Sudan University of Science and Technology

College of Graduate Studies

Impact of Computer Assisted Language Learning on English as a Foreign Language Learners

اثر تعلم اللغة بمساعدة الحاسوب على طلاب اللغة الإنجليزية لغة أجنبية

A thesis submitted in partial fulfillment of the requirements for M.A. degree in Applied Linguistics

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قال تعالى:﴿قُلْ هَلْ يَسْتَوِي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لاَ يَعْلَمُونَ إِنَّمَا يَتَذَكَّرُ أُولُو الأَلْبَابِ﴾

سورة الزمر الآية 9

Dedication

This study is dedicated to my parents for all of the support they have given me throughout my life. Furthermore, I would like to thank my siblings and friends for the encouragement to continue my education.

Acknowledgments

I am grateful to many persons who shared their experience especially my supervisor Dr. Yusuf Altiraifi whose invaluable advice made this thesis possible.

Further acknowledgements go to Mr. Khalid Breaux who helped and guided me during this study.

Abstract

The aim of this study, The Impact of Computer Assisted Language Learning on English as a Foreign Language (EFL) students, is to show the effects of computer aided language learning on EFL students. Currently, many EFL students in Sudan are accustomed to the traditional hardbound text-based approach of learning English through textbooks and supplementary readers. However, CALL has made a noticeable impact on language learning and has made significant advances in language acquisition possible. The benefits of CALL are numerous however the problem is that universities in Sudan have not taken full advantages of what CALL has to offer. Participants in this study were third and fourth year EFL students who have studied under both methodologies, they answers evaluation questions from a questionnaire based on their experience and knowledge. The majority indicated through their answers the increased level of comprehension and recall experienced using CALL methodology. The researcher came out with these findings: the first one is CALL has positive impact on EFL students, as they believe that CALL is as valuable as traditional learning methods. The second one is Students are enthusiastic about learning foreign language by computers, and the last one is CALL provides students with up-to-date information.

المستخلص

تهدف هذه الدراسة الى اظهار أثر الحاسوب على طلاب اللغة الانجليزية لغة اجنبية .العديد من طلاب اللغة الانجليزية لغة اجنبية معتادين على تعلم اللغة باستخدام الكتب ,على الرغم من هذا احدث استخدام الحاسوب اثر ملحوظ في اكتساب اللغة الاجنبية لأن له فوائد عديدة و بالرغم من هذا تكمن المشكلة في ان الجامعات بالسودان لا تأخذ محاسن الحاسوب و الاشياء التي في استطاعة الحاسوب تقديمها على محمل الجد .تم الاستعانة بطلاب اللغة الانجليزية بالمستويين الثالث و الرابع الذين يدرسون بالمنهجين,الكتب واستخدام الحاسوب ,و تم طرح عدة اسئلة عليهم عن طريق الاستبانة لجمع المعلومات ,أشار الاغلبية منهم على زيادة مستوى الفهم و الاستيعاب لديهم عند استخدام الحاسوب كوسيلة لتعلم اللغة الانجليزية. توصل الباحث الى هذه النتائج:
اولاً :استخدام الحاسوب كوسيلة لتعلم اللغة الانجليزية له دور ايجابي على طلاب اللغة الانجليزية لغة اجنبية و ذلك لاعتقادهم ان الحاسوب له نفس الفائدة التعليمية مقارنة بكتب تعلم اللغة الانجليزية. ثانيا: الطلاب متحمسون لتعلم اللغة النجليزية عن طريق استخدام الحاسوب, ثالثا : استخدام الحاسوب لتعلم اللغة الانجليزية يدعم الطلاب بالمعلومات الحديثة و المتجددة.

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Chapter One

Chapter 1

Introduction

1-0 Background

Computer Assisted Language Learning (CALL) is a method of language teaching and learning in which the computer is used to assist in presentation, reinforcement and assessment of material to be learned. This approach includes a significant amount of interactive activities such as a virtual learning environment, online distance learning, interactive whiteboards, and Information Technology (IT) approaches and applications.

There are two basic pedagogies employed by English as a Foreign Language (EFL) instructors. The first is concerned with the students' accumulation of vocabulary and useful phrases. This pedagogy is referred to as rote learning. The second is acquisition which is concerned with the contextual presentation in which the student acquires the second language much in the same way as he/she acquired the mother tongue.

A plethora of research (particularly the research of Kransen) has concluded that language acquisition is preferable because the student acquires the language in a contextual natural setting. Within the pedagogy of acquisition, there are two prominent methodologies employed: traditional book based learning and the relatively recent Computer Assisted Language Learning (CALL).

1-1 Statement of the problem

Currently, many EFL learners in Sudan are accustomed to the traditional hardbound text-based approach of learning English through textbooks and supplementary readers. However, CALL has made a noticeable impact on language learning and has made significant advances in language acquisition possible. The benefits of CALL are numerous however the problem is that universities in Sudan have not taken full advantages of what CALL has to offer.

1-2 The Questions of the study

1. To what extent has the introduction of computers aided the acquisition of English as a Foreign Language?
2. How is the impact of computer assisted acquisition measured in the EFL classroom?
3. Is the positive impact of computer assisted programmes higher on individuals or groups?

