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**Effect of Using Computer-Assisted Language Learning
software to Vocabulary Learning**

أثر استخدام برنامج تعلم اللغة المدعم بالحاسب في تعلم المفردات

**A thesis Submitted in Fulfillment of the Requirement for the Degree of
Ph.D. in English(Applied Linguistics)**

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DEDICATION

To the soul of my father, to my dear mother and to the members
of my family

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BSTRACT

This study aimed at investigating the effect of using computer assisted language learning (CALL) on vocabulary learning. It also investigated the attitudes of the population of the study toward the computer assisted language learning program (CALL). A quasi- experimental study was conducted at the department of English language, college of languages, Sudan University for Science and Technology during the second semester of the academic year 2015-2016. One hundred and thirteen students of first- year classes participated in this study as its population. The sample of the study was divided into two groups that are Experimental group which was taught vocabulary via using the CALL program, and the Control group which was taught the same skill through the traditional method. The study hypothesized that CALL program had a significant effect on learning language in general and vocabulary in particular. To fulfill the objectives of the study, a pre-test was conducted prior to using the program and a post-test after using the program for both groups to know the effect of used program. In addition, two questionnaires were conducted at the end of the study: one for tutors and another for the experimental group to assess the effectiveness of CALL on learning vocabulary. The data of the research was analyzed statistically (SPSS program). The finding of the study revealed that there were statistically differences ($p \leq 05$) between the mean scores of the experimental group and control group in their post-test. The differences were in favor of the experimental group which was taught vocabulary via computer. The results also revealed that members of the experimental group have positive attitudes toward the use of CALL program for learning. They also positive toward using CALL in learning English in the future. The results also revealed that tutors have positive attitudes toward the use of CALL in language teaching. The study concluded that the use of CALL is a functional method for learning and teaching vocabulary and technology can be used to add value to regular classes. Moreover, it is recommended that teachers should

receive more training in computer classes related to using language skills. There are also some suggestions for further studies.

المستخلص

(Arabic Version) – Abstract

هدفت هذه الدراسة الي التحقق من اثراستخدام برنامج تعلم اللغة المدعم بالحاسب في تعلم المفردات اللفظية . كما هدفت ايضا الي معرفة وجهة نظر مجتمع الدراسة حول استخدام برنامج تعلم اللغة المدعم بالحاسب. اجريت الدراسة ميدانيا علي طلاب قسم اللغة الانجليزية بكلية اللغات بجامعة السودان للعلوم والتكنولوجيا خلال الفصل الدراسي الثاني لعام

2015-2016. شارك في هذه الدراسة 113 طالبا من طلاب السنة الاولي. وتم تقسيم عينة الدراسة الي مجموعتين : مجموعة تجريبية درست المفردات بمساعدة الحاسوب ومجموعة ضابطة درست المهارة نفسها بطريقة التدريس التقليدية. افترضت الدراسة ان لبرنامج تعلم اللغة بمساعدة الحاسب اثرا فعالا في تعلم اللغة عموما وفي تعلم المفردات علي وجه الخصوص. ولتحقيق اهداف الدراسة اجري اختبار قبلي وبعدي للمجموعتين لمعرفة اثر البرنامج المستخدم. كما تم اجراء استبيانين عند نهاية الدراسة : احدهما للمعلمين والآخر للمجموعة التجريبية لتقييم فعالية البرنامج في تعلم المفردات. تم تحليل بيانات البحث احصائيا. بينت نتائج البحث ان هناك فروقا ذات اهمية احصائية بين معدلات درجات الامتحان البعدي لافراد المجموعة التجريبية وتلك التي لافراد المجموعة الضابطة وان الفروق كانت لمصلحة المجموعة التجريبية التي درست المفردات باستخدام الحاسب, كما اوضحت النتائج ان افراد المجموعة التجريبية يرون ان استخدام برنامج تعلم اللغة المدعم بالحاسب الالي فعال في تعليم المفردات وانهم يتطلعون الي استخدامة مستقبلا. كما اوضحت النتائج ايضا ان الاساتذة يرون ان استخدام برنامج تعلم اللغة المدعم بالحاسب الالي فعال في تعلم و تدريس المفردات انه يمكن استخدام التكنولوجيا لاضفاء قيمة علي الطرق التقليدية. اوصت الدراسة بتدريب المعلمين علي استخدام تطبيقات الحاسب المرتبطة باستخدام مهارات اللغة. بالاضافة الي بعض المقترحات لمزيد من الدراسات.

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LIST OF ABBREVIATIONS

The following list of abbreviations which are used in the present

study will have the meaning designated hereafter:

AI: Artificial Intelligence

ASR: Automatic Speech Recognition

CAI: Computer-assisted Instruction

CALL: Computer-assisted Language Learning

CEDD: Customary English Dialect Direction

CMC: Computer Mediated Communication

DDL: Data-Driven Learning

DVD: Digital Video Disc

EFL: English as a foreign Language

FFI: Form Focused Instruction

HLL: High Level Language

HLT:	Human Language Technology
ICALL	Intelligent CALL
LAN:	Local Area Network
MPCs:	Multimedia Personal Computers
NLP:	Natural Language Processing
PC:	Personal Computer
PI:	Programmed Instruction
VLT:	Vocabulary Levels Test
WELL:	Web enhanced Language Learning
WWW:	World Wide Web

CHAPTER ONE

INTRODUCTION

1.0 Overview

This introductory chapter provides a description of the theoretical framework of the study with special focus on the statement of the problem, study questions, hypotheses, objectives and the methodology of the study.

1.1 Context of the study

Rigorous studies dealing with foreign language vocabulary acquisition have entered the realm of thorough linguistic research on teaching and learning only recently (Maiguashca, 1993 and Meara 1981 cited in Kojic-Sabo and LighBown, 1999). Education experts did not think that the question of vocabulary has a direct effect on the second or foreign language acquisition; hence very little effort was exercised in foreign language vocabulary learning research. It was by the 1990s that vocabulary "assumed its rightful place as a fundamentally important aspect of language development," (Nunan, 1999:103). It has been found that students need to have basic knowledge of a vocabulary to improve language proficiency.

Computer assisted-language learning is not a method for learning vocabulary or maximizing its size. It is rather a tool for learning vocabulary. Vocabulary size refers to the number of words of which a learner has at least some superficial knowledge of meaning. Researchers use vocabulary levels Test (VLT) to measure the learners size of vocabulary knowledge . The test contains items from the 200, 300, 5000 and 10000 most frequent words, 300,5000and 1000 academic vocabulary. It has been accepted by a number of second language researchers as an appropriate and valid measure of vocabulary size. Vocabulary skill represents critical and crucial issue in mastering English language the fact behind that people of different walks of life need vocabulary to communicate, to express their ideas, thoughts and emotions. Improving

vocabulary has a direct, positive impact on building up language proficiency as a whole. A leading linguist researcher Paul Nation notes: "Vocabulary is not an end in itself. A rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform." Vocabulary is generally a matter of remembering, unlike e.g. learning grammar, which is a system based mainly on rules. In fact, to learn as effectively as possible, it is important to know, how words are remembered and stored in students' minds and how long term memory is organized. Several researchers agree that vocabulary is stored in the mind in a highly organized and complex web-like system, the so-called 'mental lexicon'. In the mental lexicon, words are stored, categorized and interconnected in many ways, according to their features such as meaning, form, collocation, syntactic properties, cultural background etc.

Teachers have noticed that EFL learners find difficulties in the use of lexical items in their communication and that EFL learners devote their time in memorizing English words which are sooner forgotten and this of course causes students' frustration, lack of communicative knowledge and low motivation. Therefore, a lot of research has been done and new methods to improve learners' vocabulary have been also developed. CALL is one of these new methods that the research will discuss. The main issue of this study is to examine the integration of CALL for teaching Sudanese EFL learner vocabulary at university level.

1.2 CALL and Vocabulary Learning

Certainly, CALL covers a wide-range of activities which makes it difficult to describe it as a single idea or simple research agenda. CALL has come to encompass issues of materials design, technologies, pedagogical theories and modes of instruction. Materials for CALL may include those which are purpose-made for language learning and those which adapt existing computer-based materials, video and other materials. However, in the midst of so many directions, it is necessary to attempt to examine CALL practice in order to give a context to what has been tried and found wanting in the general area of language learning at the computer. It is also important to establish a sense of the directions in

which future practice and research might profitably venture. Because of the changing nature of computers, CALL is an amorphous or unstructured discipline, constantly evolving both in terms of pedagogy and technological advances in hardware and software. Change is also occurring with advances in computer literacy and related literacies among both teachers and learners. However, Warschauer (2009) cites a study of New York middle school students by Attewell and Winston (2003) to explain that students' digital literacies are not always mirrored in improvements in their basic reading and writing skills, as seen in the following example:

As image after image flashes by, it becomes noticeable how rarely, how lightly, Kadesha settles on printed text. Like many of her friends, she read far below grade level. So she energetically pursues images and sounds on theWeb, but foregoes even news of her love interest if that requires her to read(Attewell and Winston, 2003, p. 117).

This is a warning for teachers to be aware of the many ways in which CALL is employed, both in and out of the classroom; there should be no assumptions that 'working' online is providing transferable skills that are of use in the real world. In some commercial applications meant to be used by individuals away from the home, CALL is dubiously promoted as a complete method of learning a language, although not backed up with empirical evidence. In classrooms, time at the computer can be used both as a reward for better learners or a remedial aid for weaker ones. Language labs, originally built for listening practice, now integrate CALL with teachers using CALL activities based on email, the World Wide Web (WWW) and even mobile telephones to supplement student learning. Delivery methods for CALL include the use of individual computers at home or in the classroom, classroom sets of computers, language labs into which computer functions have been incorporated, online instruction through the WWW and distance and networked learning through the use

of email, blogs, wikis, online social networking and other interactive WWW sites and services.

1.3 Emergence of CALL

Computer-based language tools are beginning to become both pervasive and invisible; that is, they are commonly included in countless applications, such as automated telephone query systems that respond to short snippets of natural speech to identify simple words and phrases and clarify intentions. Computer interfaces are also becoming increasingly intuitive, particularly as the bulk of users have slipped from a select group of erudite computer professionals to everyone else, including preschoolers. Computer-based language functions are already integrated into word processing, email and other software that corrects spelling and grammar, offers thesaurus functions and even cautions against the use of what it perceives as hostile or profane language. Computer-based language functions have also long been integrated into various learning toys. Examples include *Speak N Spell*, first developed in the 1980s. *Speak N Spell* was a stand-alone spelling bee program which randomly pronounced words that the learner then spelled by typing onto a miniature keyboard. Versions with additional visual prompts are now common as software programs for personal computers. More recently, interactive animatronic toys such as *Barney*, *Tickle Me Elmo* and *Furby* in the 1990s extended the human/machine interactions. An advertising description for *Furby* reads in part:

Furby, Tiger Electronics Ltd's cuddly standalone animatronics' pet, interacts with the environment through sight, touch, hearing and physical orientation. Each animated electronic plush toy is unique, intelligent and equipped with a singular personality and name. Furby can move and dance. Other motion includes eyes that open and close, ears that wiggle and a mouth that moves when speaking. Furby has its own language, "Furbish," but learns to speak English through

positive reinforcement. Furbys communicate with each other via infrared signals, and can teach each other tricks and songs (Furby, 1998).

1.4 Statement of the Study Problem

The problem with CALL as an essentially modern tool for learning arises out of the very fact of accessibility to information through computer. Though the adoption of computer into classroom settings is by far not new process it still poses a problem in some parts of the world. Certainly the use of computer as a tool of learning can have a notable motivating effect. However, teachers have to be on their guard as the learning operation may shift from a serious process into a time consuming course of action.

Tutors have to be well-trained in using computer as most of the tutors belong to an old generation who had little knowledge of computer and even how it operates. Their inadequate knowledge may act as a barrier to adopting it in their classes.

1.5 Significance of the Study

What makes the current study significant is the fact that it sets out to handle a sensitive issue linked with classroom instruction. The attempt seeks to push the learning operation along the path of modern technology through the inclusion of computer. This is immensely significant as it seeks to explore the sheer possibility of including the computer in a poor environment or a highly challenging situation where all facilities for operating the computer are lacking. The study presents statistical facts that measure the influence of technology in language learning in general and vocabulary in particular.

1.6 Research Questions

In this study the following questions were set forward to be answered to next changed into hypothetical statements.

1. To what extent does CALL promote the learning in general and vocabulary in particular.?
2. How far canCALL enhance cultural awareness of Sudanese EFL undergraduate students?
3. To what extent can computer sets be introduced in countries of the Third World?

1.7 Research Hypotheses

1. CALL promotes learning in general and vocabulary in particular.
- 2.CALL enhances cultural awareness of Sudanese EFL undergraduate students.
3. Computer sets be introduced in countries of the Third World.

1.8 Research Methodology

The researcher followed the experimental design in this study. H.W Selger and Shohamy (2013:11) stated: "*The experimental approaches involve the control or manipulation of the three basic components of the experiment; the population, the treatment and the measurement of the treatment*". Therefore the population of the study will be an experimental sample from students who are learning vocabulary through CALL. The learners were exposed to this modern language teaching method. The effectiveness of this method was measured through a two group design, a controlled group and an experimental one (see H.W Selger&E.Shohamy2013).The subjects of the two groups were submitted to a pre-learning test and a final test (after the learners have completed the courses through CALL).Between the two tests the learning process was traced for each learner and assisted the learners while using CALL. Data obtained from testing results were treated statistically.

1. 9 Research Limits

The study is limited to the investigation of the effect of using CALL On learning vocabulary in Sudan University, College of languages, mainly first year students of English Department.

Summary of the Chapter

This chapter is an introductory chapter that provides a description of the theoretical framework of the study with special focus on the statement of the problem, objectives, hypotheses, and methodology of the study.

CHAPTER TWO

LITERATURE REVIEW

1.0 Overview

This chapter reviews relevant literature on the issue in question, namely computer-assisted language learning (CALL) along its different stages and progression, and other related topics with some emphasis on the nature of reading comprehension. Important findings and arguments from opponents and proponents of an English-only teaching method will be discussed. The chapter is divided into two parts, the first one is on the theoretical framework, and the other is on previous studies.

Part one: Theoretical Framework

Part Two: Previous Related Work

2.1 Definition of CALL and Brief Related Information

Computers Assisted Language Learning (CALL), through its progression, followed a logical development that combines non-stop advances in technology to persistent shifts in the research of language learning and pedagogy (Wright, 2005). While advancements are being achieved in technology, research on impact of the use of computer in second language learning always shows positive evidences in the field (Hegelheimer and Tower, 2004).

According to Moras (2001) CALL programs have been used since the 1960s till now. The 55-year period can be generally divided into three main stages: behaviorist (CALL), communicative CALL, and integrative CALL (Warschauer & Healey, 1998).

2.1.1 History of CALL Types

Computer Assisted Language Learning (CALL) is often perceived, somewhat narrowly, as an approach to language teaching and learning in which the computer is used as an aid to the presentation, reinforcement

and assessment of material to be learned, usually including a substantial **interactive** element. Levy (1991) defines CALL more succinctly and more broadly as "the search for and study of applications of the computer in language teaching and learning". Levy's definition is in line with the view held by the majority of modern CALL practitioners.

The exact date of CALL application goes as far back as 1960s with the mainframe-based drill and practice materials, mainly based on the University of Illinois' PLATO system. Until 1980, the spread of the microcomputer into educational settings, CALL was an insignificant alternative for language learning outside of a few universities.

Teacher developers, in fact, wrote early programs on Apple II, IBM PC and BBC computers and distributed them for free and the programs were commercially quite expensive. Though not very innovative, the program was generally more stable and technically sophisticated. During those times teacher—developers had done some work with interactive laser disks which provided the foundation for language learning, a trend that continues even today. However, The PLATO project, initiated at the University of Illinois in 1960, is an important landmark in the early development of CALL (Marty 1981). In the late 1970s, the arrival of the **personal computer** (PC) brought computing within the range of a wider audience, resulting in a boom in the development of CALL programs and a flurry of publications. Early CALL favored an approach that drew heavily on practices associated with **programmed instruction**. This was reflected in the term Computer Assisted Language Instruction (CALI), which originated in the USA and was in common use until the early 1980s, when CALL became the dominant term. There was initially a lack of imagination and skill on the part of programmers, a situation that was rectified to a considerable extent by the publication of an influential

seminal work by Higgins & Johns (1983), which contained numerous examples of alternative approaches to CALL.

2.1.2 Traditional CALL

Traditional CALL programs presented a **stimulus** to which the learner had to provide a **response**. In early CALL programs the stimulus was in the form of text presented on screen, and the only way in which the learner could respond was by entering an answer at the keyboard. Some programs were very imaginative in the way text was presented, making use of color to highlight grammatical features (e.g. gender in French and case endings in German) and movement to illustrate points of syntax (e.g. position of adjectives in French and subordinate clause word order in German). Discrete **error analysis** and **feedback** was a common feature of traditional CALL, and the more sophisticated programs would attempt to analyse the learner's response, pinpoint errors, and branch to help and remedial activities. A typical example of this approach is the *CLEF* package for learners of French, which was developed in the late 1970s and early 1980s by a consortium of Canadian universities. A Windows version of *CLEF* has recently been released: <http://www.camsoftpartners.co.uk/clef.htm> Error analysis in CALL is, however, a matter of controversy. Practitioners who come into CALL via the disciplines of **computational linguistics**, e.g. Natural Language Processing (NLP) and Human Language Technologies (HLT), tend to be more optimistic about the potential of error analysis by computer than those who come into CALL via language teaching: see ICT4LT Module 3.5, *Human Language Technologies*: <http://www.ict4lt.org/>. The approach adopted by the authors of *CLEF* was to anticipate common errors and build in appropriate feedback. An alternative approach is the use of **Artificial Intelligence** (AI) techniques to **parse** the learner's

response - so-called "intelligent CALL" (ICALL) - but there is a gulf between those who favour the use of AI to develop CALL programs (Matthews 1994) and, at the other extreme, those who perceive this approach as a threat to humanity (Last 1989:153).

In the 1960's, the origin and development of CALL were traced that had been developed into the symbiotic relationship between the development of technology and pedagogy. Warschauer divided the development of CALL into three phases: Behaviourist CALL, Communicative CALL and Integrative CALL. At every stage it had a certain level of technology and pedagogical imperatives that laid the foundation for a theoretical base.

CALL develops the language learners' communication skills with convenience, accessibility, comfort and safety. They pick up language skills and improve efficiency faster. They can retain language skills longer and learn more about what they need. They are able to access materials to experience the interactions which would otherwise be difficult or impossible. CALL has been planned to focus on several identifiable areas to develop the communication skills. Computer mediated communication promotes comprehension and vocabulary acquisition through visual, textual and sound annotation. It happens by means of interaction in synchronous chat settings and email in tandem settings.

