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STUDENTS' ATTITUDES TOWARDS COMPUTER

ASSISTEDLANGUAGE LEARNING:

A CASE STUDY

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CERTIFICATE

This is to certify that the Minor Research Project entitled **"Students' Attitudes towards Computer Assisted Language Learning: A Case Study."** is original and the data incorporated in the project work are obtained during the investigation.

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1

INTRODUCTION

CHAPTER – 1

INTRODUCTION

1.1 INTRODUCTION

The first step towards accepting English as language of communication lies in the fact that the need for communication has attained gigantic dimension as it never had been in the past. Each nation has its own language and interaction of various nations becomes difficult without a common lingua franca. Maintaining amicable terms on the basis of communication necessitates a commonlanguage for the nations of the world. C L Wren in his book The English To-Day has aptly stated the purpose of a common lingua franca as follows:

> An international language, as commonly conceived, is not
> in any sense a substitute for existing tongues, but simply to
> be used as a secondary language for the rapidly
> growing needs ofunderstanding and
> intercoursebetweenpersonsofdifferent nationality.
>
> (Wrenn C.L.)

Ambassadors and other similar types of officials are another category that deserves a special mention as they negotiate terms on an international basis. Often one finds such officials visiting foreign countries for the pursuit of information or various diplomatic deals. When there is no common lingua franca, communicating gets difficult for them. A common language norm would help to solve the problems of world nations not only for communication but also for better understanding in all the negotiations.

However, the selection of a common lingua franca is ridden with obstacles. When a language has to serve as lingua franca of a nation the political factors come to play in order to take a decision regarding the language that has to be considered for that status.

Since ancient times till the world wars, a number of languages right from the classical languages such as Greek and Latin, French, Arabic etc., served as lingua franca depending on the superior political power of the nation to which the language belonged. After the Second World War the perceptions of the nations underwent sweeping changes due to the political, economic, scientific and technological reasons.

In the changed circumstances no nation could survive withoutkeeping in pace with the happenings of the world. In addition, the world nations ventured at establishing forums such as League of Nations and United Nations for peaceful coexistence and cooperation in dealing with vital issues. Further, other continents also started such organizations to meet the local issues. Some of them are SAARC, NATO, European Union etc. Such massive organizations cannot function smoothly without a common lingua franca.

David Crystal quotes some occasions at which a common lingua franca, the English language, can ease the constraints and facilitate smooth access to information and knowledge.

> A conversation over the internet between academic physicists in Sweden, Italy and India at present is practicable only if a common language is available. A situation where a Japanese company director arrangestomeetGerman andSaudi Arabian contacts in Singapore hotel to plan a multinational. (Crystal David)

1.2 ORIGIN OF THE RESEARCH PROBLEM

As its name states, in the CALL the computer equipment and software assist the teacher, facilitating and complementing his/her teaching tasks. The teacher can

design individualized programming as well as attractive materials for students, providing opportunities for language practice and even for evaluation. Computers work fast and send instant feedback, and they can act as a tutor for the student in teachers' absentia. They are also tireless and repeat processes as many times needed. They also help contextualize language and give access to real linguistic samples, thus supporting the learning of the socio-cultural component. But the most important this is that whether teachers/students are using this technology, and if yes, up to how much extent. This gives the idea of taking a case study of Junagadh District students for the research.

1.3   INTERDISCIPLINARY RELEVANCE

CALL is interdisciplinary in nature. It draws on psychology, Second Language Acquisition (SLA), Artificial Intelligence (AI), Computational Linguistics, Instructional Technology and Design and Human Computer Interaction (HCI). This makes CALL an interesting and challenging field – interesting because of the different perspectives available and challenging because of the vast quantity of knowledge available.

1.4 REVIEW OF RESEARCH AND DEVELOPMENT IN THE SUBJECT:

1.4.1 INTERNATIONAL STATUS

The field of CALL involves the use of a computer in the language learning process. CALL aims to teach aspects of the language learning process through the medium of the computer which is recognized internationally.

1.4.2 NATIONAL STATUS

With a CALL program, learners can work at their own pace without any geographical limitation. The learner can spend more time on those topics that are causing difficulty. Information can be reviewed and tasks can be repeated until the learner is happy to move on to a new topic and this is being taken up at national level also.

1.5 SIGNIFICANCE OF THE STUDY

Computer Assisted Language Learning (CALL) is a type of educational technology designed to serve as a learning tool. In simple terms, it refers to the use of computer applications in teaching and learning languages. Computers and CALL materials have been integrated into the education philosophy and especially into English language curricula providing learners and teachers a broad spectrum of opportunities and resources for higher language achievement. As there is no one single method, technique, approach, or course book that work well miraculously in every context, a single type of CALL may not correspond to all needs and fit all learners' preferences. Evaluation consists of getting a clear

understanding of what the tool actually offers in terms of input and interaction, and then judging how closely it fits with the learner's needs as determined by their preferences and learning objectives.

Notwithstanding many CALL researches on the software, the task and the pedagogy, this study appears to be important since it addresses students' and attempts to pinpoint their attitude towards CALL. There have not been many studies considering the learners' point of view. Indeed, most of the studies involve participants in higher education like university students but not young learners or teenagers. The study also collects data to examine students' attitude towards the CALL. It analyses the data according to participants' age, gender, grade, years studying English, and CALL experience. CALL studies on variables such as attitude and motivation seem to focus on a single skill or sub-skill especially like reading and vocabulary acquisition. However, this study focuses on CALL and how students perceive CALL to develop all the four skills plus grammar and vocabulary knowledge. Finally, it will hopefully provide relevant information for educators about using CALL in similar contexts. It may be of benefit to researchers and teachers who are willing to conduct a similar study in the future.

1.6   OBJECTIVES

The main objectives of the study are:

1.6.1   To make learners familiar with CALL, its potential use and significance in English

language classrooms

1.6.2   To improve teaching and learning by using the computer as a tool that can enrich existing teaching practices.

1.6.3   To understand how to integrate technology into language learning environments.

1.6.4 To help the students acquire a certain degree of computer literacy. This knowledge may be a valuable ingredient in their curriculum, and may help them to cope more effectively with the demands of their scholarly and professional life.

1.7 METHODOLOGY

This study investigates attitudes of students' towards computer- assisted language learning. The study specifically examines how students perceive computer assists language learning in its classroom implementations. The factors affecting students' attitudes and the relationship among the students and the computer use will be investigated. This study also aims to explore what aspects of language do students think that CALL facilitates.

1.7.1 DESIGN OF THE STUDY:

This case study aims to investigate students' attitudes towards computer-assisted language learning. Questionnaires will be used as an instrument to analyze abstract features and the numbers in a scale will be used to differentiate the levels of answers. Questionnaires are an easy and practical mean of gathering data from a large population when compared to other data collection instruments.

The rationale behind the use of descriptive statistics in this study is to obtain complete and detailed perceptions of students in regard to computer- assisted language learning. This study will be conducted at Secondary and Higher Secondary Schools of Junagadh District under the preview of Gujarat Secondary Education Board.

The GSEB offers English as a compulsory subject in secondary and higher secondary level. This subject is taught by experienced teachers. The questionnaires will be administered in 20 classes to the 300 various level of students.

1.7.2   DATA COLLECTION TOOLS:

In this study, questionnaire will be administered in order to collect data. Interviews will also be conducted, if needed.

1.7.2.1   DATA ANALYSIS:

All the items in the questionnaire will be analyzed using the Statistical Packages for Social Sciences (SPSS).

1.8   YEAR-WISE PLAN OF WORK AND TARGETS TO BE ACHIEVED.

Completion of the study will take two years. In the first year, data will be collected. While in the first half of the second year, data will be analyzed using SPSS and other scientific method of analysis. In the last half of the second year, report writing will be carried out.

