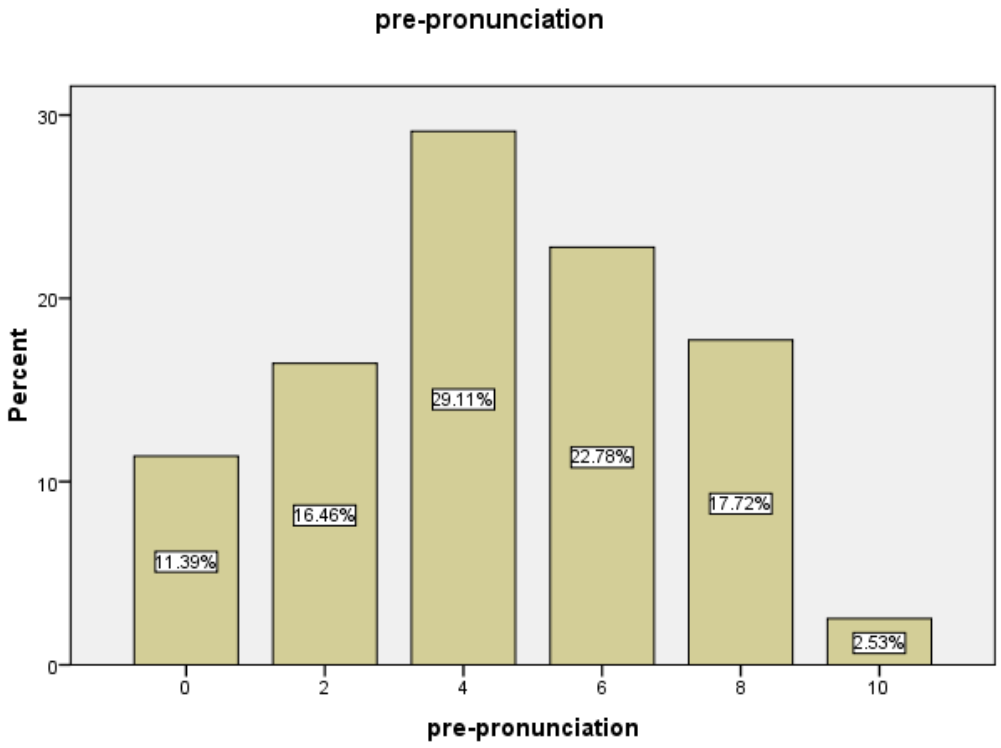
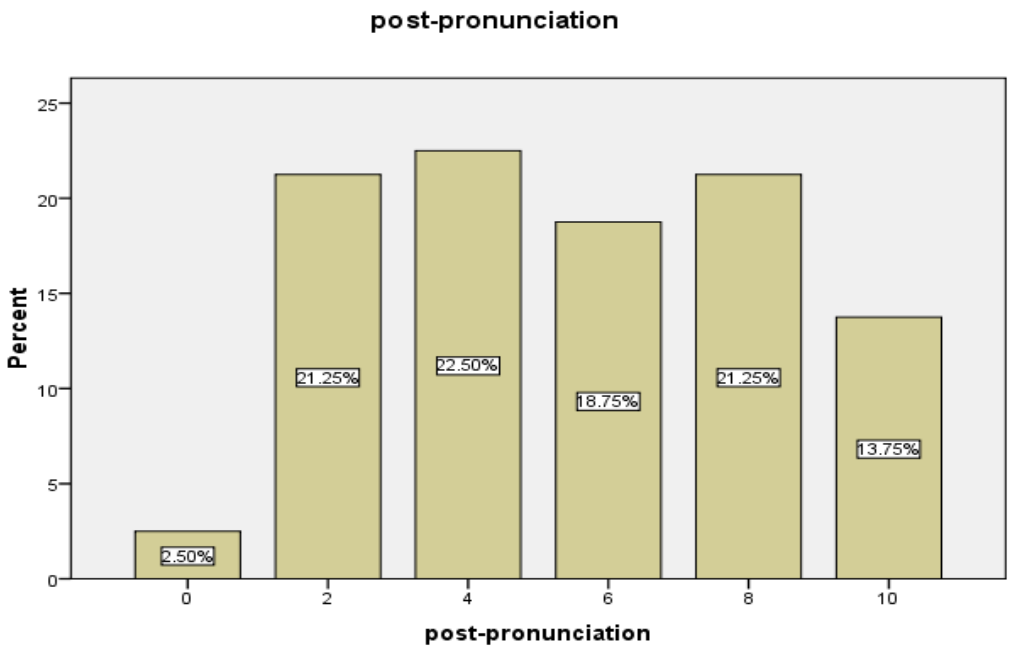


Figure (4.2) the percentages of the responses of the control group students to the pronunciation question are shown in the post-test



The table (4.1) and figures (4.1 - 4.2) above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Nine students scored zero marks with a percentage (11.2%).

Thirteen students scored two marks with a percentage (16.2%).

Twenty-four students scored four marks with a percentage (30.0%).

Eighteen students scored six marks with a percentage (22.5%).

Fourteen students scored eight marks with a percentage (17.5%).

Two students scored ten marks with a percentage (2.5%).

In the post-test, the analysis of the conversation questions comes as follows:

Two students scored zero marks with a percentage (2.5%).

Seventeen students scored two marks with a percentage (21.2%).

Eighteen students scored four marks with a percentage (22.5%).

Fifteen students scored six marks with a percentage (18.8%).

Seventeen students scored eight marks with a percentage (21.2%).

Eleven students scored ten marks with a percentage (13.8%).

4.1.1.2 Pronunciation of the experimental group

Table (4.2) Pronunciation (experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
7.5	7.5	7.5	6	0	Pre Valid
27.5	20.0	20.0	16	2	
57.5	30.0	30.0	24	4	
80.0	22.5	22.5	18	6	
97.5	17.5	17.5	14	8	
100.0	2.5	2.5	2	10	
	100.0	100.0	80	Total	
1.2	1.2	1.2	1	0	Post Valid

5.0	3.8	3.8	3	2
18.8	13.8	13.8	11	4
42.5	23.8	23.8	19	6
76.2	33.8	33.8	27	8
100.0	23.8	23.8	19	10
	100.0	100.0	80	Total

Figure (4.3) the percentages of the responses of the experimental group students to the pronunciation question are shown in the pre-test

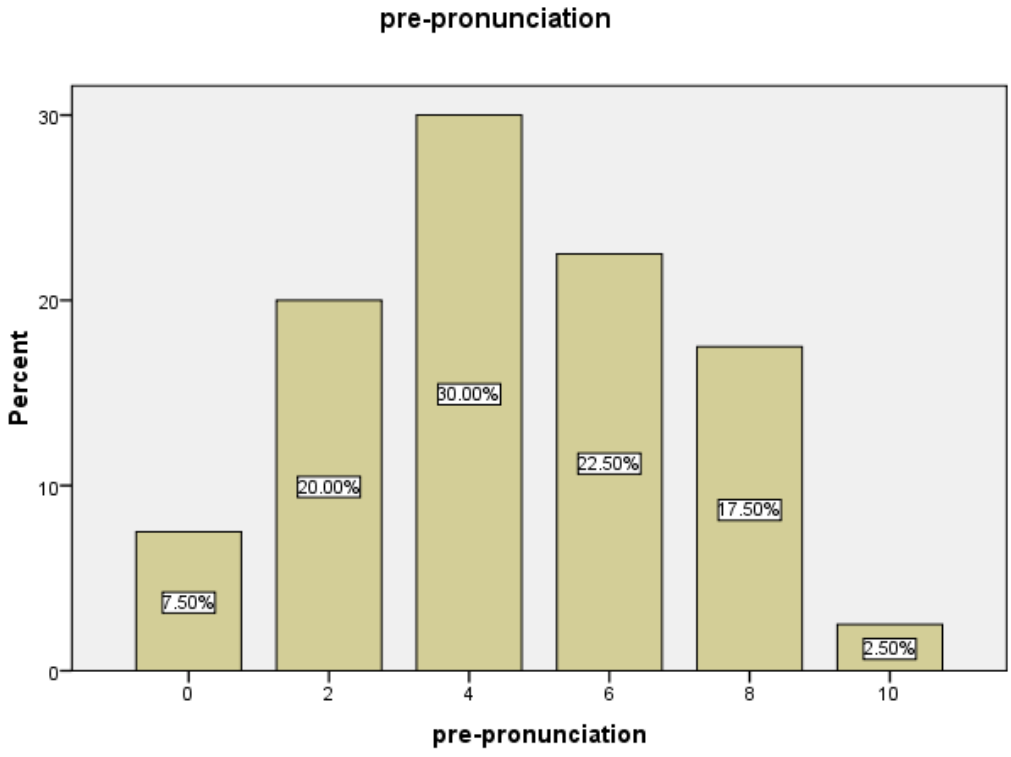
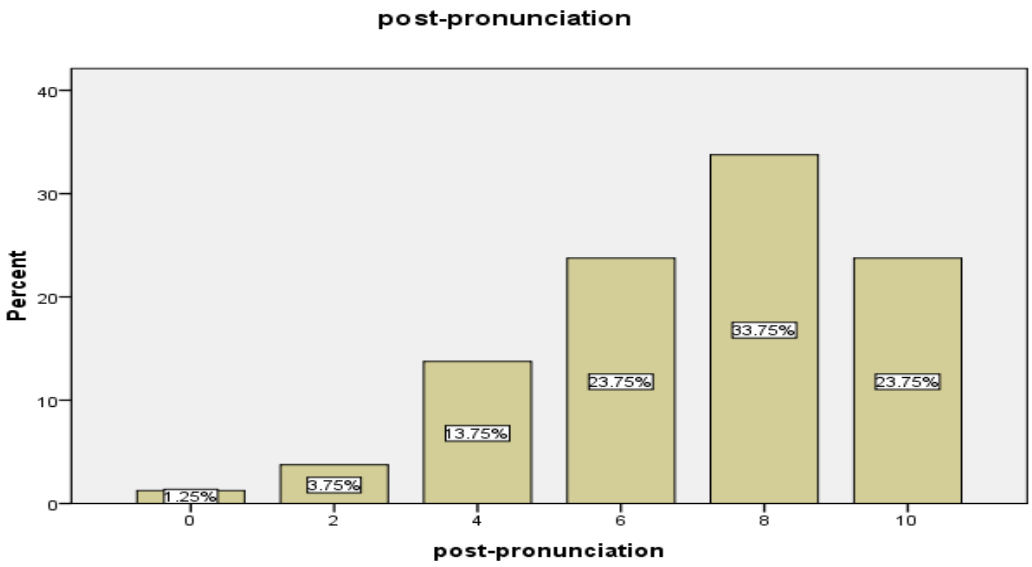


Figure (4.4) the percentages of the responses of the experimental group students to the pronunciation question are shown in the post-test



The table (4.2) and figures (4.3 – 4.4) above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

Six students scored zero marks with a percentage (7.5%).

Sixteen students scored two marks with a percentage (20.0%).

Twenty-four students scored four marks with a percentage (30.0%).

Eighteen students scored six marks with a percentage (22.5%).

Fourteen students scored eight marks with a percentage (17.5%).

Two students scored ten marks with a percentage (2.5%).

In the post-test, the analysis of the conversation questions comes as follows:

One student scored zero marks with a percentage (1.2%).

Three students scored two marks with a percentage (3.8%).

Eleven students scored four marks with a percentage (13.8%).

Nineteen students scored six marks with a percentage (23.8%).

Twenty-seven students scored eight marks with a percentage (33.8%).

Nineteen students scored ten marks with a percentage (23.8%).

