CHAPTER I

INTRODUCTION

CHAPTER I

INTRODUCTION

1.0 INTRODUCTION

In recent years the computer has established itself as an important feature of modern life. Many of us use computers daily, some times without even being aware of the fact. Banking, traffic control, word-processing, social security applications, accounting and record-keeping, design, office management, computer games, various hobbies etc. these are a few of the applications where computers are now a part of our everyday life. Computers have decreased in price dramatically, and their cost continues to fall. At the same time they have become much more powerful, yet smaller in size, more adaptable, more flexible, and easier to use. As a result, schools and governments have devoted resources to computer literacy, or knowledge about computers and computing. The computer is a tool, of itself incapable of action. It has no inborn wisdom, no mind of its own, no initiative, and no inherent ability to learn or teach. It will perform, with remarkable speed, exactly the instructions given to it by a human user. The computer is a servant. Its role in education is that of a medium. The computer can be used as the mainstay of a course, or for

backup, revision, reinforcement, extension, or a variety of other purposes. It may communicate with the student visually by displaying text, graphics, or video images on a screen. The computer offers a tool to students which allows them to assume mastery of their own learning experience. The computer can be a partner for the learner to play educational games with, or it can be used to generate examples, to illustrate certain operations, or to stimulate conversation. Computers are the latest in the series of modern aids to language teaching/learning. Today with the development of modern technology, computer has brought a revolution in English language teaching. The fact that computers are used in the teaching of other subjects and are put to a great many applications in society have made language teachers aware of the many ways in which computers may be used to organize and manipulate to teach languages. What distinguishes the computer from other pieces of equipment, such as tape recorders, film projectors, video, and what forms in fact the basis of its claim as an educational aid is its interactive capability:" The unique property of the computer as a medium for education is its ability to interact with the students what the rules are and what the students has made and react in a manner which leads him not only to correct his mistake, but also to understand the principles behind the correct solution"

(Nelson et al. 1976). The unique combination of tutorial, interactive, and visual capabilities enable computers to have a beneficial effect on learner motivation. CAI (Computer Assisted Instruction) is an American expression and CAL (Computer Assisted Learning) is British. As Davies and Higgins (1985:7) state "this area abounds with acronyms and unpronounceable strings of initials: CAI (Computer Assisted Instruction), CBI (Computer Based Instruction), CBL (Computer Based Learning), CALI (Computer Assisted Language Instruction), and CALT (Computer Assisted Language Teaching)". Today CALL (Computer Assisted Language Learning) is the term generally used.

Computer-Assisted Language Learning is new and like all new things is looked up by one group of people with deep suspicion, and by another group of handful enthusiasts with over optimistic glee. It has been condemned on the one hand as impersonal and pedagogically unsound, and welcomed on the other hand as ushering in a new era of open, interactive and creative learning. Davies and Higgins (1985:8) define CALL as "a form of tuition in which the computer is used as an aid to the presentation, reinforcement or assessment of material to be learned, usually including a major interactive element."

A brief history of CALL followed by computer in language teaching and learning,the advantages and disadvantages of the computer in language learning, the effectiveness of computer in language learning, and finally, features and elements of CALL will be discussed in this section.

1.1 HISTORY OF CALL

The late 1960s and early 1970s are of particular historical importance for CALL. The rapid development in computer technology, together with the use of computers by linguists and literary researchers, paved the way for the introduction of computers in language teaching and learning. CALL projects had been taken up in many countries in Europe and America. In the United States the work of teams at Stanford University, at Illinios and at Dartmouth and in Britain Alford's work at the University of Essex need to be specially mentioned.

1.1.1 THE STANFORD PROJECT BY VAN CAMPEN (1965)

The work in foreign language teaching at Stanford dates from the mid 1960s. An important point about Van Campen's early work, a computer based introductory Russian course, was that, it was self-instructional: most of the teaching material was on the computer. The learners were asked to type answers to questions stated

in Russian, to inflect words, and to perform various types of transformation exercise. The results of this course were promising. Those learners who used the computer-based material scored significantly better than those who were taught conventionally.