2

LITERATURE REVIEW

CHAPTER – 2

LITERATURE REVIEW

2.0   INTRODUCTION

After defining the research problem, a researcher needs to study, examine and evaluate the prior research done in the related area. Researcher takes advantage of the knowledge which has accumulated in the past as a result of constant human endeavor. The review of the earlier research findings provide an empirical framework to carry out further researches. It is a systematic investigation of what has been done and what further needs to be done. Thus, the survey of related literature is a crucial aspect in the planning of any research. Each study relies on earlier ones and provides a basis for future scopes. Though the researcher aimed at a comprehensive and thorough survey of related literature, related directly or indirectly with the theme of this work, yet it is quite likely that some studies must have been left without reviewed. The present review is based upon the available literature in respect to the variables under investigation and is, confined to the studies to which the researcher could lay his hands upon.

Language learning is a complex process: in this process, language teachers can't be far away from the technology. Therefore, teachers need technologies relevant to the teaching learning situation. It is a well-known fact that audio-visual materials are a great help in stimulating and facilitating the learning of a foreign language. Many media and many styles of visual presentation are useful to the language learner. That is to say, all audio-visual materials have positive contributions to language learning as long as they are used at the right time, in the right place. In language learning and teaching process, learner use his eyes as well as his ears; but his eyes are basic in learning.

It is obvious that non-native speakers of a language rely more heavily on visual clues to support their understanding and there is no doubt that images and videos are obvious media for helping learners to interpret the visual clues effectively. According to a research, language teachers like audio-visual means because they motivate learners, brings the real world into the classroom, contextualizes language naturally and enables learners to experience authentic language in a controlled environment.

2.1   COMPUTER ASSISTED/AIDED LEARNING

It is widely accepted that the integration of modern Information and Communication Technologies (ICT) into the teaching learning process has great potential. In fact, it could be the most important way by which educational institutes can meet their educational aspirations within reasonable time and resources. The use of computers in Elementary schools is basically seen as a teaching and learning aid besides to develop computer literacy amongst the children. Computer aided learning will help to make the teaching learning process joyful, interesting and easy to understand through audio-visual aids. The term Computer Assisted/Aided Learning (CAL) includes a wide range of computer-based packages, which focus to provide interactive instruction mainly in a specific subject area, and many predate the Internet. These can range from sophisticated and expensive commercial packages to applications developed by projects in other educational institutions or national initiatives to simple solutions developed by individuals with no funding or support to tackle a very local problem.

2.2.1. Computer Assisted/Aided Learning (CAL) and ComputerAssisted/ Aided Instruction (CAI).

Computers in teaching learning process are often referred to as Computer Assisted/Aided Learning /Instruction (CAL/CAI). Computer Assisted/Aided Learning/Instruction is concerned with the use of computers to mediate in the flow of information in the learning process. This information is stored in the computer and is made available to the learner rapidly and readily.

2.2.2. Computer Aided/Assisted Language Learning (CALL).

Computer Aided/Assisted Language Learning (CALL) is a relatively new and rapidly evolving academic field of computer delivered instruction. It explores the role of information and communication technologies in language learning and teaching, CALL activities exploit improved technology to produce highly interactive learning environments, providing effective support for the acquisition of listening, speaking, reading, and writing skills. The CALL Programme can be developed for the various areas of language learning, like grammar, listening, pronunciation, reading, comprehension, vocabulary and writing of any language.

2.2.3. Computer Assisted English Language Learning (CAELL)

The only difference it has from the CALL packages is, its specifically made and used for English language learning while CALL packages covers any language learning situation.

2.2.4. Computer Based Instruction (CBI)

This term can refer to virtually any kind of computer use in educational settings, including drill and practice, tutorials, simulations, instructional management, supplementary exercises, programming, database development, writing using

word processors, and other applications. These terms may refer either to stand-alone computer learning activities or to computer activities, which reinforce material introduced and taught by teachers.

2.2.5. Computer Managed Instruction (CMI)

It can refer either to the use of computers by school staff to organize students' data and make instructional decisions or to activities, in which the computer evaluates students' test performance, guides them to appropriate instructional resources, and keeps records of their progress.

2.2.6. Computer Enriched Instruction (CEI)

It is defined as learning activities in which computers (1) generate data at the students' request to illustrate relationships in models of social or physical reality, (2) execute programs developed by the students, or (3) provide general enrichment in relatively unstructured exercises designed to stimulate and motivate students.

2.2.7. Technology Enhanced Language Learning (TELL)

It included variety of mediums and methods other than computer in the process of language learning. In modern times Internet, blogs, YouTube, skype various forms are also being utilized in the process of language learning. TELL gives wide range of options to the teacher while selecting appropriate medium according to the needs.

2.2.8. WELL, WBI, WBT

These are various techniques where web is embedded to make teaching learning activity more effective. Though these techniques sometimes don't penetrate up to the problems of regional learners as the production costs at times becomes the barrier.

2.3 COMPUTER ASSISTED/AIDED LANGUAGE LEARNING (CALL)

CALL stands for Computer Assisted Language Learning. It is a term used by teachers and students to describe the use of computers as part of a language course. It is traditionally described as a means of 'presenting, reinforcing and testing' particular language items. The learner is first presented with a rule and some examples, and then answers a series of questions which test his/her knowledge of the rule, and the computer provides appropriate feedback and awards a mark, which may be stored for later inspection for the teacher. The traditional description of CALL is unfortunate. In fact, the computer is a flexible classroom aid, which can be used by teachers and learners, in and out of class, in a variety of ways and for a variety of purposes.

Nowadays CALL is used routinely in a variety of instructional situations. As a result, language teachers are increasingly required to possess CALL expertise that includes both practical skills and a thorough understanding of information technology (IT) theory. Teachers may need to design, implement, and evaluate CALL activities in their classrooms; they might be asked to develop CALL based programs for various subjects or they may be put in charge of setting up and operating a multimedia language laboratory.

It is thus becoming essential for teachers to be familiar with CALL options within the classroom and at the institutional level.

2.4 THE ROLE OF COMPUTER IN LANGUAGE LEARNING
AND TEACHING

The computer is such a tool which can't tackle action on its own. It has no intellect and a competence to learn or teach. It only follows instructions with remarkable speed, exactly on the basis of inputs given to it by the user. The input of these instructions can be through keyboard or can be synchronized in computer programs, which is having series of instruction for the computer to perform.

One should not forget that the computer can only be used as a teaching aid as it only follows the commands of user and it should not be forgotten that its role in teaching is solely a teaching aid. As a result, it is dependent on the user or teacher in so many ways: viz. it cannot prepare educational materials in the absence of teacher. Teacher is the generator of all the required materials for teaching, learning, exercise etc.

In recent years, the interest in using computers for foreign language teaching and learning has been spurted greatly. A decade ago, the use of computers in the language classroom was less in numbers and was specifically in Western countries. But recently, with the advent of multimedia computing and the Internet, the role of computers in language instruction has now become a crucial factor.

The computer has its subordinate role in education as it serves as a medium to serve the teacher in teaching and not to replace the teacher in class and it can be observed clearly as we analyze some acronyms such as CALL and CAI (Computer assisted Language Learning or Computer aided/assisted instruction) where the letter A stands for the words "Assisted or Aided " which indicates the role of computers as a tool only.

Levy (1997) too stresses importance on CALL as a tool for helping teachers to perform their tasks better, aid them in designing teaching contents so that it is more effective, and helping them in delivering the teaching stuff with great impact. The entire exercise is to make the teaching & learning process more effective and successful.

Kenning and Kenning (1983) see the computer as a tutor "assessing the learner's reply, recording it, pointing out mistakes, and giving explanations". In this way, they claim, the learner is guided to find the correct answer and to adapt the material to suit his/her needs and preference. Acting as tutor is only one of the computer's possible roles.

Jayachandran (2007) states that computers and language learning are closely inter-related and the judicious integration of both can enable students to organize and process their knowledge at the click of a mouse. This innovative approach to language learning, which is a variation from the conventional classroom based-instruction, will definitely yield exciting and rewarding results in language teaching.

