CHAPTER I
INTRODUCTION

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CHAPTER I

INTRODUCTION

1.0: INTRODUCTION

India is one of the largest democracies in the world, home to sixteen percent of the global population, with around 210 million students between the age of six and fourteen years. It is a plural society, culturally rich and diverse, with a multitude of languages and dialects. Since independence, India has launched many welfare schemes and educational programs across the country to Universalize Elementary Education. The overall development of a country is primarily based on the educational system it follows. In the present scenario, India essentially needs quality education.

The effort to achieve UEE (Universalization of Elementary Education) needs a multi-pronged approach. One of the possible approaches is the use of technology in a creative manner, to not only attract out-of-school students back into school, but also make a positive impact on the academic learning outcomes of the students. This is to be achieved by using computers and appropriate curricular software content in local language, thereby providing an opportunity to the students for a joyful, interactive and self-paced learning.
The age of computer is dawning in schools. Not so long ago, the computer was a rare, incredible and alien sight in Indian classrooms particularly in Government elementary schools but that time has clearly passed. Nowadays many schools initiate acquiring microcomputers and putting them to use for instruction, drill and practice, recordkeeping and other applications. It is quite a jump from traditional teaching-reliance only on textbooks to the computer use. The computers serve a dual purpose. They export students to modern technology while inculcating in them new and scientific approach to learning.

1.1: ORIGIN OF COMPUTER ASSISTED INSTRUCTION

Computer Aided Instruction (CAI) dates back to the early 1960's. Introduction of microcomputer in 1980's generated a new enthusiasm to use particularly for instructional purpose. The first major pioneering attempt in CAI was made in the USA in 1961 when the University of Illinois produced Program Logic for Automatic Training Operations (PLATO). The second landmark in CAI was in the year 1966 when Patrick Suppes of Stanford University developed computerized tutorials in arithmetic and reading for elementary school students.

Tondow (1966) used a computer to teach fifth graders the elements of binary system, some computer vocabulary and computer operations. Schurdak (1966) used computer to teach a FORTRAN course and found it more effective than other traditional methods. Atkinson (1968) developed programs for the computer-based instruction in reading using IBM-1500 instructional system in which each student terminal consists of a picture
projector, a cathode ray tube (CRT), a light pen, a typewriter keyboard and an audio system playing pre-recorded messages. Now the microcomputers are being used on a regular basis widely at all levels of education from primary to university. Computer Aided Instruction (CAI) has become an integral part of the learning process in the advanced and developed countries of the world.

1.2: EDUCATIONAL TECHNOLOGY

Erich Ashley (1967) talks of four revolutions in education:

1. Revolution of shifting the task of educating the young ones from parents to teachers and from home to schools.

2. Revolution of adoption of the written word as a tool of education.

3. Revolution as a result of invention of printing and availability of books and other teaching-learning material.

4. Revolution on account of development in electronics, chiefly involving radio, television, cassette recorder, computer and development of systems concept.

A very remarkable trend in the field of education during the last four decades in the advanced countries has been the tremendous use of education technology in making education more productive, relating it to the individual, providing instruction (teaching-learning) on more scientific basis, making learning more powerful and lasting, making up the cultural handicaps of certain categories of students and for extending educational services in the remote areas. Educational technology comes in many forms, from pre-packaged games to word processing and graphics packages, complex multimedia systems, and telecommunications networks such as the Internet.
Students and teachers may be introduced to technology via stand-alone computers in the classroom, or via vast systems that can connect them to users both across the country and around the world. Faced with this wide range of possibilities in educational technology, educators wishing to bring computers into their schools must decide not only what kind of program to implement, but also the place that technology will occupy within their schools. They must:

- clarify the role of computers as a pedagogical tool;
- define its relationship to existing curricula; and
- establish the level of human and financial investment they are willing to make.

1.3: THE NATIONAL POLICY OF INDIA ON EDUCATION - 1986

Modern communication technologies have the potential to bypass several stages and sequences in the process of development encountered in early decades. Both the constraints of time and distance at once become manageable. In order to avoid structural dualism, modern educational technology must reach out to the most distant areas and the most deprived sections of beneficiaries simultaneously with the areas of comparative affluence and ready availability. Educational technology needs to be employed in the spread of useful information, the training and retraining of teachers, to improve quality, sharpen awareness of art and culture, to inculcate abiding values etc., both in the formal and non-formal sectors. In the villages without electricity, batteries or solar packs need to be used to run
the program. The policy assigns a major role to the media to organize relevant educational programs. An important component of the educational technology should be the generation of relevant and culturally compatible educational programs.