2.1.3 The behaviorist phase (1960s)

This was based on the behaviorist theories of learning. This phase is represented by the audio lingual method of the 1960s and 70s. The mainframe was a tutorial system and was used mainly for extensive oral drills, explicit grammar instruction and translation tests (Ahmad, Corbett, Rogers, & Sussex, 1985). It was mainly oriented towards oral drills and

practice, with neither feedbacks, nor interactive components, because of the non-sophisticated mechanisms used at that time.

2.1.4 Communicative CALL

In the 1970's and 1980's came the communicative approach, the second phase of CALL based on the teaching which became prominent. Many argued that all CALL courseware and activities must be built on intrinsic motivation and insist on interactivity- both learner-computer and learner. Advocators felt that the drill and practice programs of the previous did not allow enough authentic communication of much value. Learners were unable to find right the answers. However, communicative CALL served the purpose by stimulating meaning discussion, writing and critical thinking among the students learning English language in a new way.

2.1.5 Explorative CALL

More recent approaches to CALL have favored a learner-centred, **explorative** approach rather than a teacher-centred, drill-based approach to CALL. The explorative approach is characterized by the use of **concordance programs** in the languages classroom - an approach described as **Data-Driven Learning (DDL)** by Tim Johns (Johns & King 1991). There are a number of concordance programs on the market, e.g. *MonoConc*, *Concordance*, *Wordsmith* and *SCP* - all of which are described in ICT4LT Module 2.4, *using concordance programs in the modern foreign languages classroom*: <http://www.ict4lt.org/>. See also Tribble& Jones (1990). The explorative approach is widely used today, including the use of **Web concordancers** and other Web-based CALL activities.

2.1.6 Multimedia CALL

Early personal computers were incapable of presenting authentic recordings of the human voice and easily recognizable images, but this

limitation was overcome by combining a personal computer and a 12-inch videodisc player, which made it possible to combine sound, photographic-quality still images and video recordings in imaginative presentations - in essence the earliest manifestation of **multimedia CALL**. The result was the development of **interactive videodiscs** for language learners such as *Montevidisco* (Schneider & Bennion 1984), *Expodisc* (Davies 1995), and *A la rencontre de Philippe* (Fuerstenberg 1993), all of which were designed as simulations in which the learner played a key role.

The techniques learned in the 1980s by the developers of interactive videodiscs were adapted for the **multimedia personal computers** (MPCs), which incorporated CD-ROM drives and were in widespread use by the early 1990s. The MPC is now the standard form of personal computer. CD-ROMs were used in the 1980s initially to store large quantities of text and later to store sound, still images and video. By the mid-1990s a wide range of multimedia CD-ROMs for language learners was available, including imaginative simulations such as the *Who is Oscar Lake?* series: <http://www.languagepub.com/>. The quality of video recordings offered by CD-ROM technology, however, was slow to catch up with that offered by the earlier interactive videodiscs. The **Digital Video Disc** (DVD) offers much higher quality video recordings, e.g. the Eurotalk Advanced Level DVD-ROM series: <http://www.eurotalk.co.uk/>. A feature of many multimedia CALL programs is the role-play activity, in which the learner can record his/her own voice and play it back as part of a continuous dialogue with a native speaker. Other multimedia programs make use of **Automatic Speech Recognition** (ASR) software to diagnose learners' errors, e.g. *Tell Me More Pro* by Auralog: <http://www.auralog.com/english.html>. Most CALL programs under

development today fall into the category of multimedia CALL. See ICT4LT Module 2.2, *Introduction to multimedia CALL*: <http://www.ict4lt.org/>.

2.1.7 Web-based CALL

In 1992 the **World Wide Web** was launched, reaching the general public in 1993. The Web offers enormous potential in language learning and teaching, but it has some way to go before it catches up with the interactivity and speed of access offered by CD-ROMs or DVDs, especially when accessing sound and video files. For this reason, Felix (2005:190) advises adopting **hybrid** approaches to CALL, integrating CD-ROMs and the Web and running audio conferencing and video conferencing in conjunction with Web activities. The Web Enhanced Language Learning (WELL) project, which has been funded under the FDTL programme of the HEFCE, aims to promote wider awareness and more effective use of the Web for teaching modern languages across higher education in the UK. The WELL website provides access to high-quality Web resources in a number of different languages, selected and described by subject experts, plus information and examples on how to use them for teaching and learning: <http://www.well.ac.uk/>.

2.1.8 CALL authoring programs

CALL authoring programs offer a do-it-yourself approach to CALL. They were originally developed to enable programmers to simplify the entry of data provided by language teachers. Modern CALL authoring programs are designed to be used by language teachers who have no knowledge of computer programming. Typical examples are authoring packages that automatically generate a set of pre-set activities for the learner, e.g. Camsoft's *Fun with Texts* (Camsoft) and *The Authoring Suite* (Wida Software). Generic packages such as Macromedia's *Director*

(<http://www.macromedia.com/>) are more sophisticated and enable the user to create a full-blown course, but they are probably too complex for most language teachers and are best suited to the template approach to authoring, as described in ICT4LT Module 3.2, *CALL software design and implementation*: <http://www.ict4lt.org/> Web authoring packages are also available, e.g. *Hot Potatoes* software: <http://web.uvic.ca/hrd/halfbaked>. See ICT4LT Module 2.5, *Introduction to CALL authoring programs*. See also Bickerton (1999) and Bickerton, Stenton&Temmermann (2001).

2.1.9 Integrative CALL

Integrative CALL arrived as the last stage of computer-assisted language learning. Communicative CALL was criticized for using the computer in an ad hoc and disconnected fashion and using the computer made a greater contribution to marginal rather than central elements of language learning (Kenning & Kenning 1990). Teachers shifted from a cognitive view of communicative language teaching to a socio-cognitive view emphasizing real language use in a meaningful and authentic context. Various skills of language learning like listening, speaking, writing and reading were integrated and inculcated technology more fully into language teaching by Integrative CALL. Moreover, multimedia-networked computer provided informational, communicative and publishing tools which are available to the students all these are in a nutshell, the benefits that CALL conferred on the enthusiastic and young generation.

2.1.10 Advantage of Utilizing Computer in Language Learning

A number of merits have been demonstrated as far as the use of computer in language learning is concerned. They have generally been classified under three categories:

(i) Some advantages are linked with the inherent nature of the computer:

1. It offers interactive learning.
2. It is unfailingly accurate and precise.
3. It can repeat an activity any number of times, accurately.
4. It can offer more frequent feedback than a teacher.
5. It can supplement regular classes to a certain extent.
6. It can adapt different speeds of learning.

(ii) Advantages in favor of tutors:

- 1) The exercises incorporated in a CALL program are modifiable which stand in contrast to the lessons in a text book.
- 2) Computers have provided the teacher the much needed relief from a rigorous, taxing and teaching schedule.

(iii) Advantages favoring learners:

1. Accessibility (the learner can walk into the computer room whenever he wishes and can work with it whenever he chooses).
2. Feasibility of distance teaching
3. Computer Networking will be a boon to distance Learners. They can sit right at home and communicate with their peer group, and their tutors – provided they have a computer terminal which is networked or connected to other computers/terminals at the disposal of the other distance learners and tutors. In case they do not have a computer, the regional distance education centers of the parent distance teaching institution can provide the learners with networked computers at their centers. Lessons can be delivered through this system and feedback from the tutors on learners' responses can also be had immediately.

(iv) Potential for personalized instructions

1. A teacher in a (conventional) classroom will not be able to concentrate and instruct each and every learner. A computer on the other hand has the potential for personalized instruction, devoting attention to each every learner.
2. The Learner has the exclusive attention of the computer when he is working with it, unlike in a classroom where the teacher cannot concentrate on the activities of a learner all the time.
3. Groups of learners can work at a single computer or terminal.
4. The element of competition – Most of the programs having a scoring pattern which awards points for a right answer and take away points for a wrong answer – this creates an element of competition among the learners.
5. A powerful motivating source for productive study – The computer acts as a catalyst, stimulating learners' responses.
6. Immediate feedback – The computer takes the correct response(s) and acknowledges it and informs the learner if the response is incorrect, immediately.

Therefore, the computer can be harnessed to perform quite a number of principles of Language pedagogy, such as flexibility, individualization, accuracy in detail and rapidity of response are fundamental advantages of teaching with computers.

Certainly, Computer awareness is an indispensable part of the learner's educational experience, and introducing and extending computer into language learning arena can bring about useful results and insights. Not only will education increasingly be a life-long process, with the need to learn new skills and discard old ones, it will also be multifaceted experience, branching not just upwards, but onwards into a large number of unexpected avenues.

2.1.11 Disadvantage of CALL

Undoubtedly, any teaching learning operations and the devices involved in performing the process have their pros and cons. In this connection, some of the disadvantages which can be leveled against the utilization of CALL are the following:

- (i) Arising out of the very inherent nature of the computer itself:
 - 1) It is not a complete substitute for a teacher.
 - 2) It cannot effectively conduct an 'Open-ended' dialogue with the learner
- (ii) Relating to the present state of CALL
 - 1) Computer programs are seldom 'portable'. In other words, a program developed on a particular 'Make' of a computer will not run on another 'make' / brand of computer.
 - 2) Modification in the program can be made to run on a different Computer but it is prohibitively time consuming, and very expensive.
 - 3) The quality of CALL programs available in the market is not so encouraging. They have to improve a lot still. The difficulty in programming also stops the teachers as well as the learners from building-up a program.

These imperfections of the computer are viewed from the standpoint of the complex nature of human language itself as manifested in speaking and writing especially non-stop writing and speaking. One of the features of many CALL programs is that the users have to type in exactly the answer that the computer expects, since the computer can only accept the answers and it has been programmed to accept. This limitation, in practice, can be useful, since it provides motivation for the learners to be careful; to use language as accurately (need not be structural accuracy,

always) as possible and pre and post computer work with any program can focus on both aspects of accuracy and fluency.

1.1.12 General Uses of Computer in Language Learning

How effective computers are in the language classroom will therefore depend on the way the teacher and the learners use them. In this respect, they are no different from any other medium such as Radio or Television. However, computers are different from other media in two main respects:

1. They allow the learners to:
 - a. carry out tasks more efficiently than in other media (such as automatically providing feedback on certain kinds of exercise)
 - b. carry out tasks much more conveniently than in other media (such as editing a piece of writing)
2. They can allow 'individualization'
 - a. Learners can work through some exercises on their own and get immediate feedback from the computer (For example: multiple choice exercises, and total-deletion programs)
 - b. Learners can carry out exploratory work which is not assessed by the computer, but which allows them to see the results of their answers. (For example: word processing and simulation programs).

2.1.13 Features of CALL

There are two sub-fields that underlie the basic features of CALL. These are namely: Interaction and Individualization.

a. Interaction

When one interacts with another he communicates with someone or vice versa. Communication in the classroom is vital in an integrative environment as learners share with learners, teachers share with learners, and teachers share with teachers. The computer is the efficient facilitator for both spoken and written communication. It is a non-threatening, non-

judgmental device which stimulates minds and whets perceptions. The teacher's most important and effective activity in the classroom is to interact with learners about their personal contributions, enhance class discussions, question and answer sessions, and even monitor simple drill and practice lessons. When mistakes are made, good teachers help learners realize their errors and come up with the correct answer. Unfortunately, interaction techniques are difficult to use extensively with large groups of learners and work best on a one-to-one basis or with only a small group. They can become very expensive because they require for the most part, unrealistic teacher/learner ratios. In most teaching situations, individualized interactions between teachers and learners or among learners are rare or too few.

One of the most attractive features of the computer is that it can be used for teaching the language that revolves around the idea of interaction. The use of a computer involves interaction between the user and the machine, either by reading or by writing, despite the fact that the computer is capable of independent thought or action in its own right. A computer is a means of communication between the programmer and the user. Good computer programs make extensive interaction imaginatively. The machine embodies the best strategies and insights of the experienced language teacher. It also helps to multiply the teacher's contact with learners for various kinds of language practices.

b. Individualization

According to Higgins (1983) and Ahmad et al (1985) good programs can offer, in the above stated way, individualized attention and can allow learners to work at their own pace. Learners can work in privacy without fear of reprisal or ridicule, regardless of how slow they might be or how often they give incorrect answers. The immediate diagnosis saves time and frustration and helps learners weed out their mistakes. Computers

possess the quality of infinite patience. It treats each learner in the same way without favoritism and also very consistent in their responses, regardless of how many hours they have been working. Sometimes even the tireless teachers cannot show the same level of enthusiasm, interest and energy, day in and day out.

2.1.14 Elements of CALL

A model of the three main factors elements in CALL, namely learner, language, and computers have been described in a study conducted by Ahmad et al (1985).

‘The science of ergonomics, or ‘human factors engineering’, describes the relationship between people and machines. The physical environment, the physical and mental comfort and convenience of the learner when operating the program in relation to the users’ needs are the chief concerns of ergonomics’ (Ahmad 1985).

1. The physical environment:

a. The location of the computer terminal

(i) They should not put in a room where there is a lot of noise.

(ii) They should be easily accessible to the learners.

b. Access to tapes, discs and printed material must be easy and reliable.

c. There must be adequate space for the learners to put books and writing materials next to the computer terminal.

d. The keyboard must be large enough to allow easy use.

e. The screen should also be large enough to allow comfortable reading and it should be at a safe distance from the user’s eyes.

f. Comfort for working (Chair, table, etc.)

Using the program:

- a. Basic operating instructions (starting, running and leaving the program) and general keyboard procedures should be clearly documented and readily available.
- b. Easy access to the program must be matched by an easy exit.
- c. The amount of typing required from the learner.
- d. The programs should not fail to run simply because the learner uses the 'wrong form', for example, 'yes' instead of YES'.

The complexity of natural language and the less complex machine languages are confronted in machine translation. The field of computational linguistics employs computers for natural language processing. "Computers can be used to scan large quantities of textual material (Corpora) of interest to a linguistic or literary researcher, and to collate data related to selected items, for example, the total number of occurrences of a particular objective in a given corpus" (Ahmad 1985). An understanding of how human beings learn a language, the complexity of 'the learner' and his learning styles (Psycholinguistics) are essential for CALL to function effectively.

2.1.15 Programmed Instruction and CALL

In the 1950s in the US there was a popular method of teaching or pedagogical development commonly held during that time as programmed instruction. Skinner (1954) provided the theoretical basis of Programmed Instruction (PI). The following points are of particular relevance to CALL:

- Programmed instruction took as its point of departure the breaking down the learning task down in a decidedly directive way into small noticeable distinct steps. A similar approach was found in much early work in CALL, and still holds valid today.

- Programmed instruction can be use with more specific, less indefinable areas of language. The most obvious areas of morphology, vocabulary and certain parts of the syntax have been taken up in many CALL programs.
- Principally, any parts of the language capable of being divided into smaller manageable units could be presented in a programmed instruction format. It is in the process of integration for communicative purposes that the problems arise (Littlewood1974). The question of integration for communicative purposes remains problematic for CALL.
- Demonstration of specific formal areas of language in discrete steps provided a context in which students could determine their own pace of learning. Self-pacing is an advantageous feature of CALL. However, self-pacing is equally possible with lesson models which are very different from those found in programmed instruction.
- An essential step to be taken into consideration is the provision of immediate feedback to the student is an essential part of the programmed-instruction approach to learning. It is also widely quoted as a positive feature of CALL since the computer provides feedback on written work much more quickly than the teacher can. The major advantage of CALL over programmed instruction in terms of feedback is its ability to give much more finely tuned information, based on the student's current or previous answers or on the computer's own representation of the subject area (Ahmad 1985).

In view of this prominentresemblance between PI and CALL, there is acommon misconception –that CALL is identical to PI. The fact that CALL developed out of PI does not mean that the two are bound now.

2.1.16 Web-based Language Teaching

Language teachers, since 1960s have witnessed dramatic changes in teaching language. The main target of instruction has broadened from the teaching of separate grammatical structures to the fostering of communicative ability. Negotiation has taken on the importance, and providing intelligible input has become a typical pedagogical imperative. Culture has received interest and emphasized that teachers remain unsure of how best to teach it. There are Language text books which have begun to distinguish spoken and written forms. Audiotape-based language labs are gradually being replaced by language media centers, where World Wide Web is used to access foreign language documents, multimedia CD-ROMs and laser discs. Students may communicate with their teachers, classmates, and native speakers by electronic mail. The justification is one of the conventional rationales as it offers a powerful self-access facility which can easily generate learner-centered, self-pacing activity that can change. The computer offers choices of their will, to improve their level of proficiency and to assume mastery of their own learning experience.

There has been little published research that explores the relationship between the use of computer networks and language learning. It is not simple to answer the question – Does the use of network-based language teaching lead to better language learning? The computer as a technological tool used in teaching, such as pencils and paper, blackboard, overhead projectors, tape recorders will not bring any improvement for learning. One should look to particular drills and practices of particular contexts to answer the question. These practices of use should be delineated. Moreover, it has to be evaluated in terms of their specific social context. Who are the learners? What specifically did they do? What is the purpose? What is the setting? What kinds of language are to be learnt? What are the patterns of social interaction? What are the

actual outcomes in terms of quality of language used, attitudes, motivation?

2.1.17 Shifting Perspective on Language Teaching and Learning

Only within the few decades of English Language history of teaching, three overlapping theoretical movements have considerably influenced language teaching, these are namely the structural, cognitive and socio-cognitive. These 3 theoretical views have influenced how computer oriented technology has been used in language teaching.

2.1.17. a Structural Perspective

In the twentieth century, language teaching accentuates the formal analysis of the system of structures that represents a language. In the grammar translation method, students are trained to memorize verb paradigms, to apply rules prescriptively, phrase sentences and translate texts. Since 1920s to 1950s American structural linguists (Bloomfield 1933) adopted various structural methods of language instruction culminating in the audio-lingual method of the 1940s and 1950s. Although the audio-lingual teaching focused on spoken rather than written language skill, it shared two principal assumptions with the grammar-translation method: that language teaching syllabi should be organized by linguistic categories and that the sentence is the primary unit of analysis and practice. Strongly influenced by the work of behavioral psychologists such as John Watson and B. F. Skinner, structural methodologists were concerned about the language learning which cultivated a habit formation of the students with dialogues and pattern drills designed to condition learners to produce automatic, correct responses to the language. This practice between the native and target languages provided the basis for the careful selection, graduation, and presentation of structures for contrastive analyses of the structural

differences. Practice, not abstract knowledge, was the key (Mark Warschauer & Richard Kern 2000).

The approaches to the teaching of reading and writing also reflected the emphasis on structure. During the audio-lingual period, reading was largely seen as an aid to learn correct structures. To practice correct pronunciation, students were instructed to read aloud. Through second language writing instruction, students were trained to produce correct sentences and paragraphs. Therefore, the prominence on speaking, reading, and writing was achieved as a linguistic product, not as a cognitive or social process.