1-3The Hypotheses of the study
1. Introducing computer assisted language acquisition in the system of education in Sudan has facilitated the reception of the target language.
2. The measurement of the impact of CALL in the EFL classrooms is by comparison of the progress of students employing CALL to students learning through traditional hardbound text.
3. The positive impact of CALL is higher on groups.

1-4The objectives of the study
The objectives of the study are to provide sufficient evidence that computer assisted language learning programmes are viable and preferable for the EFL classroom. The research, being based on EFL learners who have made considerable progress, should then be reviewed by department heads to integrate computer assisted language acquisition into existing programmes.

1-5The Methodology of the study
The research will be conducted through a descriptive analytical method. The data will be collected by using a questionnaire. It will be distributed to English language students at Sudan University of Science and Technology.

1-6 The Significance of the study
At the present time, computers have become a norm in all aspects of life and greatly enhance the ability to receive and disseminate knowledge. For the aforementioned reason, the link between computer assisted language acquisition and the EFL learner is important.

1-7 The Limits of the study
The study will be limited to EFL university students at the college of languages in their final two years of study. The research is being limited at College of Languages at Sudan University of Science and Technology, because of their need of a language component as a requirement for graduation.

1-8 Abbreviations
-   CALL, Computer- Assisted Language Learning.
-   EFL, English as a Foreign Language.

Chapter Two

Chapter Two

Literature Review

2-0 Introduction:

Recent years have shown an explosion of interest in using computers for language teaching and learning. A decade ago, the use of computers in the language classroom was of concern only to a small number of specialists. However, with the advent of multimedia computing and the Internet, the role of computers in language instruction has now become an important issue confronting large numbers of language teachers throughout the world.

Computers are highly demanded since their functions are not only to calculate numerals but also to assist human activities. In the case of language learning, computers have significant contributions and lead to better learning, Hagen (1993, p.21). Furthermore, since 1950s they tend to be more popular for language learning because there is a need to figure out the efficient and scientific methods in language learning Beatty (2003). Computers are prominent devices among other technologies which should attach to collaborate with the curriculum requirement and reach certain learning goals.

Over the past decade, computer-assisted language learning (CALL) has increasingly become an important part of the language learning process. In the early seventies, computers came to the forefront of language learning and teaching. After being linked to a local network or the worldwide web in the nineties, computers became the vehicle for a growing number of multimedia tools specifically designed for use in the foreign language learning process. Later on, in the nineties, the efficacy of computer use for enhancing language learning constituted an issue of major importance, Garrett (2009), Today, computers and the internet allow the combination of different online resources through multiple hyperlinks, a feature common to most online searches and many other online utility. CALL and web-based environments are appropriate to the alternative methodologies of modern foreign language instruction. Also, CALL helps students improve their language skills rapidly, makes them study at their own pace, and gets immediate feedback, corrections and even error analysis, Hanson- Smith (1997). As suggested by Oxford (1993) and Oxford, Rivera-Castillo, Feyten and Nutta (1998), technology will only be effective if some conditions are met:

(a) If it deals with students' needs and interests and finds ways to increase learners' motivation.

(b) If the appropriate technology is used for each aspect of foreign / second language learning and acquisition, and the educational goals and the kind of learners are considered.

(c) If it provides a meaning-focused learning environment and abundant authentic language input, and uses relevant themes and meaningful tasks.
(d) If the technology is effectively exploited in the particular instructional situation.
(e) If it deals effectively with the difficulties that students may encounter.

2-1 Definitions of CALL

CALL stands for Computer Assisted Language Learning. Levy (1997) defines CALL as "the search for and study of applications of the computer in language teaching and learning". With the dramatic development of information technology, computers are widely used in various areas including language teaching and learning area.

CALL refers to the Computer-Assisted Language Learning. It is a general term which covers computer applications used in second language acquisition, Chapelle (1998). CALL provides numerous benefits for language acquisition process. Using CALL, students can individualize their studies and study at the pace they desire, Raschio (1990). Also, advanced tracing and recording capability of CALL permits instructors to monitor their students' progress *Bland et al*. (1990). However availability of such features shows differences among CALLs.

There have been a lot of improvements in CALL environments ever since they were first introduced. Besides, they are being used more widely than ever before as factors that inhibit their widespread use disappear. Dunkel (1987) points out that the start-up cost of the hardware, the skepticism concerning the effectiveness of computer assisted instruction and educational systems could prevent CALL software from being widely used. However, decreasing costs of software and hardware, new attitudes towards computer-assisted instruction and educational systems have recently boosted the use of such software. Yi-dong (2007) supports the same opinion and points out that CALL has become an effective tool to aid teaching and learning by constant advancements in hardware and software and an increase among both teachers and learners. Besides, with the improvement of technology, the number of CALL environments available is increasing rapidly. Especially during recent years, there have been considerable improvements in the design and structure of CALL software. Coughlin (1990) states that the use of hypermedia systems which allow access to audio and video media controlled by a computer program has allowed CALL to become highly interactive.

2-2 Explorative CALL

According to Elmontasir (2014), "more recent approaches to CALL have favored a learned – centered, explorative approach rather than a teacher centered, drill-based approach to CALL.