1.4: TEACHING ENGLISH AS A SECOND LANGUAGE TO BEGINNERS

We do have some latent troubles to face when it comes to teaching beginners English as a second language. Given that elementary school students (Aged 5+ to 10+) have a very short attention span, we require a fresh design about every 5 minutes! We should know how to modify the activities into language learning opportunities so that the students acquire language skills.

Here are some of the problems many elementary school teachers have:

- Elementary school students have a very short attention span
- They may not be fully confident in their own language
- Some of them may not be motivated to learn
- They may be fearful
- They develop at very different rates so we are sure to have a heterogeneous ability group

What to do then?

- Elementary school students need variety as they get bored easily. Hence change the games and activities every 5-10 minutes.
- Vary the pace during the lesson for the sake of the mixed ability group.
• Make the lessons playful and full of physical movement. They will enjoy them more and be more motivated.
• Avoid abstract concepts and concentrate instead on concrete real items that they understand and relate to.
• Repeat, review and revise. Use CALL (Computer Assisted Language Learning) to repeat, review and revise the vocabulary already taught earlier in the term and the year.
• Concentrate on listening and understanding, building vocabulary and the acquisition of short phrases
• Concentrate also on speaking practice, starting with single words and short phrases, and gradually moving onto longer sentences and questions

1.5: DO LISTENING SKILLS AFFECT LEARNING?

Listening is not a school subject like reading and writing. Many of us seem to feel it comes naturally and that as long as we can listen to directions on how to find the restroom, nothing more needs to be said. The latest studies reveal that listening is a very large part of school learning and is one of our primary means of interacting with other people on a personal basis. It is estimated that between 50 and 75 percent of students' classroom time is spent on listening to the teacher, to other students, or to audio media.

Courses for students at elementary levels usually concentrate on vocabulary and grammar teaching. Texts are normally used as vehicles for the presentation of new language, whereas systematic receptive skills
(Listening and Reading skills) development is reserved for intermediate levels. Teaching materials may involve some ‘comprehension’ tasks (usually questions), but this alone hardly seems to constitute systematic skills development.

The main objective of a receptive skills program is not the teaching of more grammar and vocabulary, but the development of the learners’ ability to understand/interpret texts using their existing language knowledge. Of course, receptive skills development can be combined with language input in the same lesson, but the procedures need to be staged in such a way so that the ‘language’ component does not cancel out the ‘skills’ one. For example, explaining all unknown words before learners read or listen to a text will cancel out training in inferring the meaning of words in the text.

When teaching reading and listening, the task of the teacher is to enhance reading and listening comprehension and to develop reading and listening skills appropriate to a variety of reading and listening situations and purposes. Tasks set for reading and listening should clearly reflect the interrelationship between text, situation, purpose, and sub-skill to be developed.

As emphasized, rarely we listen/read without having an idea of what we will hear/read. In the classroom, it is unfair and methodologically faulty to plunge into a reading and listening text, as it makes it extremely difficult for them to use their natural reading and listening skills. Students should be tuned into it so that they know what to expect, in general and in particular.
Once, the investigator listened to the FM radio news online. The investigator wanted to hear the news revealing election results. She specifically wanted to hear because the person who awaits result is personally known to her. In other words, she had quite a bit of special interest in her listening. She listened to all the news, but she can't tell you what she 'heard,' apart from the fact that yes, her friend did win in that election.

The experience described above is not unusual. When one listen to something as native speakers; he almost always has a passionate interest in what he is listening to. He usually chooses which precise piece of information he is interested in. He is able to 'blank out' or ignore the extra information so that he doesn't even hear it. Hence the teacher should make effort to find out what their students' interests. What do they like to do in their spare time? Sports? Play or listen to music? What do they listen to most in their own language? Though students are sure to have varying and different interests, this information helps the teacher to cater to individual interests better. Then the teacher can start looking out for appropriate listening materials.