2.1.17. b Cognitive/Constructivist Perspective

In 1960s, the audio-lingual method was criticized for being unjustified mechanically and theoretically. Noam Chomsky (1957) had rejected B. F. Skinner's behaviorist notation of language learning. He argued 'a speaker of a language can produce (and understand) an infinite number of well-formed language use. Language competence could not possibly be explained by a model based on imitation and habit formation'. Chomsky (1957) proposed a transformational-generative grammar that mediated between deep structures and surface structures of language.

It was the cognitive structures which guided the individual's grammatical system, not behavioral reinforcement. Next, Chomsky's theory contributed to a gradual shift in goals from inculcating accurate language habits to foster learner's mental construction in the language teaching world. Errors were seen in the light as a natural by-products of a creative learning method that concerned generalization and other cognitive theories. Thus an active process of generating and transforming knowledge came through understanding language but not through conditioned response.

Cognitive perspective influenced strongly the teaching of reading and writing. The developments in language, reading and writing research, an individual psycho linguistics process of literacy were seen by second language educators. Using schematic knowledge, learners were taught a variety of cognitive strategies using individual word clues to improve their reading processes. Writing instruction in second language shifted from the mimicking of correct structure to the problem-solving approach. It gave more prominence for heuristic exercises and collaborative tasks which were organized by the idea generation, drafting and revising.

2.1.17.c. Socio Cognitive Perspective

Socio cognitive perspective of language instruction focused not just in terms of providing comprehensible input. It rather helps the students enter into various kinds of authentic social discourse situations and discourse communities that they have to face outside the classroom. Some achieved through prescribing various types of task-based learning, where students engaged in authentic tasks and projects (Breen 1987; Candlin2002; Long & Crookes 1992). Content-based learning was given more importance where students learned the language and content at the same time (Snow 1991; Flower dew 1993).

In socio cognitive approaches, reading and writing came to be viewed as processes embedded in particular socio cultural contexts. Reading instruction emphasized not only on individual learning strategies but also on helping learners become part of literate communities through extensive discussion of readings and the connection between of reading and writing (Bernhardt 1991; Eskey 1993; Leki 1993). Writing instruction focused not only on the development of individual strategies but also on learning appropriate ways to communicate with particular students. In regard to English for academic purposes, for example, there has been a shift in prominence from expressive writing to vocabulary

thereby helping students to knit themselves into academic discourse communities through discussion and analysis of the nature of academic writing (Swales 1990). Literacy has been increasingly seen as a key for development not only in language knowledge but also socio cultural and intercultural competence.

2.1.17.d Structural Approaches to CALL

In the early days, CALL programs consisted of drill and practice programs grammar and vocabulary tutorials, and language testing instruments. These programs strictly followed the computer-as-tutor model. In the 1960s, computers were used in multiple variations but today they are used for the development of the learners. Programs were designed in such a way as to provide immediate positive or negative feedback to the learners with the formal accuracy of their responses. This structuralist approach insisted on repeated drilling on the same material which was beneficial and essential to learners.

2.1.17.e Cognitive Approaches to CALL

Cognitive constructivist views of learning CALL programs tended to shift the learner. Learners constructed new knowledge in this model through an exploration of what Seymour Papert has explained as micro worlds, which provide the learners with an opportunity to utilize their existing knowledge of problem solving and hypothesis testing. Papert (1980) at the MIT Media laboratory flip view computers as things to be controlled by, rather than controlling, learners by computer-as-tutor metaphor on its head. It is the learners who are expected to utilize and do something with these in a stimulated environment.

2.1.17.f Socio Cognitive Approaches to CALL

Socio cognitive approaches to CALL tend the dynamic learners to interact with computers. The basis for this new approach to CALL lies in

both theoretical and technological developments. There has been a meaningful interaction in authentic discourse communities theoretically. There has been the development of computer networking technology, where computers are used as vehicles for interactive human communication.

Many uses of networked computers fit into Crook's (1994) computer-as-tool kit model. This metaphor emphasizes the role that computers can play as meditational tools that shape the way one interacts with the world such as accessing and organizing information through databases, spread sheets, and word processors. Word processors for example, facilitate revision and editing processes of writing, allowing quick, easy reshaping of the text. In the 1980s, John Higgins fostered some of the text programs such as Story Board and Double Up, by which the learners manipulate texts in various ways. The purpose of these programs was to allow learners to reconstruct the original texts and to develop their own constructions of language.

Globally bally linked hypertext and hypermedia are represented on the World Wide Web, through a revolutionary new medium in organizing, linking, and accessing information. The important features are (1) informational representation through multi-linear strands linked electronically, (2) inculcation of graphic and audio visual information together with texts (3) rapid global access and (4) ease and low cost of internal publications. The World Wide Web offers a plethora of informational resources for the utility of language learning. Using the World Wide Web, students can search through millions of files around the world within minutes to locate and access authentic materials such as newspapers and magazines, articles, radio broadcasts, short videos, movie reviews and book excerpts. The web was used to publish their texts or

multimedia materials to share with their classmates. This facilitates an approach in using technology with authentic and creative communication by integrating it into all aspects of the course. The World Wide Web has tremendous potential for creating and providing access to multiuser, interactive multimedia environments, which have a few development projects in this area (Richard Kern & Mark Warschauer 2000). These new technologies help in serving new teaching/ learning needs and shaping the new paradigms.

The very existence of networked computers creates possibilities for new kinds of communication. Because these new kinds of communication are now so widespread, it is imperative that language students should be trained in the classroom. English language teaching is particularly important because international online communication is conducted in that language. The pedagogy of networked computers must look elaborately, examining not only the role of information technology in language learning but also in an information technology society. Our goal is to help students enter into new, authentic discourse communities and make use of discourse communication through on-line. Appropriate on-line activities need to be incorporated for their social utility and improved pedagogical value.

Thus the computer can play multiple roles in language teaching that delivers language drills or skill practice as a tutor. The advent of multimedia technology serves as a medium of local and global communication and a source of authentic materials. CALL with its multiplicity of roles in the early “electronic workbook” variety of software that dominated the second and foreign language marketplace for years has opened up new avenues in foreign language teaching.

2.1.18 Software Programs and Language Skills

a. Listening Skills

While learning English, listening skills help considerably to enhance speaking skills. This is because a learner of English can learn to speak English by imitation. But a lot of people tend to ignore this feature. As a matter of fact, listening is not as easy as it seems to be. One needs to hear various types of English repeatedly and continuously if he wants to communicate properly, meaningfully and naturally. Multimedia software consists of standard audio and video input and also includes the use of text support and hyperlinked glossaries. Therefore, listening is one of the most important areas in the development of CALL.

Listening activities typically involve presentation followed by comprehension questions some of which are dictated fully or partially. A specific type of presentation is the punctuated presentation, in which the flow is interrupted to ask questions at intervals. This type of activity encourages more focused attention and allows a learner to understand what the early activity deals with. It is observed that 'Listening skills are essential for learning since they enable students to acquire insights and information and to achieve success in communicating with others' Trudy Wallace et al (2008).

Listening comprehension aims at using a multiple-choice or fill-in program in conjunction with a cassette recorder or the latest multimedia containing a recorder, which is the simplest way of learning. Learners repetitively hear the relevant part of the exercise from the computer when the feedback is given after a wrong answer. The error message can give the learner appropriate counter numbers, if there is a separate cassette recorder. These types of activities help to integrate listening and writing skills and also it evaluates learners' listening comprehension skills (Jones

&Fortescue 1987). Such activities for improving listening skills could be a listening activity of 'JMS Newline Software', The Listening Learner: Listening Comprehension and Spoken English. There are some programs which are specifically designed to promote second-language listening 'Listen!', 'TOEFL Mastery' a multi-skill drill and practice program, 'Accelerated English and Rosetta Stone' multimedia programs for second language learners and 'Aesop's Fables, The Animals' multimedia programs for children or the general public.

2.1.18 b Speaking Skills

Remarkable attention in today's classrooms goes to oral activities where the learners communicate with each other about what they have learnt. Computers could be used wisely for activities such as simulations, role plays and discussion which make useful contribution to the development of oral skills. (Hammersmith 1998). movies in 203.org helps dialogue studies which could be read by seeing the conversation, body movements and the semiotic background of the conversations and earn a powerful experience and enhance their communicative competence. This paves the way for their communicative performance through reinforcing their accuracy, intelligibility and fluency. Computer simulations have a main advantage of motivating and giving instant feedback that stimulates learners' arguments and comments, and even on the effects of their decisions and suggestions. For improving listening and speaking skills, activities from 'Learn to Speak English Software 1': Spoken English Demo: Communication Skills could be used.

Distance education courses through the Internet, which are the recent developments on the web, have allowed voice chat sites for direct practice of speaking in which learners and teachers have a possibility of

interacting with each other. www.wimba.com is used to practice asynchronous speaking using internet voice mail or attaching sound files to email. Now a day's, students have an interest in producing and publish podcasts. If the students are grouped and allowed to talk about the computer task, they would improve their language fluency. Speech recognition software's such as Auralog'sTellMeMore, www.auralog.com allows some limited conversation that gives an experience in practicing speaking skills. However, practicing speaking through CALL activities depends on the students' readiness and motivation.

Most programs simply rely on voice, recording a line from a dialogue and then comparing it with the native sample. It has been suggested by many practitioners that using text-based chat supports the development of speaking skills indirectly due to the synchronous and informal nature of the chat. The most widely used indirect method for practicing speaking is to listen to conversational dialogues on disk or the web through this link, www.focusenglish.com/dialogues/conversation.html.

2.1.18 c Reading Skills

Most reading instructions on disk and the web involve the use of meaningful technologies, such as hypertext glossaries, translations and notes on grammar, usage and culture. Online texts and Electronic books are provided with hypermedia links, graphics, text, video, data and audio. To enhance the knowledge and understanding of the material, learners can read the text through the links and can access definitions of words, concepts, illustrations, animations, and videos. To increase and accelerate reading skills, it offers readers with immediate access. They can rely on contextual cues to understand new words. Some CD-ROMs provide with multimedia reading like voice-enhanced-texts and illustrated materials with animation. Various activities, like downloading a suitable

article from the internet and giving it to the learners after deleting some words to fill in the blanks and jumbling up the paragraphs for the students to re-order, can be given to arouse their interest in reading. For instance, teachers can give the students a text about a particular celebrity to read. In pairs, they can be asked to role-play an interview between a journalist and the celebrity. Computers are useful in helping language learners to develop reading skills in which computers can manipulate continuous texts which involve the learner in close study of the content and structure of the text. Computers are used to develop reading skills, speed reading, sentence structure and cloze-reading. Even 'Shadow reading' is equipped with authentic texts which are very helpful for students. JMS Newline activity software can help the students 'Speed Practice Reading Comprehension activity' and matching activity with 'Match the slang words with their definitions (Sperling 1998). Many programs are designed for ESL learners (Reading Adventure 1 - ESL) and tutorials are also designed for children and the general public (Mac Reader, Reading Critically, Steps to Comprehension) along with games (HangWord). More general educational programs which can assist reading are Navajo Vacation and The Night before Christmas.

2.1.18.d Writing Skills

Computer as a tool supports most of the software for writing purposes. There are some expectations which include tutorials such as Sentence Combining, Sentence Maker, and Typing Tutor. To help the students a number of tools exist about their writing collaboratively on computers linked in a Local Area Network (LAN). The most popular among language teachers is Daedalus Integrated Writing Environment, which includes modules for word processing, real-time discussion, brainstorming, electronic mail, citation software and a dictionary. There

are other programs with some similar features, namely Aspects and Mac Collaborator.

Word processing for writing and spell checkers has been very helpful for everyone. Today grammar and style checkers are much less useful and even using a thesaurus can be counterproductive if students are not trained. New technologies consisting of media are email; social networking environments such as You Tube, My Space, Face Books, blogs, wikis encourage students' writing by providing free forums for personal self-expression in a multimedia mode. As a Business English Trainer, one can put in their pocket downloading over 180 MP3 and video podcast lessons on essential language for meetings, presentations, travel, socializing and a lot more. One can make real progress with their language skills using the detailed study notes and online activities available to members.

Word-processing programs transform the computer into a sophisticated and flexible writing aid that can improve learners' writing skills and their attitude toward writing. Word-processing programs manipulate text freely. The writer can change them any number of times to frame correct sentences by writing text into the memory of a computer. The word-processor guides for practicing and free writing. Sub-skills are also needed for writing which have an obvious relevance, such as vocabulary, grammar, punctuation and reading tests (Duber 2000). The computer stimulates both writing and speaking. An example of such activities is the Red House Dictionary CDROM.

2.1.18 e Grammar

Students can enhance the grammar skills through the activities that can be done on the computer, for e.g. matching, multiple choice, fill in the gaps or complete the following (Blackie 1999; Sperling 1998). www.eslcafe.com.

com is equipped with 204 samples multiple choice grammar quizzes which can be done either online or after printing them. You do not have to subscribe or pay for it: it's free! After finishing the exercise immediate feedback can be asked by clicking on the submission button. www.englishtown.com is a grammar test resource site which offers a number of tests on Placement, Business English and Grammar. It requires subscription to do the mini tests and to release various grammar exercises as download material for EFL students to print them. For example, the grammar test on 'conditionals' in this site provides the learners with immediate feedback after each question. CALL Programs designed for teaching grammar include drill and practice on a single topic such as irregular verbs, definite and indefinite articles. Advanced Grammar topics can be trained using English Grammar Computerized I & II, games like Code Breaker, Jr. High Grade Builder, also grammar for test preparation (50 TOEFL SWE Grammar Tests) are also included in a number of comprehensive multimedia packages such as Dynamic English, Learn to Speak English Series.

2.1.18f **Pronunciation**

Programs for Pronunciation practice allow students to listen to American accent and conversations playback their own voice and compare it to a model. First hand Access and the Lost Secret are comprehensive multimedia programs which have a similar feature. Text reconstruction programs allow students to use letters, words, sentences or paragraphs in order to put texts together. These programs are usually inexpensive and can be used to support reading, writing or discussion activities. Examples are Eclipse, Gap Master, Super Cloze, Double Up and Text Tanglers.

2.1.18 g Vocabulary

Drill and practice programs like Synonyms, multimedia tutorials like English Vocabulary and games such as Hangman & Scrabble are included in learning vocabulary. It is useful for several references and searching tools (such as concordances) which will be described in the Computer as tool. The concordance software searches through huge files of texts called corpora, in order to find all the uses of a particular word or collocation. It is very confusing for beginners, but concordances can be wonderful tools for advanced students of language, linguistics, or literature. The best concordance for language students and teachers is Oxford's Micro Concord. An addition of 1,000,000 words that is included in this program is taken from British newspapers. Software is used to generate analysis, critical thinking, discussion, and writing. Programs such as The Animals, Navajo Vacation and Night before Christmas may be used as a stimulus. These programs effective which include simulations such as London Adventure, Oregon Trail, Sim City, Sleuth, Crimelab, Amazon Trail, Cross Country Canada USA, and Where in the World is Carmen Sandiego? are very effective. Vocabulary related Computer software, e. g. Guessing games, dictionaries or word building activities provide a real challenge for students. Some word game programs enable the students to learn and practice vocabulary such as the Word Hunt or the site www.puzzlemaker.com

2.1.19 Educational Technology

The application of scientific knowledge about learning is called educational technology and it puts forth the conditions of learning to improve the effectiveness and efficiency of teaching and learning process. In this process of improving the quality of teaching and learning, it employs a combination of human and nonhuman resources. Educational

technology incorporates the concept of technology in education and it is concerned with the electronic gadget, such as tape recorder, television and computers and so on. These are used to increase the students' motivation, interest, memory and strategies. Yet what is important is that active learning of any subject or skill, especially language skills greatly ends according to the psychology of the learner (Knirk & Childs 1968).

Different aspects of Educational Technology have an impact on the learning process, and they can very well be achieved by creating different types of teaching aids. The content and materials involved in tangible and intangible materials are the abstract principles of education and they belong to the software part of Education Technology. The tangible materials are related to the hardware part of the educational technology, which includes the electronic equipment. The relationship between the various aspects of educational technology is predicted in Figure 3.1 (Ellington et al 1984).

2.1.20 Second Language Acquisition and CALL

Second language acquisition which is essentially about how second language is acquired, includes, according to Mitchell and Miles (2013), the learning of any language to any level, on condition that it takes place sometime later than the acquisition of the first language. In other words, it is any language other than the learner's 'native language' or 'mother tongue'.

SLA has developed research methodologies both quantitative and qualitative that can be applied to CALL (Larson – Freeman and Long, 1991), so SLA findings should be considered by CALL practitioners. Larson – Freeman and Long (Ibid, 1991) point out some factors that need to be considered when developing curricula and SLA materials which include;

1. The effect of deviant (ill – formed) input.
2. The role of conversation in developing syntax.
3. The input frequency (exposure to language) which affects the accuracy order (levels of correctness).
4. Input modification and SLA comprehension, the role of comprehensible input.

Another area of common interest is the difference between learners with regard to achievement of success. All factors, such as age, aptitude, motivation, attitude, personality, cognitive styles, hemisphere specialization, and learning styles, among others, have been studied and heavily searched (Wesche, 1981).

One of the problems of this area of SLA and CALL is the difficulty of measuring individual learner variables. It is agreed upon that language learning is a complex processes Larsen – Freeman and Long (1991) point out that more complex research design should be adopted. Language learning is generally eclectic in nature, no one theory covers all aspects of the learning process, and the same is true of CALL (Curtis et al. 2012).

2.1.20.a CALL Material.

CALL material share many characteristics of non – CALL material (Levy, 1991). Materials can either be authentic, produced locally or commercially. CALL enables the integration of sound and video into courseware materials. It adds dynamic dimension that cannot be realized with a books.

Several frameworks have been proposed for CALL materials, but none has been formulated to catch the great qualities of CALL materials. There are four different types of knowledge that are necessary for the development of CALL materials: theory of instructional design, theory of

language teaching, theory of language learning and knowledge of applicability of technology.

Theories of instructional design involve linking learning theories with the practice of building instructional systems (Gros et al. 2005). There are many different theories of language learning which include behaviourist, explicit learning, comprehension –based, communicative and humanistic approaches (Hubbard, &Levy 2006). The area of Second language acquisition (SLA) provides many of the theories of language learning. Knowledge of applicability of technology encompasses knowledge of the different types of technologies available and their intended processes. This includes awareness of the alternatives available, their pedagogical appropriateness.

2.1.20.b Designing CALL programs

There are many different start points for the design of a CALL program. These include theories of instruction, theories of learning, curriculum imperatives, experiments with a new technology, exercise, learning problems, language skills and the delivery of materials to a large number of students (Levy, 1991).

Some of the general elements in the CALL design process are;

- 1. Hardware:** In an ideal world, a CALL developer would be able to customize the hardware to the needs of the proposed system. The hardware decision is an important one as it can often determine what software is possible.
- 2. Software:** In CALL terms, software development can range from making minor modifications to an existing program, using an authoring package to writing a program from scratch in a High Level Language (HLL) (Ahmed et al. 1985).