4.1.2 Item (2) Vocabulary

4.1.2.1 Vocabulary of the control group

Table (4.3) Vocabulary(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
7.5	7.5	7.5	6	0	PreValid
31.2	23.8	23.8	19	2	
60.0	28.8	28.8	23	4	
83.8	23.8	23.8	19	6	
97.5	13.8	13.8	11	8	
100.0	2.5	2.5	2	10	

Table (4.3) Vocabulary(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
7.5	7.5	7.5	6	0	PreValid
31.2	23.8	23.8	19	2	
60.0	28.8	28.8	23	4	
83.8	23.8	23.8	19	6	
97.5	13.8	13.8	11	8	
100.0	2.5	2.5	2	10	
	100.0	100.0	80	Total	
1.2	1.2	1.2	1	0	postValid
17.5	16.2	16.2	13	2	
41.2	23.8	23.8	19	4	
68.8	27.5	27.5	22	6	
100.0	31.2	31.2	25	8	
	100.0	100.0	80	Total	

Figure (4.5) the percentages of the responses of the control group students to the Vocabulary question are shown in the pre-test

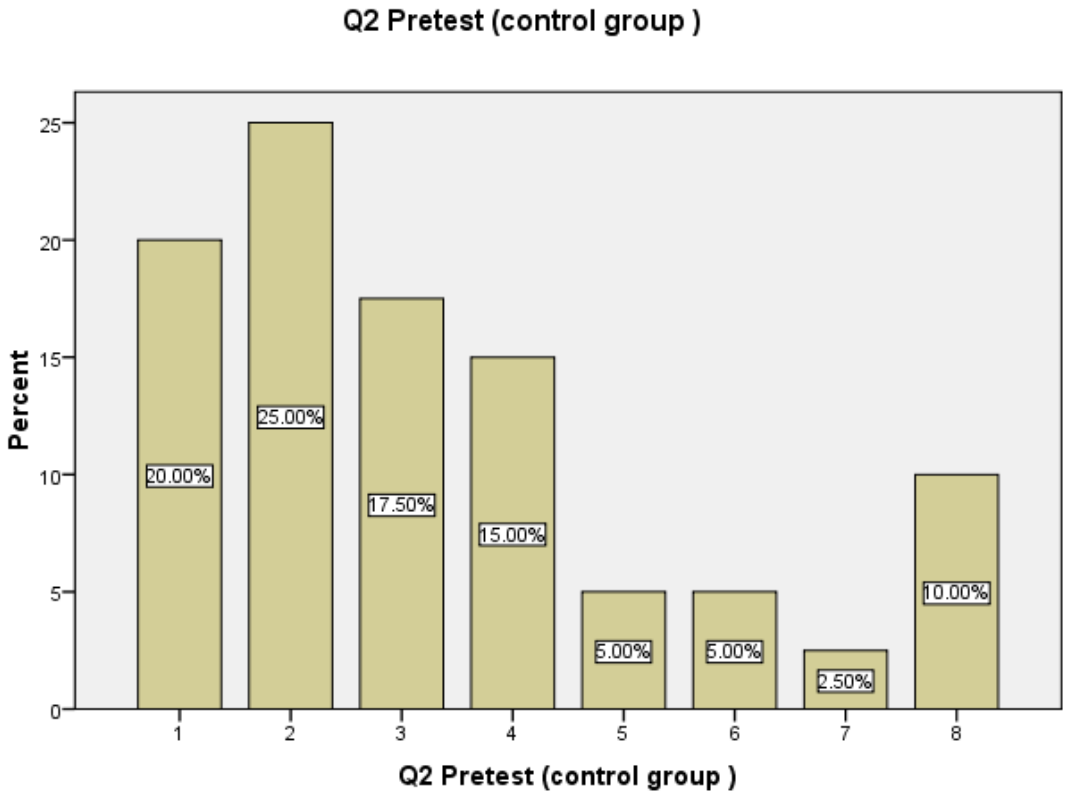
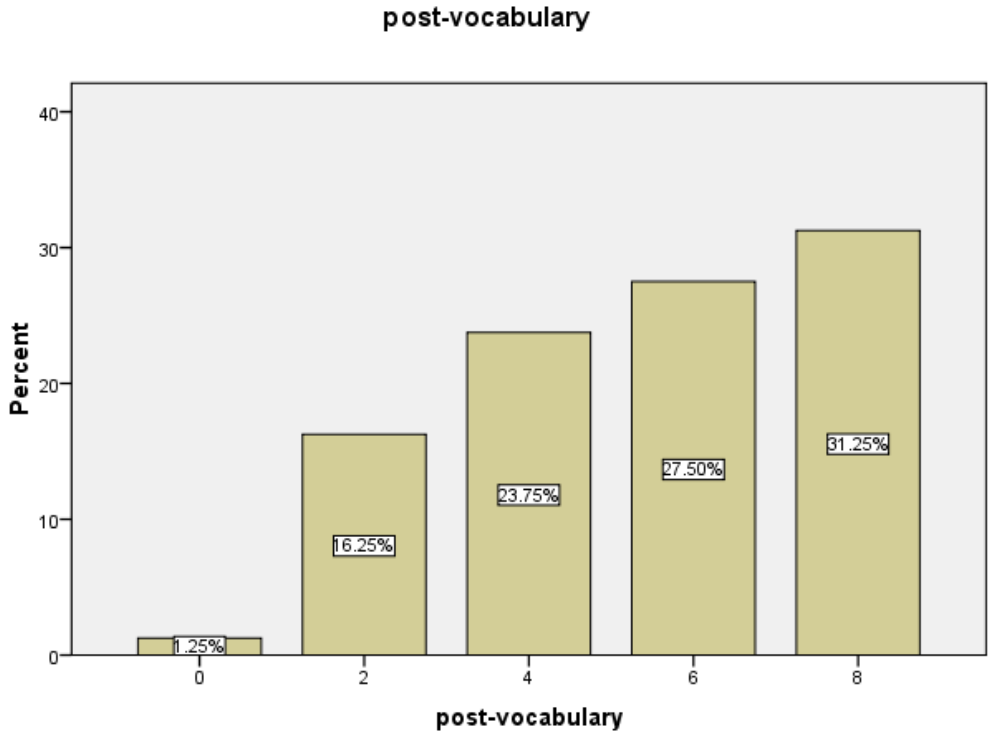


Figure (4.6) the percentages of the responses of the control group students to the Vocabulary question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Six students scored zero marks with a percentage (7.5%).

Nineteen students scored two marks with a percentage (23.8%).

Twenty-three students scored four marks with a percentage (28.8%).

Nineteen students scored six marks with a percentage (23.8%).

Eleven students scored eight marks with a percentage (13.8%).

Two students scored ten marks with a percentage (2.5%).

In the post-test, the analysis of the conversation questions comes as follows:

One student scored zero marks with a percentage (1.2%).

Thirteen students scored two marks with a percentage (16.2%).

Nineteen students scored four marks with a percentage (23.8%).

Twenty-two students scored six marks with a percentage (27.5%).

Twenty-five students scored eight marks with a percentage (31.2%).

4.1.2.2 Vocabulary of the experimental group

Table (4.4) Vocabulary (experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
5.0	5.0	5.0	4	0	pre Valid
30.0	25.0	25.0	20	2	
53.8	23.8	23.8	19	4	
75.0	21.2	21.2	17	6	
98.8	23.8	23.8	19	8	
100.0	1.2	1.2	1	10	
	100.0	100.0	80	Total	
7.5	7.5	7.5	6	4	post Valid
31.2	23.8	23.8	19	6	
73.8	42.5	42.5	34	8	
100.0	26.2	26.2	21	10	

Table (4.4) Vocabulary (experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
5.0	5.0	5.0	4	0	pre Valid
30.0	25.0	25.0	20	2	
53.8	23.8	23.8	19	4	
75.0	21.2	21.2	17	6	
98.8	23.8	23.8	19	8	
100.0	1.2	1.2	1	10	
	100.0	100.0	80	Total	

Figure (4.7) the percentages of the responses of the experimental group students to the Vocabulary question are shown in the pre-test

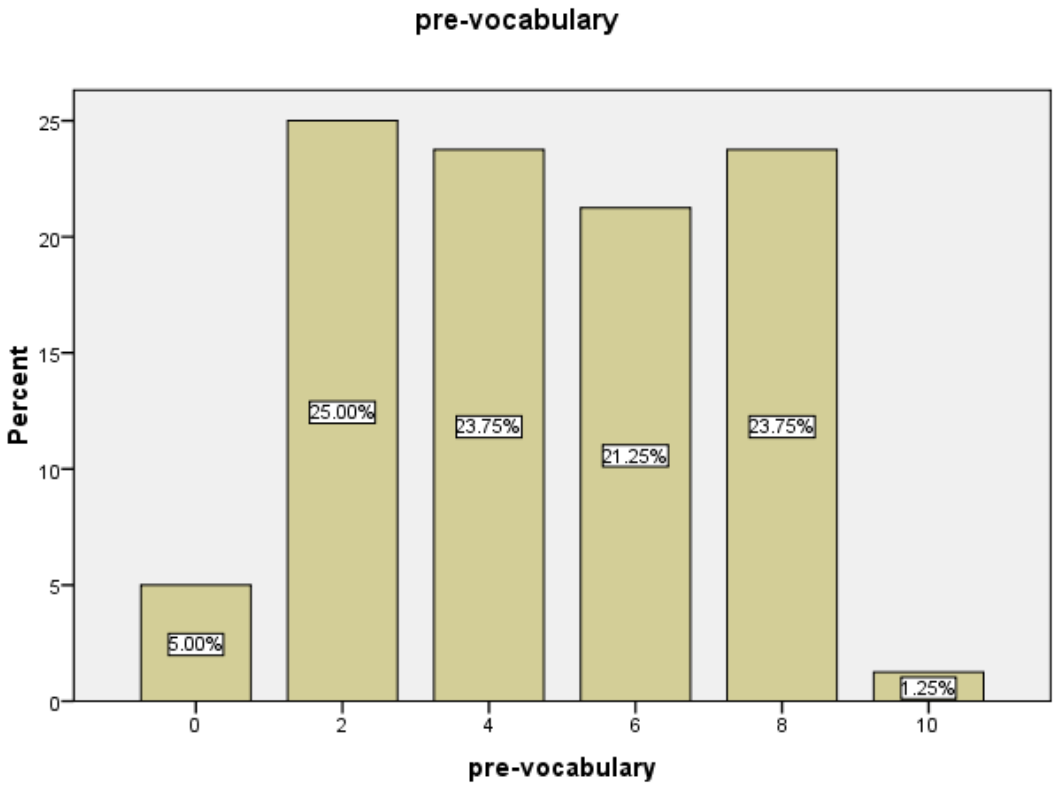
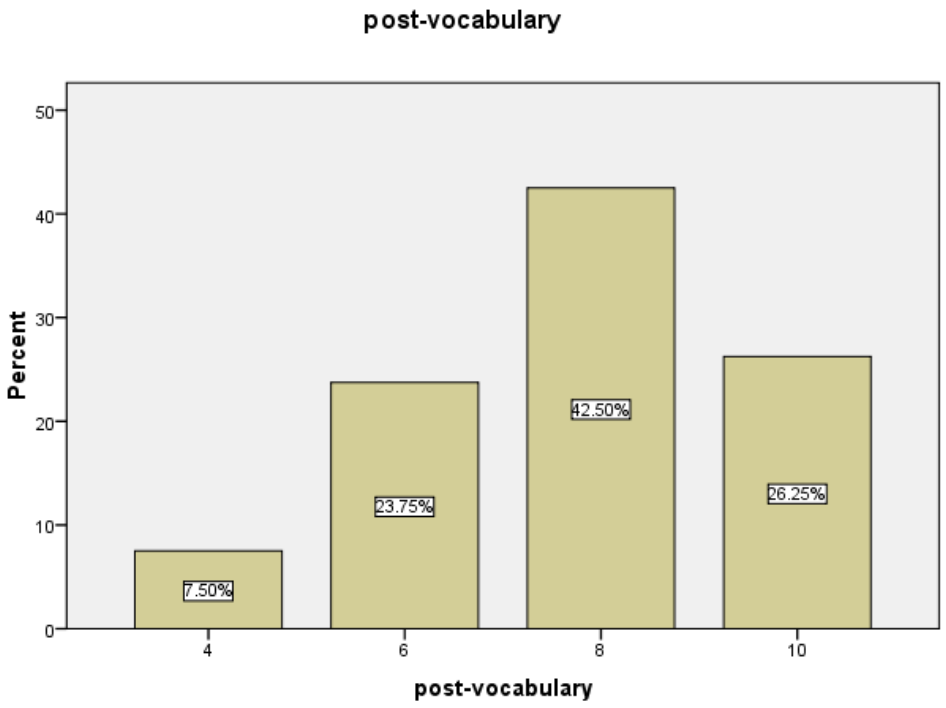


Figure (4.8) the percentages of the responses of the experimental group students to the Vocabulary question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

Four students scored zero marks with a percentage (5.0%).

Twenty students scored two marks with a percentage (25.0%).

Nineteen students scored four marks with a percentage (32.8%).

Seventeen students scored six marks with a percentage (21.2%).

Nineteen students scored eight marks with a percentage (23.8%).

One student scored ten marks with a percentage (1.2%).

In the post-test, the analysis of the conversation questions comes as follows:

Six students scored four marks with a percentage (7.5%).

Nineteen students scored six marks with a percentage (23.8%).

Thirty-four students scored eight marks with a percentage (42.5%).

Twenty-one students scored ten marks with a percentage (26.2%).