1.1.2 THE PLATO SYSTEM DEVELOPED AT ILLINOIS UNIVERSITY (1960)

Another successful project in computer-based education is the Programmed Logic For Automated Teaching Operations (PLATO) System. The PLATO system was developed at the university of Illinois, in conjunction with the Control Data Corporation, with a view to servicing the needs of computer-based education across the range of disciplines taught at a conventional university. Curtin et al (1972) were among the first teachers to use the PLATO system for language teaching. The aim of Curtin's group was 'to teach students to translate written Russian into English; especially those students 'whose needs are most effectively met by teaching the decoding of the written language directly. Curtin's Russian reading course consists of three major components: (a) vocabulary drill, (b) brief grammar explanations and drills, and (c) translation tests at various intervals, concluded by a final translation test, which measures the student's comprehension of written Russian. Curtin's Russian course involves an interesting blend of two types of computer

programme: those which conduct vocabulary drills and give explanations, mark the learner's replies and monitor learning progress and so on, and the word processing type of programmes. A great advantage of PLATO system is that it needed no transliteration: text could be displayed in many different alphabets, all on the same screen.

1.1.3 THE WORK AT DARTMOUTH (1965)

Dartmouth college, in new Hampshire, was also among the first academic institutions to provide a time-sharing (or interactive) facility to its users community in the late 1960s. The speed of response made possible by the time-sharing facility meant that the system could interact with the user. Among the other 'firsts' the Dartmouth system provided, was BASIC programming language (Beginners All Purpose Symbolic Instruction Code) specifically developed for the novice programmer. Waite (1970) developed two 'series of programmes to assist learners enrolled in elementary Latin courses.' Drills included filling in blanks in a sentence, selecting the item which does not belong to a group, and selecting the best of four translations of a Latin sentence into English or vice versa. There were also vocabulary drills based on an introductory latin textbook where the students was expected to give the Latin word corresponding to a series of English meanings, to give an

English meaning for a Latin word, and to supply principal parts and meanings of Latin verbs. Allen, developed teaching programmes for French and Danish to supplement regular classes. The programmes developed at Dartmouth pay special attention to the automatic handling of minor typing errors in learners' answers. The randomization of the questions asked by the programme is also an important aspect of the work done at Dartmouth. Randomization prevents the learners from simply retaining the correct answers as an associative chain.

1.1.4 THE SCIENTIFIC LANGUAGE PROJECT (University of Essex 1965-1969) by Alford

The Scientific Language Project, led by Alford, was designed to provide Computer-Assisted in reading specialist texts in Russian. The major beneficiaries of the project were researchers and academics in science and engineering. In this project the learner, the computer and aspects of language teaching were considered in a coherent fashion.(Ahmad et al.:1985)

1.2 COMPUTERS IN LANGUAGE TEACHING AND LEARNING

The computer has to be considered as a tool, as an aid, and as an obedient servant. If used effectively, computer can carry out tasks inconceivable by other means. Traditionally, it acts as a tutor, assessing the

learner's reply, recording it, pointing out mistakes, giving explanations, it guides the learners towards the correct answer, and generally adopts the materials to his or her performance. The computer itself is seen by many people specially the teacher as a threat, not only in terms of job, but also in terms of its power to replace the traditional skills. Computer can be used to teach many aspects of the language, and many studies have been conducted to find out the effectiveness of the computer in the teaching of writing, grammar, vocabulary, and comprehension. How to use computer in teaching these aspects is highlighted below.