Using an authoring package is much easier than programming with HLL. Authoring packages are one of the easiest ways for language teachers to construct CALL programs (Ibid: 1985). Some packages have an authoring language with small set of instructions available to the users to produce CALL programs. A disadvantage of authoring tool is that the developer is tied into a particular structure and there can be a lack of flexibility.

HLLs (Underwood, 1984). Moreover they are difficult to learn and it usually takes longer to produce the desired outcome. However, the more recent authoring packages are quite flexible and accessible for language teachers, with some providing access to scripting facility or allow the integration of HLL code. Usually there is some component that allows the incorporation of multimedia technologies into the application. One wide available option that is increasingly being used is the World Wide Web and markup languages such as HTML and XML. There are now many sophisticated packages that developers can use to develop creative pages to enhance the language process. (Bangs and Shield, 1999).

2.1.20.c Authoring Packages

It is obvious that not everyone will have a multidisciplinary development team at their disposal. Teachers often find commercially produced materials (both CALL and non-CALL) unsuitable in terms of pedagogic content. On the other hand, it is not feasible to convert content writers into programmers (Bangs and Shield, 1999).

One approach adopted is the use of authoring packages. Authoring packages enable teachers to develop CALL materials without having to learn how to program. Templates are provided which course developers can modify or populate with their own data. Web pages with various

different language exercises and lessons can be created with authoring packages. A teacher can develop material that is locally relevant and based on student on student needs and importantly, can keep material up to date and add new material.

A part from the constraints that may be imposed by the authoring packages (e.g. what is doable given the design), there are other problems that may occur. Occasionally, due to the fact that authoring may be a new skill for the teacher, the material produced lack academic strictness, as most of the effort is spent on getting something produced. The final products are often text-based and materials are mainly aimed to the lower proficiency levels. If something is produced in collaboration with an IT department, it will often be software driven. (Bangs and Shield, 1999).

The CALL author is not always to blame. It is technologically easier to produce text-based materials, as the integration of sound, images and video is often not straightforward. A lack of clearly defined theoretical framework robs the author his power when dealing with the IT department. Another problem that arises is that the knowledge gained and the materials produced often stay local. Even within the same university, there may be little sharing of CALL skills and resources produced. Materials are rarely used in other universities and often there is little or no impact at a higher level.

Bangs and Shield (1999) outline two projects that aim to solve this problem. The Open University has developed authoring tools that allow externally held resources to use a central engine. They use a combination of scripts, node labels and data, hyper linking and formatting to produce CALL materials. Content (sound, image, text) is separated from logic (scripts and templates). It is providing for Language tutors and Educational Development) (MALTED, 2000) project is a European-wide

project that not only aims to provide user-friendly authoring tools, but also to avoid duplication of previous development efforts. An asset database is being set up so that CALL materials can be shared and reused. Curtis et al. (2012) point out that Call development requires capital investment, a system development approach (which is expensive) and that there is no guarantee of return.

2.1.21 Types of CALL Programs

According to ICT4LT CALL programs include;

1. **CALL-specific software:** Applications designed to develop and facilitate language learning, such as CD-ROMs, web-based interactive language learning exercises and quizzes.
2. **Generic software:** applications designed for general purposes, such as word-processors (word), presentation software (PowerPoint), and spreadsheet (Excel). Web-based learning programs: online dictionaries, online encyclopedia, online concordancers, news/magazine sites, e-texts, web-quests, web publishing, blog, wiki, etc.
3. **Computer Mediated Communication (CMC) programs:**
synchronous – online chat; asynchronous – email, discussion forum and message board.

CALL activities include; multiple-choice & true/false quizzes, gap-filling exercise, matching, re-ordering/sequencing, crossword puzzles, games and simulations, writing and word-processing, concordancing, web quests, web publishing, CMC

2.1.21.a Whatsapp.

Whatsapp defined by its provider is an application for instant message exchange, videos and audio exchange. It's a cross-platform that may be

used by smart phones, tablets and even computers. Groups of members from 2 up to 100 may be created by the application.

2.1.21.b Facebook.

Facebook is a social networking website that allows the user to connect with others, share photos, videos, posts and comments. Millions of people use various social networks, such as Facebook, MySpace, Twitter, Delicious, Flickr, LinkedIn, and Live Journal. Discussion forums, blogs, wikis, chat-rooms, electronic calendars, social bookmarking and Google applications are some of the Web 2.0 tools employed within these social networks. Using these tools the users create profile pages and groups with common interests who socialize, upload pictures, video, music, comment on events, and so forth. Additionally, the aforementioned tools support communication, interaction (Shirky, 2003), feedback by groups, the creation of social networks (Boyd-Franklin, 2003) and collaboration. As Liu et al. (2009) state, “They are examples of the emerging Web 2.0 technology that has the characteristics of being social, personalized, interactive, and participatory” (p. 2604). The concept of social networking is becoming even more popular, “invading” people’s everyday lives, the workplace and academic settings. Additionally, Kord and WolfWendel(2009) suggest that online social networking is part of youths’ daily experiences influencing both academic and social life. Furthermore, youth perceive Web 2.0 tools and online social networking as important to their educational experience (Kord& Wolf-Wendel, 2009).

2.1.22 Role of Educational Technology

According to Ellington et al (1993) in education and training, technology plays. They encompass:

- A shift towards learner—centeredness rather than teacher dominated situation an increase in the use of individualized learning materials rather than traditional teaching materials.
- A growing awareness of the advantages of pair work and group work in learning a concern for the increasing expectations of learners regarding the use of technology—assisted learning aids.
- An enriching escalating familiarity of learners with sophisticated aids, including interactive laser disc hardware and software.

The students' requirements are to be of prime value while all other subsystems are geared to help them to achieve their learning objectives as effectively as possible according to educationalists (Richmond 1970; Dublin & Olshtain 1986; Cannon & Newable 1989). Educational technology, in a wider sense includes educational objectives, media, and their characteristics, criteria for selection and effective utilization of resources.

The technological media used in educational field create an adequate and satisfying learning environment. Black boards, picture cards, graphic charts, cartoons, posters, maps, study of display models and OHPS are some of the conventional teaching aid. These are still used by teachers in order to supplement and support what is being taught. So ELT practitioners need to remember that it is essential to adapt newer teaching methods include discussion techniques, tutorials, seminars and project work aim at bringing out the learners' skills in communication.

2.1.23 Language Labs

Language Labs act as a platform for learning and practicing the required language skills through interactive and communicative mode of teaching. Certain receptive skills, especially the genre of listening skills can be effectively imparted in the English language lab. Certain expressive skills of the students like speaking and writing can be learnt in the Language Lab by using network software. Hence the question is to what extent language could be utilized to develop the various skills of our graduating students. Effective and efficient Lab oriented activities are necessary for the development. The teacher acts as a mentor in order to facilitate learning in classrooms. For this to happen, a teacher should be aware of the latest technologies, explore new ideas and have a certain amount of specialization in the subject. In this scenario, students can overcome their inhibitions and exhibit their proficiency with unlimited enthusiasm. Given the right environment backed by persuasive methods, the teachers can transform the weak students into confident learners of language.

The lab should be equipped with Power House, Computers with head phones. The computer can be used to play CD's containing conversation in English that help the learners practice situation—specific protocols. The learners can also be shown recorded programs and motivational films in English. The main activities conducted in this lab are Introductions and Greetings, Role-play (Simulation), Group Discussions, Brain Storming, Interview Techniques, Debates, Public Speaking, Language Games and Personality Development. These activities will help the learners equip themselves with linguistic and other communication skills and to handle formal and informal situations with ease.

2.1.24 Implementation of Technology

Certainly, technology is a boon for language learners. Though radio and television play a vital role in communication, computer and Internet have brought a revolution in the ELT classroom. Language laboratory is a must for developing the four skills. In the Language lab, the learner should get a headphone individually and a teacher's console to monitor the learners. There will be interaction between students and the teacher through microphones. Language lab will provide intensive listening and pronunciation practice. Students may find it easy and comfortable in working with computers. Like a tutor, computers assess the learner's reply and point out the mistakes. The computer promotes the acquisition of linguistic skills and demands the active participation of the students. CALL programs aim at improving grammar, vocabulary, reading comprehension and also writing skills. These programs are more flexible and convenient than textbooks. Students can have a different kind of experience with the help of enhanced voice recognition and multimedia capabilities that go with the computer software. There are software packages which will increase critical thinking and problem solving and these will enrich students' language proficiency.

Part Two: Previous-related Studies

This section of the study reviews analytically the previous related studies. They are classified as follows;

2.2.1 Studies that test CALL in Learning Reading and Writing

This study was conducted by Osama MudaweNurain, in 2008 titled Effect of Web-Based Instruction on Promoting EFL Students' Reading and Writing Skills at University Level in Sudan, a PhD awarded from Sudan University of Science and Technology. This study endeavored to explore the potential outcomes offered by the mix of the Web-Based

Instruction with the strategies of teaching English at university level and its impact on developing EFL students Reading and writing skills. The key objective of the exploration was to investigate the issue of utilizing online assets and materials to improve showing procedures and conveying of courses materials. The significance of the research lies in the fact that, the applications of web-based instructions for improving teaching strategies have drastically altered the ways in which English language should be taught. The research adopted the empirical methods in which two different kinds of treatments have been implemented with two different groups (Control & Experimental) at three universities: Sudan University of Science and Technology, Gedaref University and University of Gazira. The principle result produced from the investigation made, demonstrated that there are factually critical contrasts between the two gatherings regarding their accomplishments in the support of exploratory gathering. The discoveries urged the specialist to recommend that online materials and assets ought to be generally coordinated alongside the techniques for instructing English to achieve the fancied results. The analyst firmly suggested that CALL ought to be taught as a particular course for EFL understudies at Sudanese colleges.

Which is quite an exaggeration as CALL is classified under the language learning umbrella away from the needs of a general English language learner.

2.2.2 Studies that Investigate Learning Grammar through CALL

This study was authored by EyiuchelfeomaOlibie, in 2010, titled Using Computer assisted language learning to improve students of English language achievement in universal basic education for a PhD degree from the Federal College of Education(Technical)Asaba, Delta State, Nigeria .The studies significance is in that it tried to figure out whether PC helped dialect learning (CALL) would enhance understudies' accomplishment in English linguistic use more than Customary English Dialect Direction (CELI).

The methodology followed in this study was a quasi-experimental method including four in place classes of junior optional III understudies. Two of the classes were arbitrarily doled out to the test bunch while the other two were haphazardly doled out to the control bunch. Sentence structure capability tests were utilized to gather information. The study, went on for 8 weeks, used the PC for the trial aggregate and printed writings for the control bunch. Information was examined utilizing mean and standard deviation scores. The discoveries uncovered that CALL had a general beneficial outcome on understudies' accomplishment in English dialect more than CELI.

Although this study deals with a crucial subject, but considering the variable number of dialects in English it's not clear which ones the researcher is addressing.

2.2.3. Studies that arise the usage of software in teaching&learning

A PhD study entitled, A study of language learning achievement differences between students using the traditional language laboratory and students using computer-assisted language learning courseware, by Joseph Harmon Avent from the University of Georgia in 1993.The significance of this study is due to that it developed courseware for

language learning, and evaluated this courseware .The researcher intelligently was by using this courseware, administering student testing, and analyzing test results using quantitative methods.

The first finding was that there was no interaction between type instruction and ability group.

The second finding was that there was interaction between type instruction and ability group.

Finally, there was a comparison of the performances by the same individuals on two different vocabulary measures. The first tested items that had been taught by computer. The second tested vocabulary items that had not been taught by computer. The mean scores were significantly higher for computer taught items than for non-computer taught items. Again there was no indication of interaction between type instruction and ability group.

Inspite the great work done in this study, the study doesn't declare the points of weakness in the developed courseware that failed to affect the learning ability of the students.

Another recognized study in this area was a PHD titled" Instructional Technology and The Post-Test Results of College Learners", submitted July 2011.

The significance of this study lies in the fact that it investigates a common computer program widely used in teaching .the researcher The goal of the study was to analyze learning results between a first-year English as a useless taught with the PowerPoint programming application and a comparative first-year ESL class taught with a customary instructional methodology and materials. The method followed in this study was a quasi-experimental research design, which is a suitable

choice for such research topics. The study involved 40 participants enrolled in first-year ESL courses.

The study resulted that learners' perceptions regarding the engagement ability and clarity of instruction delivered with the PowerPoint presentation software had improved. Testing also showed that learning outcomes by learning styles and gender between and within the experimental and control groups were not statistically different. Recommendations include more research encompassing a longer treatment period as well as more research evaluating the influence of PowerPoint and other technologies on the learning styles.

2.2.4 Research of CALL in Teaching Listening and Speaking

This study is an MA titled "An Experimental Study of Corrective Feedback on Synchronous Oral Computer-Mediate Communication", authored by Katia R. Monteiro, from California State University in 2012. This study is significant due to that it investigated the effectiveness of metalinguistic feedback and recasts and the effect of form-focused instruction (FFI) in the development of implicit and explicit knowledge in video conferencing by partially replicating a study performed in a classroom setting.

The researcher followed an experimental design in her study as pretest/posttest/ were conducted posttest design was adopted with three groups: FFI plus recasts, FFI plus metalinguistic feedback, and FFI-only. Participants were 42 Brazilian English as a foreign language learners and the target structure was regular simple past.

The results indicated that FFI plus feedback had an advantage in the development of implicit knowledge, while both FFI plus feedback and FFI alone helped develop explicit knowledge. However, group

differences were not found. The results also indicated that the different treatments did not affect differently below-average scorers and above average.

Unfortunately the researcher has not suggested further research in the area adopting different methods to test Oral Computer Mediated Communication.

The second study conducted by Eman Mohammed Hashim in 2006, titled “The importance of using online English language education sites in improving both listening and speaking skills as evaluated by the secondary schools teachers and supervisors viewpoints in Jeddah”, submitted as an MA. This study is significant as it aimed at recognizing the importance of using online English language education sites in improving both listening and speaking skills as evaluated by the secondary schools teachers and supervisors viewpoints in Jeddah, also aims at recognizing the difference between the study sample viewpoints about this type of using as evaluated by the following variables (age, educational level, job, experience years, courses).

However the researcher followed the descriptive method in her research along with to answer questions (interviews) in the wake of utilizing theSPSS, number-crunching mean, mono-distinction investigation. The study sample was (344) female teachers and (26) female supervisors. The questionnaire was the data collection tool. The study sample has statistically indicative positive response towards using online English language in listening and speaking. The study also found that positive response regarding the desire of female students in using online English language.

In spite of the large number of participants in the questionnaire (study tool), I believe adopting a descriptive method was accurate, such research should apply a quantitative approach.

The third study was a paper by LanLuuThi, from University of Auckland (New Zealand) titled “Adopting CALL to Promote Listening Skills for EFL Learners in Vietnamese Universities”, published in 2013.

The importance of this extraordinary study was in the fact that it investigated the extent to which Computer-Assisted Language Learning (CALL) activities influence academic listening skills of English as Foreign Language (EFL) learners, as well as teachers’ attitudes towards computer use and their computer skills in language teaching in Vietnamese tertiary institutions.

The methodology followed by the researcher as a quasi-experimental design. The study was conducted in two phases, the Baseline and Intervention, the latter sustained over three months. The treatment sample of this study consisted of four teachers of listening and their students (in total approximately 100). The teachers were invited to a training workshop on computer skills, and received online resources for their teaching supplements. The intervention classes were taught with these supplementary online resources while the comparison classes (the other four classes) were supplemented with extra listening books selected by their teachers.

The results showed that there was a difference between the listening scores of the students in the intervention classes compared those of the comparison students. The teachers showed changes in their attitudes towards computer use, and gained better skills in selecting effective sources from the Internet for listening instruction.

The fourth study was a paper entitled “Voice Blog: An Exploratory Study of Language Learning”, 2009.

The importance of this study is that it provides a theoretical and a pedagogical foundation for the premise that extensive practice on blogs can constitute an integral part of instruction, and that blogs enable students to structure their thoughts and to make them publicly available in a way that is rarely possible in other media.

The method used was two data collection procedures;

1. a survey of student attitudes towards the use of voice blogs.
2. Retrospective interviews with students.

Results of this study reveal that students went through a series of blogging stages, including conceptualizing, brainstorming, articulation, monitoring, and evaluating, and used a wide variety of strategies to cope with blogging-related difficulties. In addition, students perceived blogging not only as a means of learning, but also as a means of self-presentation, information exchange, and social networking. Furthermore, the findings suggest that blogs constitute a dynamic forum that fosters extensive practice, learning motivation, authorship, and development of learning strategies

2.2.5 CALL and learner’s attitude

The first study in this area was by Abdurrahman G Almekhlafi, entitled , "The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students’ achievement and attitude." The study was a paper published in 2006. This studies significance lies in the fact that it investigated the effect of CALL on elementary pre-school students’ improvement in English as a foreign language (EFL).

The researcher followed an experimental design to conduct his study as eighty students were selected and divided into two groups 40 participants presented the control group while 43 represented the experimental group.

A questionnaire was distributed to check the students' attitudes towards CALL.

Results have shown a significance difference between users of CALL and non users in favor of the experimental group. As for the questionnaire students of the experimental group had positive attitudes towards CALL. Results of the study have proved evidence of the effect of CALL on learning English as a Foreign Language.

The second study entitled "The Effect of a CALL Program on Jordanian Sixth-Grade Students' Achievements", a paper authored by RubaFahmiBataineh and NedalAwwadBani Hani, published in 2011.

The importance of this study is due to that it examined the potential effect of a computerized instructional program on Jordanian sixth-grade students' achievement in English.

The methodology followed in this study was an experimental one, as four instruments were utilized: a pre-post achievement test, a student opinionnaire, a teacher opinionnaire and an observation checklist.

The findings reveal a statistically significant difference in student achievement in favor of the experimental group, which teachers and students have positive attitudes towards computer use, and that teachers are committed to computer use in language teaching, more so for those with a computer background.

These studies had different objectives using different methods and tools, though they all share the investigation of CALL in the learning of English as a foreign language.

Thus all of them agreed that CALL promotes learning of English, except for the study presented by Kátia R. Monteiro that did not find any difference in the two groups performance before and after the experiment.

The studies adopted an experimental design or a quasi-experimental design except for the study by Eman Mohammed Hashim that adopted a descriptive method.

The difference between these studies and this one here is that in this study the researcher examines the effect of CALL in learning both listening & speaking differently .As listening is tested in four stages; listening for general information (comprehension), listening for details, listening for specific information and cloze listening, whereas speaking is tested in means of accuracy and fluency.

The present study also adopts a different limitation as it studies the effect of CALL in learning listening and speaking in tertiary level in Sudan. Also this study presents a language learning use for social media web sites and applications.

Summary of the Chapter

This chapter reviews relevant literature on the issue in question, namely computer-assisted language learning (CALL) along its different stages and progression, and other related topics with some emphasis on the nature of reading comprehension. Important findings and arguments from opponents and proponents of an English-only teaching method will be discussed. The chapter is divided into two parts, the first one is on the theoretical framework, and the other is on previous studies.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter provides a full description of the research methodology adopted as well as the research instruments employed. Moreover, the validity and reliability of these instruments will be confirmed.