4.1.3 Item (3) communication

4.1.3.1 Communication of the control group

Table (4.5) Communication(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
3.8	3.8	3.8	3	0	pre Valid
28.8	25.0	25.0	20	2	
55.0	26.2	26.2	21	4	
72.5	17.5	17.5	14	6	
96.2	23.8	23.8	19	8	
100.0	3.8	3.8	3	10	
	100.0	100.0	80	Tot al	
1.2	1.2	1.2	1	0	post Valid
17.5	16.2	16.2	13	2	

45.0	27.5	27.5	22	4	
72.5	27.5	27.5	22	6	
93.8	21.2	21.2	17	8	
100.0	6.2	6.2	5	10	
	100.0	100.0	80	Total	

Figure (4.9) the percentages of the responses of the control group students to the communication question are shown in the pre-test

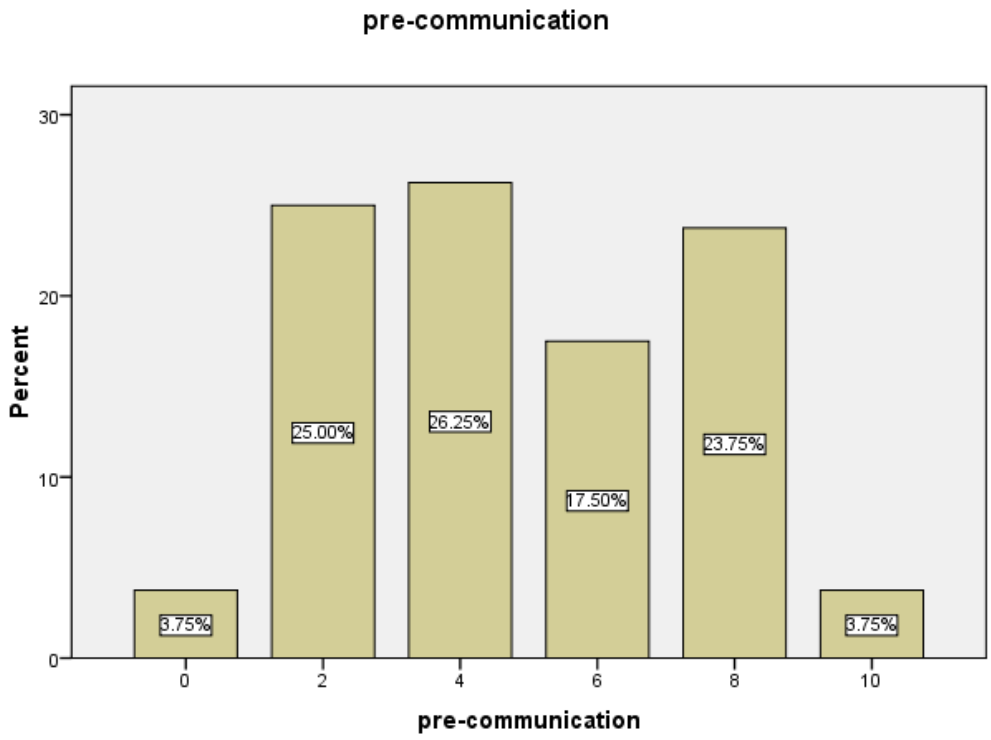
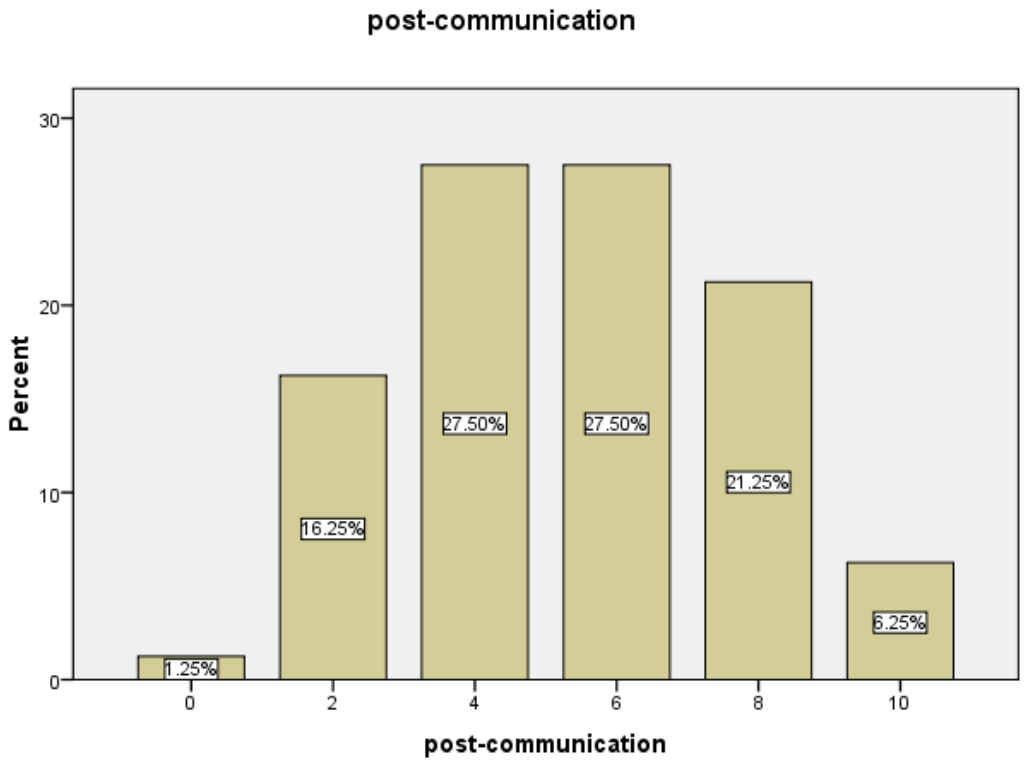


Figure (4.10) the percentages of the responses of the control group students to the communication question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Three students scored zero marks with a percentage (3.8%).

Twenty students scored two marks with a percentage (25.0%).

Twenty-one students scored four marks with a percentage (26.2%).

Fourteen students scored six marks with a percentage (17.5%).

Nineteen students scored eight marks with a percentage (23.8%).

Three students scored ten marks with a percentage (3.8%).

In the post-test, the analysis of the conversation questions comes as follows:

One student scored zero marks with a percentage (1.2%).

Thirteen students scored two marks with a percentage (16.2%).

Twenty-two students scored four marks with a percentage (27.5%).

Twenty-two students scored six marks with a percentage (27.5%).

Seventeen students scored eight marks with a percentage (21.2%).

Five students scored ten marks with a percentage (6.2%).

4.1.3.2 Communication of the experimental group

Table (4.6) Communication (experimental group)

Cumulative Percent	**Valid Percent**	**Percent**	**Frequency**		
1.2	1.2	1.2	1	0	pre Valid
30.0	28.8	28.8	23	2	
51.2	21.2	21.2	17	4	
71.2	20.0	20.0	16	6	
98.8	27.5	27.5	22	8	
100.0	1.2	1.2	1	10	
	100.0	100.0	80	Total	
6.2	6.2	6.2	5	4	post Valid
26.2	20.0	20.0	16	6	

65.0	38.8	38.8	31	8
100.0	35.0	35.0	28	10
	100.0	100.0	80	Total

Figure (4.11) the percentages of the responses of the experimental group students to the communication question are shown in the pre-test

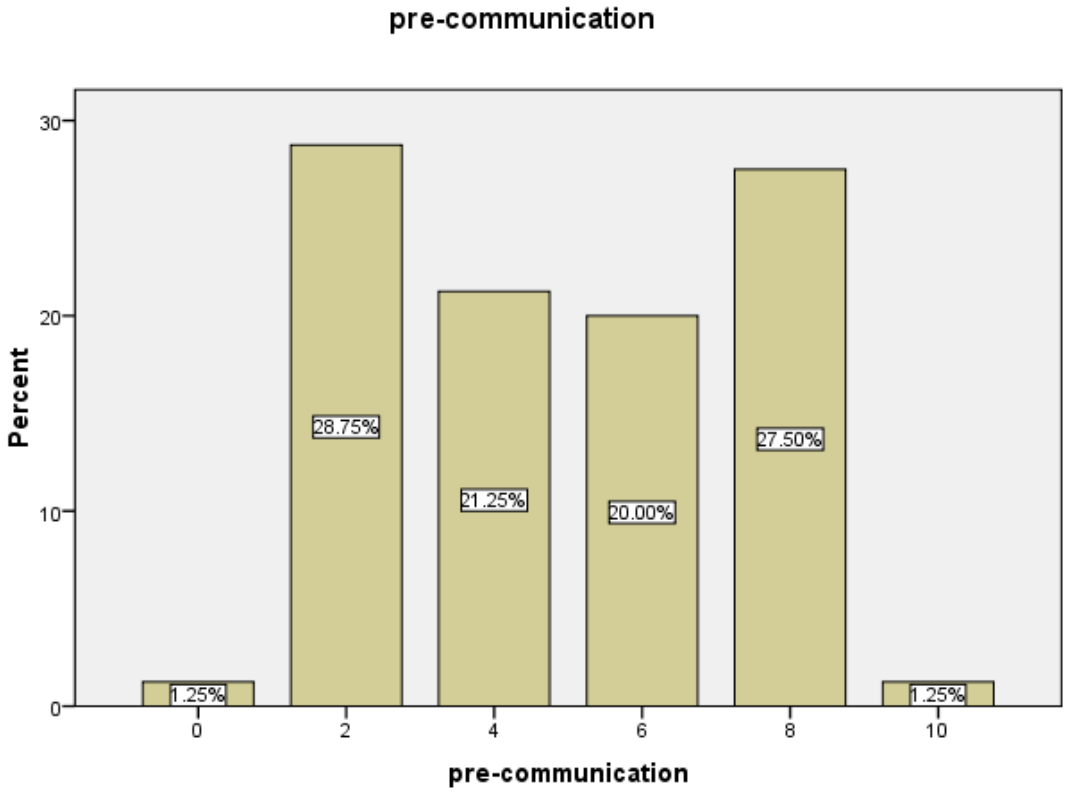
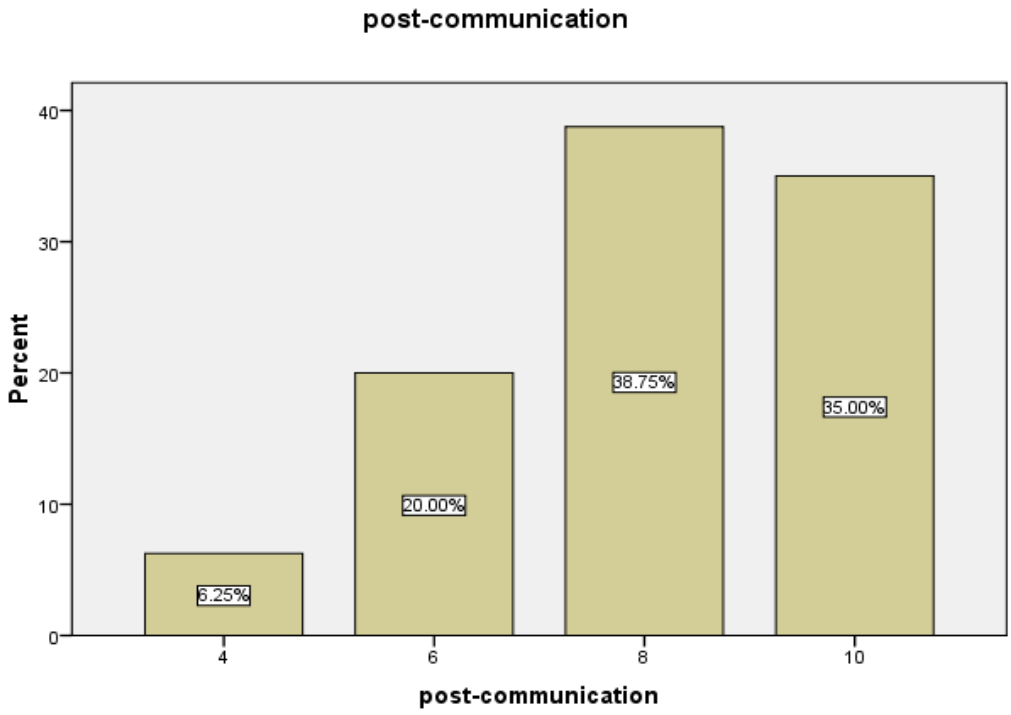


Figure (4.12) the percentages of the responses of the experimental group students to the communication question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

One student scored zero marks with a percentage (1.2%).

Twenty-three students scored two marks with a percentage (28.8%).

Seventeen students scored four marks with a percentage (21.2%).

Sixteen students scored six marks with a percentage (20.0%).

Twenty-two students scored eight marks with a percentage (27.5%).

One student scored ten marks with a percentage (1.2%).

In the post-test, the analysis of the conversation questions comes as follows:

Five students scored four marks with a percentage (6.2%).

Sixteen students scored six marks with a percentage (20.0%).

Thirty-one students scored eight marks with a percentage (38.8%).

Twenty-eight students scored ten marks with a percentage (35.0%).