The explorative approach is characterized by the use of concordance programmes in the languages classroom – an approach described as Data-Driven learning by Tim Johns Johns & King (1991). The explorative approach is widely used today, including the use of Web concordances and other Web-based CALL activates".

2-3 Multimedia CALL

Following the arrival of multimedia CALL, multimedia language centers began to appear in educational institutions. While multimedia facilities offer many opportunities for language learning with the integration of text, images, sound and video, these opportunities have often not been fully utilized. One of the main promises of CALL is the ability to individualize learning but, as with the language labs that were introduced into educational institutions in the 1960s and 1970s, the use of the facilities of multimedia centers has often devolved into rows of students all doing the same drills (Davies 2010, Section 3.1). There is therefore, a danger that multimedia centers may go the same way as the language labs. Following a boom period in the 1970s, language labs went rapidly into decline. Davies (1997, p. 28) lays the blame mainly on the failure to train teachers to use language labs, both in terms of operation and in terms of developing new methodologies, but there were other factors such as poor reliability, lack of materials and a lack of good ideas.

2-4 Functionalities of foreign language

Frank and Golonka concluded that "technology use has the potential to enhance five primary functionalities of foreign language learning and teaching" Frank et al. (2008). They are:

2-4-1 Organization
Technology enables learners and teachers to organize learning and instruction outside of the classroom, and it enables learners to reflect on and take control of their own learning.

2-4-2 Input
Technology expands access to a broader range of rich target language input than is available in the classroom and/or provided by the curriculum, and it creates opportunities to individualize input.

2-4-3 Output and interaction

Technology expands opportunities for learners to create their own output and to interact synchronously or asynchronously with native speakers and more proficient peers outside of the classroom.

2-4-4 Feedback

Technology creates opportunities to give and receive individualized, maximally effective feedback.

2-4-5 Collaboration

Technology enables collaborative, social learning synchronously or asynchronously outside of the classroom.

2-5 CALL and distance learning

CALL could be incorporated into blended learning approach, and thus offered as part of distance education programmes. Having in mind that the interconnection between CALL and distance learning is still in development phase, at least in Croatia, it refers mainly to three types of computer applications in the home-study environment:

2-5-1 Computer-managed instruction

Focuses on the computer as a management tool which facilitates administration of the learning process. It enables communication with students, on-line registration, tracking of student's work within particular course, exam generation, testing in groups with random option, test correction, etc. Computer-Managed Instruction could be used to evaluate skills in listening, reading, writing and even speaking. Testing could happen as the pre-test for particular course, i.e. as diagnostic test in order to determine level of knowledge and to determine the prerequisite skills on which the course may be based. This way computer-assisted testing could serve as primary, but it doesn't have to be the sole way of evaluation. In determining the student's level of practical prerequisite skills on which a course may be built, additional multimedia components could be used, such as animations, audio and video recorded materials, which could be used for listening, reading, writing, speaking, understanding, etc.

2-5-2 Computer-Aided Learning (CAL) / Computer-Assisted Language Learning (CALL)

Consists of software applications and materials realized thought different media (that usually serve as supplement material), which fall under various categorization principles. CALL software could be divided into two main categories: tutorials and simulations. − The others tend to classify them as text tools and presentation software and software applications, or as content-free and content specific software application.

2-5-3. Computer Conferencing

Meaning electronic network which enables individuals to communicate via computers in delayed a synchronic time as a group, between individuals, or with database. In its simplest form it is e mail, enabling communication between students assigned to the course and between students and tutor, or between tutor and system manager.

2-6 CALL and reading

According to Levy's research (2009), technology provides the reader with assistance to better understand L2 texts when reading, by providing more material on the activity or exemplifying information to ensure the reader's learning. Plenty of reading material in the target language can be found on the Internet and those readings can be enhanced by the computer technology due to the vocabulary building, text reading and comprehension. While reading, students can use the computer to look up concepts and other information which could help to strengthen the learning activity, Hoopingarner (2009). Chun (2001) concluded that helping tools available to L2 learners such as Internet glosses, on-line bilingual dictionary, hyperlinked words and audio narration were very helpful to the reading and understanding, some were used more than others, but it was very important to have several alternatives in order to reach more than one learning style. Vocabulary acquisition and reading comprehension are intertwined; good vocabulary knowledge translates into better L2 reading and comprehension. Integrating technology to vocabulary learning and reading comprehension makes it a powerful tool with lots of possibilities, Constantinescu (2007).