Listening skills are hard to develop. In real life it is unusual for people to listen to something without having some idea of what they are going to hear. In our first language we rarely have trouble in understanding listening. But, in a second language, it is one of the hardest skills to develop - dealing at speed with unfamiliar sounds, words and structures. This is even more difficult if we do not know the topic under discussion, or who is speaking to whom.
So, simply asking the students to listen to something and answer some questions is a little unfair, and makes developing listening skills much harder. Many students are fearful of listening, and can be disheartened when they listen to something but feel they understand very little. It is also harder to concentrate on listening if you have little interest in a topic or situation. Pre-listening tasks aim to deal with all of these issues, to generate interest, build confidence and to facilitate comprehension.

**Types of pre-listening tasks:**

**Setting the context:** In normal life, we usually have some idea of the context of something we are listening to. At elementary level, class room situation should get focused initially.

**Generating interest:** Motivating our students is a key task for us. If the elementary students are listening to a new word or a rhyme, looking at picture cards or flash cards describing the word or rhyme will raise their interest.

**Pre-learning vocabulary:** When we listen in our first language we can usually concentrate on the overall meaning because we know the meaning of the vocabulary. For students, large numbers of unknown words will often hinder listening, and certainly lower confidence. So it is essential to select some known words for the students to study before listening.

1.7: THEORIES CONSIDERED WHILE DEVELOPING CALL (Computer-Assisted Language Learning)

Keeping in mind that listening is an active process, Brewster, Ellis and Girard caution that asking students to 'listen and remember' can make them
'anxious, places a great strain on their memory and tends not to develop listening skills.'

The teacher would support students' understanding more effectively, if they direct their students' attention to specific points that have to be listened for 'using activities that actively support learners' understanding and guide their attention to specific parts of the spoken text.'

J.B. Watson propounded the theory of behaviourism which is based on the hypothesis that learning results from the classical conditioning of simple reflexes, sometimes in long complex chains as in the case of learning a language. E.L. Thorndike introduced the notion of reinforcement in learning theory through the law of exercise (drill and practice).

Piaget believed that a young learner 'constructs' or builds understanding over time. Vygotsky believed that learning was ahead of development and for development to occur; interaction with adults or peers who are more knowledgeable is needed. This has been termed the 'zone of proximal development'.

Bruner extended Vygotsky's ZPD theory by defining the role of the more knowledgeable 'other' as someone who is actively involved in the learning processes by closing the gap between what has been partially and fully understood. This has been termed 'scaffolding'.

N. Winer propounded cybernetics on which the principles and practice of Human Engineering are based. It is founded on feed back control mechanisms on the basis of which CAI has been developed.
1.8: TEACHING LISTENING SKILL

Teaching listening skills is one of the most difficult tasks for any ESL teacher. This is because successful listening skills are acquired over time and with lots of practice. It is frustrating for students because there are no rules as in grammar teaching. Speaking and writing also have very specific exercises that can lead to improved skills. This is not to say that there are no ways of improving listening skills; however they are difficult to quantify.

One of the largest inhibitors for students in the advanced level is often mental block. While listening, a student suddenly decides that he or she doesn't understand what is being said. At this point, many students just tune out or get caught up in an internal dialogue trying translating a specific word. They may be encouraged to get a film, or listen to an English radio station, but not to watch an entire film or listen for two hours. Students should often listen, but they should listen for short periods - five to ten minutes.

The brain is capable of doing amazing things if given time; students must have the endurance to wait for results. If a student continues this exercise over two to three months his/her listening comprehension skills will greatly improve.

Some considerations for classroom listening. (Brewster, Ellis & Girard)

- Give confidence to the students. We should not expect them to always understand each and every word. Explain why the students have to listen. Make sure the learners are clear about why they are listening, what the main point or purpose of the activity is.
• Help students develop specific strategies for listening. An important strategy that the teacher should teach is 'intelligent guesswork'.

• Set specific listening tasks. Try to think of listening in three stages, pre-listening, while-listening, post-listening and have activities for each stage.

• Listening does not have to rely on the availability of a cassette or pre-recorded material.

What to do to be more comprehensible?