4.1.4 Item (4) interaction

4.1.4.1 Interaction of the control group

Table (4.7) Interaction(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
6.2	6.2	6.2	5	0	pre Valid
20.0	13.8	13.8	11	2	
38.8	18.8	18.8	15	4	
65.0	26.2	26.2	21	6	
91.2	26.2	26.2	21	8	
100.0	8.8	8.8	7	10	
	100.0	100.0	80	Total	
2.5	2.5	2.5	2	0	post Valid
21.2	18.8	18.8	15	2	
50.0	28.8	28.8	23	4	
75.0	25.0	25.0	20	6	

93.8	18.8	18.8	15	8
100.0	6.2	6.2	5	10
	100.0	100.0	80	Total

Figure (4.13) the percentages of the responses of the control group students to the interaction question are shown in the pre-test

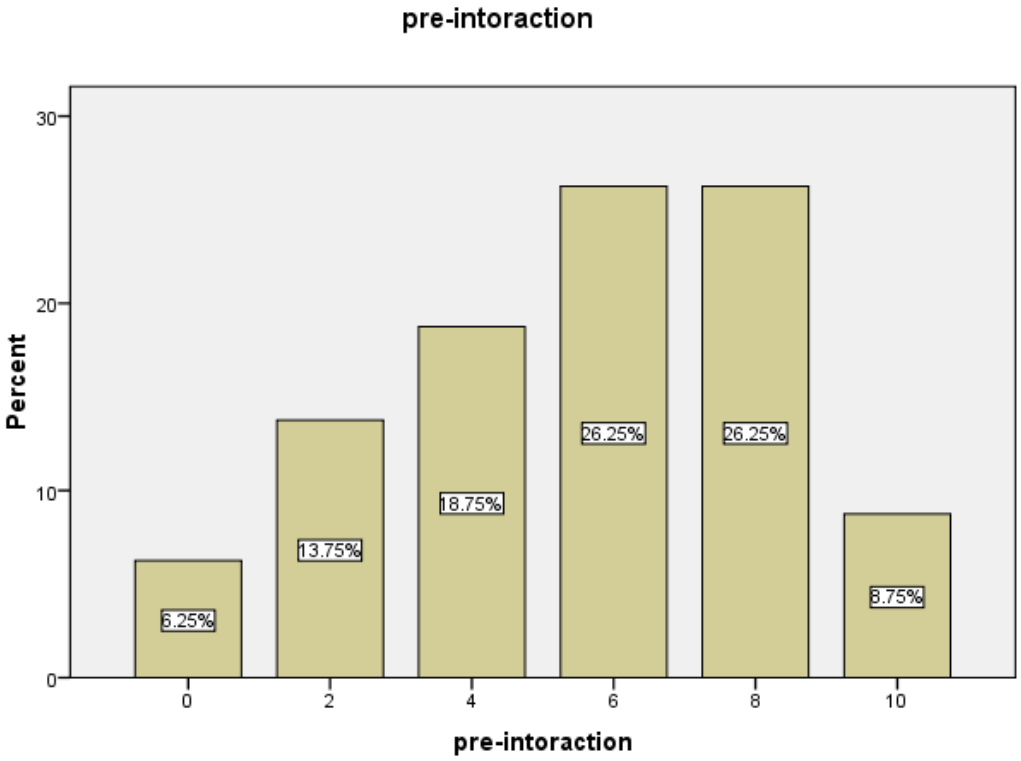
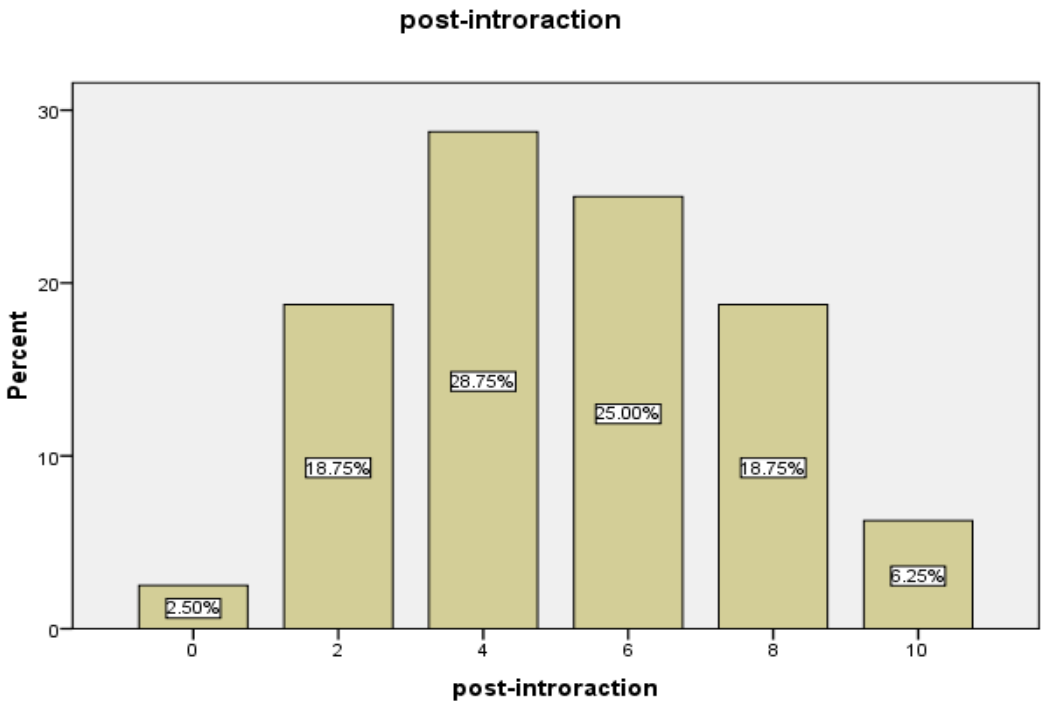


Figure (4.14) the percentages of the responses of the control group students to the interaction question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Five students scored zero marks with a percentage (6.2%).

Eleven students scored two marks with a percentage (13.8%).

Fifteen students scored four marks with a percentage (18.8%).

Twenty-one students scored six marks with a percentage (26.2%).

Twenty-one students scored six marks with a percentage (26.2%).

Seven students scored ten marks with a percentage (8.8%).

In the post-test, the analysis of the conversation questions comes as follows:

Two students scored zero marks with a percentage (2.5%).

Fifteen students scored two marks with a percentage (18.8%).

Twenty-three students scored four marks with a percentage (28.8%).

Twenty students scored six marks with a percentage (25.0%).

Fifteen students scored eight marks with a percentage (18.8%).

Five students scored ten marks with a percentage (6.2%).

4.1.4.2 Interaction of the experimental group

Table (4.8) Interaction(experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
6.2	6.2	6.2	5	0	pre Valid
26.2	20.0	20.0	16	2	
52.5	26.2	26.2	21	4	
67.5	15.0	15.0	12	6	
97.5	30.0	30.0	24	8	
100.0	2.5	2.5	2	10	
	100.0	100.0	80	Total	
1.2	1.2	1.2	1	2	post Valid
11.2	10.0	10.0	8	4	
25.0	13.8	13.8	11	6	

63.8	38.8	38.8	31	8
100.0	36.2	36.2	29	10
	100.0	100.0	80	Total

Figure (4.15) the percentages of the responses of the experimental group students to the interaction question are shown in the pre-test

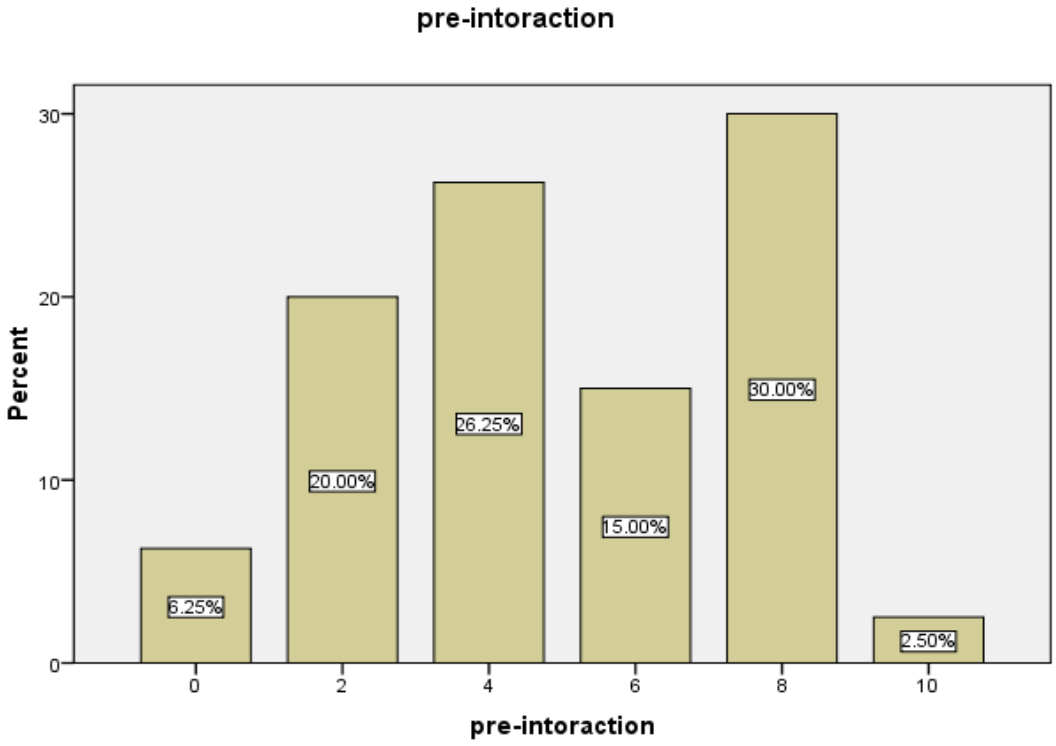
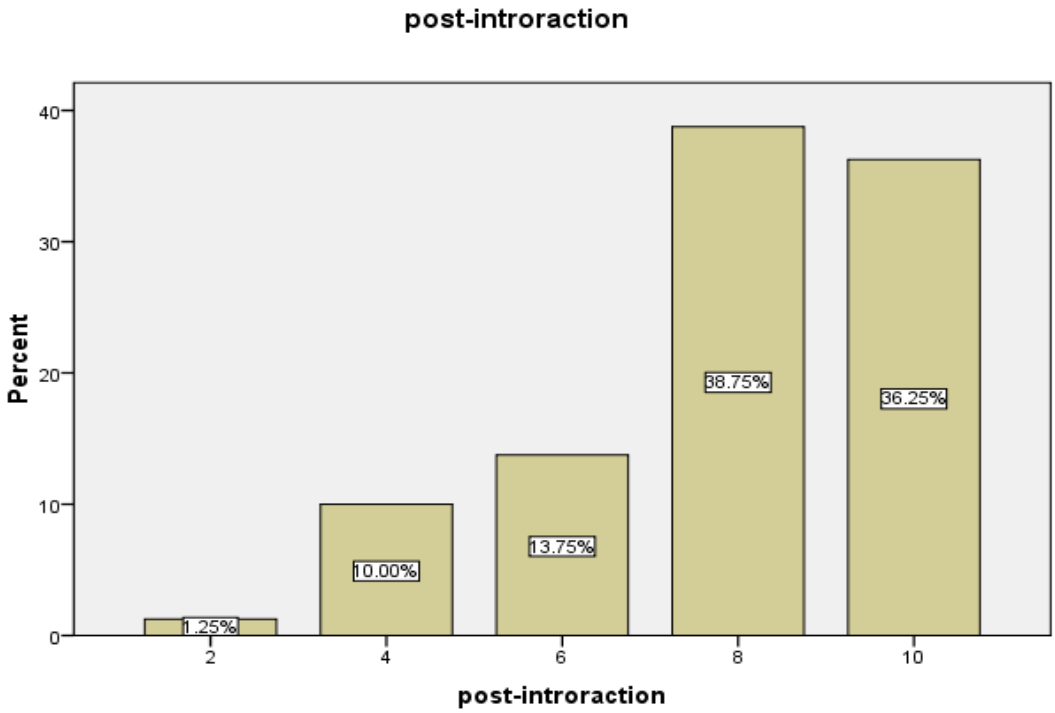


Figure (4.16) the percentages of the responses of the experimental group students to the interaction question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

Five students scored zero marks with a percentage (6.2%).

Sixteen students scored two marks with a percentage (20.0%).

Twenty-one students scored four marks with a percentage (26.2%).

Twelve students scored six marks with a percentage (15.0%).

Twenty-four students scored eight marks with a percentage (30.0%).

Two students scored ten marks with a percentage (2.5%).

In the post-test, the analysis of the conversation questions comes as follows:

One student scored two marks with a percentage (1.2%).

Eight students scored four marks with a percentage (10.0%).

Eleven students scored six marks with a percentage (13.8%).

Thirty-one students scored eight marks with a percentage (28.8%).

Twenty-nine students scored ten marks with a percentage (36.2%).