2-7 CALL and listening

The latest technology has given CALL a broader access to a wide range of not only audio, but video as well. Audio files can be accessed at anytime and anywhere by the teacher and the student. The accessibility to these computer programs provides so much

flexibility for the student as s/he can replay, stop, and slow down the audio/video as the student learns intonation and sounds of L2(Levy, 2009). L2 learners expand their exposure to native speakers of L2 by using CALL, particularly the Internet (Hoopingarner, 2009). O'Brien (2013) pointed out that CALL programs like podcasts allow the repetition of listening activities that students can access outside the school and work with activities individually to improve listening and understanding. Second language listening can be enhanced by new CALL technology as the framework used can get intermediate L2 learners to the advanced level (Mayor, 2009). Research conducted by Sato found that listening to CALL audio software enabled faster vocabulary recallby the second language students (Sato, Matsunuma, & Suzuki, 2013). On the other hand Verdugo's and Belmonte's study reported that by using target language digital stories, students were able to improve their L2 listening comprehension skills at the level studied (Verdugo& Belmonte, 2007). New technologies allow teachers to add captions to real live videos. When L2 students listened to a video twice, the first time using L2 captions and the second time without captions, the students' anxiety was minimized. The use of captions helped the students to have a better understanding, reinforced previous knowledge, and improved the listener's attention (Winke, Gass&Sydorenko, 2010).

Videos with captions have shown to be a helping tool for L2 listening and understanding. Video captioning is also an important strategy to reach L2 students with different learning styles (Grgurovic&Hegelheimer, 2007).

2-8 CALL and writing

Technology provides the students with automatic detection of grammatical errors, such as spell check among other auto corrections when writing in L2. Word processing software prompts students to make corrections when they are writing. The use of this technology promotes collaborative writing when writing is done through e-mails, logs or other formats where other students can review each other's writing and give feedback to each other (Levy, 2009). Writing technology supplies L2 teachers with engaging opportunities to allow students to collaborate on L2 writing at a level never used before (Hoopingarner, 2009). Zha's study (2006) concluded that peer interaction promoted L2 language production and stimulated correction making by the L2 learners in order to use L2 properly when the second language learners used computer-mediated-communication to post writing using the target language. Using L2 to write blogs presents the learners with an interactive format that promotes the L2 learner's motivation and the blogging is complemented with peers' feedback (Vurdien, 2013). New technologies such as Wikis or Blogs offer new tools that can support second language teaching, specially L2 writing (Warschauer, 2010).

2-9 Advantages of computer technology and CALL

Educators (Jonassen, 1996; Salaberry, 1999; Rost, 2002) indicate that the current computer technology has many advantages for second language learning. Computer and its attached language learning programs could provide second language learners more independence from classrooms and allowing learners the option to work on their learning material at any time of the day. Once implemented, it can be expected that the cost for computer technology is considerably lower than for face-to-face classroom teaching, and when used in conjunction with traditional second language classroom study, students can study more independently, leaving the teacher more time to concentrate effort on those parts of second language teaching that are still hard or impossible by the computer, such as pronunciation, work on spoken dialogue, training for essay writing and presentation.

Lee (2000) further stated that the reasons why we should apply computer technology in second language instruction include computer and its attached language learning programs can:
 (a) prove practices for students through the experiential learning.
 (b) offer students more the learning motivation.
 (c) enhance student achievement.
 (d) increase authentic materials for study.
 (e) encourage greater interaction between teachers and students.
 (f) emphasize the individual needs.
 (g) regard independence from a single source of information.
 (h) enlarge global understanding.

Taylor (1980) also expressed that computer assisted language learning programs can be wonderful stimulus for second language learning. Currently, computer technology can provide a lot of fun games and communicative activities, reduce the learning stresses and anxieties, and provide repeated lessons as often as necessary. Those abilities will promote second language learners' learning motivation. Through various communicative and interactive activities, computer technology can help second language learners strengthen their linguistic skills, affect their learning attitude, and build their self-instruction strategies and self-confidence. According to Robertson et al. observation (1987), the participants who joined computer assisted language learning programs also had significantly higher self-esteem ratings than regular students.

2-10 Using computers in language learning

Hanson – Smith, E(1999)Computers have made a triumphal entry into education in the past decade; it is helpful to think of computer as having the following main roles in the classroom language:

1. Teacher: the computer teaches students new language.
2. Tester: the computer tests students on language already learned.
3. Tool: the computer assists students to do certain tasks.
4. Data source: the computer provides students with information they need to perform particular task.
5. Communication facilitator: the computer allows students to communicate with other in different locations.

Part Two

Previous studies

First previous study

Title of the study: Evaluation of use in Teaching English Language Vocabulary: A case study in Idriss Private Secondary School 3rd year. Omdurman – Locality 2004

The researcher: Hashim Ali Abuzeid

The tool of the study: questionnaire for teachers and test for students.
The main finding of this study reveals that there is a shortage of trained teachers in the area of teaching English language. Lack in using computers in teaching English language vocabulary in secondary school. Students can practice self-learning inside classroom.

Recommendations:
1- The Ministry of Education should established regional centers for training teachers.
2- Computers should be integrated to English curriculum to enhance teaching and learning.
3- Teachers should be thoroughly qualified in presenting English language through computers.

Second previous study

Title of the study: EFL Teachers Attitudes Towards Using Computer-assisted Language Learning (CALL) in Classroom. A case study of different Sudanese universities.
Researcher: ElmontasirBillah 2014
Aims of the study:
1- To indicate how the teachers have positive and favorable attitudes towards the use of the computer.
2- To consider computer technology as a useful teaching tool that can enhance way of teaching.

3- To find out EFL teachers' attitudes of computer- assisted language learning (CALL).

Tools: the data of this study collected by using a questionnaire and analyzed through SPSS.