3.1 The Study Methodology

The researcher has used the descriptive and analytical method, quantitative and qualitative methods as well as the questionnaire for both tutor and students and the pre and post-test as tools to investigate the following hypotheses:

1. CALL promotes learning in general and vocabulary in particular.
2. CALL enhances cultural awareness of Sudanese EFL undergraduate students
3. Computer sets can be introduced in countries of the Third World.

3.2 Population and Sampling of the Study

The population of the study is first year students taking English as their major in the Faculty of Languages at Sudan University of Science and Technology; in the academic year 2015/2016. The total number is 113 students. All these students share the same mother tongue and are taught by the same teachers. These students had already studied courses that were supposed to have provided them with the necessary information about vocabulary learning and other four skills. They had studied courses such as: "Listening and Speaking" and "oral communication skills", vocabulary and foreign language learning. The objectives of these courses were to develop the four skills as well as to entrench their vocabulary

knowledge. In listening, the students practiced listening skills such as: identifying main idea and their supporting details, skimming, scanning and guessing the meaning of unfamiliar words.

The students were previously divided into two groups by the Head of the English department A and B .Group A was served as the control group and group B as the experimental group .All students agreed to participate voluntarily in the study .The course for the two groups was taught in the same classroom and time of the day one group studied on Sundays while the other on Mondays. The experimental group was taught by using computers and technical devises in addition to the use of social media applications such as Skype and Whatsap.

3.3 Data Collection Instruments

As the study follows an experimental design the research tool is the pre experiment test and a post experiment test .The research population was divided into two groups a control group and an experimental group .Each group has a number of 50 students .The researcher set the two tests that where validated by experts. The tests took place considering the experts notices and advice.

The study sample respondent differs according to the following characteristics:

- The respondents from different gender (Male, Female).
- The respondents from different qualifications (B.A., M.A., Ph.D.).
- The respondents from different years of experience (1-5 years, 5-10 years, above 10 years).

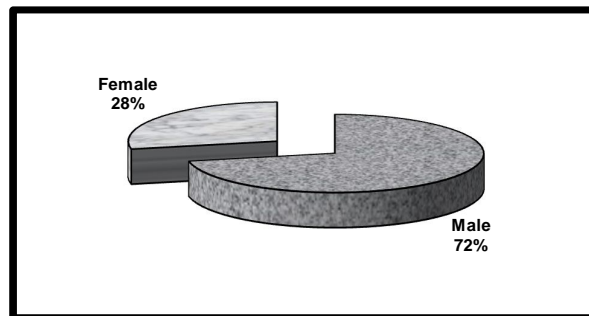
The following is a detail description for study sample individuals according to the above variables (respondents' characteristics):

1- The Gender:

Table no. (3-1)the frequency distribution for the study respondents according to the gender

Gender	Number	Percent
Male	22	73.3
Female	8	26.7
Total	30	100.0

Figure no.(3-1): The frequency distribution for the study respondents according to the gender



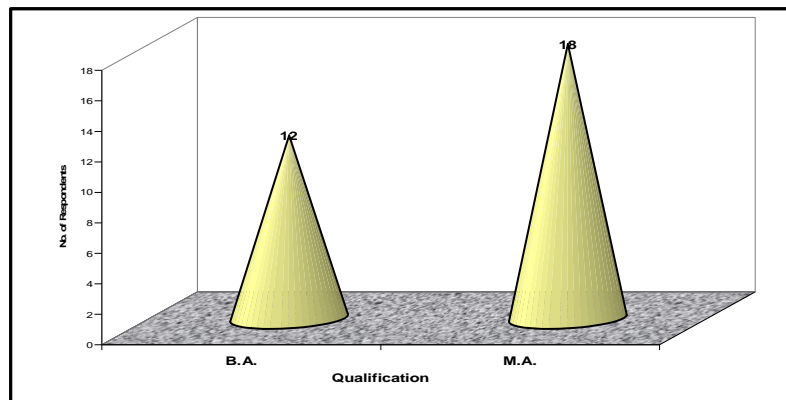
From above table and figure, it is shown that most of the study's respondents are Male, the number of those was (22) persons with percentage (73.3%). The respondents were female was (8) persons with (26.7%).

2-The Qualification:

Table no. (3-2)The frequency distribution for the study respondents according to the qualification.

Qualification	number	Percent
B.A.	12	40.0
M.A.	18	60.0
Total	30	100.0

Source: The researcher from applied study, 2014

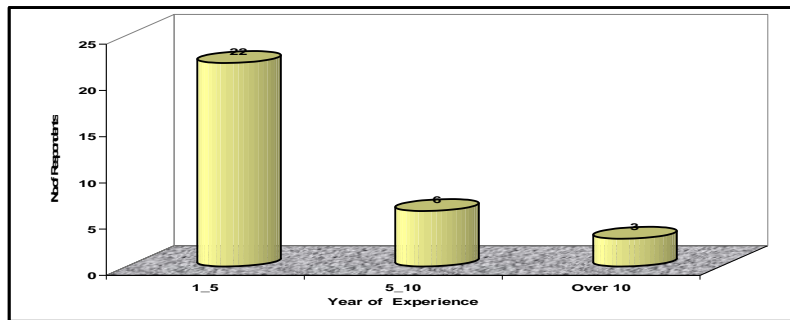


From above table and figure, it is shown that most of the study's respondents have M.A. as qualification, the number of those was (18) persons with percentage (60.0%), the respondents have B.A. as qualification was (12) persons with (40.0%).

3- Year of Experience:Table no.(3-3)The frequency distribution for the study respondents according to the experience

Experience	Number	Percent
1-5	22	73.3
5-10	6	20.0
Over 10	3	6.7
Total	30	100.0

Figure no.(3-3)The frequency distribution for the study respondents according to the experience



It is noted from the above table and graph no.(3-3) and the figure no.(3-3) that, most of the sample's respondents have experience between (1) and (5) years, their number was (22) persons with percentage (73.3%). The number of sample's respondents whom have experience between (5) and (10) years was (6) persons with percentage (20.0%).and (2) persons with percentage (6.7%) have experience over 10 years.

3.4 Reliability and Validity of the Questionnaire

Apparent Reliability and Validity

In order to check the apparent validity for the study questionnaire and validation of its statements according to the formulation and explanation, the researcher showed the questionnaire to the (3) of the Ph.D. holding referees whom they are specialists by the study field. Some of the referees makesome suggestions, and others were agreed that the questionnaire is suitable. In anyway, the researcherstudied all suggestions, and some corrections on his questionnaire have been done. The following table isshowing the referees and their jobs and places of work.

Table (3-4) The questionnaire's referees and their jobs and places of work

No.	Name	Job	Qualification	Place of work
1	Abdallayasi n Abdalla	Lecturer	Ph.d holder	SUST
2	Hilary M. Pitia	Lecturers	Ph.d holder	SUST
3	NajlaBashari	lecturer	Ph.d holder	SUST

Source: The researcher from applied study, 2016

Statistical Reliability and Validity:

It is meant by the reliability of any test, to obtain the same results if the same measurement issued more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were counted; then the same test applied another time on the same group and the same marks were obtained; then we can describe this test as reliable. In addition, reliability is defined as the degree of the accuracy of the data that the test measures. Here are some of the most used methods for calculating the reliability.

1. Split-half by using Spearman-Brown equation.
2. Alpha-Cronbach's coefficient.
3. Test and Re-test method
4. Equivalent images method.
5. Guttman equation.

On the other hand, validity also is a measure used to identify the validity degree among the respondents according to their answers on certain criterion. The validity is counted by a number of methods, among them is the validity using the square root of the (reliability coefficient). The value of the reliability and the validity lies in the range between (0-1). The validity of the questionnaire is that the tool should measure the exact aim, which it has been designed for.

The researcher calculated the validity statistically using the following equation:

$$\text{Validity} = \sqrt{\text{Reliability}}$$

The researcher calculated the reliability coefficient for the measurement, which was used in the questionnaire using (split-half) method. This method stands on the principle of dividing the answers of the sample individuals into two parts, i.e. items of the odd numbers e.g. (1, 3, 5, ...) and answers of the even numbers e.g. (2,4,6 ...). Then Pearson correlation coefficient between the two parts is calculated. Finally, the (reliability coefficient) was calculated according to Spearman-Brown Equation as the following:

$$\text{Reliability Coefficient } r = \frac{2 \times r}{1 + r}$$

r = Pearson correlation coefficient

For calculating the validity and the reliability of the questionnaire from the above equation, the researcher was distributed about (20) questionnaires to respondents. In addition, depending on the answers of the pre-test sample, the above Spearman-Brown equation was used to calculate the reliability coefficient using the split-half method; the results have been showed in the following table:

Table (3-5) The statistical reliability and validity of the pre-test sample about the study questionnaire

Hypotheses	Reliability	Validity
First	0.70	0.84
Second	0.80	0.89
Third	0.76	0.87
Four	0.83	0.91
Overall	0.78	0.88

Source: The researcher from applied study, 2016

We note from the results of above table that all reliability and validity coefficients for pre-test sample individuals about each questionnaire's theme, and for overall questionnaire, are greater than (50%), and some of them are nearest to one. This indicates to the high validity and reliability of the answers, so, the study questionnaire is valid and reliable, and that will give correct and acceptable statistical analysis.

Statistical Instruments

In order to satisfy the study objectives and to test its hypotheses, we use the following statistical instruments:

1. Graphical figures.
2. Frequency distribution.
3. Person correlation coefficient.
4. Spearman-Brown equation for calculating Reliability coefficient.
5. Median.
6. Non-parametric Chi-square test.

In order to obtain accurate results, Statistical Package for Social Sciences (SPSS) was used. In addition, to design the graphical figures, which are needed for the study, the computer program (Excel) was also used.

3.5 Application of the Study's Tool

After the step of checking questionnaire reliability and validity, the researcher had distributed the questionnaire on determined study sample (30) persons, and the researcher constructed the required tables for collected data. This step consists transformation of the qualitative (nominal) variables (Strongly agree, Agree, Not sure, Disagree, Strongly disagree) to quantitative variables (5, 4, 3, 2 ,1) respectively, also the graphical representation have done for this purpose.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the analysis of the data collected by the instruments discussed in chapter three. It will also discuss the results of the analysis with the purpose of answering the research questions and testing the hypotheses. The data informing the present study can be categorized into two types:

- Input data
- Intake data

4.1 Input data

The input data is connected with the integration of CALL to vocabulary learning as performed by the participants. This also includes

1. Data from the class observation during the semester observed and registered by the tutor of his students' behavior towards the integration of CALL to vocabulary learning in response to questions they were presented with during classes.
2. Tutors response to the questionnaire
3. Students' performance over the tests that is administered tests to collect data. Two tests were administered :
 - (i) Pre-test and,
 - (ii) Post-test

The present research as it was already mentioned uses both strategies of qualitative and quantitative research. Employing the two techniques can reciprocally have the effect of strengthening and supporting the outcome of each other.

4.2 Test of the Study Hypotheses

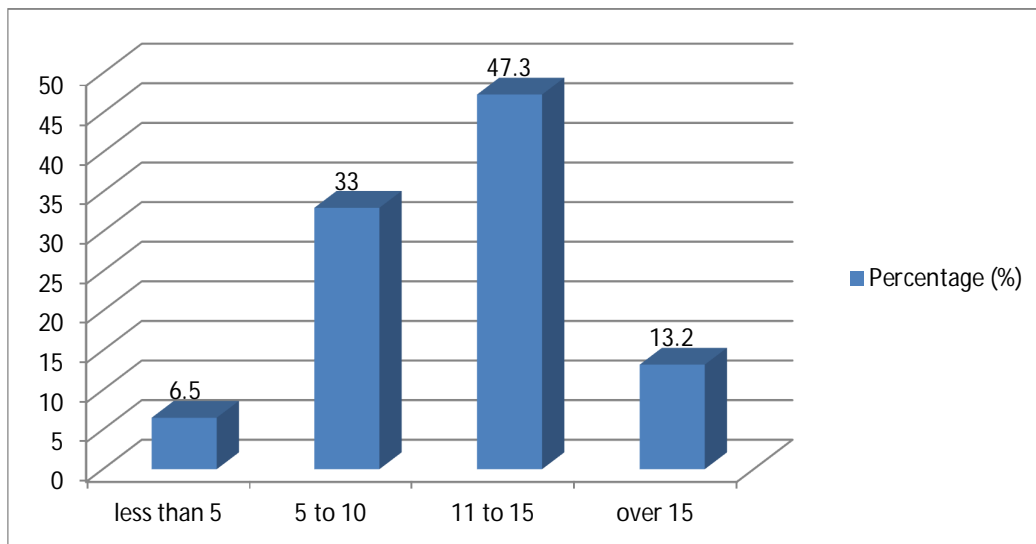
To answer the study's questions and hence verify its hypotheses, the median will be computed for each question from the pre-test and post-test as well as the questionnaire that shows the opinions of the study respondents about the problem in question, namely expanding classroom interaction to reinforce communicative competence. To do that, we will give five degrees for each answer "strongly agree", four degrees for each answer "agree", three degrees for each answer "neutral", two degrees with each answer "disagree", and one degree for each answer with "strongly disagree". This means, in accordance with the statistical analysis requirements, transformation of nominal variables to quantitative variables. After that, we will use the non-parametric chi-square test to know if there are statistical differences amongst the respondents' answers about hypotheses questions. The hypotheses to be tested are as follows.

- 1. CALL promotes learning in general and vocabulary in particular.**
- 2. CALL enhances cultural awareness of Sudanese EFL undergraduate students**
- 3. Computer sets can be introduced in countries of the Third World.**

To fully assess the overall standards of the students they were made to sit for pre-test and post test, as the outcome of the two tests will also give insights into the type of teaching material to be used to enhance classroom interaction. The material was taken from the students' syllabus. As far as the pre-test is concerned, the first question was intended to check the students' vocabulary; hence a comprehension passage was included in the test to check their ability to answer questions based on the test. 17 marks were given to this question.

Table (4-1) **Pre-test** question on vocabulary

Marks	Frequency	Percentage (%)
less than 5	6	6.6
5 to 10	30	33
11 to 15	43	47.3
Over 15	12	13.2
Total	91	100



It is evident from the table as well as the figure (4-1) that most students did very nicely and scored relatively good marks. This shows that the students have the knack for learning and get into interactive activities very well. The use of the computer has further strengthened their knowledge and enhanced their world background as they have drawn on a text that is global in nature. So the tutors can draw on such solid facts to enhance classroom interaction. This can in part be said to contribute to confirming the first hypotheses, **CALL promotes learning in general and vocabulary in particular.**

Q2 this question was general information about communication in a form of true false statements. The students had to write (T) if the statement was true and (F) if it was false. This question was 7 Marks.

Table (4-2) (true-false)

Marks	Frequency	Percentage (%)
Less than 5	1	1.2
5 to10	28	32.9
11to15	38	44.7
Over 15	18	21.2
Total	85	100

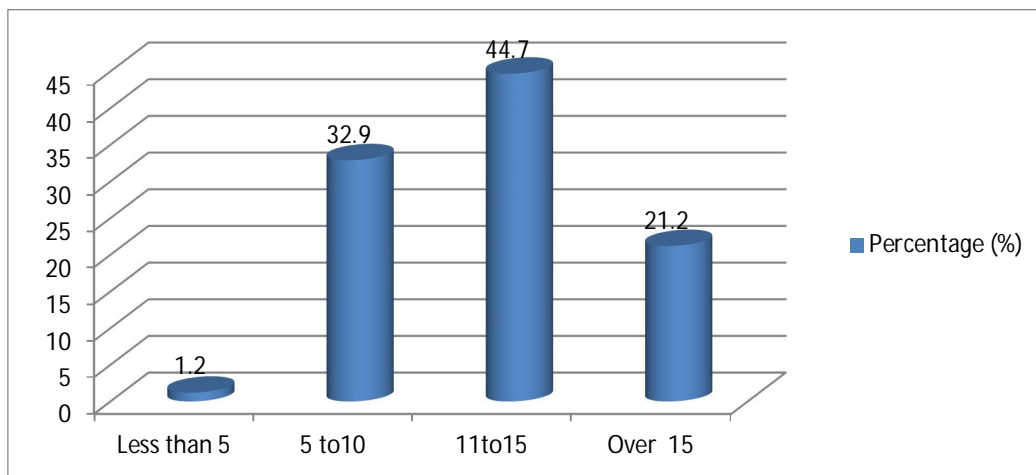


Figure (4-2) true/false

It is clear that the type of language which is used here for the students to work on via the pair true/false question has reflected the students' interest in it as viewed from the high marks they achieved. So this type of language an also be adopted for the purpose of enhancing interaction. Consequently, this result further confirms the first hypothesis.