4.1.5 Item (5) Accuracy

4.1.5.1 Accuracy of the control group

Table (4.9) Accuracy(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
8.8	8.8	8.8	7	0	pre Valid
27.5	18.8	18.8	15	2	
55.0	27.5	27.5	22	4	
73.8	18.8	18.8	15	6	
96.2	22.5	22.5	18	8	
100.0	3.8	3.8	3	10	
	100.0	100.0	80	Total	
3.8	3.8	3.8	3	0	post Valid
22.5	18.8	18.8	15	2	
51.2	28.8	28.8	23	4	

70.0 95.0	18.8 25.0	18.8 25.0	15 20	6 8	
100.0	5.0	5.0	4	10	
	100.0	100.0	80	Total	

Figure (4.17) the percentages of the responses of the control group students to the Accuracy question are shown in the pre-test

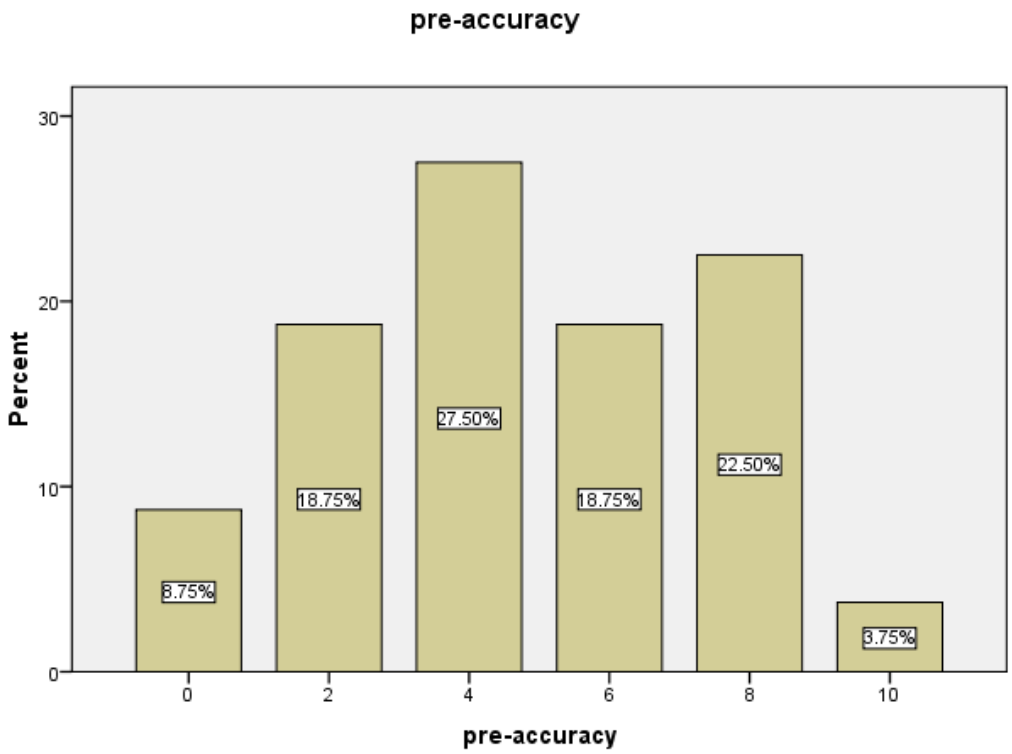
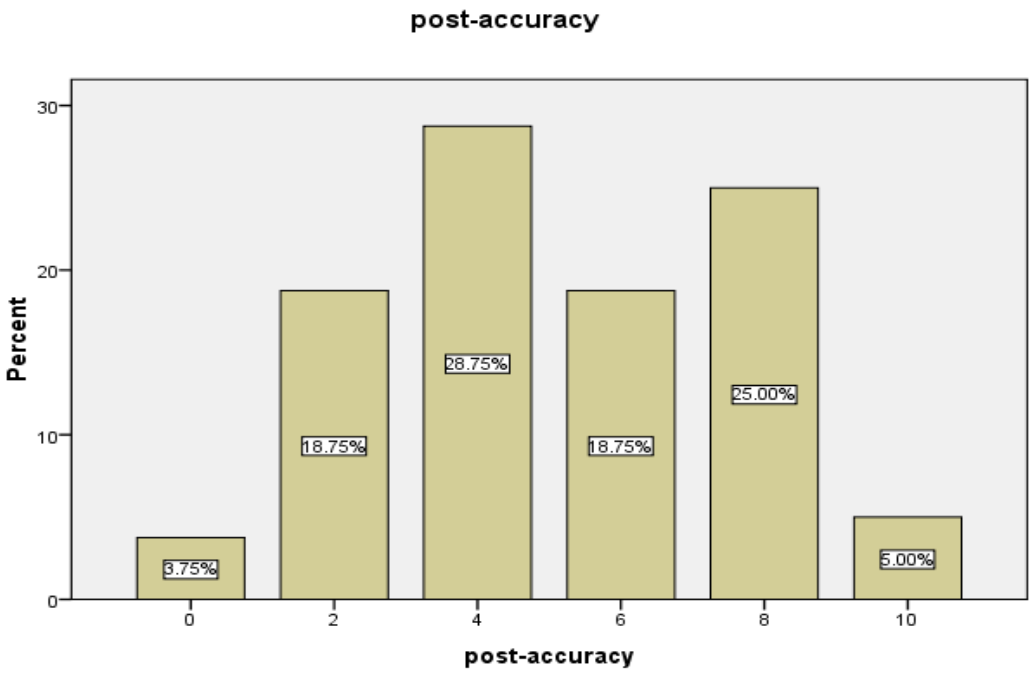


Figure (4.18) the percentages of the responses of the control group students to the Accuracy question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Seven students scored zero marks with a percentage (8.8%).

Fifteen students scored two marks with a percentage (18.8%).

Twenty-two students scored four marks with a percentage (27.5%).

Fifteen students scored six marks with a percentage (18.8%).

Eighteen students scored eight marks with a percentage (22.5%).

Three students scored ten marks with a percentage (3.8%).

In the post-test, the analysis of the conversation questions comes as follows:

Three students scored zero marks with a percentage (3.8%).

Fifteen students scored two marks with a percentage (18.8%).

Twenty-three students scored four marks with a percentage (28.8%).

Fifteen students scored six marks with a percentage (18.8%).

Twenty students scored eight marks with a percentage (25.0%).

Four students scored ten marks with a percentage (5.0%).

4.1.5.2 Accuracy of the experimental group

Table (4.10) Accuracy(experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
6.2	6.2	6.2	5	0	pre Valid
28.8	22.5	22.5	18	2	
53.8	25.0	25.0	20	4	
80.0	26.2	26.2	21	6	
95.0	15.0	15.0	12	8	
100.0	5.0	5.0	4	10	
	100.0	100.0	80	Total	
7.5	7.5	7.5	6	4	post Valid
25.0	17.5	17.5	14	6	
61.2	36.2	36.2	29	8	

100.0	38.8	38.8	31	10
	100.0	100.0	80	Total

Figure (4.19) the percentages of the responses of the experimental group students to the Accuracy question are shown in the pre-test

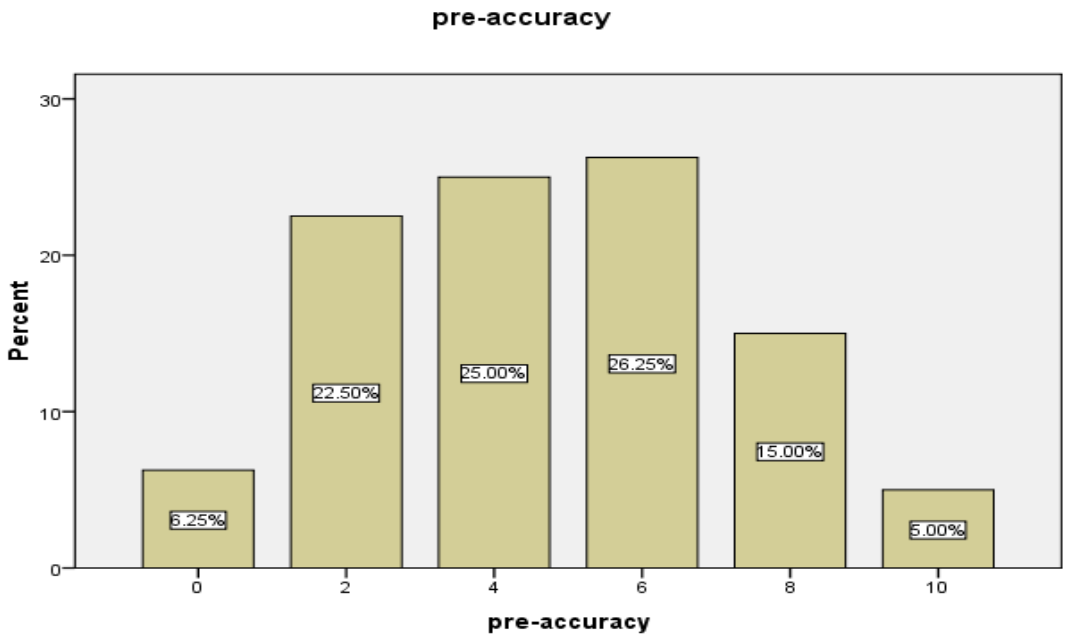
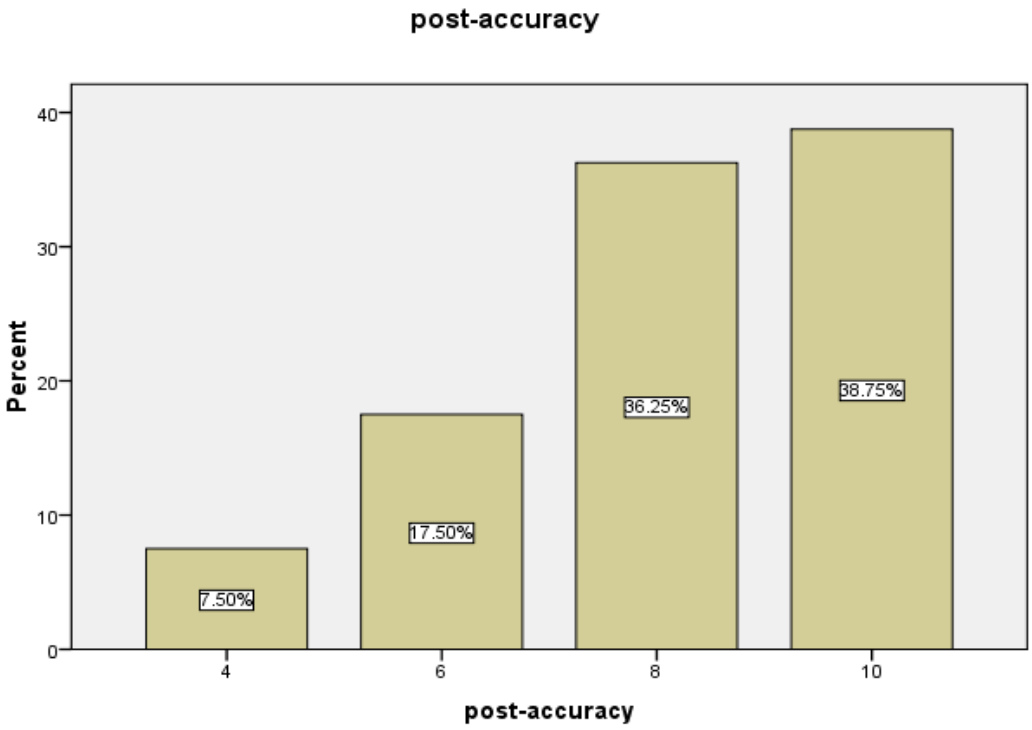


Figure (4.20) the percentages of the responses of the experimental group students to the Accuracy question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

Five students scored zero marks with a percentage (6.2%).

Eighteen students scored two marks with a percentage (22.5%).

Twenty students scored four marks with a percentage (25.0%).

Twenty-one students scored six marks with a percentage (26.2%).

Twelve students scored eight marks with a percentage (15.0%).

Four students scored ten marks with a percentage (5.0%).

In the post-test, the analysis of the conversation questions comes as follows:

Sex students scored four marks with a percentage (7.5%).

Fourteen students scored six marks with a percentage (17.5%).

Twenty-nine students scored eight marks with a percentage (36.2%).

Thirty-one students scored ten marks with a percentage (38.8%).

4.1.6 Item (6) Fluency

4.1.6.1 Fluency of the control group

Table (4.11) Fluency(control group)

Cumulative Percent	Valid Percent	Percent	Frequency		
6.2	6.2	6.2	5	0	pre Valid
16.2	10.0	10.0	8	2	
33.8	17.5	17.5	14	4	
52.5	18.8	18.8	15	6	
85.0	32.5	32.5	26	8	
100.0	15.0	15.0	12	10	
	100.0	100.0	80	Total	
3.8	3.8	3.8	3	0	post Valid
25.0	21.2	21.2	17	2	
53.8	28.8	28.8	23	4	
76.2	22.5	22.5	18	6	

93.8	17.5	17.5	14	8
100.0	6.2	6.2	5	10
	100.0	100.0	80	Total

Figure (4.21) the percentages of the responses of the control group students to the Fluency question are shown in the pre-test