• Keep sentences short and grammatically simple

• Use exaggerated intonation to hold the child's attention

• Emphasize key words

• Limiting the topics talked about to what is familiar to the child

• Frequently repeating and paraphrasing

• Listening is an active process, as the mind actively engages in making meaning. It is therefore the duty of the teachers to ensure that the materials are comprehensible to the young learners, as well as within the range of what they are developmentally ready for.

• In order to maximize the potential for acquisition of language, we need to ensure that the young learners are not stressed about this process.

1.9: PARENTS CAN GUIDE TO BETTER LISTENING

In one of the Family Circus cartoon strips, the little girl looks up at her father, who is reading the newspaper, and says: "Daddy, you have to listen to
me with your eyes as well as your ears". That statement says almost all there is to say about listening, whether in our personal conversations or in learning in school.

According to research on listening skills, being a good listener means focusing attention on the message and reviewing the important information. Parents can model good listening behavior for their kids and advise them on ways to listen as an active learner, pick out highlights of a conversation, and ask relevant questions.

1.10: READING SKILL

Researchers have made a lot of progress in determining how to teach reading more effectively, but it really comes down to the effectiveness of each individual teacher. Teachers make the difference. If reading came naturally, teaching would be a much easier job. Students would learn to read as readily as they learn to speak. Teachers would only need to give students the chance to practice their skills. But students don't learn to read just from being exposed to books. Reading must be taught. For many students, reading must be taught explicitly and systematically, one small step at a time. That's why good teachers are so important.

Students who have an awareness of print understand that the squiggly lines on a page represent spoken language. They understand that when adults read a book, what they say is linked to the words on the page, rather than to the pictures. Students with print awareness understand that print has different functions depending on the context in which it appears – for example, menus
list food choices, a book tells a story, a sign can announce a favorite restaurant or warn of danger. Print awareness means understanding that print is organized in a particular way— for example, knowing that print is read from left to right and top to bottom. It is knowing that words consist of letters and that spaces appear between words. Print awareness is a child's earliest introduction to literacy.

Many people think spelling comes naturally to some and not to others. Actually, good spellers aren't born, they're taught. Nearly 90 percent of English words can be spelled if you know the basic patterns, principles, and rules of spelling. Students can use these rules as an aid to spelling unknown words. If a child can spell a word, he or she can usually read the word. Good spellers end up as better readers and writers. Many young readers are puzzled by the rules and exceptions of spelling. Phoneme awareness training helps students in the early stages of learning to spell and helps remediate the problems of poor spellers at any age.

Vocabulary plays an important part in learning to read. Beginning readers must use the words they hear orally to make sense of the words they see in print. Consider, for example, what happens when a beginning reader comes to the word dig in a book. As she begins to figure out the sounds represented by the letters d, i, g, the reader recognizes that the sounds make up a very familiar word that she has heard and said many times. It is harder for a beginning reader to figure out words that are not already part of their speaking (oral) vocabulary. Vocabulary also is very important to reading.
comprehension. Readers cannot understand what they are reading without knowing what most of the words mean.

1.11: RATIONALE FOR SELECTING THIS PROBLEM

"Three important sources for research problems are experience, deductions from theory and related literature. Among the most fruitful sources for beginning researchers are their own experiences as educational practitioners. Educators' everyday experiences can yield worthwhile problems for investigation, and, in fact, most research ideas that beginning educational researchers develop tend to come from their personal experiences. Studies derived from teachers' classroom experiences can significantly contribute to the generation of new knowledge leading to the improvement of educational practice."

(Donald Ary 2006).

India has 28 States and 7 Union territories. In the state of Tamilnadu, English language learning starts from standard one. The elementary school teacher, with the minimum qualification [Higher secondary course (10+2 years) + D.T.Ed course (Diploma in Teacher Education – two years)] who is handling English from standard one to standard five, is the most influential person who is supposed to form the habit of pronouncing English words correctly. If he, himself, is faulty in this aspect, that fault becomes persistent in his students also. So it is necessary for an English teacher in lower classes to have a perfect pronouncing ability.
Whenever changes are made in the syllabus in order to enhance the quality of education, various excellent materials on the teaching methods and activities to be carried on, are created by the DTERT (Directorate of Teacher Education, Research and Training) for the teachers to utilize them. For empowering the teachers, they are given in-service training. While performing the role of a resource person in various in-service training programs, the investigator had the opportunity to understand the feel of the primary teachers who find it hard to pronounce new words. Referring to dictionary every time is a mind-numbing job, which burdens them more.