Table (4-3) post-test

Marks	Frequency	Percentage (%)
Less than 4	11	12.1
4 to 7	80	87.9
Total	91	100

On the post test, 92% got very good marks (4 – 7). This shows how interested and concentrated the students were. This account for the fact that the language used in the test reflects the students’ interest and hence can be employed in classroom in order to enhance the students’ interaction. It also indicates that the experiment group has benefited a lot from the type of training they received and boosted their standards. The use of the computer which is supported with different types of dictionaries enabled them to go through the text and understand the difficult words. Hence, their ability to answer comprehension questions has increased. This accounts for the second hypothesis which states,

CALL enhances cultural awareness of Sudanese EFL undergraduate students

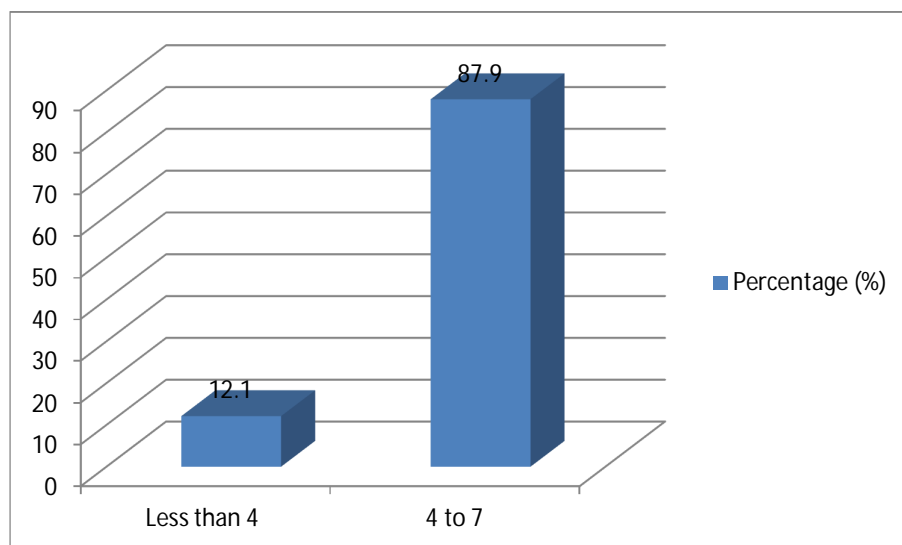


Table (4-4) Adjectives

Marks	Frequency	Percentage (%)
Less than 4	6	7.1
4 to 7	79	92.9
Total	85	100

The above encouraging results were achieved by the students in the post-test. Their demonstration in the test reflects their interest in adjectives such an important area in the language and which can be developed and be utilized to fit within the general framework of the research. CALL, definitely played a role in enlarging their scores as they work with pleasure to solve the questions right on the monitor, making use of the supplied dictionaries in the CD ROM. Therefore, this process has the effect of boosting classroom interaction which consequently lead to lifting up the students overall language standard. It helps improve their oral production and hence this can be taken as a fact augmenting hypothesis two for the second time. It states as follows: **2. CALL enhances cultural awareness of Sudanese EFL undergraduate students**

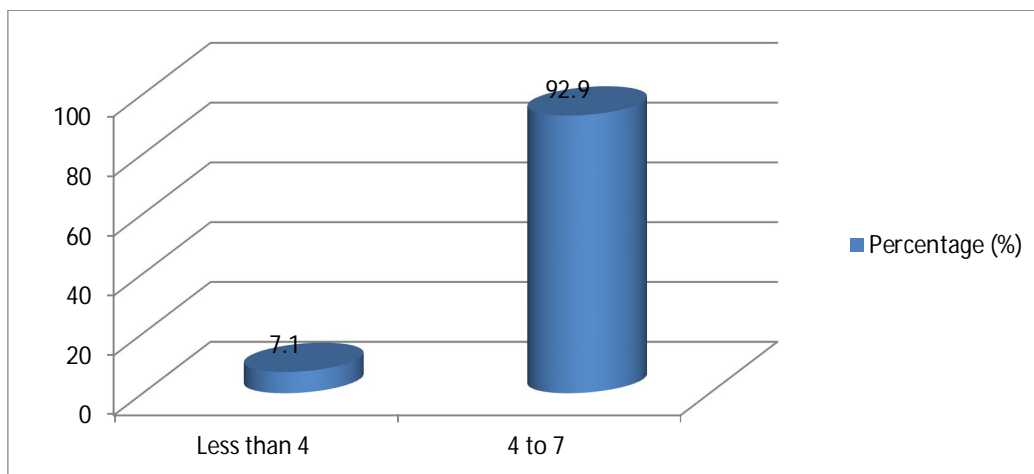


Figure (4-4) indicates the good marks achieved by the student in the question that tests the use of *adjective*.

Table (4-5) the English pronouns

Marks	Frequency	Percentage (%)
less than 2	52	47.1
2 to 5	39	42.9
Total	91	100

Judging by the results above, the figures reflect the students' poor performance as far as the area of pronouns is concerned. The researcher can take care of this area by injecting a further dose to consolidate it. However, CALL was used in administering the exam, but not the lectures. The use of CALL in delivering lectures is sure to introduce a significant change that render the result positive. Pronouns are by their very nature a difficult area to learn in a language. Native speakers of any language master the full use of pronouns after they have become three or four years of age. Mastering English pronouns takes a lot of time and practice.

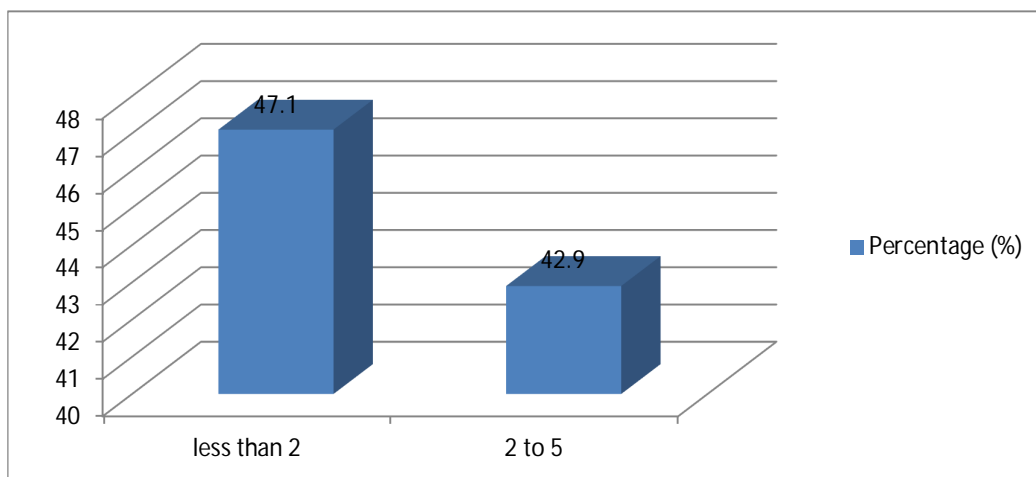


Figure (4-5) also reflects the poor results in the area of English pronouns the thing which calls for hard work both on the part of the tutors and the students.

Table (4-6) Underlining the correct word or words

Marks	Frequency	Percentage (%)
Less than 2	34	40
2 to 5	51	60
Total	85	100

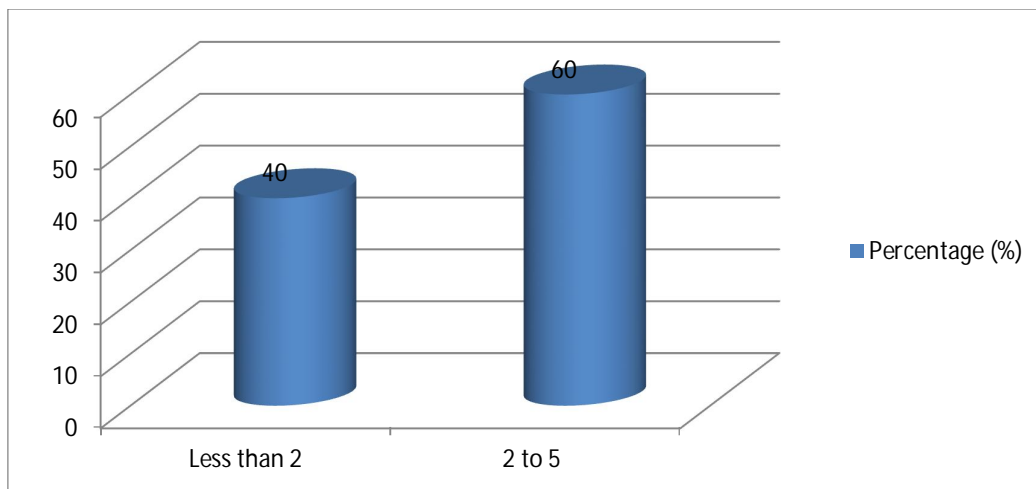


Figure (4-6) underlining the correct forms

It is apparent that the students have not attained good marks in this question which require them to draw on their background knowledge to select the right type of words. This question to be answered properly requires good word power. This kind of knowledge of vocabulary accumulates as a result of hard work both on part of the tutor and the student. The researcher, as per the outcome this question should exert much efforts to help students in this very important area which is essential for communicative competence. Students often instinctively recognize the importance of vocabulary to their language learning. As Schmitt (2010) noted, “learners carry around dictionaries and not

grammar books” Teaching vocabulary helps students understand and communicate with others in English. Voltaire purportedly said, “Language is very difficult to put into words.” I believe English language students generally would concur, yet learning vocabulary also helps students master English for their purposes.

Good communicative competence is generally needed to increase classroom interaction, the excessive use of computer is sure to induce the desired effect.

Table (4-7) knowledge of the five senses

Marks	Frequency	Percentage (%)
Less than 3	8	8.8
3 to 6	83	91.2
Total	91	100

Almost all students did very nicely in this part which requires students to identify the five senses. A picture of a face was drawn and the students have to practice describing the proper parts of the face in a communicative way. This will help when describing some facial expressions. This in turn has the effect of increasing their interaction in the classroom. It is in part verifies the second hypothesis. CALL application will further improve the situation.

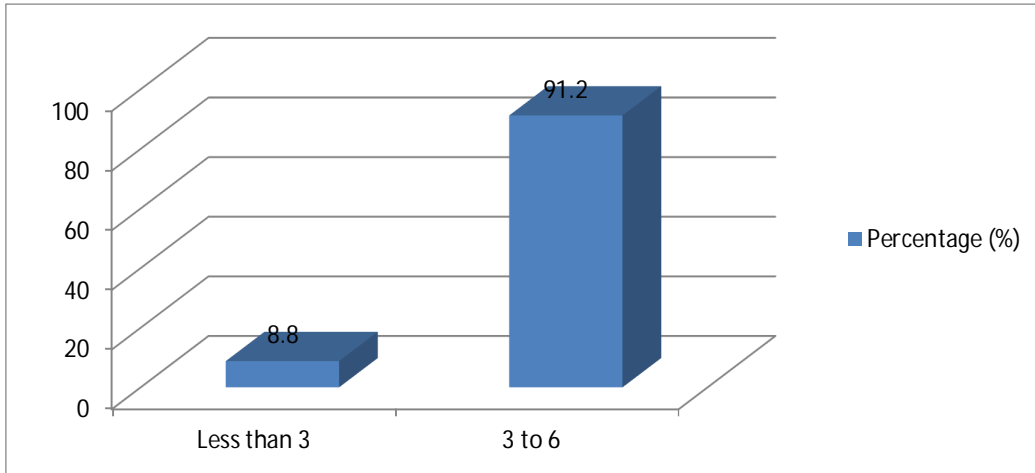


Figure (4-7) identifying the different parts of the face for describing facial expressions.

Table (4-8) Filling the spaces

Marks	Frequency	Percentage (%)
Less than 3	9	10.6
3 to 6	76	89.4
Total	85	100

In this part students were asked to complete the sentences by writing one of the words given. The question was to reflect the students knowledge on the five senses and the vocabulary used with them. The students had the words given to them, all they had to do is to choose from the words above and put them in the suitable place according to their meaning. The question had 6 marks.

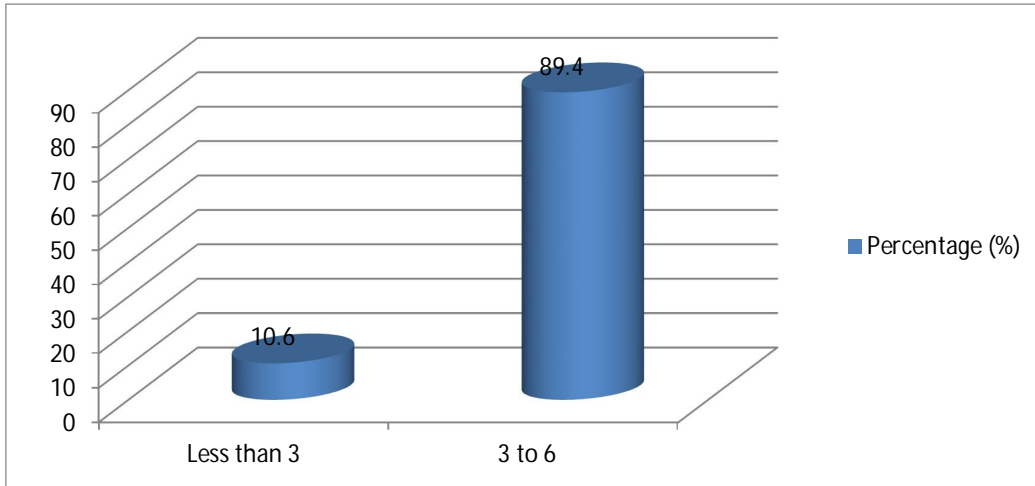


Figure (4-8) Filling the spaces with the words provided for them. Their performance was good as shown by the figure.

Table (4-9) underlining the correct verb

Marks	Frequency	Percentage (%)
Less than 3	16	18.8
3 to 6	69	81.2
Total	85	100

In this question the students had to put a line under the correct verb. The aim of this question was to get a hint on whether the students know how to separate the correct use of verb with someone or something or they use the same verb. This question had 6 marks.

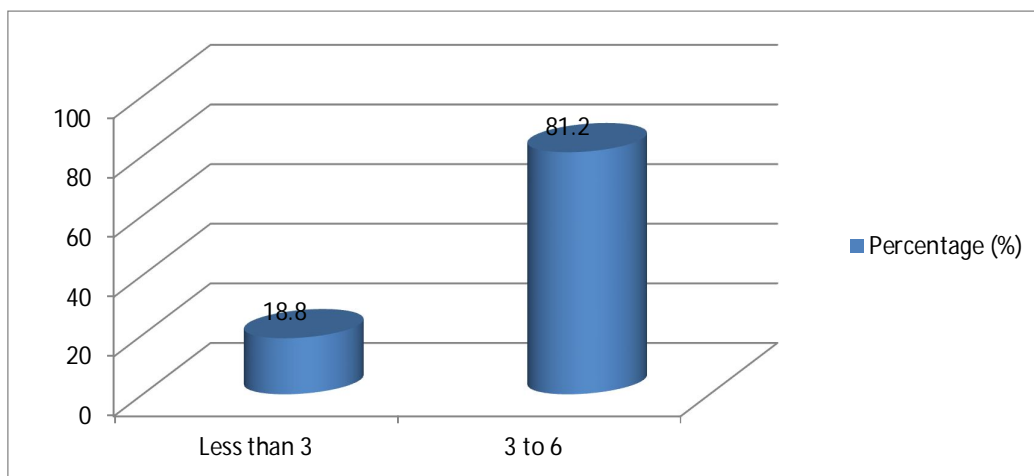


Figure (4-9) Students' performance is good.

Table (4-10). Describing a location from another location.

Marks	Frequency	Percentage (%)
Less than 3	9	10.6
3 to 6	76	89.4
Total	85	100

This question aims at showing how to describe a location from another location. The use of CALL in projecting the pictures has helped the students a lot to do this job of description much adequately. This question needs concentration and it helps if the student puts himself/herself in the position mentioned and finds the other position from that angle. This question has 7 marks. The question requires the students to get into a process of thinking and asking questions in order to arrive at the right answer. This mechanism is mainly intended to create some sort of dialogue among the students which will put them on the track for classroom interaction. Therefore, such drill should be consolidated if we need to maximize classroom interaction.

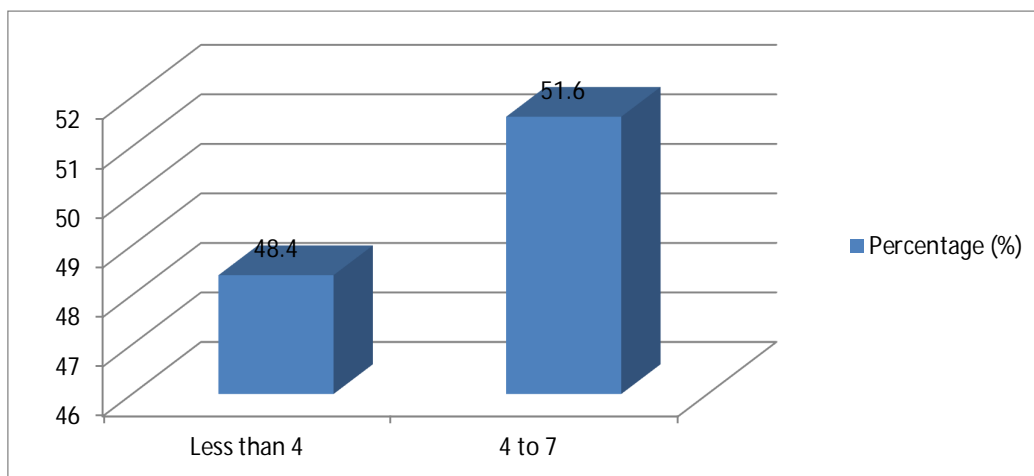


Figure (4-10) demonstrating a location from another location.

4.3 Analysis of the Students' Questionnaire

It consists of fifteen interrelated parts related to surveying students views about the issue in question, namely classroom interaction. The questionnaire mainly focuses on how CALL can enhance students' vocabulary learning and boost their knowledge of the world and cultures.

a. Students' questionnaire. (Category (1). Effect of undergraduate English language syllabus on developing the students' vocabulary.

Table (4-11)

No.	Phrases	Frequency and percentages				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Using CALL makes learning a fun and more effective.	61 50.8%	36 30%	3 2.5%	9 7.5%	11 9.2%
2	The syllabus does not contain enjoyable reading lessons or writing, however, when browse the net there are more interesting reading	54 45%	34 28.3%	8 6.7%	18 15%	6 5.0%

	materials. Thanks to CALL					
3	CALL can enrich the syllabus with vocabulary through interesting reading lessons	66 55%	37 30.8%	9 7.5%	4 3.6%	4 3.6%
4	CALL provides the students with every day vocabulary supplemented with pictures.	57 47.5%	37 30.8%	8 6.7%	13 10.8%	5 4.7%
5	Though the content of the syllabus does not reinforce students' four skills, the use of CALL can patch up this gap.	60 50%	36 30%	11 9.2%	10 8.3%	3 2.5%
Hypothesis		298 49.7%	180 30%	39 6.5%	54 9.0%	29 4.8%

As reflected in table (4.11) item (1) the majority of the respondents (50.8%) strongly agree that using CALL can make learning fun and more effective (30%) agree, (2.5%) not sure, (7.5%) are disagree, while 9.2% are strongly disagree.

This could be attributed to the fact that undergraduate students are old enough to assess the value of the syllabus they are being exposed to and that can be improved through the application of a learning tool such as CALL. The use of computers has actually become unavoidable in the light of the accelerating technological devices which have for long invaded classroom settings in different parts of the world. Item (2) shows that the majority of the respondents (45%) strongly agree that the syllabus does not contain enjoyable reading lessons which encourage the learning

of vocabulary and that the best solution is the application of CALL which allows for a great variety of authentic interesting texts (28.3%) agree, (6.7%) not sure, (15%) disagree while (5%) are strongly disagree.

The above result gives clear evidence that students believe that the undergraduate syllabus is not the right kind of curriculum for developing good vocabulary which is essential for developing other language skills. Concerning item (3) it is clear that the majority of the subjects (55%) strongly agree that CALL can enrich the syllabus with vocabulary through interesting reading lessons, (30.8%) agree, (7.5%) not sure, (3.6%) disagree while (3.6%) are strongly disagree.

This result indicates that most of the students see that the syllabus should be enriched with a variety of reading lessons which develop their vocabulary learning such as lessons which includes authentic communicative situations.

As for item (4) it is obvious that the majority of the respondents (47.5%) strongly agree that the English syllabus does not provide the students with vocabulary which meets their every day needs and that CALL provides the students with every day vocabulary supplemented with pictures.. (30.8%) agree (6.7%) not sure, (10.8%) disagree, while (4.7%) strongly disagree with the statement.

This result confirms that most of the students think that the English language syllabus does not enrich them with vocabulary which meets their everyday needs so that they can easily communicate orally with the people around them when they are outside the classrooms. Hence, having to resort to CALL is the best next expedient.