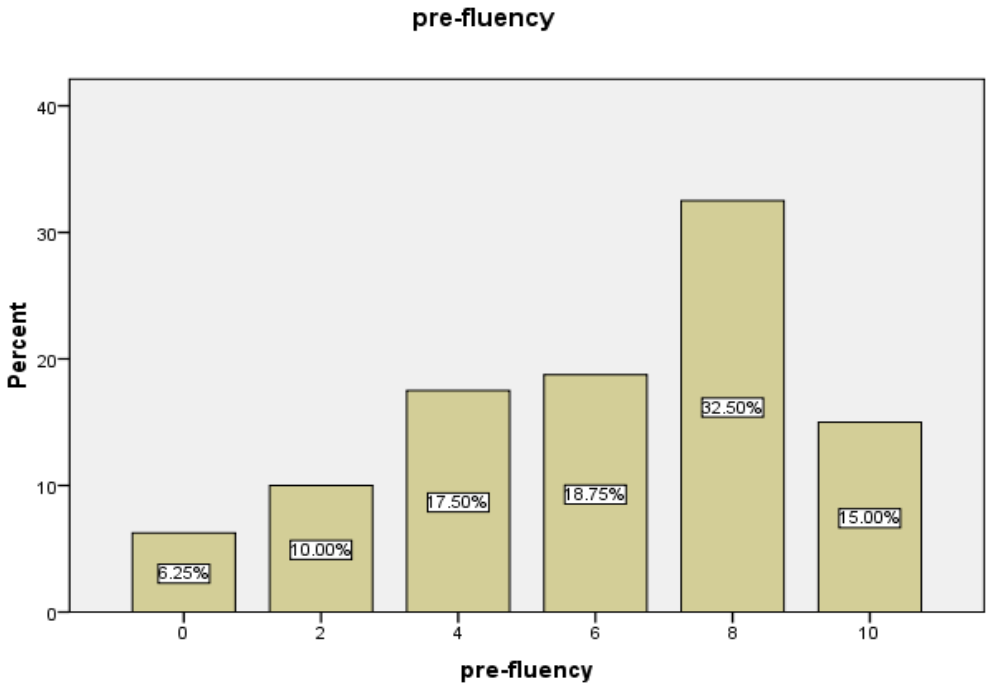
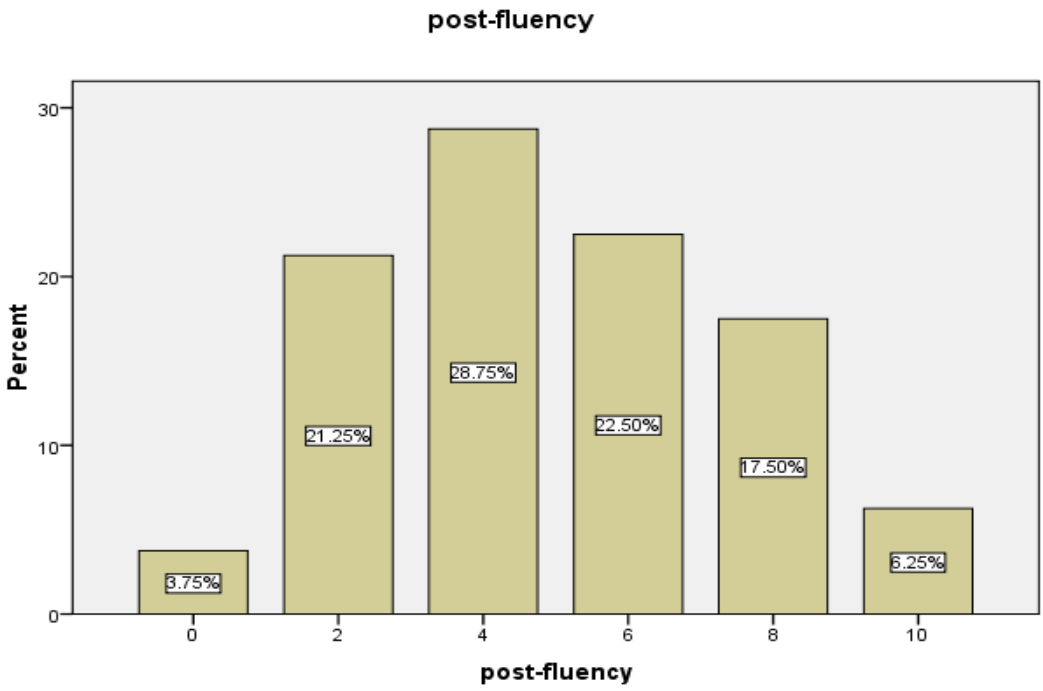


Figure (4.22) the percentages of the responses of the control group students to the Fluency question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (control group) reveals the following:

Five students scored zero marks with a percentage (6.2%).

Eight students scored two marks with a percentage (10.0%).

Fourteen students scored four marks with a percentage (17.5%).

Fifteen students scored six marks with a percentage (18.8%).

Twenty-six students scored eight marks with a percentage (32.5%).

Twelve students scored ten marks with a percentage (15.0%).

In the post-test, the analysis of the conversation questions comes as follows:

Three students scored zero marks with a percentage (3.8%).

Seventeen students scored two marks with a percentage (21.2%).

Twenty-three students scored four marks with a percentage (28.8%).

Eighteen students scored six marks with a percentage (22.5%).

Fourteen students scored eight marks with a percentage (17.5%).

Five students scored ten marks with a percentage (6.2%).

4.1.6.2 Fluency of the experimental group

Table (4.12) Fluency (experimental group)

Cumulative Percent	Valid Percent	Percent	Frequency		
3.8	3.8	3.8	3	0	pre Valid
12.5	8.8	8.8	7	2	
30.0	17.5	17.5	14	4	
55.0	25.0	25.0	20	6	
87.5	32.5	32.5	26	8	
100.0	12.5	12.5	10	10	
	100.0	100.0	80	Total	
1.2	1.2	1.2	1	1	post Valid
2.5	1.2	1.2	1	2	
13.8	11.2	11.2	9	4	

26.2	12.5	12.5	10	6	
68.8	42.5	42.5	34	8	
100.0	31.2	31.2	25	10	
	100.0	100.0	80	Total	

Figure (4.23) the percentages of the responses of the experimental group students to the Fluency question are shown in the pre-test

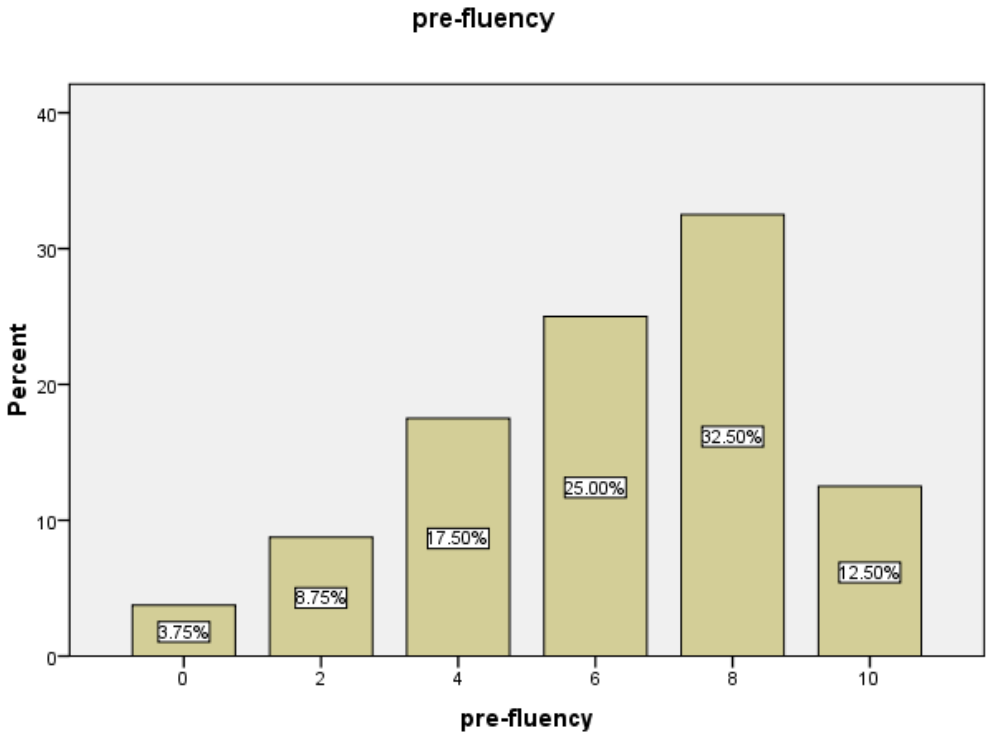
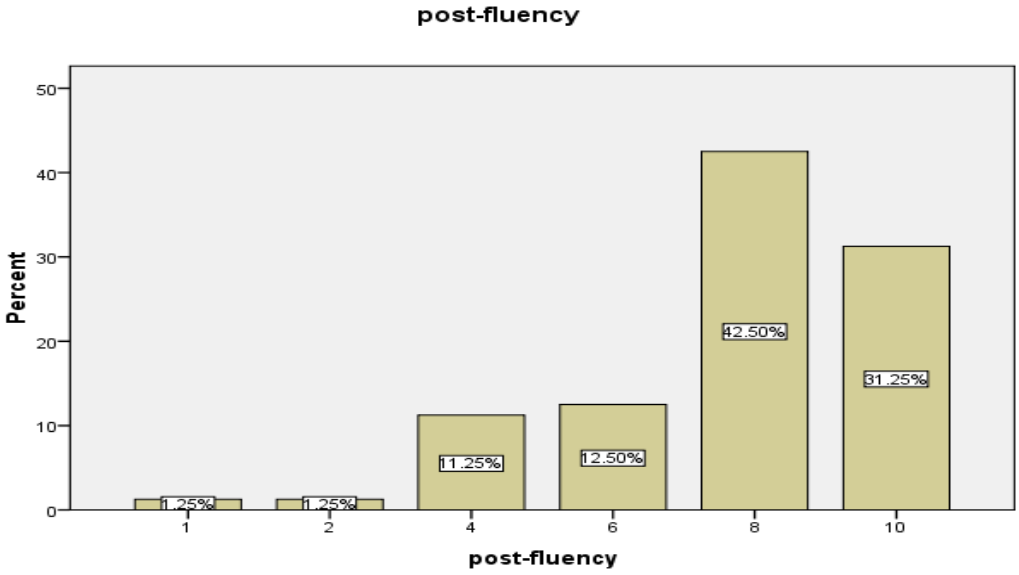


Figure (4.24) the percentages of the responses of the experimental group students to the Fluency question are shown in the post-test



The table and figure above show student's grades according to the scores they scored in the two tests.

The analysis of question one (pronunciation) in the pre-test (experimental group) reveals the following:

Three students scored zero marks with a percentage (3.8%).

Seven students scored two marks with a percentage (8.8%).

Fourteen students scored four marks with a percentage (17.5%).

Twenty students scored six marks with a percentage (25.0%).

Twenty-six students scored eight marks with a percentage (32.5%).

Ten students scored ten marks with a percentage (12.5%).

In the post-test, the analysis of the conversation questions comes as follows:

One student scored zero marks with a percentage (1.2%).

One student scored two marks with a percentage (1.2%).

Nine students scored four marks with a percentage (11.2%).

Ten students scored six marks with a percentage (12.5%).

Thirty-four students scored eight marks with a percentage (42.5%).

Twenty-five students scored ten marks with a percentage (31.2%).

4.1.7 Paired sample T.Test

Table (4.13) Paired sample T.Test (control group)

P value	**T value**	**SD**	**Means**	**N**	**Group**	**Questions**
.046	-2.025-	2.635	4.53	80	Pre-test	Pronunciation
		2.855	5.49	80	Post-test	
.006	-2.798-	2.473	4.40	80	Pre-test	Vocabulary
		2.232	5.42	80	Post-test	
.212	-1.257-	2.602	4.88	80	Pre-test	Communication
		2.390	5.40	80	Post-test	
.340	.960	2.750	5.58	80	Pre-test	Interaction
		2.481	5.15	80	Post-test	
.335	-.970-	2.709	4.78	80	Pre-test	Accuracy
		2.581	5.15	80	Post-test	
.005	2.923	2.888	6.12	80	Pre-test	Fluency
		2.565	4.95	80	Post-test	
.001	-3.345-	4.853	29.76	80	Pre-test	Total
		3.937	31.70	80	Post-test	

The following is an explains of Table (4.13) above which includes the results of the (Paired sample T.Test) for the scores of the control group students in the two tests according to each question:

The table shows the pretest and posttest, the sample number, the mean, the standard deviation, the value of P and the value of T.

1. We find in the first question (pronunciation) that the P-value (0.046) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the pronunciation question. This can be seen in Table (4.1), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
2. We find in the second question (vocabulary) that the P-value (0.006) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the vocabulary question. This can be seen in Table (4.3), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
3. We find in the third question (communication) that the P-value (0.212) and this value compares to the value of the moral level 5%. Given the large P-value versus the value of 5%, this indicates that there is no difference between the average scores of the students in the first test and the second test in the communication question. This can be seen in Table (4.5), where are no differences between students' scores in the first (pre-test) and second (post-test) tests.
4. We find in the fourth question (interaction) that the P-value (0.340) and this value compares to the value of the moral level 5%. Given the

large P-value versus the value of 5%, this indicates that there is no difference between the average scores of the students in the first test and the second test in the interaction question. This can be seen in Table (4.7), where are no differences between students' scores in the first (pre-test) and second (post-test) tests.

5. We find in the fifth question (Accuracy) that the P-value (0.335) and this value compares to the value of the moral level 5%. Given the large P-value versus the value of 5%, this indicates that there is no difference between the average scores of the students in the first test and the second test in the Accuracy question. This can be seen in Table (4.9), where are no differences between students' scores in the first (pre-test) and second (post-test) tests.
6. We find in the sixth question (Fluency) that the P-value (0.005) and this value compares to the value of the moral level 5%. Given the equal P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the Fluency question. This can be seen in Table (4.11), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
7. We find in total score of all questions for the control group the P-value (0.001) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test (pre-test) and the second test (post-test) in the all question.

Table (4.14) Paired sample T. Test (experiment group)

P value	T value	SD	Means	N	Group	Questions
.000	-6.714-	2.514	4.60	80	Pre-test	Pronunciation
		2.357	7.12	80	Post-test	
.000	-8.651-	2.533	4.75	80	Pre-test	Vocabulary
		1.782	7.75	80	Post-test	
.000	-9.294-	2.485	4.95	80	Pre-test	Communication
		1.799	8.05	80	Post-test	
.000	-8.084-	2.681	5.00	80	Pre-test	Interaction
		2.025	7.98	80	Post-test	
.000	-9.179-	2.590	4.72	80	Pre-test	Accuracy
		1.865	8.12	80	Post-test	
.000	-4.139-	2.605	6.22	80	Pre-test	Fluency
		2.148	7.76	80	Post-test	
.000	-22.239-	4.575	29.95	80	Pre-test	Total
		5.041	46.55	80	Post-test	

The following is an explains of Table (4.14) above which includes the results of the (Paired sample T. Test) for the scores of the experiment group students in the two tests according to each question:

The table shows the pretest and posttest, the sample number, the mean, the standard deviation, the value of P and the value of T.