The main findings:
1- Teachers have positive attitudes towards using computer in teaching English language.
2- Having technological knowledge is very important for language teachers.
3- EFL classes should be equipped with computers.

Recommendations: the researcher recommends the following:
1- Teachers should use computer in teaching English language.
2- The government has to provide computer training for English language teachers.

Third Previous Study

Title of the research: Implementing Computer-Assisted Language Learning (CALL) in the English as Foreign Language (EFL) Classroom: Teachers' Perceptions and Perspectives. Chan Nim Park (channy67@naver.com), Gaewon Middle School, Korea Jeong-Bae Son (sonjb@usq.edu.au), University of Southern Queensland, Australia, November 2009.

The aims: of the study reported in this article are to investigate factors affecting English as a foreign language (EFL) teachers' use of computers in their classrooms and to find out EFL teachers' perceptions of computer-assisted language learning (CALL) and ways to improve CALL practice in school settings

A questionnaire and follow-up in-depth interviews were employed to collect data.

The results of the study indicate that the teachers have positive and favorable attitudes toward the use of the computers. They consider computer technology as a useful teaching tool that can enhance ways of teaching by

offering students a variety of language inputs and expanding students' learning experiences in real and authentic contexts.

Fourth previous study

Title: The Impact of Using Computer on Enhancing EFL writing skill: A case study of MuhedeenWahbe Secondary school for Girls – Khartoum North

Researcher: AlaaEldin Ali Elmahdi (2011)

Aim of the study: this aims to investigate the impact of using computer on enhancing EFL writing skills in terms of many aspects e.g. content, grammar, punctuation … etc. that can enhance the writing classroom. That is to say, improve pupils' accuracy and fluency in writing.

Tool of the research: a questionnaire was chosen for this study which consisted of two parts: the first part was of 'Attitudes towards the use of computer' which consisted of twelve items. The second one was 'Attitudes towards writing process' which consisted of nine items.

Results and finding of the study
- The finding of this study illustrated that most of the pupils benefited more from using computer as a tool for enhancing writing in an EFL classroom.
- It generally showed a development in some aspects of pupils' computer-based writing and also the attitudes of pupils towards using computer in writing were positive.
- It presented a clear enhancement in the field of spelling, grammar, punctuation and paragraphing of pupils' computer-based writing.

Recommendations: based on the finding of the study, the researcher recommends the following:
1- It is important that schools throughout the country should be provided with computers for EFL learners.
2- There should be co-ordination between computers' teacher and his partner of English language, that is, in using labs.
3- Pupils should be trained and have practice in keyboard skills before starting using computer.

Summation of studies

The four previous studies have shown the importance of CALL being implemented in language learning. They recommended ministries of education establish CALL for teachers, furthermore they have reported on teachers favorability toward the CALL programme and have recommended all EFL classes be equipped with computers.

Consequently, the aforementioned studies show the viability of CALL for enhancing language learning. Enhanced teachers performance will undoubtly enhance the students performance as can be seen in this study. As a result CALL should be consider a critical component to any EFL programme.

Chapter Three

Chapter Three

Methodology

3-0 Introduction

This chapter describes research methodology. It gives full description of the research tool which was used to collect the data from the sample and the procedures that are followed. A questionnaire is the tool that chosen to collect the data.

3-1 The population

The population is the students of Sudanese universities.
The participants (sample) of this study consists of 30 EFL students at Sudan University of Science and Technology, College of Languages, Department of English.

3-2 The instrument

The instrument of the research consists of ten items that focus on the Impact of Computer Assisted Language Learning (CALL) on English as a Foreign Language learners. Their description is as follows:

The first one, (CALL) as a system of language acquisition, is as valuable as traditional methods of language learning , and the second is (CALL) provides students with authentic language that can be missed by non-native tongue teachers. The third item is (CALL) develops speaking skills.
 The fourth is (CALL) develops vocabulary knowledge; the fifth one is feedback provided by computers give student sufficient information from which to benefit; the sixth is (CALL) is inadequate for language acquisition and the seventh one is (CALL) students are less proficient; the eighth is student motivation is defined by teacher enthusiasm; the ninth is Students feel less inhibited when communicating through computer rather than face to face in a classroom setting. And the last one is (CALL) program can replace the traditional language learning methods.

3-3 The procedure

The researcher distributes the questionnaire to the students to look over the items and make up their minds, then give them enough time to do it after that the researcher will collect the questionnaire for analysis.

3-4 Summary

This chapter has provided description of the research tools and their procedure; the data will be statically analyzed and discussed in chapter four.

3-5 Validity and Reliability

Validity and Reliability are important for the questionnaire because they ensure the quality of the instrument which was used throughout this study. Therefore the validity and reliability of the research tool has been confirmed in this study by Dr. Ahmed Hamid, Head of the Department of Distant Learning and Dr. Yusuf Altiraifi Ahmed, Assistant Professor College of Languages (supervisor).

Chapter Four

Chapter Four

Data analysis, Results and Discussions

4.0 Introduction

 In this chapter, the data collected from the questionnaire which is conducted at Sudan University of Science and Technology is introduced and analyzed statistically.