As regards item (5) the majority of the subjects (50%) strongly agree that the content of the English syllabus is insufficient to reinforce the

students' word power and that it is high time CALL be called upon to remedy the situation (30%) agree, (9.2%) not sure, (8.3%) disagree while (2.5%) strongly disagree with the statement.

This result could be attributed to the fact that the content of the syllabus does support the students' oral ability such as conversations, dialogues and plays and short stories which enable students to express themselves and communicate actively with each other depending on the vocabulary they acquire from the syllabus.

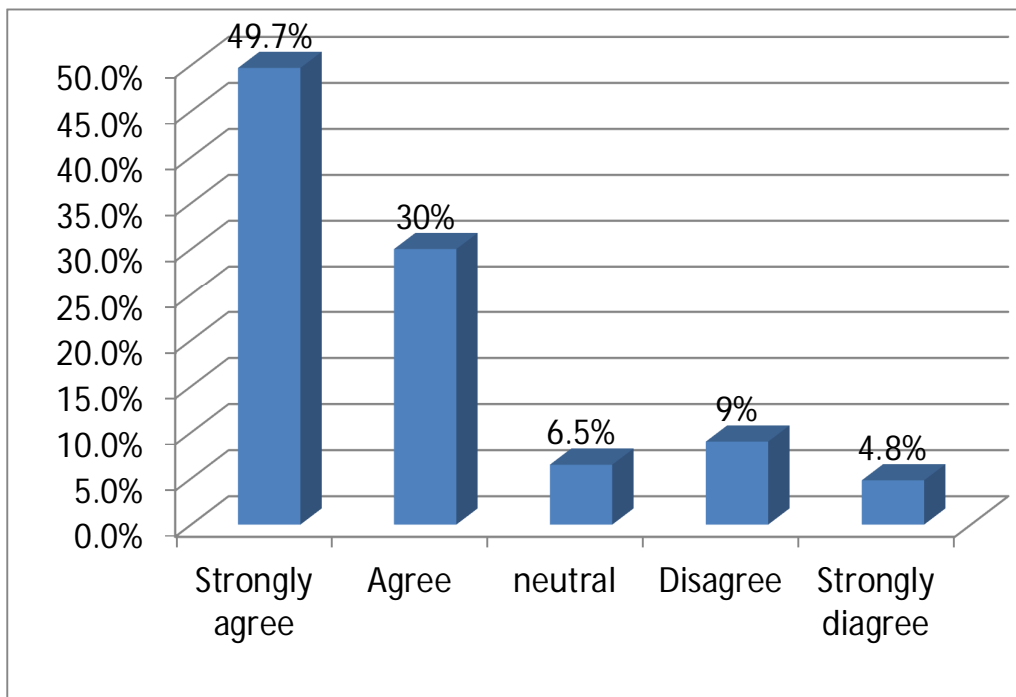


Figure (4.11): Percentages distribution of the first hypothesis phrases:

Table (4.11): Chi-square test results:

No	Phrases	Chi-square value	P-value	Median	Trend
1	The syllabus layout is not attractive in a way that makes the students interested when reading.	97.833	0.000	5	To strongly agree
2	The syllabus does not contain enjoyable reading lessons which encourage the students to read.	67.333	0.000	4	To agree
3	The syllabus is not enriched with reading lessons which reinforce oral ability.	123.250	0.000	5	To strongly agree
4	The syllabus does not provide the students with every day vocabulary which improves oral performance.	83.167	0.000	4	To agree
5	Content of the syllabus does not reinforce the students' speaking skills.	93.583	0.000	5	To strongly agree
Hypothesis		454.017	0.000	4	To agree

From the table above:

- The value of chi-square for the first phrase is (97.833) with (p-value=0.000 < 0.05), and depending on the table (4.11), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (67.333) with (p-value=0.000 < 0.05), and depending on the table (4.11), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.
- The value of chi-square for the third phrase is (123.250) with (p-value=0.000 < 0.05), and depending on the table (4.11), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fourth phrase is (83.167) with (p-value=0.000 < 0.05), and depending on the table (4.11), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.
- The value of chi-square for the fifth phrase is (93.583) with (p-value=0.000 < 0.05), and depending on the table (4.11), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the first hypothesis is (454.017), with (p-value =0.000 < 0.05) and depending on the table (4.11) and figure (4.11), this indicates that there is significant differences at the level (5%) between the answers of study individuals and in favor of agree.

It is safely to conclude that the first hypothesis viewed in relation to this analysis has been realized or confirmed, that **CALL promotes learning in general and vocabulary in particular.**

Category (2) Teachers of English do not provide students with a variety of reading activities which help improve vocabulary.

Table (4.12)

No	Phrases	Frequency and percentages				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
6	The teacher should now exploit CALL to provide students with a variety of language activities which reinforce vocabulary learning .	68 56.7%	29 24.2%	12 10%	4 3.3%	7 5.8%
7	The teacher should give students an opportunity to use CALL independently to assess their choices.	61 50.8%	37 30.8%	3 2.5%	11 9.2%	8 6.7%
8	The teacher should check students' vocabulary after introducing CALL.	65 54.2%	18 15%	5 4.2%	16 13.3%	16 13.3%
9	The teacher should not interrupt students while using CALL to correct oral mistakes.	64 53.3%	35 29.2%	3 2.5%	13 10.8%	5 4.2%
10	The teacher should use CALL along other classroom techniques to encourage vocabulary learning.	84 70%	24 20%	5 4.2%	2 1.7%	5 4.2%
Hypothesis		342 57%	143 23.8%	28 4.7%	46 7.7%	41 6.8%

As shown above in table (4.12) (item 6) the majority of the respondents (56.7%) strongly agree that the teacher should now exploit CALL to provide students with a variety of language activities which reinforce

vocabulary learning. (24.2) agree (10%) not sure, (3.3%) disagree and (5.8%) strongly disagree with the statement.

This result shows that most of the students see that reading activities are very important to help them maximize their word power or stock of words and hence makes learning in general an interesting process. These types of activities as introduced by CALL can have the effect of encouraging students to read and enable them develop their spoken English.

Item (7) explains that the majority of the study sample (50.8%) strongly agrees that the teacher should give students an opportunity to use CALL independently to assess their choices. (30.8%) agree, (2.5%) not sure, (9.2%) disagree, while (6.7%) of the study sample disagree with the statements.

The above result confirms that the teacher does not give the students even a reasonable time to practice reading inside the classroom so as to increase their stock of words for the purpose of improving their overall knowledge of English. A reasonably good vocabulary can help students have a better grasp of world culture as they will be exposed to different texts with different writers who have diverse insights and world views.

Concerning item (8) it is obvious that the majority of the study sample (54.2%) strongly agree that the teacher should check students' vocabulary after introducing CALL. (15%) agree, (4.2%) not sure, (13.3%) disagree and the same percentage strongly disagree with the statements.

This result indicates that the teachers do not exploit computers to improve their students' standards of English through maximizing their vocabulary. Thus most of the students lose interest in participating in reading practice

inside the classroom and certainly affects negatively on their oral performance.

As for item (9) it is clear that the majority of the respondents (53.3%) strongly agree that the teacher should not interrupt students while using CALL to correct oral mistakes. (29.2%) agree (2.5%) not sure, (10.8%) disagree, and (4.2%) strongly disagree with the statements.

This result shows that most of the teachers interrupt the students while reading or speaking to correct them. This method is very confusing and distracting. The reason that makes most of the students do not like to read or speak in front of the class because they will feel discomfort.

In connection with item (10) the researcher find that the majority of the subjects (70%) strongly agree that the teacher should use CALL along other classroom techniques to encourage vocabulary learning (20%) agree, (1.7%) disagree, (4.2%) not sure and the same percentage strongly disagree with the statement.

This result gives clear evidence that students are fully aware of the role or results to be brought about through the application of CALL. Absence of this important tool of learning has lowered the quality of learning at our universities. To catch up with the advanced world, technology should find its way in our lecture theatres.

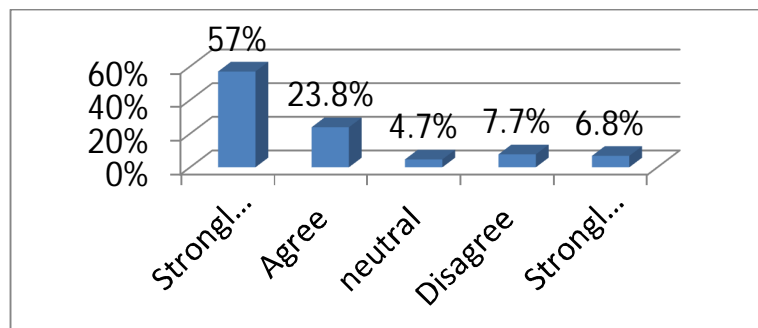


Figure (4.12): Percentages distribution of the second hypothesis phrase

Table (4.12): Chi-square test results:

No	Phrases	Chi-square value	P-value	Median	Trend
6	The teacher should now exploit CALL to provide students with a variety of language activities which reinforce vocabulary learning	116.417	0.000	5	To strongly agree
7	The teacher should give students an opportunity to use CALL independently to assess their choices.	100.167	0.000	5	To strongly agree
8	The teacher should check students' vocabulary after introducing CALL.	91.917	0.000	5	To strongly agree
9	The teacher should not interrupt students while using CALL to correct oral mistakes.	110.167	0.000	5	To strongly agree
10	The teacher should use CALL along other classroom techniques to encourage vocabulary learning.	200.250	0.000	5	To strongly agree
Hypothesis		583.283	0.000	5	To strongly agree

From the table above:

- The value of chi-square for the first phrase is (116.417) with (p-value=0.000 < 0.05), and depending on the table (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the second phrase is (100.167) with (p-value=0.000 < 0.05), and depending on the table (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the third phrase is (91.917) with (p-value=0.000 < 0.05), and depending on the table (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fourth phrase is (110.167) with (p-value=0.000 < 0.05), and depending on the table (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fifth phrase is (200.250) with (p-value=0.000 < 0.05), and depending on the table (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the second hypothesis is (583.283), with (p-value =0.000 < 0.05), and depending on the table (4.12) and figure (4.12), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The above results can be said to confirm the second hypothesis which states, **CALL enhances cultural awareness of Sudanese EFL undergraduate students.**

Category (3) Inclusion of literary texts within the English syllabus and its influence on developing students' vocabulary

Table (4.13)

No.	Phrases	Frequency and Percentages				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
11	Inclusion of literary extracts via the tool CALL can enhance students' vocabulary.	84 70%	21 17.5%	4 3.3%	5 4.2%	6 5.0%
12	Literature texts enrich vocabulary quite considerably which can be improved through CALL even more.	71 59.2%	38 31.7%	5 4.2%	5 4.2%	1 0.8%
13	CALL can provide students with Literature books and texts that contain enjoyable stories which encourage the students to read eagerly and hence improve vocabulary	80 66.7%	31 25.8%	4 3.3%	2 1.7%	3 2.5%
14	literary texts enable students to use the words contextually, and cohesively.	74 61.7%	38 31.7%	3 2.5%	3 2.5%	2 1.7%
15	Literary texts expose the students to huge vocabulary which allows students to manipulate various target language communicative situations.	60 50%	34 28.3%	17 14.2%	2 1.7%	7 5.8%
Hypothesis		369 61.5%	162 27%	33 5.5%	17 2.8%	19 3.2%

As shown in table (4. 13) item (11) the majority of the subjects (70%) strongly agree that inclusion of literary extracts via the tool CALL can enhance students' vocabulary. (17.5%) agree, (3.3%) not sure, (4.2%) disagree, whereas (5%) strongly disagree with the statement.

This result shows clearly that most of the students believe in the importance of literature books and its effective role in improving the speaking skill because the more students read the more fluent they will be in using spoken English

Item (12) shows that the majority of the study sample (59.25%) is strongly agree that Literature texts enrich vocabulary quite considerably which can be improved through CALL even more.(4.2%) not sure, the same percentage disagree whereas only (0.8%) strongly disagree.

This result shows that most of the students see that literature books enrich their vocabulary and enable them to use spoken English accurately. This result can be based on the fact that reading literature helps students communicate orally with the people around them.

Item (13) reflects that the majority of the respondents (66.7%) strongly agree that CALL can provide students with Literature books and texts that contain enjoyable stories which encourage the students to read eagerly and hence improve vocabulary. (25.8%) agree, (3.3%) not sure, (1.7%) disagree and (2.5%) strongly disagree.

This result shows that most of the students see that stories motivate them to read intensively and eagerly. In fact, illustrated literature books which contain, for example, historical, detective, love, adventure and even imaginative stories encourage students to read eagerly and hence, reinforce their oral performance.

As concerns item (14) it is obvious that the majority of the subjects (61.7%) strongly agree that literary texts enable students to use the words contextually, and cohesively. (31.7%) agree, (2.5%) not sure, the same percentage goes for disagree, while (1.7%) strongly disagree with the statement.

This result indicates that most of the students believe that literature books qualify them to use the language appropriately in different contexts in terms of cohesion and coherence. Concerning item (15) we can see that the majority of the study sample (50%) strongly agree that literary texts expose the students to huge vocabulary which allows students to manipulate various target language communicative situations. (28.3%) agree, (14.2%) not sure, (1.7%) disagree whereas (5.8%) strongly disagree.

This result shows that inclusion of an element as CALL in teaching learning situation can be immensely effective on students' achievement. Literature books bring students closely to the English language communicative situations because it contains different stories which imply different settings, plots, themes, and language styles. Accordingly, when students are exposed to such situation through reading literature, they will become competent enough to speak confidently, effectively and easily.

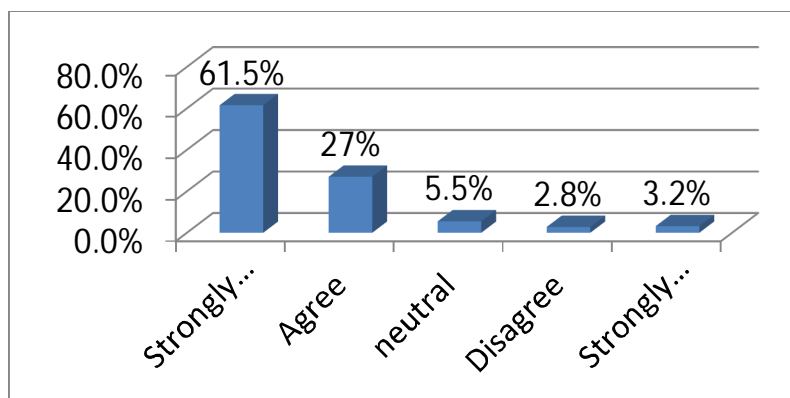


Table (4-13): Chi-square test results:

No	Phrases	Chi-square value	P-value	Median	Trend
11	Inclusion of literary extracts via the tool CALL can enhance students' vocabulary.	195.583	0.000	5	To strongly agree
12	Literature texts enrich vocabulary quite considerably which can be improved through CALL even more.	152.333	0.000	5	To strongly agree
13	CALL can provide students with Literature books and texts that contain enjoyable stories which encourage the students to read eagerly and hence improve vocabulary	187.917	0.000	5	To strongly agree
14	Literary texts enable students to use the words contextually, and cohesively.	169.250	0.000	5	To strongly agree
15	Literature books expose students to various target language communicative situations.	92.417	0.000	5	To strongly agree
Hypothesis		767.867	0.000	5	To strongly agree

From the table above:

- The value of chi-square for the first phrase is (195.583) with (p-value=0.000 < 0.05) and depending on the table (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (152.333) with (p-value=0.000 < 0.05) and depending on the table (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the third phrase is (187.917) with (p-value=0.000 < 0.05) and depending on the table (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fourth phrase is (169.250) with (p-value=0.000 < 0.05) and depending on the table (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fifth phrase is (92.417) with (p-value=0.000 < 0.05) and depending on the table (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the third hypothesis is (767.867), with (p-value =0.000 < 0.05) and depending on the table (4.13) and figure (4.13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

It can be concluded that from the above analysis that the third hypothesis “Inclusion of literature books within the English syllabus affects positively the students’ oral communication” has been achieved and in favor of strongly agree.

4.4 Tutors' Questionnaire

Table (4.14)

No.	Phrases	Frequency and percentages				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The problem with CALL as a tool of learning lies in the inaccessibility to information via computer to almost a number of students.	24 80%	5 16.7%	0 0.0%	1 3.3%	0 0.0%
2	In poverty stricken areas it is difficult to buy computer sets and have a source of energy, too. However there are benevolent foundations that can help	23 76.7%	6 20%	1 3.3%	0 0.0%	0 0.0%
3	Students in the Third World can have access to computer sets. However, there are benevolent or charitable foundations that can help	25 83.3%	5 16.7%	0 0.0%	0 0.0%	0 0.0%
4	CALL can help of providing students with authentic materials which are of great value for increasing motivation and hence improving writing.	20 66.7%	9 30%	1 3.3%	0 0.0%	0 0.0%
5	CALL promotes learning in general and vocabulary in particular.	17 56.7%	11 36.7%	0 0.0%	0 0.0%	2 6.7%
Hypothesis		109 72.2%	36 24%	2 1.3%	1 0.7%	2 1.3%

As reflected in table (4.14) more than two thirds of the respondents (80%) strongly agree that the problem with CALL as a tool of learning lies in the inaccessibility to information via computer to almost a big number of students. This of course reflects the reality of the Sudan. (16.7%) agree, whereas only (3.3%) disagree with the statement. This is absolutely true that technology will not always provide the appropriate solution. *"...Technology is not a panacea or a magic bullet that suddenly transforms all learning. The effectiveness of educational technology depends on how it is employed to meet educational goals for particular kinds of students in specific language learning environments..." (Oxford and others, 1998: 13)*

Undoubtedly, Computers can do some of the work of the teacher and provide great assistance to the learner even without the presence of the teacher. This does not of course cancel the role of the teacher who should always be around to monitor the operation of learning.

Considering item (2), the majority of the study sample (76.7%) strongly agrees that in poverty stricken areas it is difficult to buy computer sets and have a source of energy, too. (20%) agree, while only (3.3%) disagree with the statement. New technologies have seen computers become smaller, faster, and easier for the teacher to use (Evy, 1997). At present, well-designed CALL software is readily available to the teacher. Although these devices are available and that stores are packed up with them, may at sometimes be completely beyond the purchasing abilities of certain countries and individuals.

Though the computer offers great flexibility for class scheduling and pacing of individual learning, choosing activities and content to suit individual learning styles, it is not financially affordable to all students all over the world. Multiple classrooms across the world will continue to be deprived of this great magical device. However, countries and individuals

should not give up hope of possessing such advanced technology as long as there agencies, organization and philanthropic foundations that can help support such poor countries and individuals.

Item (3) shows that the majority of the subjects (83.3%) strongly agree that students in the Third World can have access to computer sets. (16.7%) agree with the statement. This idea has been discussed thoroughly above.