According to Levy & Hubbard (2005), technology is intimately involved with speech (speech synthesis/recognition), grammar (natural language processing, computational linguistics), vocabulary (dictionary development, corpus linguistics), reading (reading on-

screen), writing (word-processing), listening (digital archives), speaking, and communications. Technology mediated communication (e-mail, chat, conferencing) is increasingly becoming popular, and discourse and learning communities are formed around the networks that are produced. However, it would have been more convenient if there was a specific nomenclature to denote the development and use of computer technology in relation to language teaching and learning.

According to Levy & Hubbard (2005), the wide variety of technologies move well beyond general-purpose generic computer tools, often grouped under the label Information and Communication Technologies'(ICTs), such as e-mails, word processors and databases of different kinds. ICTs have made a strong and positive impact in the language & teaching in the classroom and, combined with the resources available through the World Wide Web and the Internet, embrace many of the technologies that are frequently used by language teachers and learners.

Over the years, a wide variety of teaching aids have been placed at the disposal of language teachers. Charts, slides, tape-recorders, videos, overhead projectors and many other technological innovations have taken the place of traditional chalk and board, though not completely. Computers are the latest among the aids used for instructional purposes. Besides being powerful and stimulating aids, computers offer great potential for language learning. (Jayachandran, 2007)

However, ICTs, as they are applied to language teaching and learning only, comprise a part of what we envisage by CALL. In many ways, they are limited to the goals and needs of the language classroom, and fail to reflect the research, design and development arm of

CALL and the work that goes into making and evaluating new language learning tutors and tools. ICTs also represent well-established, mainstream technologies usually designed for native speakers of English language. As we understand it, CALL has a greater focus on non-native speakers, and embraces a wide variety of languages; this certainly includes English (Levy & Hubbard, 2005)

Computers are effecting fundamental changes, not only in the society outside the classroom walls, but also within them. The invasion of the electronic media has revolutionized language-teaching methodology. Computers are now used as effective tools in teaching grammar, vocabulary, syntax, and comprehension and even in developing interactive communication skills and in creating writing activities. Talking about bridging the gap between computers and language teaching gives the perspective that CALL programmes have the potential to be used as individual teaching programmes (Jayachandran, 2007). Fotos & Browne (2004) point out that most researchers agree that a major shift is taking place (Crystal, 2001; Murray, 2000; Warschauer, 2003). A shift in the use of general technology and a shift in education, away from the teacher-centered classroom towards a learner-centered system, where the learner is in control of the lesson content and the learning process. CALL has historically been rooted in educational technology, and findings from the general field of education will continue to be influential in determining its future directions.

The general differences between education in the pre-computer industrial society and education in the computer-based information society are summarized in Table 2.2. The most effective uses of CALL support this new model of education and language teachers need to be able to respond by creating CALL-based activities for their particular

instructional situation. The following quote states the situation clearly: "Technology will not replace teachers; teachers who use technology will replace those who don't!"

Teachers must equip themselves with the new technologies. This is the era of rapid growth where keeping pace with change is vital and the most difficult process. Teachers will definitely be benefitted by knowledge of handling and merging computer technologies in their classroom teaching learning process.

To be realistic, although most teachers throughout the world still use chalk and blackboard, CALL is used routinely in language instruction in highly developed countries, such as the USA, Japan, and Western European countries including Turkey to provide supplementary practice in the four skills writing, reading, speaking and listening, as well as grammar and problem solving.

2.6   REVIEW OF PAST RESEARCHES

STUDY 1

Mohanraj (1988) prepared a design of course materials under the research title, "Preparation of a Design of Course Materials with a View to Developing Communicative Competence in English and Their Try out in Class IX in Secondary Schools in Gujarat."

Main **objectives** of the study were: (i) to review the existing syllabi and course materials so as to evolve a rationale for the new course, (ii) to arrive at a set of objectives and prepare a set of materials suitable to Class IX learners for developing their oral and written communication.

Both survey and experimental designs were used. The existing syllabuses and course books were reviewed by means of questionnaires and interviews. The materials prepared

were tried out in four schools using the experimental design. The **pre-test and post-test** results of the **control group** (taught through course book materials) and **experimental group** (taught through the course material prepared) were analysed statistically.

The major findings of the study were: (1) The practicing teachers in secondary schools were dissatisfied with English course books. (2) Teachers were using the materials outside the textbooks for teaching English as they were not able to get the right type of materials they needed. (3) It was found that materials produced for the project were helpful in developing considerable amount of interaction among the learner.

STUDY 2

Jadeja (1988) developed techniques for the teaching and testing of language use with specific focus on oral communication at the secondary level. The title of the research was, "Developing Techniques for the Teaching and testing of Language Use With a Specific Focus on Oral Communication at the Secondary Level." According to the researcher the actual classroom practice is form-focused.

The main objective of the study was to design a set of teaching and testing techniques in the area of oral communication with a view to promoting language use in the classroom.

The study was conducted using the experimental design. The new techniques were tried out in four schools and pre-test, post test results were analyzed to establish the effectiveness of the new techniques. In addition to statistical analysis the researcher supported the findings with discourse analysis of classroom interaction in both controlled and experimental groups.

Major findings of the study were; (i) The new techniques of teaching oral communication had been found effective in all the experimental groups, both in urban and rural areas. (ii) All the learners across the range of intellectual abilities and socio-cultural background had benefited from them. (iii) The analysis of classroom interaction established that new techniques facilitated greater use of language within the classroom. (iv) To use the new techniques effectively and promote interaction in the class teachers needed to be trained in the new way of working.

STUDY 3

Dave (1995) held a study on the effectiveness of the communicative, the structural and the conventional approaches to English language teaching.

The objectives of the study were

(1) To compare the effectiveness of the communicative approach and the structural approach to ELT in terms of students' achievement in English. (2) To compare the effectiveness of the communicative approach and conventional approach to ELT in terms of students' achievement in English.(3) To compare the effectiveness of the structural approach and the connectional approach to ELT in terms of students' achievement in English. (4) To study the opinions of the students for the communicative, the structural and the conventional approaches to ELT with reference to their learning experiences.

The study was basically experimental. The experiment was conducted on the students of three classes of Std 9 in a Gujarati medium school of Rajkot city. Among the selected three classes, students of two classes were taken as experimental group and the rest one

was taken as a control group. Two experimental groups were given treatment through the Structural approach and Communicative Approach and the control group was given treatment through the Conventional Approach. The researcher had selected the counter balanced design for the study. Students' achievement in English was measured at the end of each teaching unit. The scores of achievement were compared with reference to different approaches so as to measure their effectiveness.

The major findings of the study were (1) The Communicative Approach was found to be more effective than Structural Approach. (2) Structural Approach was not found to be effective as compared with other two approaches. (3) Students' opinions for Communicative Approach and as well as Conventional Approach were favourable while students' opinions for Structural Approach were not favourable.

STUDY 4

Acharya (2005) studied the effectiveness of games, work card and self-instructional materials under the title, "Effectiveness of games, work-card and self-instructional material on English language learning."

Her Objectives for the research were (1) To compare the effectiveness of games, work card and self-instructional material to ELT in terms of students' achievement in English. (2) To study the opinions of the students for games, work card and self-instructional to ELT with reference to their learning experiences.

She had a **sample** of 146 students studying in std. IX of Gujarati Medium School: Adarsh High School, Kadi, six teacher made tests for six units were prepared and reliability and validity were obtained. To know the students reactions at the end of the experiment an **opinionnaire** was also constructed as a tool. The **counterexperimental design** was used for the present study. **T-test, F-test and chi-square** technique were used for analyzing the data.

The **Findings** of the research were **(1)** There was no significant variation among the achievement of the students of the three groups studied through games, work card and self-learning material but the 2 showed that the games approach proved more effective than work card and self-instructional material. This result also favours the 2 of the experiment in terms of experimenters' training.**(2)** The students' opinion for the characteristics of the games, work card and self-learning approach showed that students favoured the learning experiences provided during the teaching through the games approach to ELT.**(3)** The students also liked work cards and self-instruction at material approaches for ELT.