1. We find in the first question (pronunciation) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference

between the average scores of the students in the first test and the second test in the pronunciation question. This can be seen in Table (4.2), where are differences between students' scores in the first (pre-test) and second (post-test) tests.

2. We find in the second question (vocabulary) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the vocabulary question. This can be seen in Table (4.4), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
3. We find in the third question (communication) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the communication question. This can be seen in Table (4.6), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
4. We find in the fourth question (interaction) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the interaction question. This can be seen in Table (4.8), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
5. We find in the fifth question (Accuracy) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the

second test in the Accuracy question. This can be seen in Table (4.10), where are differences between students' scores in the first (pre-test) and second (post-test) tests.

6. We find in the sixth question (Fluency) that the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test and the second test in the Fluency question. This can be seen in Table (4.12), where are differences between students' scores in the first (pre-test) and second (post-test) tests.
7. We find in total score of all questions for the experiment group the P-value (0.000) and this value compares to the value of the moral level 5%. Given the small P-value versus the value of 5%, this indicates a difference between the average scores of the students in the first test (pre-test) and the second test (post-test) in the all question.

4.2 summary of Analysis

The analysis in table (4.13) of the control group shows that the value of P has risen with some questions compared with the value of significant (0.05), It also decreased some questions compared to the value of significant (0.05).This indicates a significant difference between the scores of the students in the two tests when the value of (p) was large and there was no significant difference between the scores of the students in the two tests when the value of (p) was small. The difference between the students' scores in the two tests is explained by the fact that there is no change in the grades of the students in the second exam compared to the first. This is evident in reference to tables (4.5), (4.7), (4.9).

From Table (4.14) of the experimental group, the value of P has been reduced compared with the value of significant (0.05) in all the questions this indicates a significant difference between the scores of the students in the two tests, means the development of the second test scores compared to the first.

This explains the hypotheses of research, where the interaction of students in the experimental group when the use of techniques and also the development of the skill of listening to them because of their application of techniques, as reflected in their grades, unlike the control group that relied on the technical study only and not implemented.

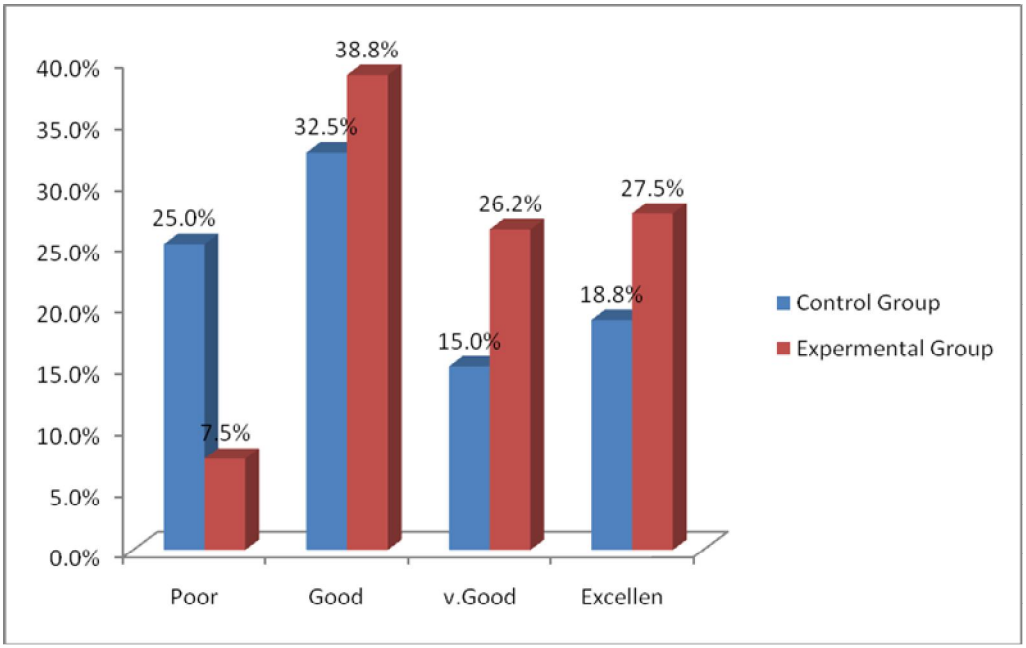
Hypotheses%

4.3 Checklist Results

The first hypotheses.

1- Students interact and motivate when the teacher use ICT in classroom

Excellent		**V.Good**		**Good**		**Poor**		**Opportunities**
percentage	**Frequency**	**percentage**	**Frequency**	**percentage**	**Frequency**	**percentage**	**Frequency**	
18.8%	15	15%	19	32.5%	26	25.0%	20	Interaction for control group
27.5%	22	26.2%	21	38.8%	31	7.5%	6	Interaction for experimental group
37.5	30	40.0%	32	15.0%	12	7.5%	6	Motivation control group
43.8%	35	42.5	34	10.0%	8	3.8%	3	Motivation experimental group



1. Students interact and motivate when the teacher use

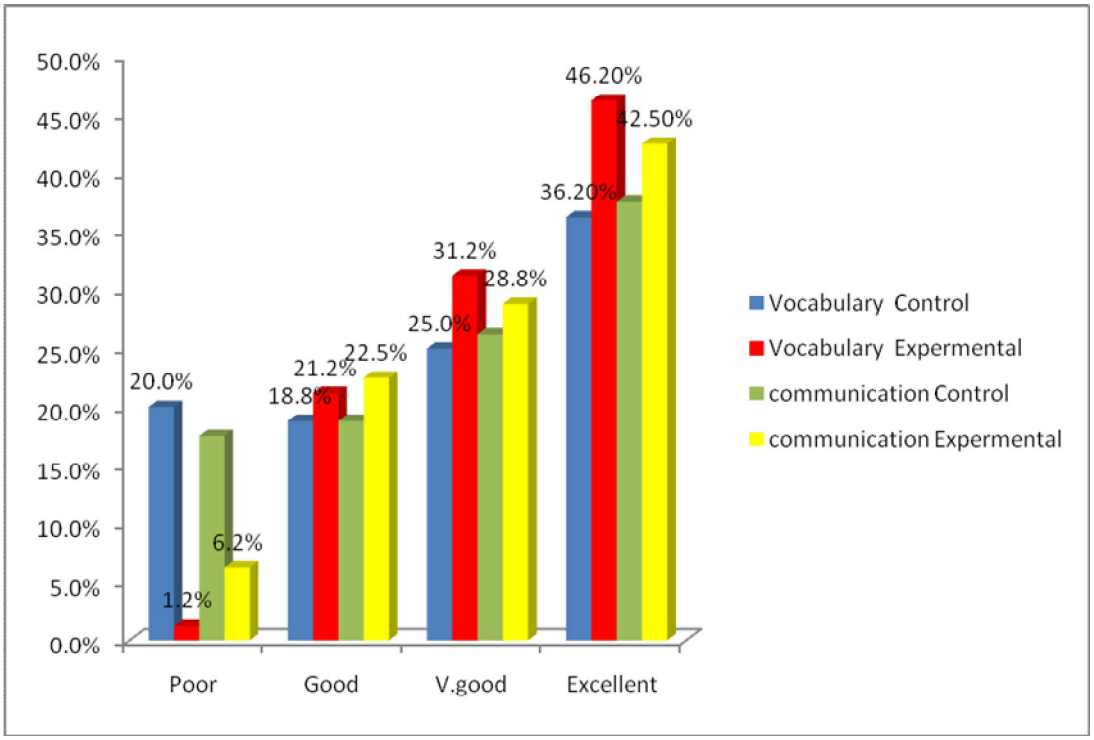
With reference to the table () and figure ( ) above the responses of the students show that most of the answers are of the intaraction when teacher use ICT in classroom are better correcttly with percentage of 7.5% as poor opportunties, 38.8% as good, 26.2%as vgood and 27.5% as excellent for expermental group if compared with aswers without using answers ICT in classroom(control group) with percentage 25.0% as poor opportunties, 32.5%, as good , 15%,as v.good and 18.8%as excellent theses

2. The differences between class using ICT and the one traditional:

Excellent		**V.Good**		**Good**		**Poor**		**Example**
percentage	**Frequency**	**percentage**	**Frequency**	**percentage**	**Frequency**	**percentage**	**Frequency**	
36.2%	29	25.0%	20	18.8%	15	20.0%	16	Vocabulary for control group
46.2%	37	31.2%	25	21.2%	17	1.2%	1	Vocabulary for experimental group
37.5%	30	26.2%	21	18.8%	15	17.5%	14	Communication control group
42.5%	34	28.8%	23	22.5%	18	6.2%	5	Communication experimental group

With reference to the table () and figure ( ) above the responses of the students show that most of the answers of the Vocuabarly when teacher use ICT in classroom are better correcttly with percentage of 1.2% as poor opportunties, 21.2 % as good, 31.2% %as vgood and 46.2% %

as excellent for expermental group if compared with aswers without using answers ICT in classroom(control group) with percentage 20.0% % as poor opportunties, 18.8% , as good , 25.0%,as v.good and 36.2% %as excellent

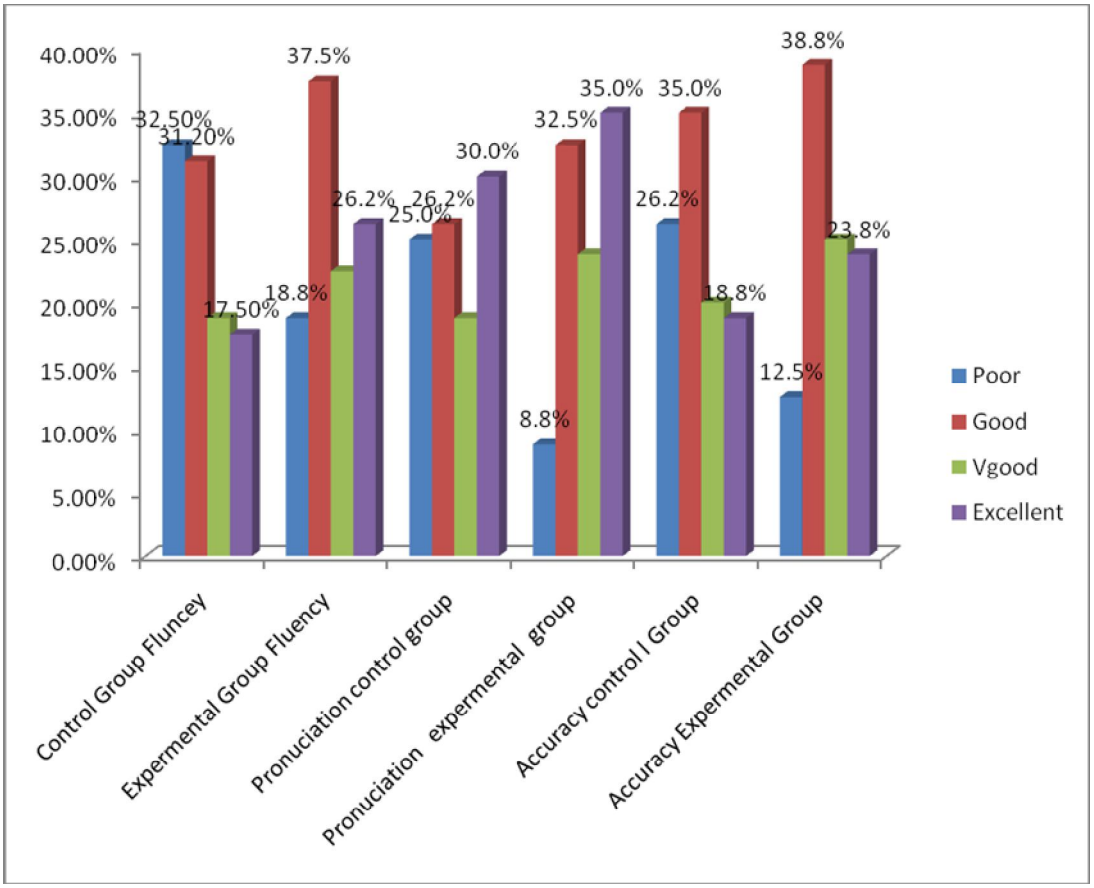


3. ICT teaching techniques develop listening skills

Excellent		V.Good		Good		Poor		Example
percentage	Frequency	percentage	Frequency	Percentage	Frequency	percentage	Frequency	
18.8%	15	20.0%	16	35.0%	28	26.2%	21	Accuracy for control group
23.8%	19	25.0%	20	38.8%	31	12.5%	10	Accuracy f or experimental group
17.5	14	18.8	15	31.2	25	32.5	26	Flouncy n control group
21.2%	17	22.5%	18	37.5%	30	18.8%	15	Fluency experimental group
30.0%	24	18.8%	15	26.2%	21	25.0%	20	Pronunciation control group
35.0%	28	23.8%	19	32.5%	26	8.8%	7	Pronunciation experimental group

With reference to the table () and figure ( ) above the responses of the students show that most of the answers of the accuracy when teacher use ICT in classroom are better correctly with percentage of 12.5 % as poor opportunities, 38.8 % as good, 25.0% as V.good and 23.8% % as excellent for experimental group if compared with answers without using answers ICT in classroom (control group) with percentage 26.2 % as poor opportunities, 35.0% , as good 20.0%,as V.good and 18.8 %as excellent. the answers of the fluency when teacher use ICT in classroom are better correctly with percentage of 18.8% as poor opportunities, 37.5% as good, 22.5% as v.good and 21.2% % as excellent for experimental group if compared with answers without using answers

ICT in classroom (control group) with percentage 32.5 % as poor opportunities, 31.2% , as good 20.0%,as v.good and 17.5 %as excellent,==And the answers of the Pronunciation when teacher use ICT in classroom are better correctly with percentage of 8.8% as poor opportunities, 32.2 % as good, 23.8% %as vgood and 35.0% % as excellent for experimental group if compared with answers without using answers ICT in classroom(control group) with percentage 25.0% % as poor opportunities, 26.2% , as good , 18.8%,as v.good and 30.0% %as excellent



Chapter Five

Main Findings, Conclusions, Recommendations and Suggestions for Further Studies

5.0Introduction

This chapter includes the conclusions, main findings, suggestions for further studies and the summary of the chapter.