1.2.1 COMPUTER AND WRITING

Many children and adults too find physically writing down their ideas such a hard work that they hesitate to rethink or revise anything they write. After a period of thinking, they settle down to write a piece one-dimensionally, starting at the start and finishing at the finish. A quick read-through for spelling mistakes and the work is reckoned to be done with. Making any changes is remarkably hard work, since it means either a total rewrite or a messy cut-and-paste procedure. So the mechanical process of writing is, for many children, so laborious that the first draft is often the last. To over come these problems the computer provide a solution

through what is known as a word processor. A word processing programme is one which allows text to be manipulated in a variety of ways, enabling users to edit, store and print text in a manner not possible with traditional media. The computer solve a critical problem for the teaching of writing, namely the painfulness of the revising/editing process. When compositions are written by hand, each revision means a complete redrafting. As a result students receive inadequate practice in revising their prose. word processor makes revision a simple process. The students can reorder work with little effort or scrap whole section and rewrite them, and work that has been heavily revised is just as neat and legible on the screen as a newly drafted piece. The word processor offers the chance to cut down on labour and make revision a much more attractive proposition. The computer eliminates the drudgery of hand copying drafts so students are free to concentrate more on revision and editing. Word processors allow pupils to revise their work until they themselves are happy with the content and look of it. Revision is not a punishment for errors made but its an integral part of the writing and learning process. Revision made on computer are generally easier and faster than those done in long-hand. Using a computer for word processing encourages the user to learn to keep working with their writings, to

criticize and to improve on work in progress. Basically, a word processor takes the drudgery out of writing by making text malleable. What has been put down can be added to, reduced or moved around quickly and easily. The use of word processor for composing text is commonly held to yield both quantitative and qualitative improvements. Quality can also be improved by judicious use of programme features. the search facility enable a student to find all the occurrences of a word or a phrase, and replace it with another word or phrase. The move command allows one to play with order of sentences and paragraphs. A paragraph or a sentence can be moved easily from one place in the text to another place in the text with a stroke of a key. Word-processors can be used for guided writing in ways that replicate dedicated programmes (Kinning:1990). The students in this case will not be writing freely but carrying out operations on texts that have been prepared by the teacher and are already on file. Initially, tasks such as changing the tenses of verbs or reordering arguments can serve the dual purpose of familiarizing learners with word processors and giving them practice in writing skills. The word processor enables teachers to have an input into the drafting process itself. It allows them to make specific suggestion while there is still time for action. Many word processing programmes can be used in

conjunction with a spelling checker. When a text is finished, the student can run it through the spelling checker, which will draw his attention to any words not contained in the list. Most spelling checkers allow the students to add his own words to the list. A word processor may encourage better writing if it encourages students to "rewrite more" (Berens:1986). The most significant feature of the word processing which make it of particular interest to the teachers of English is the ease with which text can be revised and mistakes corrected. Other features of word processors deal with the way the student wants his text to appear on paper. These take the form of printer commands. Using these commands, the student can control the layout of his text on the page, underline or italicise selected words, and emphasis titles with heavy or large print. When computers are used as word processors, they are tools in the same way that pencils and rubbers, and typewriters are tools. The advantage of computers over these other tools is that what is written is stored in the computer memory rather than on paper. Writing with a word processor has many advantages, it allows writers to become more willing to take risks, to be tentative about meaning for longer, to consider organization and word choices more freely than ever before. A word processor puts the writer in control of the machine, not the other way around. What appears on

the screen is what the writer wants to say and any decision to change what is there belongs to the writer. Word processing facilitate manuscript production by minimizing the mechanical details of writing and permitting maximum attention to the flow of ideas. With word processors students could achieve a higher level of quality in their creative and technical writing. With the mechanical details of writing minimized, students can pay greater attention to content, form, and style. And with the satisfaction that comes from producing clean, professional looking copy, students may be more motivated than ever before to tackle the task of composition. So word processors enhance pupils' motivation to produce work which they feel is theirs. A word processor is an ideal tool for collaborative writing, giving pupils a chance to learn about various ways of expressing. Word processors also facilitate typing because of automatic word wrapping, which eliminate the need for watching right hand margins and eliminate the step of pressing the return key at the end of every line. Word processing can change the way students write and their attitude toward writing. The ability to manipulate text freely is the principle on which all word processing programmes are based. By writing text into the computer memory, rather than onto paper, the writer is freed from the linear constrains of pens and typewriters, and can play around

with his text until he is entirely satisfied. The word processor frees students from the mess of crossings out and insertion that typify similar work on paper. It allows students to experiment, the screen provide a more satisfactory focus of attention for group writing than a small piece of paper.