STUDY 5

Sakhiya(2006) researched under the title, "Effectiveness work-card and programmed learning as a self-learning techniques with reference to teaching of English grammar. "
The **objectives** for the studies had been **(1)** To prepare the work card material and programmed learning material on the three units of English grammar like active & passive, Tenses and clauses. **(2)** To prepare the teacher made test as a research tool.**(3)** To

study the effectiveness of the work card material and the programmed learning material on English grammar with reference to achievement level and sex of the students.

The students of the 9th standard of Gujarati medium schools of Rajkot city were considered as the population for the present study. The total **sample** of 294 students of std. 9 was selected purposely from the two schools. A sample of 144 boys from Virani High School and 150 girls from K. J. Kotecha girl's high school was selected in the present study. The researcher had constructed three unit test of English grammar and used to measure English grammar achievement. Using **experimental research method** carried out the present study. **T-test** and other relevant statistical techniques were use for analysis of the data.

The research bestowed **findings** as **(1)** In teaching of English grammar, the work card material was more effective than the programmed learning method and the lecture method for the boys having high achievement level and low achievement level in English. **(2)** The programmed learning method was more effective then the lecture method for the boys having high achievement level in English where as the programmed learning method and the lecture method were found equally effective for the boys having lowachievement level in English.**(3)** Identical results were found for the girls having high achievement level and low achievement level.

STUDY 6

Badiyani(2008)had compared effectiveness of two computer assisted packages under the title,*"Development and Comparison of the Effectiveness of Computer Assisted English*

Language Learning Package and Computer Aided English Language Learning Package",

The study was carried out with the following objectives: (1) To develop a Computer Aided English Language Learning (CAiLL) Package to teach action verbs in English language. 2. To develop a Computer Assisted English Language Learning (CAsLL) Package to teach action verbs in English language. 3. To try-out the Computer Aided English Language Learning Package as compared to the Computer Assisted English Language Learning Package. 4. To compare the relative effectiveness of the Computer Aided English Language Learning Package and the Computer Assisted English Language Learning Package in terms of scores obtained by students on the teacher's made achievement test. 5. To compare the level of attainment of a group of students that has not received any instruction with the students of Computer Aided English Language Learning (CAiLL) Package group and Computer Assisted (CAsLL) English Language Learning Package group. 6. To study students' reactions towards learning through the Computer Aided English Language Learning Package and the Computer Assisted English Language Learning Package.

87 students from Shri S.V.Virani multipurpose highschool of Rajkot city was selected for conducting the experiment whereas the same number of students from three other schools were selected for three 2s. In each of the experimentation stage three equivalent groups of students were formed. The two Groups were subjected to the treatment phase randomly. One of these groups was treated as experimental group I (CAiLL Package group) and the other was treated as experimental group II (CAsLL Package group). The third group was treated as Control group (No instruction group).

Comparative effectiveness of the CAiLL Package and CAsLL Package was to be tested utilizing 'Three equivalent groups only posttest design'. The data collected on posttest were in the form of achievement scores at the measurement level being interval level. Analysis of variance (ANOVA) was performed to check the difference among group means of achievement scores. And post hoc Tuckey Test was performed for multiple comparisons of group means with indicating level of significant difference. Opinions towards learning through CAiLL Package and CAsLL Package were collected as frequencies on nominal scale. So, non-parametric Chi-square technique was used to analyze the data.

At the end of the experimentation the following findings emerged out: 1. CAiLL Package and the CAsLL Package each was found effective in raising students' achievement in unit 'Action Verbs' of English grammar. 2. Compared both the Packages with each other the CAsLL Package proved to be more effective than the CAiLL Package in terms of the achievement scores of the students of grade VIII for learning 'Action Verbs' of English grammar. 3. The CAiLL Package and the CAsLL Package were also effective in evoking positive reactions towards the use of them in learning English grammar especially 'Action Verbs'

STUDY 10

Abu Sa'aleek (2012) studied the attitude of the learners over CALL. The title was "Call And Its Role In Learning Of English As A Foreign Language (EFL)"

The objectives for the study were (1) To explore EFL learners" attitude towards learning EFL via CALL in general. (2) To investigate EFL learners" attitude towards learning EFL via CALL based on gender. (3) To find out EFL learners" attitude towards learning EFL via CALL based on level of the study. (4) To investigate EFL learners" attitude towards learning EFL via CALL based on interaction between gender and level of the study.

The sample for the study was 300 students from 6 different junior secondary and secondary level schools. The study was based on a questionnaire designed by the researcher to determine the learners' attitude towards using CALL in Learning of EFL. Data gathered through the questionnaires was also analyzed by making use of Analysis of Variance (2x2 MANOVA) statistical procedures in the SPSS.

The major findings of the study were: (1) Learners, regardless of their gender and the level of study, had positive attitudes towards learning EFL via CALL (2) Male EFL learners had more positive attitudes towards learning EFL via CALL than female EFL learners. (3) No statistically significant differences were found in learners' attitudes towards learning EFL via CALL based on level of study

STUDY 11

Anitha(2013) A Study On The Perceptions Of Teacher Educators Towards The Application Of Computers In Teaching Learning Process

The present study was undertaken with the following objectives. 1. To study the perceptions of teacher educators towards application of Computers in Teaching Learning Process. 2. To study the relationship between various aspects of Teaching Learning

Process on the application computes. 3. To study the influence of various variables like District in which college is situated, Designation of the Teacher Educator, Gender, Age, Locality, Management of the College, Subject of teaching, Educational Qualification, Teaching experience, etc. on the perceptions towards application of Computers in Teaching Learning Process.

The investigator followed the survey method of the descriptive research. The opinionnaire was administered among teacher educators of colleges of education in Krishna, Guntur and Prakasam districts of Andhra Pradesh state among 200 teacher educators. The final tool, after having pilot survey on 30 respondents, for teacher educators hence, comprises of an opinionnaire with a provision for gathering personal data and 100 statements relating to the problem on teacher education on the application of computers in Teaching Learning process. As the present study is of more of qualitative in nature, collected data were analyzed using both qualitative and quantitative techniques. Quantitative data were analyzed with the simple statistical techniques. The investigation has been carried out by the descriptive statistical analysis, such as calculating measures of central tendency like Mean and calculating measures of dispersion like Standard Deviation. For testing the null hypotheses, the 't' - test and Analysis of Variance have been used by the investigator. The 't'-test was used to test the null hypotheses when the data was correlated from matched groups. Analysis of (ANOVA) variance with Scheffe's Post Hoc Test (if ANOVA is significant) was used to find out the effect, if any, of the variables studied. The data were coded and prepared for analysis using the Statistical Package for Social Sciences (SPSS).

The researcher derived findings as, (1)The teacher educators had shown positive response in the aspects of Presentation Facilities, Computer Awareness, Computer Operational

Skills, Internet Applications, Computer Based Evaluation and overall response towards the Application of Computers in Teaching Learning Process. (2) There is a significant correlation between all areas of Presentation Facilities, Computer Awareness, Computer Operational Skills, Internet Applications, Computer Based Evaluation and overall response towards the Application of Computers in Teaching Learning Process.(3) There is a significant difference among teacher educators perceptions based on their district with respect to Presentation Facilities, Internet Applications, Computer Based Evaluation and overall response towards the Application of Computers in

Teaching Learning Process.(4) There is a significant difference between Government and Private college teacher educators perceptions with respect to Presentation Facilities towards the Application of Computers in Teaching Learning Process.

2.7 ANALYTICAL REVIEW OF PAST RESEARCHES

The researcher had developed and tried out English Learning Instruction package for teaching English to the Gujarati medium students of standard 9. Prior to this the researcher had turned rims of past research pages and out of all those relevant 21 Ph.D. level researches had been reviewed here. Out of the 21 researches 11 were related to English Language Teachingwhile other 10 comprise of Gujarati, Hindi, Social Science, Mathematics and various branches of science where CAL or CAI techniques were involved.