4.1 Analysis of the student's questionnaire

As mentioned in chapter three, the questionnaire was distributed to the English as Foreign Language students at Sudan University of Science and Technology. It consisted of ten statements.

Table No(4.1) CALL as a system of language acquisition, is as valuable as traditional methods of language learning.

Interpretation	participants	percentage
Agree	28	93.3%
Disagree	2	6.6%
Undecided	0	0%

The majority of the participants agree that CALL as a system of language acquisition, is as valuable as traditional methods of language learning. About (93.3%) agree, meanwhile (6.6%) of them disagree.
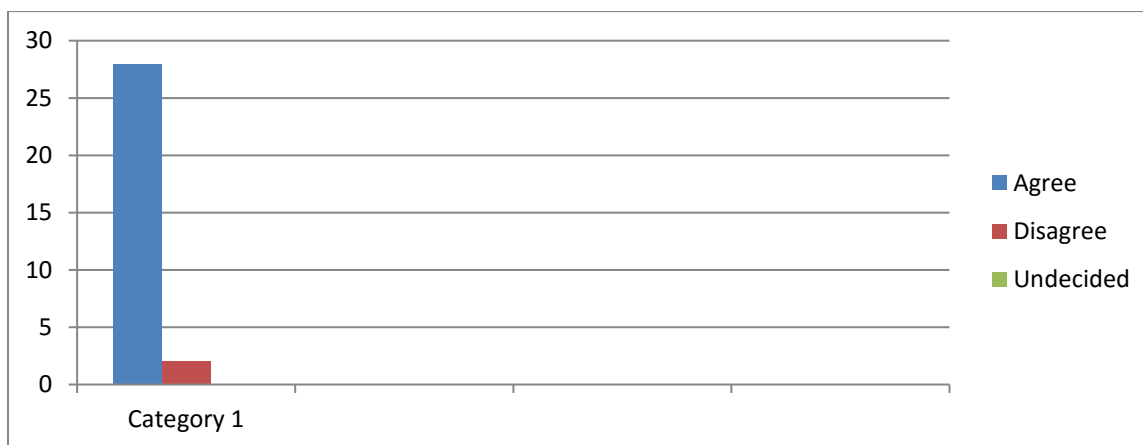
Figure 1

Table No(4.2) CALL provides students with authentic language that can be missed by non-native tongue teachers.

Interpretation	participants	percentage
Agree	24	80%
Disagree	6	20%
Undecided	0	0%

The above table shows (80%) of the participants agree that , CALL provides students with authentic language that can be missed by non-native tongue teachers.

The other (20%) disagree.

Figure 2

Table No(4.3) CALL develops speaking skills.

Interpretation	participants	Percentage
Agree	26	86.3%
Disagree	1	3.3%
Undecided	3	10%

In the above table (86.3%) of the participants agree that CALL develops speaking skills, while (3.3%) of them disagree and a small percentage of the participants were undecided(10%).

Figure 3

Table No(4.4) CALL develops vocabulary knowledge.

Interpretation	participants	percentage
Agree	26	86.6%
Disagree	2	6.6%
Undecided	2	6.6%

(86.6%) of the participants agree that CALL develops vocabulary knowledge.

(6.6%) of them disagree and the same percentage of them were undecided (6.6%).
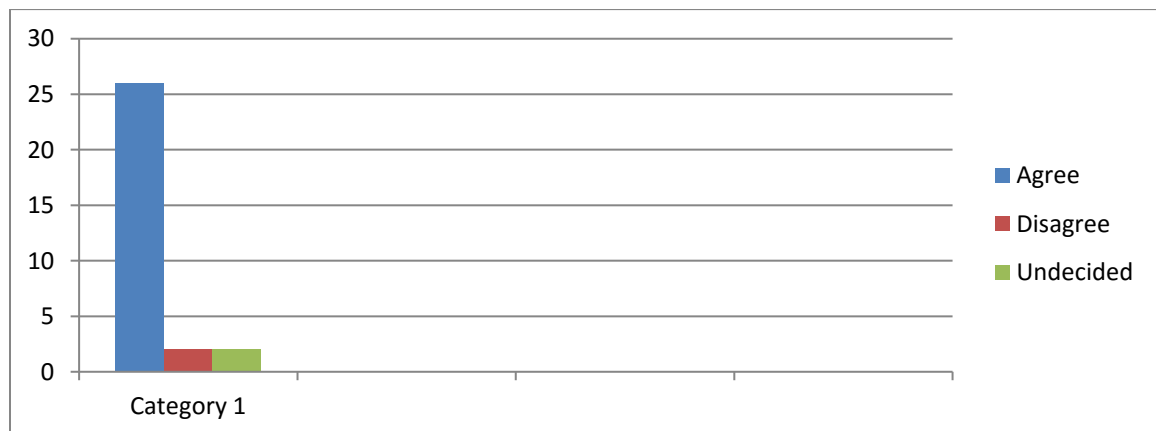
Figure 4

Table No(4.5) Feedback provided by computers give student sufficient information from which to benefit.