The elementary teacher trainees (D.T.Ed) have their teaching practice classes from standard one to standard five. Being the faculty of DIET (District Institute of Education and Training), the investigator observes the teacher-trainees’ teaching practice classes every year. Always the students stumble on to pronounce certain new English words. English is a highly un-phonetic language. In English language there is no one-to-one correspondence between the letters of the alphabet and the sounds they represent. It is difficult to talk about speech sounds using the letters of the alphabet. The same letter is pronounced differently in different words. For example, the letter “a” is pronounced differently in eagle, apple, arm, ball, alarm, ear, cake, play etc. Thus, not only the teacher trainees but also everyone whose native language is not English, finds it difficult to pronounce English words correctly.
While visiting the elementary schools, the investigator has asked the students of standard I to pronounce the new words given in the ABL (Activity Based Learning) cards. While listening to their pronunciation, the investigator could understand how far the mother tongue (Tamil, which is highly phonetic) hinders their English pronunciation. They were not able to speak out the words with the right sounds and the due stress. The classroom instructions in the schools run by the Government up to higher secondary level are in the mother tongue with little use of the second language i.e. English. The students are exposed to English sounds only in their second language class. The sounds of English exposed to the ears must be correct and audible. But the exposure to the English climate given to the students is very limited and not so precise. Considering all the issues in teaching and acquiring listening and reading skills from the view of teachers, trainees and students, it was felt sternly that there is a need for utilizing CALL (Computer Assisted Language Learning) in order to provide an opportunity to the students for a joyful, interactive, purposeful and self-paced learning.

Hence the investigator has attempted an innovative method (CALL added with Transliteration technique) to help the first standard students to listen and pronounce the new words correctly using the specially created software package “Know your accent” which aimed to study how far the first standard students’ listening and reading skills would improve following the drill and practice mode, imitation method and Computer Assisted Evaluation (CAE). Thus, the need for the use of CALL in developing listening and reading skills form the psychological rationale for the present study.
1.12: STATEMENT OF THE PROBLEM

The assessment of the effects of computer on language learning is problematic, since there is lack of reference points for evaluation. There is significant discussion around the extensive impacts of computers on students' language learning. But it is regrettable to notice that there is no conceptual framework existing to evaluate the impact of the CALL on acquiring the language skills particularly for the first standard students, the beginners. Hence it is imperative to ascertain whether CALL is effective in acquiring the language skills particularly English the second language for the first standard students. Information about the long-term consequences of computers on teaching learning should also be obtained. A study with clearly specified theoretical objectives could take such ideal into its consideration. In line with the same sentiments, the present research on “the effectiveness of CALL on recognition, listening and reading skills of first standard students in English” has been taken up.

1.13: DEFINITIONS OF TECHNICAL TERMS USED IN THE STUDY

CALL:

Letter combinations attempting to clarify the relationship between the computer and its user form a kind of computer jargon. CBE (Computer-Based Education) encompasses almost everything that can be done in order to learn through computers. The more specific CAI (Computer Assisted Instruction) and CAL (Computer Assisted learning) which by the letters I and L respectively, stress the computer as an instructor and the user as a learner and finally the relatively well defined jargon is CALL (Computer Assisted
TRANSLITERATION TECHNIQUE:

Transliteration means writing a word of one language into the character of another language. Every English word used in this study was transliterated into Tamil, the mother tongue of the students.

RECOGNITION SKILL:

Recognition requires perception of the relationship between a picture and the appropriate word. Picture cards are used to grasp attention both to the picture and to the print. On looking at the picture, student should recognize the apt word of that picture. In the present study, word recognition of the selected words is considered.

LISTENING SKILL:

Listening is not the same as hearing. Hearing is a physical ability while listening is a skill. Listening skills allow one to make sense of and understand what another person is saying. Students need to learn how to listen and particularly to English sounds precisely. In the present study, the listening skill of the selected students of standard one is considered.