The time span covered by the researcher in reviewing past research was of 26 years. The researcher covered researches since 1988 till 2013.

Two researches out of all reviewed had survey method while one was survey cum experimental based. Rest of the researches were experimental.

Thirteen researches out of all studied had students of secondary or upper primary in today's context as samples while two researches had students of higher secondary as samples. One research had PTC trainees, other had B.Ed. trainees and two researches had teacher educators as samples.

Almost all the researches were experimental so the samples were likewise moderate to small. The sample range was from 66 up to 300.

The research methods were either two/three groups only post-test or two/three groups pre-test post-test. Out of Six Pre-test Post-test researches, one was 'Three groups Pre-test Post-test' research and five were 'Two groups Pre-test Post-test' researches. Out of thirteen Post-test researches six were 'Two Groups Post-Test' researches while seven were 'Three Group Post-Test researches.

Fifteen researches had Computer assisted/based programs, six researches developed Work Card Material while others few developed or designed learning materials devoid of multimedia approach.

All the experimental researches had Researcher made Pre or Post achievement tests related to concerned subjects. Nine researches had collected opinions regarding the experiments while three researches had measured attitudes through attitude scale and one research had assessed the reaction through reaction scale. Other tools which came across researcher's review were Raven's Progressive Metrics, K.G. Desai's Intelligence Test, Personality Inventory, Adjustment Inventory

The measurement and analysis patterns and tools were almost similar in all experimental researches. T-values were obtained where two groups research designs were employed. F-values were also obtained in certain researches. Most of the research had ANOVA analysis. The attitude scale measurement also involved chi-square analysis.

Almost all review result had shown finding positively inclined towards application of Multimedia, CALL, CAI and even Work-Card packages.

3

METHOD

3.1   DEFINITION OF CASE STUDY

Case study method enables a researcher to closely examine the data within a specific context. In most cases, a case study method selects a small geographical area or a very limited number of individuals as the subjects of study. Case studies, in their true essence, explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions, and their relationships. Yin (1984:23) defines the case study research method "as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used."

In some case studies, an in-depth longitudinal examination of a single case or event is used. The longitudinal examination provides a systematic way of observing the events, collecting data, analyzing information, and reporting the results over a long period of time. For instance, studies on child language development can be conducted using this longitudinal case study method. Data collected through observations are recorded to ascertain the language development of a child. In another example, a researcher conducting a case study may examine the reading processes of only one subject over a period of time. In other words, a case study is a unique way of observing any natural phenomenon which exists in a set of data (Yin, 1984). By unique it is meant that only a very small geographical area or number of subjects of interest are examined in detail. Unlike quantitative analysis which observes patterns in data at the macro level on

the basis of the frequency of occurrence of the phenomena being observed, case studies observe the data at the micro level.

3.2   DESIGN OF CASE STUDY

Since case study method receives criticism in terms of its lack of robustness as a research tool, crafting the design of case studies is of paramount importance. Researchers can adopt either a single-case or multiple-case design depending on the issue in question. In cases where there are no other cases available for replication, the researcher can adopt the single-case design. For instance, a social study on the effects of the collapse of Highland Towers in Kuala Lumpur in the 1990s, or the effects of tsunami in Acheh in 2004 can be conducted using a single-case design, where events are limited to a single occurrence. However, the drawback of a single-case design is its inability to provide a generalising conclusion, in particular when the events are rare. One way of overcoming this is by triangulating the study with other methods in order to confirm the validity of the process.

The multiple-case design, on the other hand, can be adopted with real-life events that show numerous sources of evidence through replication rather than sampling logic. According to Yin (1994), generalization of results from case studies, from either single or multiple designs, stems on theory rather than on populations. By replicating the case through pattern-matching, a technique linking several pieces of information from the same case to some theoretical proposition (Campbell, 1975), multiple-case design enhances and supports the previous results. This helps raise the level of confidence in

the robustness of the method. For instance, research on dyslexic children with reading problems requires a number of replication that can be linked to a theory before conclusive results are generalized.

Careful design of a case study is therefore very important. This is because case study method, through interviews or journal entries, must be able to prove that:

i.   it is the only viable method to elicit implicit and explicit data from the subjects

ii.   it is appropriate to the research question

iii.   it follows the set of procedures with proper application

iv.   the scientific conventions used in social sciences are strictly followed

v.   a 'chain of evidence', either quantitatively or qualitatively, are systematically recorded and archived particularly when interviews and direct observation by the

vi.   researcher are the main sources of data

vii.   the case study is linked to a theoretical framework (Tellis, 1997)

3.3   CATEGORY OF CASE STUDY

There are several categories of case study. Yin (1984) notes three categories, namely exploratory, descriptive and explanatory case studies. First, exploratory case studies set to explore any phenomenon in the data which serves as a point of interest to the researcher. For instance, a researcher conducting an exploratory case study on individual's reading process may ask general questions, such as, "Does a student use any strategies when he reads a text?" and "if so, how often?". These general questions are meant to open up the door for further examination of the phenomenon observed. In this case study also, prior fieldwork and small- scale data collection may be conducted before

the research questions and hypotheses are proposed. As a prelude, this initial work helps prepare a framework of the study. A pilot study is considered an example of an exploratory case study (Yin, 1984; McDonough and McDonough, 1997) and is crucial in determining the protocol that will be used.

Second, descriptive case studies set to describe the natural phenomena which occur within the data in question, for instance, what different strategies are used by a reader and how the reader use them. The goal set by the researcher is to describe the data as they occur. McDonough and McDonough (1997) suggest that descriptive case studies may be in a narrative form. An example of a descriptive case study is the journalistic description of the Watergate scandal by two reporters (Yin, 1984). The challenge of a descriptive case study is that the researcher must begin with a descriptive theory to support the description of the phenomenon or story. If this fails there is the possibility that the description lacks rigour and that problems may occur during the project. An example of a descriptive case study using pattern-matching procedure is the one conducted by Pyecha (1988) on special education children. Through replication, data elicited from several states in the United States of America were compared and hypotheses were formulated. In this case, descriptive theory was used to examine the depth and scope of the case under study.

Third, explanatory case studies examine the data closely both at a surface and deep level in order to explain the phenomena in the data. For instance, a researcher may ask the reason as to why a student uses an inferencing strategy in reading (Zaidah, 2003). On the basis of the data, the researcher may then form a theory and set to test this theory

(McDonough and McDonough, 1997). Furthermore, explanatory cases are also deployed for causal studies where pattern-matching can be used to investigate certain phenomena in very complex and multivariate cases. Yin and Moore (1987) note that these complex and multivariate cases can be explained by three rival theories: a knowledge-driven theory, a problem-solving theory, and a social-interaction theory. The knowledge-driven theory stipulates that eventual commercial products are the results of ideas and discoveries from basic research. Similar notions can be said for the problem-solving theory. However, in this theory, products are derived from external sources rather than from research. The social-interaction theory, on the other hand, suggests that overlapping professional network causes researchers and users to communicate frequently with each other.

Other researchers also mention about other categories of case study. For instance, according to McDonough and McDonough (1997) other categories include interpretive and evaluative case studies. Through interpretive case studies, the researcher aims to interpret the data by developing conceptual categories, supporting or challenging the assumptions made regarding them. In evaluative case studies, the researcher goes further by adding their judgement to the phenomena found in the data.

Yin (1984) cautions researchers against any attempt to separate these categories or to conceive them as a hierarchy. Yin (1984:15) postulates that:

A common misconception is that the various research strategies should be arrayed hierarchically. Thus, we were once taught to believe that case studies were appropriate for the exploratory phase of an investigation that surveys and histories were

appropriate for the descriptive phase, and that experiments were the only way of doing exploratory or causal inquiries.

The hierarchical view, however, is incorrect. Experiments with an exploratory motive have certainly always existed. In addition, the development of causal explanations has long been a serious concern of historians, reflected by the subfield known as historiography. Finally, case studies are far from being only an exploratory strategy.