5.1 conclusions

This research was an attempt to explore the impact of Information and Communication Technologies on promoting teaching English language or secondary schools, scholastic activities

The research showed the impact of using (ICT) technology among the secondary school EFL students. Moreover, the research exposed student's readiness to use technologies in their daily life as well as in the classroom and how technologies affect and play a vital role in their foreign language teaching.

In discussing the research problem, the researcher proposed the following questions.

1. To what extend do students interact and motivate when ICT use in the classroom.

2. What are the differences between the outcomes of class use ICT and class with traditional way of teaching?

3. Do ICT develop listening skills?

In order to find relevant answers to the above questions the researcher has made the following hypotheses:

1. Students interact and motivate when the teacher use ICT in classroom

2. The differences between class using ICT and the traditional one

3. ICT teaching techniques develop listening skills

Test and classroom observation checklist were used to explore the Information and communication Technology (ICT) on promoting teaching English language for secondary school students at Khartoum State, Omdurman Educational area, Musa Aldaw secondary Governmental Model school for Boys and Wadi saydna secondary Governmental school for Boys represent the setting of the study {the participants answer the questions of the stud

5-2 The Main Findings

According to the test results answered by students' control and experimental groups:

*With reference to the table (14and figure (15)bove the responses of the students show that most of the answers are of the interaction when teacher use ICT in classroom are better correctly with percentage of 7.5% as poor opportunities, 38.8% as good, 26.2%as v good and 27.5% as excellent for experimental group if compared with answers without using answers ICT in classroom(control group) with percentage 25.0% as poor opportunities, 32.5%, as good , 15%,as v .good and 18.8%as excellent theses

*Students interact and motivate when the teacher use Information and Communication Technologies (ICT) in classroom.

* The differences between the outcomes of class use ICT and class with traditional way of teaching

*Using (ICT) technologies give students the ability to speak fluently and control of their learning and encourage their practice English.

* Using (ICT) technologies promote the students' abilities to interact with others easily

* Using Information and Communication Technology develops the listening skills for secondary school students.

* Using digital technologies provide EFL teachers with more appropriate and authentic materials to enrich their English course.

*The English course specification depends on textbooks.

5.3 In Conclusion the Researcher stressed the following Points as Recommendations .

The researcher recommended the following:

1-Technology-related learning environments changed remarkably during the duration of this study mainly because of the rapid change in technological infrastructure.

2 The school in Study could adapt to changes and also plan and use the new possibilities for improving the learning environment in a more open direction for all students

3. ICT is very necessary for teaching English language

4.ICT heleps in promoting listeng skills

5. Ministry of Education should supply schools with ICT facilities

6. The schools in studies should adapt changes and plan , use the new possibilities for improving the learning environments

5.4 Suggestions for Further Research:

The present study explore of using technologies in secondary school classes; active learning opportunities.

However, such topic is too broad to be discussed in a small thesis, so the researcher suggests:

1- More investigations and research are needed in using Information and Communication technologies in Sudanese educational institutions.

2- Further studies should be conducted using research methods.

3- Further studies should be done with larger samples

4. The of ICT in improving language learning environment

5. Investigating the methods of improving students performance when ICT is used

5.5 Summary

These chapter summaries the results of the data analysis. It checks the hypotheses and concludes that using ICT in classrooms has a positive effect on promoting skills. It also provides answers to the study questions.

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Appendix (1)

Migration of Birds

Read the following and answer the questions:-

You must have noticed that birds in the Sudan come and go. When they fly from one place to another, we say that birds migrate. Their migration is studied by scientists all over the world.

Many birds migrate so as to avoid the cold weather, in this way they are able to live in warmer countries all the year round. Moreover, migration helps them to have a continuous supply of food in some areas in the north and a south pole the water is frozen and snow covers everything. Therefore, food becomes scarce and birds migrate.

Scientists study the migration of birds. They have discovered that birds fly long distances, thousands of kilometers. When they migrate, they follow the same routes. They actually do this without training. In other words migrating birds follow these routes because they have a certain instinct. It has also been observed that birds migrate in flocks.

Birds choose the right time fore migration. They star their journey when the sky is clear and there almost no wind. Birds usually prefer to travel at night. They use the stars and the moon to help them find their way. However, if the weather is not suitable for migration, they land, rest and feed. Then they start their journey again when the weather conditions improve.

When a scientist in one country catches migrating birds, he puts a metal ring on its leg. A scientist in another country finds the birds and the metal ring tells him where the bird has migrated from. New inventions like radar and satellites help scientists as well as other interested people to study the migration of birds.

(Pronunciation)1.

Write the correct sound inside the box

Testing the pronunciation

Write the correct sound inside the box

	1	2	3	4
1	Migration	neagration	migration	mogration
2	Scientists	scienstue	cstenstue	stention
3	Pirds	pards	perads	birds
4	Weather	wethar	wather	weither
5	Gurney	jounrny	jurney	Journey

Vocabulary. 2.

3) Circle the correct word.	
avoid meet to avoid receive	1. Birds migrate so as --------the cold weather.
sea way snow sky	2. When do birds migrate? – they start their journey when the ---------- clear and no wind
crowd troop flocks mass	3. How do birds migrate? they migrate in ---- ----------
rainy warm cold windy	4. What kind of climate do birds like ? they like ---------- climate .
Crow stork owl dove	5. Which birds do you see during the summer season?

3. Communication

1. Which of the following statements is best supported by the passage?

(a) Scientists love migration of birds

(b) Birds like to live in warm countries.

(c) The influence of the best food and nutrition.

(d) The negative impact of bird's migration.

2. These types of birds are mentioned in the passage

(a) Ostrich, wild hens

(b) Peacock, hoopoe. .

(c) Falcon, hawk..

(d) Sparrow, pigeon

3. The birds move round the world from

(a) east to west

(b) West to east. .

(c) North pole to south poles

(d) Western snow to eastern

4... When birds migrate they follow the same

(a) Direction

(b) Instructions. .

(c) Streets

(d) Routes

5,.Migration of birds is regarded as

(a) Searching for food and safety

(b) Manmade disaster. . .

(c) Luxurious journey

(d) Nesting time

4.Interaction

1. What is the main idea of the first paragraph?

A. explains the meaning of migration..

B. the importance of the journey of birds.

C. the pollution that resulted from bird's movement.

D. the beautiful picture of the birds .

2. What is the main idea of the second paragraph?

A. Describes the two poles.

B. the reasons behind birds migration.

C .the quantity of food that a bird needs.

D. the tools of the journey to Africa

3. What is the main idea of the third paragraph?

A. the speed of immigrant birds..

B. the efforts made by the scientists to safe birds

C. the necessary preparation for the journey.

D. birds fly long distances, same routes ,flocks

4. What is the main idea of the fourth paragraph?

A. the difficult journey.

B. how do birds eat and drink during the night

C .the suitable time, weather, moon and stars for migration ..

D. the back journey to Africa

5. What is the main idea of the fifth paragraph?

A. how scientist cooperate with each other .

B. the struggle against the strange creatures .

C .the long term plan to stop birds migration

D. how to find food for birds

5. Accuracy

Match A with B in box C

A	B
1- new invention	a) Rare
2- instinct	b) Immigrant bird
3- scarce	c) Migrate
4- pheasant	d) Satellites
5- fly from place to another	e) Sense

C

5	4	3	2	1

6. Fluency

Draw a circle round the letter of the best answer (a, b,c or d) .

1. Birds follow the same ……when thy migrate

A routes B .weather C. sky D. shapes

2. scientists use ……to follow migration of birds

A. radar B .metal rings C .satellites D. all mentioned

3. The word avoid in paragraph one means

A. stay B .escape C .migrate D. live

4. Birds migrate when the sky is ……

A. clear B .cloudy C .windy D. sunny

5. All mentioned help birds to migrate except ……

A. clear sky B .the wind C .the stars D. the moon

Appendix (2)

Chick list: Control group.

1-**Attendance**

Cumulative Percent	Valid Percent	Percent	Frequency		
25.0	25.0	25.0	20	poor	Valid
40.0	15.0	15.0	12	Good	
68.8	28.8	28.8	23	Vgood	
100.0	31.2	31.2	25	Excellent	
	100.0	100.0	80	Total	

2-Participation

Cumulative Percent	Valid Percent	Percent	Frequency		
13.8	13.8	13.8	11	poor	Valid
28.8	15.0	15.0	12	Good	
62.5	33.8	33.8	27	Vgood	
100.0	37.5	37.5	30	Excellent	
	100.0	100.0	80	Total	

3-**Motivation**

Cumulative Percent	Valid Percent	Percent	Frequency		
7.5	7.5	7.5	6	poor	Valid
22.5	15.0	15.0	12	Good	
62.5	40.0	40.0	32	Vgood	
100.0	37.5	37.5	30	Excellent	
	100.0	100.0	80	Total	

4-**Vocabulary**

Cumulative Percent	Valid Percent	Percent	Frequency		
20.0	20.0	20.0	16	poor	Valid
38.8	18.8	18.8	15	Good	
63.8	25.0	25.0	20	V.good	
100.0	36.2	36.2	29	Excellent	
	100.0	100.0	80	Total	

5-Flueny

Cumulative Percent	Valid Percent	Percent	Frequency		
32.5	32.5	32.5	26	Poor	Valid
63.8	31.2	31.2	25	Good	
82.5	18.8	18.8	15	Vgood	
100.0	17.5	17.5	14	Excellent	
	100.0	100.0	80	Total	

6-Communication

Cumulative Percent	Valid Percent	Percent	Frequency		
17.5	17.5	17.5	14	poor	Valid
36.2	18.8	18.8	15	Good	
62.5	26.2	26.2	21	Vgood	
100.0	37.5	37.5	30	Excellent	
	100.0	100.0	80	Total	

7-**Pronuciation**

Cumulative Percent	Valid Percent	Percent	Frequency		
25.0	25.0	25.0	20	poor	Valid
51.2	26.2	26.2	21	Good	
70.0	18.8	18.8	15	Vgood	
100.0	30.0	30.0	24	Excellent	
	100.0	100.0	80	Total	

8- **Accuracy**

Cumulative Percent	Valid Percent	Percent	Frequency		
26.2	26.2	26.2	21	poor	Valid
61.2	35.0	35.0	28	Good	
81.2	20.0	20.0	16	Vgood	
100.0	18.8	18.8	15	Excellent	
	100.0	100.0	80	Total	

9- **Interaction**

Cumulative Percent	**Valid Percent**	**Percent**	**Frequency**	
25.0	25.0	25.0	20	Valid poor
57.5	32.5	32.5	26	Good
81.2	23.8	23.8	19	Vgood
100.0	18.8	18.8	15	Excellent
	100.0	100.0	80	Total

Appendix (3)

Table (_) Students interact and motivate when ICT use in classroom

Percentage	excellent	V good	Good	Poor	Examples
					Attendance
					Participation
					Motivation

Table( )the difference between ICT learning and traditional learning

Percentage	excellent	V good	Good	Poor	Examples
					Vocabulary
					Fluency
					Communication

Table ( ) how ICT develop listening skills

Percentage	excellent	V.good	Good	Poor	Examples
					Pronunciation
					accuracy
					Interaction

Appendix (4)

بسم الله الرحمن الرحيم

وزارة التربية والتعليم

ولاية الخرطوم ـ محلية امدرمان

مدرسة موسى الضو الثانوية النموذجية بنين

التاريخ: ٢٠١٥/١/١١

السيد/ ولي أمر الطالب: _____

بعد

التحية والإحترام

نرجو شاكرين من سيادتكم السماح للطالب المذكور اعلاه بأستخدام الموبايل لمدة نصف ساعة باستخدام برنامج الواتساب في الفترة من ١/١١ – ٢/١١

وذلك بغرض دراسة خاصة باستخدام الوسائط في تطوير اللغة الانجليزية تحت شعار علموا ابنائكم لزمان غير زمانكم وفي حالة الموافقة نرجو ارسال الرقم المعتمد

ودمتم ذخراً للعباد والبلاد

شعبة اللغة الانجليزية

١١/١
٢٠١٦

عصام الدين خالد طلحة

مدير المدرسة

٠٩١٩٦٦٩٤٩٧

السيد رئيس شعبة اللغة الإنجليزية تشجع
قاله ونوافق عليه

٢٠١٥/١١/١٤