READING SKILL:

Speaking and writing are productive skills. Listening and reading are receptive skills. In the pre-reading stage, the learner gains familiarity with the language and its sounds. He becomes aware of the relationship between sounds and alphabet and begins applying the knowledge to text. In the
present study, the reading skill of the selected students of standard one is considered.

CONTROL GROUP:
Students of this group were allowed to learn only through the ABL methodology which is practiced at present in the elementary level.

EXPERIMENTAL GROUP 1 (ONLY CALL AS INSTRUCTIONAL STRATEGY)
This strategy permits a student to progress at his/her own pace under the guidance of the specially developed computer software. It enables the students to acquire the language skills as accurately as possible. Being the beginners and new to the computer operation, initially students require the presence of the teacher in the class room to operate the computers. Listening to native speaker’s voice, self-pacing, immediate feedback, vast chance to practice and peer group support etc facilitate the students acquire the language skills faster.

EXPERIMENTAL GROUP 2 (CALL AS SUPPORT SYSTEM TO TEACHERS’ CLASS ROOM INSTRUCTION)
Teachers should aware of the enabling skills involved in the process of listening and reading. Initially students should be given more opportunities to recognize words and match those words with pictures. Secondly they should be given immeasurable time to listen as well as to practice those words. In this context traditional class room teaching may not provide adequate opportunity to the learners. CALL with its accredited potentialities as an instructional strategy is capable of meeting such challenges.
The over crowdedness of our class rooms pose financial problems to the administrators so that they can not provide more number of computers to the learners. Hence it is crucial to have an indigenous model of CALL which can not only exploit the advantages of this advanced instructional strategy but also be cost effective. Keeping all these points in view, the investigator designs this instructional strategy where in the teachers' class room instruction is supported and supplemented by means of CALL.

1.14: GENERAL OBJECTIVES

1. To study the effectiveness of CALL software package (Computer Assisted Language Learning) on recognizing, listening and reading skills of first standard students in English.

2. To develop and standardize the Computer Assisted Language Learning software package for acquiring and assessing recognizing, listening and reading skills of first standard students in English.

3. To find out whether the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers' class room instruction) are initially equal in their achievement level in acquiring recognition skill, listening skill and reading skill in English among first standard students.

4. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers' class room
instruction in terms of their effectiveness in influencing the recognition skill, listening skill and reading skill in English among first standard students.

5. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers’ class room instruction in terms of their effectiveness in retaining their retention power as revealed by the learners’ performance in the retention test.

6. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in influencing the performance of the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction)

7. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in influencing the performance of the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction)

8. To find out whether the gender viz. boys and girls has the significant role in influencing the performance of the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction)
SPECIFIC OBJECTIVES:

1. To find out whether the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) are initially equal in their achievement level in acquiring recognition skill, listening skill and reading skill in English among first standard students.

2. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers’ class room instruction in terms of their effectiveness in modifying the recognition skill, listening skill and reading skill in English among first standard students.

3. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers’ class room instruction in terms of their effectiveness in retaining their retention power as revealed by the learners’ performance in the retention test.

4. To find out whether the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) are initially equal in their achievement level in acquiring recognition skill in English among first standard students.

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7. To find out whether the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers' class room instruction) are initially equal in their achievement level in acquiring listening skill in English among first standard students.

8. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers' class room instruction in terms of their effectiveness in modifying listening skill in English among first standard students.

9. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers' class room instruction in terms of their effectiveness in retaining their listening skill in the retention test.
10. To find out whether the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers' class room instruction) are initially equal in their achievement level in acquiring reading skill in English among first standard students.

11. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers' class room instruction in terms of their effectiveness in modifying reading skill in English among first standard students.

12. To find out whether there is any significant difference among different instructional strategies viz. Traditional method, CALL as the only instructional strategy and CALL as support system to teachers' class room instruction in terms of their effectiveness in retaining their reading skill in the retention test.

13. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the control group in the pretest.

14. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the control group in the posttest.
15. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the control group in the retention test.

16. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.

17. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the posttest.

18. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.

19. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the pretest.

20. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the posttest.
21. To find out whether the nature of schools viz. Government, Aided and Unaided schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the retention test.

22. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the control group in the pretest.

23. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the control group in the posttest.

24. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the control group in the retention test.

25. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.

26. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the posttest.

27. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.
28. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the pretest.

29. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the posttest.

30. To find out whether the locality of schools viz. Urban and Rural schools has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the retention test.

31. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the control group in the pretest.

32. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the control group in the posttest.

33. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the control group in the retention test.

34. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.
35. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the posttest.

36. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.

37. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the pretest.

38. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the posttest.

39. To find out whether the gender viz. boys and girls has the significant role in modifying the performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the retention test.

1.15: HYPOTHESES

1. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers’ classroom instruction) with regard to their performance in the pretest.

2. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and
Experimental group2 (CALL as support system to teachers’ class room instruction) with regard to their performance in the posttest.

3. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) with regard to their performance in the retention test.

4. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) in acquiring the recognition skill in the pretest.

5. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) in modifying the recognition skill in the posttest.

6. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) in retaining the recognition skill in the retention test.

7. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and Experimental group2 (CALL as support system to teachers’ class room instruction) in acquiring the listening skill in the pretest.

8. There is no significant difference among the three groups viz. Control group, Experimental group1 (CALL as the only instructional strategy) and
Experimental group 2 (CALL as support system to teachers' class room instruction) in modifying the listening skill in the posttest.

9. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers' class room instruction) in retaining the listening skill in the retention test.

10. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers' class room instruction) in acquiring the reading skill in the pretest.

11. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers' class room instruction) in modifying the reading skill in the posttest.

12. There is no significant difference among the three groups viz. Control group, Experimental group 1 (CALL as the only instructional strategy) and Experimental group 2 (CALL as support system to teachers' class room instruction) in retaining the reading skill in the retention test.

13. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the over all performance of the control group in the pretest.
14. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the control group in the posttest.

15. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the control group in the retention test.

16. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.

17. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the posttest.

18. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.

19. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers’ classroom instruction) in the pretest.
20. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers' classroom instruction) in the posttest.

21. There is no significant difference among the nature of schools viz. Government, Aided and Unaided schools with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers' classroom instruction) in the retention test.

22. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the overall performance of the control group in the pretest.

23. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the overall performance of the control group in the posttest.

24. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the overall performance of the control group in the retention test.

25. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.

26. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the overall performance of the
Experimental group 1 (CALL as the only instructional strategy) in the posttest.

27. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the over all performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.

28. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the over all performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the pretest.

29. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the over all performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the posttest.

30. There is no significant difference between the locality of schools viz. Urban and Rural schools with regard to the over all performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the retention test.

31. There is no significant difference between the gender viz. boys and girls with regard to the over all performance of the control group in the pretest.

32. There is no significant difference between the gender viz. boys and girls with regard to the over all performance of the control group in the posttest.
33. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the control group in the retention test.

34. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the pretest.

35. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the posttest.

36. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 1 (CALL as the only instructional strategy) in the retention test.

37. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the pretest.

38. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the posttest.

39. There is no significant difference between the gender viz. boys and girls with regard to the overall performance of the Experimental group 2 (CALL as support system to teachers’ class room instruction) in the retention test.
1.16: DELIMITATIONS

- Due to the vastness of the syllabus prescribed for first standard course in English, it is not possible for the investigator to develop software packages considering the whole syllabus. Hence only three units were considered for the software development.

- For want of required computer facilities and time, the study was confined only to four schools with the sample size of 120 students.

1.17: ORGANIZATION OF THE THESIS

The study is reported in six chapters. In the first chapter the problem has been introduced and the rationale for the study has been highlighted. In the second chapter an account of some of the previous studies related to the present investigation particularly CALL are abstracted and a conclusion is also arrived at the end of the chapter. In the third chapter a conceptual framework with regard to elementary education in the state of Tamilnadu and CAL centers developed have been presented. The fourth chapter explains the development of the computer software, procedure adopted for conducting the experiment, tools used, evaluation of the software and the establishment of the reliability and validity of the tool used for data collection. The fifth chapter presents a detailed report of the analysis and interpretation of data and the hypotheses testing. The sixth chapter summarizes the findings and conclusions of the study, provides recommendations and suggests for further research in the area of CALL in English at elementary level.