In defining case studies, Stake (1995) distinguishes three types, the intrinsic, the instrumental and the collective. In an intrinsic case study, a researcher examines the case for its own sake. For instance, why does student A, age eight, fail to read when most children at that age can already read? In an instrumental case study, the researcher selects a small group of subjects in order to examine a certain pattern of behaviour, for instance, to see how tertiary level students study for examination. In a collective case study, the researcher coordinates data from several different sources, such as schools or individuals. Unlike intrinsic case studies which set to solve the specific problems of an individual case, instrumental and collective case studies may allow for the generalisation of findings to a bigger population.

3.4   ADVANTAGES OF CASE STUDY

There are a number of advantages in using case studies. First, the examination of the data is most often conducted within the context of its use (Yin, 1984), that is, within the situation in which the activity takes place. A case study might be interested, for example,

in the process by which a subject comprehends an authentic text. To explore the strategies the reader uses, the researcher must observe the subject within her environment, such as reading in classroom or reading for leisure. This would contrast with experiment, for instance, which deliberately isolates a phenomenon from its context, focusing on a limited number of variables (Zaidah,2003).

Second, variations in terms of intrinsic, instrumental and collective approaches to case studies allow for both quantitative and qualitative analyses of the data. Some longitudinal studies of individual subjects, for instance, rely on qualitative data from journal writings which give descriptive accounts of behaviour. On the other hand, there are also a number of case studies which seek evidence from both numerical and categorical responses of individual subjects (such as Block, 1986; Hosenfeld, 1984).   While Yin (1984:25) cautions researchers not to confuse case studies with qualitative research, he also notes that "case studies can be based … entirely on quantitative evidence".

Third, the detailed qualitative accounts often produced in case studies not only help to explore or describe the data in real-life environment, but also help to explain the complexities of real- life situations which may not be captured through experimental or survey research. A case study of reading strategies used by an individual subject, for instance, can give access to not only the numerical information concerning the strategies used, but also the reasons for strategy use, and how the strategies are used in relation to other strategies. As reading behaviourinvolve complex cognitive processes, each reading strategy cannot be examined in isolation but rather in relation to other strategies (Zaidah, 2003).

3.5   DISADVANTAGES OF CASE STUDIES

Despite these advantages, case studies have received criticisms. Yin (1984) discusses three types of arguments against case study research. First, case studies are often accused of lack of rigour. Yin (1984:21) notes that "too many times, the case study investigator has been sloppy, and has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions".

Second, case studies provide very little basis for scientific generalisation since they use a small number of subjects, some conducted with only one subject. The question commonly raised is "How can you generalise from a single case?" (Yin, 1984:21).

Third, case studies are often labelled as being too long, difficult to conduct and producing a massive amount of documentation (Yin, 1984). In particular, case studies of ethnographic or longitudinal nature can elicit a great deal of data over a period of time. The danger comes when the data are not managed and organised systematically.

A common criticism of case study method is its dependency on a single case exploration making it difficult to reach a generalizing conclusion (Tellis, 1997). Yin (1993) considered case methodology 'microscopic' because of the limited sampling cases. To

Hamel et al. (1993) and Yin (1994), however, parameter establishment and objective

setting of the research are far more important in case study method than a big sample size.

4

FINDINGS, SUGGESTIONS AND CONCLUSION

CHAPTER – 4

ANALYSIS, FINDINGS AND CONCLUSION

4.1   ANALYSIS

The survey was conducted in the 13 schools of Junagadh district. There were 20 classes selected for the primary data collection from the 13 schools and 15 students from each randomly selected classes were chosen for the purpose of the survey and they were asked to fill on opinionnaire to test their attitudes towards Computer Assisted Language Learning. They were also guided and instructed about the benefits and apt use of computer rather ICT in learning English as a second language while administering the opinionnaire. The same opinionnaire was administered in two phases in order to find out the change in their attitude before and after obtaining the knowledge of CALL with reference to English language learning and teaching.

The researcher travelled to the below mentioned schools and approached the students in order to identify their understanding about the use of CALL in English language teaching and learning during December 2014 to August 2015.

The summary of students, their classes and schools has been mentioned in the below tables.

Summary of students and schools, from Junagadh district, selected randomly for the purpose of survey.

Sr.	Names of Schools	Class	Students / per class	Total
1	S.D.B. High School, Loej, Mangrol	1	15	15
2	Swaminarayan High School, Prabhaspatan, Veraval	2	15	30
3	Shri D. H. V. Pithiya High School, Bamnasa, Keshod	1	15	15
4	L. K. High School, Keshod	1	15	15
5	Madhyamik Shala, Barwala, Bhesan	1	15	15
6	Nagarpalika Sanchalit Madhyamik Shala, Visavadar	2	15	30
7	Lion's High School, Manavadar	2	15	30
8	Madhyamik Shala, Nani Gansari, Keshod	2	15	30
9	Babha High School, Kodinar	2	15	30
10	Madhyamik Shala, Padodar, Keshod	1	15	15
11	Sardagram Secondary & Higher Secondary School, Mangrol	2	15	30
12	G. P. High School, Mendarda	1	15	15
13	Madhyamik Shala, Sasan, Mendarda	1	15	15
	Total	**20**	**15**	**300**

Analysis of Students' Opinions over English Language Instruction Package

The researcher intended to investigate the opinions of the students from experimental group who had learnt through CALL. For this purpose, he prepared an opinionnaire and collected the opinions of the students of experimental group at the end of the experiment. The same opinionnaire was also administered after the completion of 2. The researcher had constructed the opinionnaire's first form with 50 statements that was revised to 41 statements after consulting experts. Each statement has three options namely, Agree, Neutral and Disagree.

There were 40 students in the experimental group during experiment phase whereas there were 45 students in the experimental group during 2 phase. The students' opinions were statistically analyzed through Chi Square. The details are given below in the Table-1

Table- 1
The opinions over Students' attitudes towards Computer Assisted Language Learningfrom the students and their chi square values.

No	Sentences	Phase	FE	Frequency Observed			X^2
				Agree	Neu tral	Disag ree	
1.	I found this method boring.	1	13.3	0	0	40	-
	Mane Aa p@2it k>3a5ajnk lage 0e.	2	15.0	0	0	45	-
2.	Learning English seemed easy through this method.	1	13.3	35	3	2	52.850**
	Aa p@2it4I A>g/e+ xlqvu v2u sr5 laGyu	2	15.0	42	2	1	72.933**
3.	The fear of English got removed due to this method.	1	13.3	27	4	9	21.950**
	Aa p@2it4I A>g/e+no ha] dUr 4[gyo.	2	15.0	33	9	3	33.600**
4.	I found this method as a waste of time.	1	13.3	1	5	34	48.650**
	Mane Aa p@2it Samyno bgaD krnarI lagI.	2	15.0	2	7	35	68.689**
5.	I could comprehend words more easily through this way.	1	13.3	1	2	37	63.050**
	Aa rIt4I Hu> xBdo shela[4I sm+ xKyo.	2	15.0	42	3	0	33.800**
6.	This method is useful in memorizing the words.	1	13.3	38	1	1	68.450**
	A>g/e+ xBdo yad raqvama> Aa p@2it]pyogI 0e.	2	15.0	43	1	1	78.400**