Interpretation	participants	percentage
Agree	25	83.3%
Disagree	2	6.6%
Undecided	3	10%

The above table indicates that (83.3%) of the participants agree that Feedback provided by computers give student sufficient information from which to benefit.
While (6.6%) disagree, and the remain participants were undecided(10%).

Figure 5

Table No(4.6) CALL is inadequate for language acquisition.

Interpretation	participants	percentage
Agree	6	20%
Disagree	23	76.6%
Undecided	1	3.3%

The table above shows (20%) of the participants agree that CALL is inadequate for language acquisition, a small percentage of the participants

agree (76.6%), while the majority of them disagree, and only one participant was undecided(3.3%).

Figure 6

Table No(4.7) CALL students are less proficient.

Interpretation	participants	percentage
Agree	7	23.3%
Disagree	21	70%
Undecided	2	6.6%

The above table illustrates that (23.3%) of the participants agree that CALL students are less proficient, whereas a minority (70%) disagree and the remain participants were undecided(6.6%).
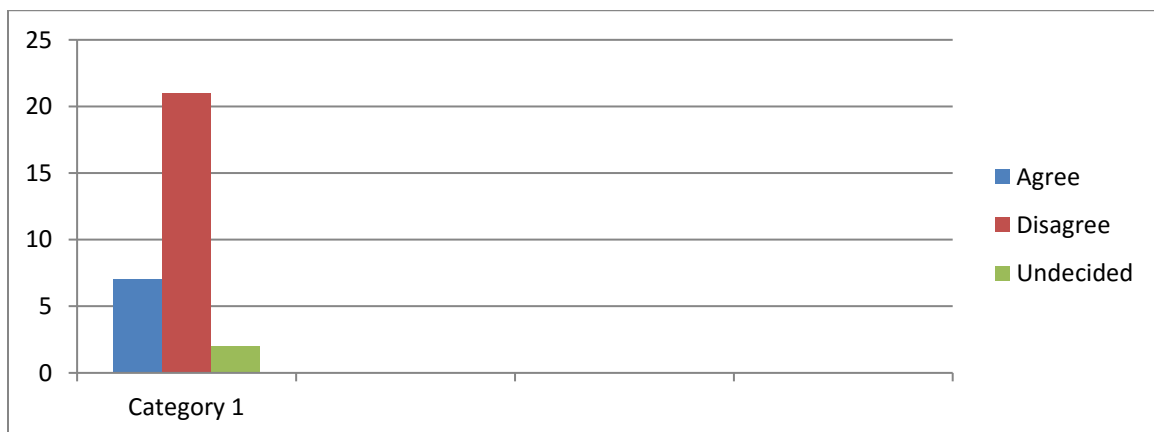
Figure 7

Table No(4.8) Student motivation is defined by teacher enthusiasm.

Interpretation	participants	percentage
Agree	12	40%
Disagree	16	53.3%
Undecided	2	6.6%

The above table indicates that (40%) of the participants agree thatb Student motivation is defined by teacher enthusiasm, whereas (53.3%) of them disagree and the remain participants were undecided (6.6%).
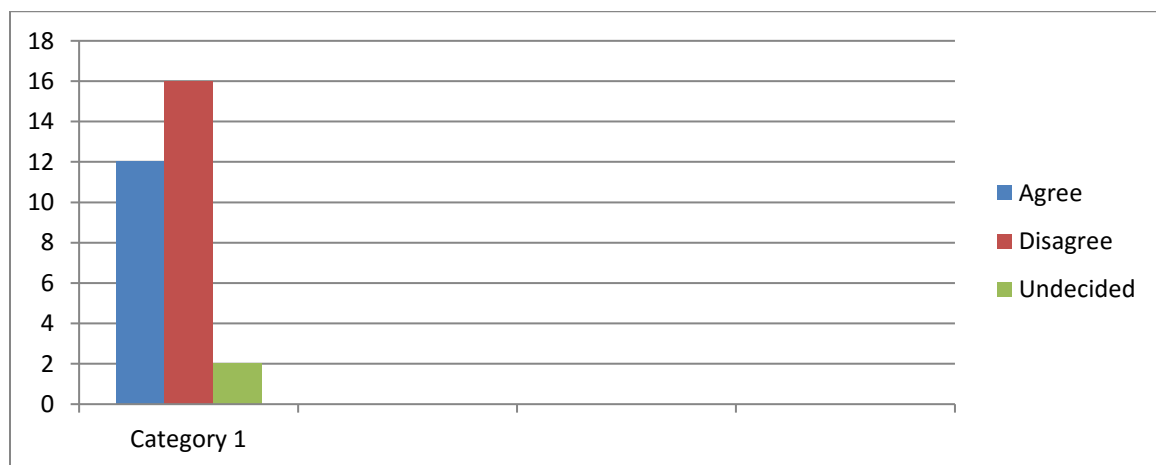
Figure 8

Table No(4.9) Students feel less inhibited when communicating through computer rather than face to face in a classroom setting.