As for item (4) it is obvious that the majority of the respondents (66.7%) strongly agree that CALL can help of providing students with authentic materials which are of great value for increasing motivation and hence improving writing. (30%) agree, whereas only (3.3%) not sure. Network-based instruction can help pupils strengthen their linguistic skills by positively affecting their learning attitude and by helping them build self-instruction strategies and promote their self-confidence. All students can use various resources of authentic reading materials either at school or from their home. Those materials can be accessed 24 hours a day at a relatively low cost.

This result confirms that most of the teachers can not listen carefully to the students while reading or talking so that they can easily correct their oral production mistakes. Large classroom is genuinely problematic. It always represents a source of confusion and distraction to the teachers and makes them unable even to teach because of the inconvenience. Random access to Web pages breaks the linear flow of instruction. By sending E-mail and joining newsgroups, EFL students can communicate with people they have never met. They can also interact with their own classmates. Furthermore, some Internet activities give students positive and negative feedback by automatically correcting their on-line

exercises. Shy or inhibited students can be greatly benefited by individualized, student-centered collaborative learning. High fliers can also realize their full potential without preventing their peers from working at their own pace. Although students can still use their books, they are given the chance to escape from canned knowledge and discover thousands of information sources. As a result, their education fulfils the need for interdisciplinary learning in a multicultural world.

The result above indicates that most of the teachers are well aware of the value and effectiveness of the computer and that the teaching learning operation will be much easier than before the introduction of the computer.

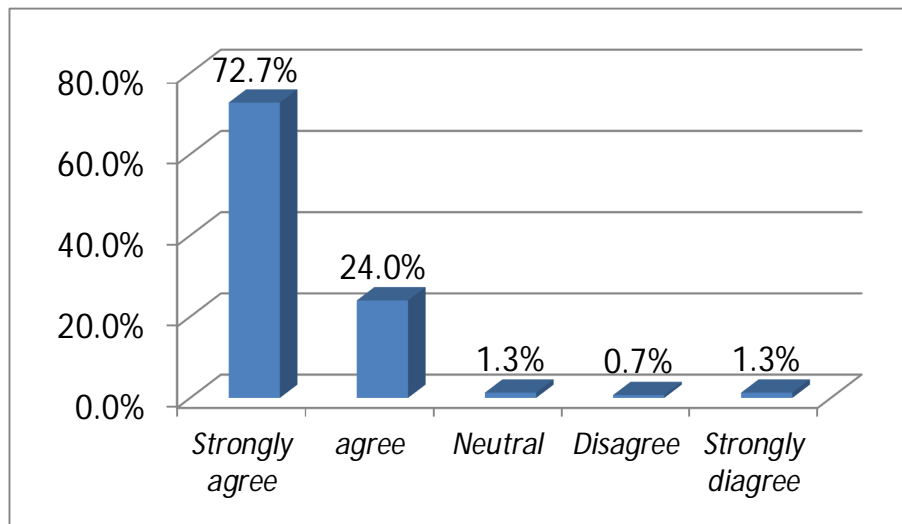


Figure (4.14) Percentage *distribution* of the third hypothesis phrases:

Table (4.14):Chi-square test results:

No	Phrases	Chi-square value	P-value	Median	Trend
1	The problem with CALL as a tool of learning lies in the inaccessibility to information via computer to almost a number of students.	30.200	0.000	5	To strongly agree
2	In poverty stricken areas it is difficult to buy computer sets and have a source of energy, too.	26.600	0.000	5	To strongly agree
3	Students in the Third World can have access to computer sets.	13.333	0.000	5	To strongly agree
4	CALL can help of providing students with authentic materials which are of great value for increasing motivation and hence improving writing.	18.200	0.000	5	To strongly agree
5	CALL promotes learning in general and vocabulary in particular.	11.400	0.003	5	To strongly agree
Hypothesis		289.533	0.000	5	To strongly agree

The table above shows that:

- The value of chi-square for the first phrase is (30.200) with (p-value=0.000 < 0.05), and depending on the table (4.14), this indicates that

there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (26.600) with (p-value=0.000 < 0.05), and depending on the table (4.14), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the third phrase is (13.333) with (p-value=0.000 < 0.05), and depending on the table (4.14), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fourth phrase is (18.200) with (p-value=0.000 < 0.05), and depending on the table (4.14), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.
- The value of chi-square for the fifth phrase is (11.400) with (p-value=0.003 < 0.05), and depending on the table (4.14), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the fourth hypothesis (289.533), with (p-value =0.000 < 0.05) and depending on the table (4.14) and figure (4.14), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

We conclude from the above that the third hypothesis "Computer sets be introduced in countries of the third world" has been achieved and in favor of strongly agree.

4.5 Testing hypotheses

To answer questions of the study and verification of hypotheses the researcher calculated median for each of the phrases in the questionnaire so as to show views of the respondents of the study. Accordingly, grade (5) was given as a weight for each answer "Strongly agree", and grade (4) as a weight for each answer "agree" grade (3) as a weight for each answer "neutral", grade (2) as a weight for each answer, " disagree" and grade (1) as a weight for each answer "strongly Disagree".

To know trends of the answers the researcher calculated median and then used the Chi-square test to know significance of the differences in answers.

4.6 Hypotheses Proper

4.6.1 CALL promotes learning in general and vocabulary in particular.

The results in tables (4.14) show that the majority of the respondents strongly agree that CALL promotes learning particularly if all the students have a good grasp over the use of computer and that the tutors are well trained to use computers in their classroom settings. This result confirms strongly the first hypothesis and hence it comes together with the researcher's view point which believes that computer and technology in general are excellent tools of learning.

4.6.2 CALL enhances cultural awareness of Sudanese EFL undergraduate students

As reflected in tables (4.14) and figures (4.14) it is clear that the majority of the study sample strongly agree that CALL promotes learning in general and vocabulary in particular and widens the scope of students' knowledge, background and world culture.

This result supports strongly the second hypothesis. Accordingly, it stands side by side with the researcher' opinion that computer is such a useful tool of learning that educators and government should seriously think over and have all our classrooms be equipped with. CALL used for teaching English language will help teachers to provide the students with a variety of reading activities to help them develop their oral performance.

4.6.3 Computer sets can be introduced in countries of the Third World.

As shown in tables (4.14) and figures (4.14) it is obvious that the majority of the subjects strongly agree that students in the Third World can have access to computer sets. .

This result strongly reinforces the third hypothesis and steps together with the researcher point of view that philanthropic institutions and giant computer firms as Microsoft can help a lot in this direction.

SUMMARY OF THE MAIN FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides a summary of the study, conclusions, recommendations and suggestions for further studies.

5.1 Summary of the main Findings

The researcher has found that:

- 1-The use of computers and technology (social communication applications) promotes the learning of vocabulary quite adequately. They also learn in broad general terms listening and speaking, reading and writing.
- 2- The use of computers and technology promotes global understanding as foreign language is studied in a cultural context. In a world where the use of the Internet becomes more and more widespread, an English Language teacher's duty is to facilitate students' access to the web and make them feel citizens of a global classroom, practicing communication on a global level.
- 3-CALL and social communication applications contribute in the learning of vocabulary not through the traditional single source of information. Although students can still use their books, they are given the chance to escape from canned knowledge and discover thousands of information sources. As a result, their education fulfills the need for interdisciplinary learning in a multicultural world.
4. As a sense of individualization, Shy or inhibited students can be greatly benefited by individualized, student-centered collaborative learning. High fliers can also realize their full potential without preventing their peers from working at their own pace.
5. CALL fosters greater degrees of interaction. Shy or inhibited students can be greatly benefited by individualized, student-centered

collaborative learning. High fliers can also realize their full potential without preventing their peers from working at their own pace.

6. CALL helps motivate students to draw on more authentic sources for authentic language. All students can use various resources of authentic reading materials either at school or from their home. Those materials can be accessed 24 hours a day at a relatively low cost.

5.2 Conclusions

This study is an attempt to investigate the possibility of introducing CALL in undergraduate levels to improve the environment of learning. A foreign language is studied in a cultural context. In a world where the use of the Internet becomes more and more widespread, an English Language teacher's duty is to facilitate students' access to the web and make them feel citizens of a global classroom, practicing communication on a global level. It also surveyed tutors' views on the issue in question. This study is set out to answer the following questions:

4. To what extent does CALL promote the learning in general and vocabulary in particular?
5. How far can CALL enhance cultural awareness of Sudanese EFL undergraduate students?
6. To what extent can computer sets be introduced in countries of the Third World?

To achieve the set objectives, the study adopted a mixed-methods approach: the descriptive analytical and experimental methods. This allowed the research instruments to complement each other. Hence, an experiment, questionnaires, was used to address the research questions and objectives. The (SPSS) program version 20 was used for data

analysis. Other types of statistical analysis were also adopted to further authenticate and confirm the hypotheses.

The population was students of first level in Sudan University of Science and Technology, College of Languages, first year students of English.

The researcher taught vocabulary at this level for nine years at Gadarif University and hence conducted the experiment but at Sudan University. The experiment was conducted by teaching the experimental group using computer devices, Whatsapp and Facebook. The group used the popular communication application Whatsapp to exchange communication, practice vocabulary learning, listening and speaking, and share their oral production with the members of the group. A Facebook group was created to be a meeting forum. While the controlled group learned to have access to vocabulary through a traditional method. The control group was taught using the traditional teaching method.

The two groups were tested before and after the experiment. The test results were treated statistically using the SPSS program.

5.3 Recommendations

There is a wide range of on-line applications which are already available for use in the foreign language class. These include dictionaries and encyclopedias, links for teachers, chat-rooms, pronunciation tutors, grammar and vocabulary quizzes, games and puzzles, literary extracts. The World Wide Web (WWW) is a virtual library of information that can be accessed by any user around the clock. If someone wants to read or listen to the news, for example, there are a number of sources offering the latest news either printed or recorded. The most important newspapers and magazines in the world are available on-line and the same is the case with radio and TV channels.

- 1-Language teachers should change their teaching methods to match today's learners' abilities, interests and needs.
- 2-Internet social media programs and applications should be adopted in the teaching of EFL.
- 3-Learners should be given a sense of independence during their learning period in collage to learn autonomously.
- 4- Curriculum design and development should be associated with the rapid development in technology and its communicative usage.
- 5- Faculty should obtain continuous career development training to follow up with their learners' needs, interests and abilities.
- 6-Sudanese universities should develop and encourage virtual class teaching and learning as it saves time, money and efforts.

4.5 Suggestions for Further Studies

- 1- As far as the field of second language acquisition is concerned there are multiple areas open to investigation .One such area is the use of CALL to study pronunciation particularly the area of suprasegmental features.
- 2- It can also be used in the realm of writing in general. Email and facebook are good examples.
- 3- By working for a project a pupil can construct knowledge rather than only receive it. Students can work on their own, in groups of two or in larger teams, in order to write an assignment, the size of which may vary according to the objectives set by the instructor. A variety of sources can be used besides the Internet such as school libraries, encyclopedias, reference books etc. The Internet itself can provide a lot of food for thought. The final outcome of their research can be

typed using a word processor. A word processor can be used in writing compositions, in preparing a class newsletter or in producing a school home page. In such a Web page students can publish their project work so that it can reach a wider audience. That makes them feel more responsible for the final product and consequently makes them work more laboriously.

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GRADUATE COLLEGE
COLLEGE OF LANGUAGES
PRE-TEST

STUDENT'S NAME _____

STUDENT'S SID _____

SECTION: _____

TUTOR'S NAME _____

	Section	Suggested time	Total Points	Earned Points
1	Reading	30	15	
2	Vocabulary	10	10	
3	Structure	20	15	
4	Writing	30	20	
	TOTAL	90	60	

Section 1	Reading	15 marks
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Read the passage below and answer the questions that follow.

Prince Charming



There was a prince who was obsessed with his own beauty. If any traveler came to the palace he would ask him: "Have you ever seen anyone as handsome as me?" "No one ever had. One day an flattering traveler said to him: "I don't think there could be anyone in the whole world as good-looking as you. I don't think even a god could be as handsome." This made **him** very happy and he went around telling everyone that he was more handsome than any god. One day he had two visitors who identified

themselves as gods. "We have come to see if you are as handsome as you claim," they explained.

"Aren't I?" he asked.
 "We visited you earlier in the day when you were asleep," said one of the gods. "You were more handsome then."
 "How could my looks decline within a few hours?" said the prince. He turned to his servants.

"Did I look better in the morning?" he enquired.
 "You looked the same," said his servants.
 "We are gods," said one of the visitors. "We can see what your servants cannot. Their vision is imperfect and we'll prove it to you. Bring a bowl of water." A bowl of water was brought. The god asked the servants to study it closely and then leave the room. When they were gone, he removed half a spoonful of water from the bowl. Then the servants were called back in.
 "Is there any change in the bowl of water?" asked the god.
 "None," said the servants.
 "They cannot see that the water has diminished," said the god, "just as they cannot see that your beauty has deteriorated."
 The prince was shaken. He thought: "My beauty is diminishing by the day. It is short-lived. Why am I love-struck by something so brief? I should concern myself with that which is eternal."
 He never again looked into a mirror and in course of time renounced his throne and became a monk.

Answer the questions below after reading the article:

(1 mark for each)

1. What was the prince obsessed with?
 - a) The size of his kingdom
 - b) His princess beauty
 - c) His own beauty
 - d) His strong muscles.
2. Why did the prince grow even more infatuated?
 - a) Because all young ladies across the kingdom fell in his love
 - b) Because his princess worshipped him
 - c) Because he was tricked into believing to be more beautiful than gods
 - d) Because he saw his reflection in water and adored it.

3. Write either **true** or **false** for the following statements (9 marks total)

_____ a) The prince would ask people in streets about his beauty

- _____ b) He asked travelers who would come to his palace about his beauty
- _____ c) The prince told everyone he was more handsome than princesses
- _____ d) His two visitors identified themselves as princes from the neighboring kingdom
- _____ e) His visitors told him his beauty was not stable
- _____ f) He consulted his princess about the visitors' claim
- _____ g) A bowl of water was used to as a mirror for the prince to see his face
- _____ h) The prince finally believed his beauty was diminishing
- _____ i) He eventually renounced his throne and become a monkey.

4. What do the following pronouns refer to in the passage? (1 mark for each)

a) **Him** (in line 7) _____

b) **We** (in line 10) _____

5. Find one word from the article that has a similar meaning to *good-looking*:

6. Find one word from the article that has an opposite meaning to *everlasting*:

Section 2	Vocabulary	10 marks
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Choose the correct word from the box and write it in the right place. There are two extra words which you will not need.

(1 mark for each)

generosity	pollution	fit	unfortunately
Patient	uniform	shipbuilding	remarkable
argument	comfortable	estimated	wealth

1. After some heated _____ a decision was finally taken.
2. The new shoes are not very _____. They are not pleasant to wear.
3. My father used to treat us with _____ and thoughtfulness.
4. His personal wealth is _____ at around \$100 million.

5. A few years ago, the main industries were _____ and mining.
6. Healthy hectic campaigns were launched to reduce the levels of environment _____.
7. This fine restaurant has, _____, gone out of business.
8. Do you have to wear _____ for work?
9. She was nominated for the best student _____.
10. I tried the dress on but it didn't _____.

Section 3	Structure	15 marks
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Part 1. Go back to the reading section and find the following: (1 mark for each)

1. A sentence in the past simple tense: _____
2. A sentence in the future tense: _____
3. A sentence in the passive voice _____

Part 2: Make questions for the following answers: (1 mark for each)

1. _____

I want to talk about solar energy.

2. _____

She has been to South Africa to attend a conference on family planning.

Part 3: Answer the following questions using a complete sentence in the correct tense:

1. Why are you working so hard these days?

2. What sort of movies do you watch?

Part 4: Find the mistake in each sentence and write it again correctly. (half a mark for each)

1. Trying to read in poor light can easily spoil our eyesight. _____

2. Some people use their national costume and a type of western dress. _____

3. There are not a great deal of difference between the two teams _____

4. Are sure you have considered every aspects of the case?

Part 5: Complete the sentences with the correct verb form in brackets. (1 mark for each)

1. I'm waiting _____ the policeman to come. (in/on /at/for)

2. The book you _____ me was great (lent/lend/lends/lens)

3. _____ you like a cup of coffee? (will/would/are/have)

4. He goes _____ every evening (jogging/jogs/jogged/jog)

5. Is Paris _____ than London? (more big/biggest/ big/ bigger)

6. She is not as clever _____ her sister (than/then/as/that)

Section 4	Writing	marks 20
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9. Choose one of the following topics and write a 3-paragraph essay on the lines provided.

1. How do you picture yourself four years from now?

2. How can you change the way you look?

3. An unforgettable dream.

4. Obstacles are what you see when you take your eyes off the goal.



SUDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF GRADUATE STUDIES AND SCIENTIFIC RESEARCH

COLLEGE OF LANGUAGES-ENGLISH DEPARTMENT

A QUESTIONNAIRE FOR UNIVERSITY TUTORS AT SUDANESE UNIVERSITIES

Dear Colleague,

This questionnaire will gather data about the situation of collocations as regards their teaching, learning, translation and their presence in the syllabus at university and how they are handled above all. The analyzed data will help form a better insight about the nature, causes and how the problem can be addressed.

Part 1: Personal data:

1. Name: (optional) _____

2. Highest degree earned:

Bachelor's Degree

Master's Degree

PhD

3 How many years have you been teaching English

1. year

2-5 years

2. 6-10 years

more than 10 year

Part 2: General statements:

- Please choose only one answer for every question or statement.

Use the following scales:

Strongly agree: (If you strongly agree with the idea stated in the item).

Agree: (If you agree with the idea stated in the item).

Disagree: (If you disagree with the idea stated in the item).

Strongly disagree: (If you strongly disagree with the idea stated in the item).

No.	STATEMENT	RESONSE			
		STRONGLY AGREE	AGREE	DISAGREE	STRONLY DISAGREE
1.	The problem with CALL as a tool of learning lies in the inaccessibility to information via computer.				
2.	In poverty stricken areas it is difficult to buy computer sets and have a source of energy, too.				
3	Students in the Third World can have access to computer sets.				
4	CALL can help of providing students with authentic materials which are of great value for increasing motivation and hence improving writing.				
5.	CALL promotes learning in general and vocabulary in particular.				
6.	CALL provides more reading materials than writing destructively affect the writing skill.				
7.	CALL is helpful in the teaching of linking devices which as a general rule should be introduced at earlier stage of the course and at lower classes.				
8.	The use of other modes of technology such as whatsapp can reinforce the role of CALL.				
9.	A classroom fitted with computer sets can be thought of as a lounge for games				
10	Connectives can better be taught and learned through CALL				
11	Vocabulary is better to be learned by tools other than CALL				
12	Tutors should put ample time to train themselves to use computers.				
13	Computers are not so effective in providing a good learning environment as they were claimed to be.				
14	Tutors should be trained to use computers effectively.				
15	In order to benefit from a program as CALL, some students require training to use computers.				