No.	Statement						
7.	The subject becomes tougher due to this method. Aa p@2it4I iv8y v2are A6ro bnI =y 0e.	1	13.3	2	4	34	48.200**
		2	15.0	2	6	37	48.933**
8.	This method improves concentration. Aa p@2it4I xIqvanI Aekag/tama> v2aro 4ay 0e.	1	13.3	31	8	1	36.950**
		2	15.0	36	8	1	45.733**
9.	Tough looking Descriptions become simpler. ki#n lagta v`Rno sr5 bnI rhe 0e.	1	13.3	35	4	1	53.150**
		2	15.0	39	5	1	58.133**
10.	English language seemed as if it were mother tongue. A>g/e+ =`e mat<wa8a hoy AevI sr5 j`a[.	1	13.3	36	3	1	57.950**
		2	15.0	40	4	1	62.800**
11.	I could learn English prose and poetry in short period. A>g/e+na pa# Ane kivtaAo 3u>ka smyga5ama> sarI rIte xIqI xKyo	1	13.3	34	5	1	48.650**
		2	15.0	40	5	0	27.222**
12.	This method helps only brilliant students. Aa p@2it4I mat/ hoixyar iv2a4IRAone j faydo 4ay 0e.	1	13.3	1	8	31	36.950**
		2	15.0	1	9	35	42.133**
13.	I could memories the learnt topics for long. Hu> xIqelI babto la>bo smy yad raqI xKyo.	1	13.3	33	5	2	43.850**
		2	15.0	37	6	2	48.933**
14.	I could learn English prose and poetry more effectively. A>g/e+na pa# Ane kivtaAo v2u Asrkark rIte xIqI xKyo.	1	13.3	33	3	4	43.550**
		2	15.0	35	9	1	42.133**
15.	The supplementary details shown while teaching prose and poetry were found interesting. Paa# Ane kivtaAo w`tI vqte btavvama> AavtI ANy maihtI rsp/d lagI.	1	13.3	35	3	2	52.850**
		2	15.0	40	4	1	62.800**
16.	I could learn the pronunciation of words more easily. Aa p@2it4I iviv2 xBdona]Ccar sr5 rIte xIqI xKyo.	1	13.3	37	1	2	63.050**
		2	15.0	41	3	1	67.633**
17.	I could enjoy the poems. Hu> A>g/e+ kivtaAona rsne ma`I xkyo.	1	13.3	35	5	0	22.500**
		2	15.0	40	5	0	27.222**
18.	I enjoy the routine 'chalk duster method' better than this. Aa p@2it krta Mane to SaahebnI cok DS3r4I w`avanI p@2it j gme.	1	13.3	2	6	32	39.800**
		2	15.0	1	5	39	58.133**
19.	Due to this method, the comprehension of abstract nouns (Anger, Sadness, Happiness) became easier. Aa p@2it4I wavvack namo jevake, (Anger, sadness, happiness) smjva shela pDe 0e.	1	13.3	34	4	2	48.200**
		2	15.0	41	4	0	30.422**

20.	English comprehension becomes easier due to pictures shown in this method. Aa p@2itma> dxaRvata ict/o4I A>g/+ smjvu sr5 bnI =y 0e.	1	13.3	36	2	2	57.800**
		2	15.0	39	4	2	57.733**
21.	This method seems tough for learning language. wa8a xIqva ma3e Aa p@2it A6rI pDe 0e.	1	13.3	1	5	34	48.650**
		2	15.0	1	4	40	62.800**
22.	Every language should be taught through this method. drek wa8a Aa p@2it4I j w`avvI =e[Ae.	1	13.3	33	7	0	16.900**
		2	15.0	37	8	0	18.689**
23.	This method is even useful for quick revision of the subject. Aa p@2it iv8yna zDpI punravtRnma> p`]pyogI 0e.	1	13.3	34	6	0	19.600**
		2	15.0	37	8	0	18.689**
24.	Through this method, English language learning seems child's play. Aa p@2it4I A>ge/+ =`e rmta rmta xIqI levay 0e.	1	13.3	34	6	0	19.600**
		2	15.0	40	5	0	27.222**
25.	One can't learn in depth through this method. Aa p@2it4I }>Da`pUvRk w`I xkay nhI>.	1	13.3	5	2	33	43.850**
		2	15.0	1	6	38	57.733**
26.	Learning doesn't seem tiresome due to this method. Aa p@2it4I w`vano 4ak lagto n4I.	1	13.3	35	5	0	22.500**
		2	15.0	38	6	1	53.733**
27.	My interest towards English subject increased due to this method. Aa p@2itne II2e A>g/e+ iv8y p/TyenI marI ruic v2I 0e.	1	13.3	37	3	0	28.900**
		2	15.0	42	1	2	27.222**
28.	Pictures and Videos help in poetry comprehension. ict/o Ane iviDyonI mdd4I kivtaAona wavo smjva sr5 bne 0e.	1	13.3	37	1	2	63.050**
		2	15.0	42	1	2	72.933**
29.	This method is the best method. Aa p@2it 7e*# p@2it 0e.	1	13.3	37	2	1	63.050**
		2	15.0	38	4	3	67.733**
30.	I don't like learning all the units through this method. b2a j pa# ke kivtaAo Aa p@@ait4I w`va n gme.	1	13.3	3	4	33	43.550**
		2	15.0	3	4	38	52.933**
31.	Exercises at the end of units seem tough due to this method. Aa p@2it4I Sva@yay =te krvama> muXkelI pDe 0e.	1	13.3	2	8	30	32.600**
		2	15.0	7	12	26	25.200**
32.	Due to this method, the focus remains more on pictures shown then the actual topic. Aa p@2it4I xIqvana muddaAo krta ict/o pr v2are @yan keiN¸t 4ay 0e.	1	13.3	11	7	22	9.050**
		2	15.0	7	12	26	12.933**
33.	This method is more useful for dull students. Aa p@2it nb5a iv·a4IEAo ma3e v2are]pyogI 0e.	1	13.3	30	4	6	31.400**
		2	15.0	36	6	3	44.400**

No.	Statement		FE				X²
34.	The seriousness is not maintained while learning through this method. Aa p@2it4I xIqtI vqte g>wIrta j5vatI n4I.	1	13.3	8	5	27	21.350**
		2	15.0	7	9	29	19.733**
35.	One can learn by oneself too through this method. Aa p@2it4I Aekla p` xIqI xkay.	1	13.3	31	4	5	35.150**
		2	15.0	38	3	4	52.933**
36.	I liked this method more than other such programs seen. me> =eyela A>g/e+ xIqva ma3ena tEyar p/og/am krta Aa p@2it mne gmI.	1	13.3	35	4	1	53.150**
		2	15.0	40	5	0	27.222**
37.	This method helps both clever and dull students. Aa p@2it4I hoixyar Ane nb5a bNne p/karna iv·a4IRAone faydo 4ay 0e.	1	13.3	31	5	1	35.150**
		2	15.0	36	8	1	45.733**
38.	English should be taught through this method from the initial stage. A>g/e+ xruAatnI k9aAe4I Aa p@2it4I j w`avvu =e[Ae.	1	13.3	32	4	4	39.200**
		2	15.0	35	6	4	40.133**
39.	Learning seems enjoyable through this method but it is not useful in scoring marks. Aa p@2it4I w`vama> m= pDe 0e pr>tu maKRs leva ma3e Aa p@2it]pyogI n4I.	1	13.3	3	7	30	31.850**
		2	15.0	2	9	34	37.733**
40.	The evaluation test conducted at the end of each unit is very useful. drek Aekmna A>te levatI kso3I qUb kam lage 0e.	1	13.3	32	6	2	39.800**
		2	15.0	38	6	1	53.733**
41.	This method is blissful for learning a foreign language like English. Aa p@2it A>g/+ jevI ivdexI wa8a w`va ma3e AaxIRvadrup 0e.	1	13.3	29	8	3	28.550**
		2	15.0	34	10	1	38.800**

FE = Frequency Expected   X²= Chi Square Value

It can be seen by observing Table-15 that all the statements are significant at 0.01 level. Statement number 1,4,7,12,18,21,25,30,31,32,34 and 39 are negative ones. Statement wise explanation of the negative statements is given below.

For statement-1, *"I found this method boring."* all the responses were negative in both 1 and 2 phases. It clarifies that the students liked to learn by this method.

For statement-4, *"I found this method as a waste of time."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 48.650 and 68.689 are significant at 0.01 level. It clarifies that the students found this learning through CALL useful.

For statement-7,*"The subject becomes tougher due to this method."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 48.200 and 48.933 are significant at 0.01 level. It signifies that the students found learning through CALL easier.