Interpretation	participants	percentage
Agree	24	80%
Disagree	4	13.3%
Undecided	2	6.6%

The above table shows that (80%) of the participants agree that Students feel less inhibited when communicating through computer rather than face to

face in a classroom setting, while (13.3%) of them disagree, and a small number of the participants(6.6%) were undecided.
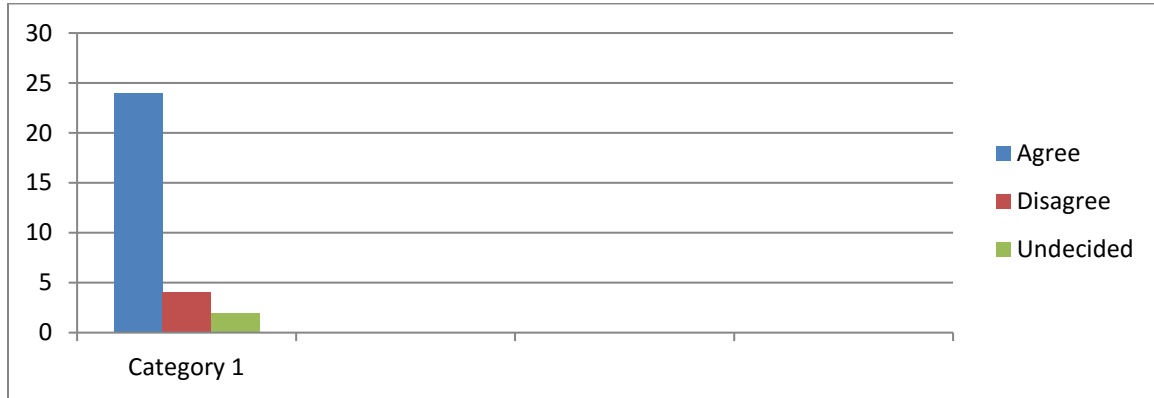
Figure 9

Table No(4.10) The CALL program can replace the traditional language learning methods.

Interpretation	participants	percentage
Agree	18	60%
Disagree	5	16.6%
Undecided	7	23.3%

The above table indicates that (60%) of the participants agree that the CALL program can replace the traditional language learning methods, whereas (16.6%) of them disagree, and the remain participants (23.3%) were undecided.

Figure 10
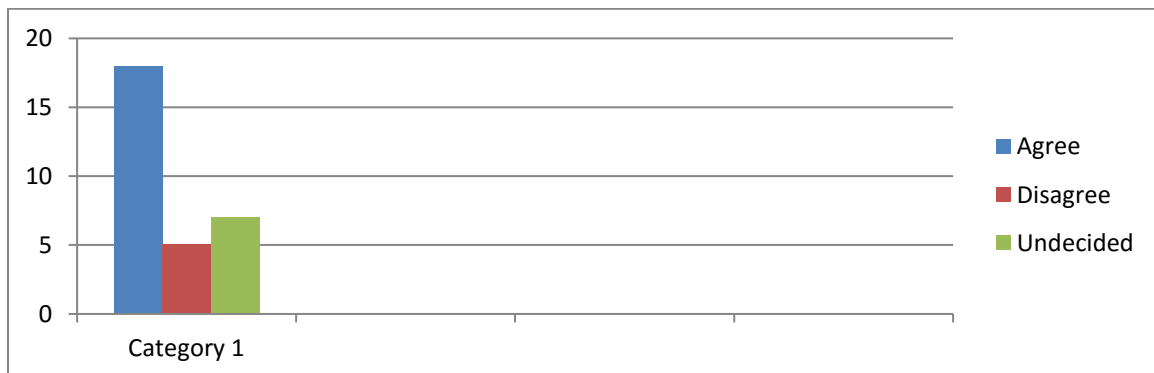
Chapter Five

Chapter Five

Conclusions, Recommendations and Suggestions for Further Studies

5.0 Introduction

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

5.1 Conclusions

The researcher analyzed the data and came out with the following findings:

1. CALL has a positive impact on EFL learners, as they believe that CALL is as valuable as traditional learning methods.

2. Students are enthusiastic about learning foreign language by computers

3. CALL provides students with up-to-date information.

5.2 Recommendations

1. CALL should be included as a component of EFL class assessments.

2. Further in-depth studies should be conducted on CALL in the EFL classroom.

3. CALL is recommended as a viable alternative to traditional language learning methods.

4. Universities should have a CALL teacher training programme for EFL teachers.

5.3 Suggestions for Further Studies

1. Artificial Intelligence Techniques in Language Learning.

2. Teachers attitude towards using computers in EFL classrooms.

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Appendices

The Impact of Computer-Assisted Language learning on English as a Foreign Language (EFL) Learners

Questionnaire
Answer the following questions by ticking the appropriate box.

1. CALL as a system of language acquisition, is as valuable as traditional methods of language learning.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

2. CALL provides students with authentic language that can be missed by non-native tongue teachers.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

3. CALL develops speaking skills.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

4. CALL develops vocabulary knowledge.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

5. Feedback provided by computers give students sufficient information from which to benefit.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

6. CALL is inadequate for language acquisition.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

7. CALL students are less proficient.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

8. Student motivation is defined by teacher enthusiasm.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

9. Students feel less inhibited when communicating through computer rather than face to face in a classroom setting.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided

10. The CALL program can replace the traditional language learning methods.

☐ Yes, I agree ☐ No, I disagree ☐ Undecided