For statement-12,*"This method helps only brilliant students."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 36.950 and 42.133are significant at 0.01 level. So, it can be stated that the students deemed the method assists the dull and average students too.

For statement-18,*"I enjoy the routine 'chalk duster method' better than this."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 39.800 and 58.133are significant at 0.01 level. So, it can be stated that the students liked to learn by this method more than traditional method.

For statement-21,*"This method seems tough for learning language."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 48.650 and 62.800are significant at 0.01 level. So, it can be stated that this method found easier for learning language to students.

For statement-25, *"One can't learn in depth through this method."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 43.850 and 57.733are significant at 0.01 level. It clarifies that this method is useful for learning topics in depth.

For statement-30, *"I don't like learning all the units through this method."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in

both 1 and 2 phases. The Chi square values being 43.550 and 52.933are significant at 0.01 level. It suggests that students are inclined towards learning all the units through this method.

For statement-31, *"Exercises at the end of units seem tough due to this method."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 32.600 and 25.200are significant at 0.01 level. It suggests that students find this method helpful in solving the exercises.

For statement-32, *"Due to this method, the focus remains more on pictures shown then the actual topic."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 9.050 and 12.933are significant at 0.01 level. It suggests that the pictures shown during the presentations don't affect the actual learning process negatively.

For statement-34, *"The seriousness is not maintained while learning through this method."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 21.350 and 19.733are significant at 0.01 level. It suggests that the method implies the same level of seriousness as traditional method.

For statement-39, *"Learning seems enjoyable through this method but it is not useful in scoring marks."* the frequencies for 'disagreement' are higher than for 'agreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 31.850 and 37.833are significant at 0.01 level. It suggests that the students found this method not only interesting and enjoyable but also useful for scoring mark.

The rest of the 29 statements were positive in nature. Explanation of their analysis is given below.

For **statement-2,** *"Learning English seemed easy through this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 52.850 and 72.933 are significant at 0.01 level. It clarifies that the students found learning through CALL easier compared to traditional ways.

For **statement-3**, *"The fear of English got removed due to this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 21.950 and 33.600 are significant at 0.01 level. It suggests that students started looking forward to learning English owing to this method.

For **statement-5,** *"I could comprehend words more easily through this way."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 63.050 and 33.800 are significant at 0.01 level. It suggests that this method helped students in comprehending English words in better way.

For **statement-6,** *"This method is useful in memorizing the words."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2phases. The Chi square values being 68.450 and 78.400 are significant at 0.01 level. It suggests that this method helped students in memorizing English words in better way.

For **statement-8**, *"This method improves concentration."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 36.950 and 45.733 are significant at 0.01 level. It can be said that this method helps in improving students' concentration.

For statement-9, *"Tough looking Descriptions become simpler."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 53.150 and 58.133 are significant at 0.01 level. It clarifies that the students found learning through CALL simpler compared to traditional ways.

For statement-10, *"English language seemed as if it were mother tongue."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 57.950 and 62.800 are significant at 0.01 level. It clarifies that the students found learning through CALL as simple and convenient as learning their mother tongue.

For statement-11, *"I could learn English prose and poetry in short period."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 48.650 and 27.222 are significant at 0.01 level. It suggests that this method is time saving.

For statement-13, *"I could memories the learnt topics for long."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 43.850 and 48.933 are significant at 0.01 level. It suggests that this method improves retention.

For statement-14, *"I could learn English prose and poetry more effectively."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 43.550 and 42.133 are significant at 0.01 level. So, it can be said that this method is more effective.

For statement-15, *"The supplementary details shown while teaching prose and poetry were found interesting."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values

being 52.550 and 62.800are significant at 0.01 level. It signifies that the students favored this method compared to traditional method.

For statement-16, *"I could learn the pronunciation of words more easily."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 63.050 and 67.633 are significant at 0.01 level. It suggests that this method helped students in pronouncing English words in better way.

For statement-17, *"I could enjoy the poems."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 22.500 and 27.222 are significant at 0.01 level. It is evident from the results that the method has helped significantly in poetry comprehension.

For statement-19, *"Due to this method, the comprehension of abstract nouns (Anger, Sadness, Happiness) became easier."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 48.200 and 30.422 are significant at 0.01 level. It suggests that this method helped students in comprehending abstract English words in better way.

For statement-20, *"English comprehension becomes easier due to pictures shown in this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 57.800 and 57.733 are significant at 0.01 level. It clarifies that the students found CALL useful in comprehending foreign language.

For statement-22, *"Every language should be taught through this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 16.900 and 18.689 are significant at 0.01 level. It signifies the encouraging role of CAI in language learning process.

For statement-23, *"This method is even useful for quick revision of the subject."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 19.600 and 18.689 are significant at 0.01 level. It is evident from the responses that the method saves time and efforts while revising the learnt topics.

For statement-24, *"Through this method, English language learning seems child's play."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 19.600 and 27.222 are significant at 0.01 level. It clarifies that the students found learning through CALL easier compared to traditional ways.

For statement-26, *"Learning doesn't seem tiresome due to this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 22.500 and 53.733 are significant at 0.01 level. It is evident from the responses that students found this method more interesting compared to traditional method.

For statement-27, *"My interest towards English subject increased due to this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 28.900 and 27.222 are significant at 0.01 level. It is evident from the responses that this method helped raising students' interest towards English subject.

For statement-28, *"Pictures and Videos help in poetry comprehension."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 63.050 and 72.933 are significant at 0.01 level. It is evident from the results that the method has helped significantly in poetry comprehension.

For statement-29, *"This method is the best method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 63.050 and 67.733 are significant at 0.01 level. It signifies that the students favored this method compared to traditional method.

For statement-33, *"This method is more useful for dull students."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 31.400 and 44.400are significant at 0.01 level. It signifies that the method is found efficient with reference dull students.

For statement-35, *"One can learn by oneself too through this method."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 35.150 and 52.933 are significant at 0.01 level. It signifies that the method could also favors self learning.

For statement-36, *"I liked this method more than other such programs seen."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 53.150 and 27.222 are significant at 0.01 level. It can be said from the responses that students favored this method compared to readymade programs available in the market.

For statement-37, *"This method helps both clever and dull students."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 35.150 and 45.733 are significant at 0.01 level. It signifies that the method is found efficient with reference to both dull and clever students.

For statement-38, *"English should be taught through this method from the initial stage."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 39.200 and 40.133 are

significant at 0.01 level. It advocates the scope of such methods at initial level of English language learning.

For statement-40, *"The evaluation test conducted at the end of each unit is very useful."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 39.800 and 53.733 are significant at 0.01 level. It signifies that the students favored this method compared to traditional method.

For statement-41, *"This method is blissful for learning a foreign language like English."* the frequencies for 'agreement' are higher than for 'disagreement' and 'neutral' responses in both 1 and 2 phases. The Chi square values being 28.550 and 38.800 are significant at 0.01 level. It is evident from the responses that students strongly favour the method compared to traditional ones.

4.2   FINDINGS

At the end of the experimentation the following findings emerged out:

1. The learners were made familiar with CALL and its significance with reference to teaching and learning of English language.

2. The learners could find and understand the potential use of CALL in learning English language effectively.

3. Learning through CALL was found more effective in comparison to traditional method.

4. Learning through CALL was found more effective after providing the understanding about the same with reference to learning and teaching of English as a language.

5. The learners understood how technology can be blended in learning English language with the use of CALL.

6. The learners agreed upon the fact that computer literacy can help them in many ways of learning and specially in learning English language more effectively.

7. There was positive opinion about CALL from students of the experimental group.

4.3   CONCLUSION

Toconclude,theresearch study was significant in establishing that the incorporationoftechnologycouldprovideinnovativeandcreativewaysof nurturingstudentlearningpotentialandenhancementoflanguageskills.As aresult,thestudyadvocatedthatthepotentialof CALLcould definitely be tapped in order to provide new ways of configuring and accessinglanguage learningopportunities.

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