1.2.2 COMPUTER AND READING

By its very nature, reading is a highly individual and idiosyncratic process. So in a class of sixty or seventy students reading speeds and comprehension abilities tend to vary quite widely, with many activities going on in the classroom, it is necessary for the teacher to choose an average speed of presentation. But whatever the average speed selected, it will not work well, because it may be too slow for the abler students, not challenging and developing their skills as it should, while being frustratingly rapid for the less able students. Therefore, the reading class almost demands a more individualized students-centered approach. According to Atkinson and Fletcher (1972) individualize instruction is a key factor in teaching reading. The computer as a teaching aid can provide this kind of individualization very effectively. Computer-Assisted Instruction is important in teaching reading because it provides effective individualized instruction. The computer can control, deliver, evaluate

and inform others of reading instruction and achievement, when and where it is needed. Computer-Assisted Instruction technology boasts the potential for the level of individualization necessary for personalized reading instruction. The benefit of the computer-assisted approach to reading lies in the computer's ability to store information about the students' progress in different skills from one lesson to the next. Computer assisted techniques can also provide a simple and effective means of checking at the end of each reading unit that the appropriate new items have entered students' active and recognition vocabularies. The most powerful individualization process that Computer Assisted Instruction can employ is the ability to make real-time decisions for each student individually. That is the students can interact directly with the computer and have instructional decisions made for him simultaneously with other decisions being made for other students (Majer:1973). Adaptable to multiple instructional roles, the computer can serve as text, test or tutor. Also, the great variety of input/output modalities, speech synthesizers, teletype writers, television like screens, touch-sensitive screens, beams of light pens, colour graphics, mobile units can support divers student needs and interest. Other advantageous features include immediate feedback; self-pacing; self-selection; non-

threatening, challenging, motivating, multi-language capabilities; and impartiality (Thompson:1980). Computer-Assisted Instruction, is not a separate and different approach to teaching reading such as phonics or linguistics; Computer- Assisted Instruction can serve as an interface for reading development with any approach. Computers in reading are capable of the following.

1. Containing programmes based on different theories of reading;

2. Supporting a variety of reading content, such as word recognition, vocabulary development, and comprehension;

3. Being used with different types of learners, gifted, average, remedial, or handicapped;

4. Being accessed under a variety of conditions- group or individual in the home, library, or school, at any time; and

5. Facilitating achievement of a variety of educational goals and purposes (Thompson:1980).

There are three main ways in which computers are useful in helping language learners develop reading skills.

1. Incidental reading. Almost all CALL programmes, whether orientated towards reading or not, involve the learner in reading text for a real purpose: the successful completion of the activity. Example of this

activity is reading Mazes where the students are required to learn to read written information presented on screen and to make decisions based on this information. The fact that the reading in incidental to the main task (getting out of the maze) gives it a real communicative purpose: students are reading for necessary information, not just because they have been told to read.

2. Reading comprehension. Traditional question- and-answer CALL programmes can be used for reading comprehension as well as grammar and vocabulary development. Example of this activity of question and answer is the traditional fill-in and multiple-choice programmes. They can be used to focus attention on any area of reading: guessing the meaning of words from context, paragraph focus and general comprehension checking.

3. Text manipulation. There are a number of ways in which computers can manipulate continuous text which involve the learner in close study of the content and structure of text. Examples of this activity are Jumbling, close-up and Text with gaps. Just as the computer can scramble the elements of a sentence (the word) for the learner to sort out, so it can do the same with the elements of a paragraph (the sentences) and the elements of a text (the paragraphs). Close-up

programme encourage students to make inferences. The
computer display the title of several short texts,
selects one of the texts, prints one randomly selected
word from the text on the screen, and invites the
learner to guess its title (Jones and Fortescue:1987).
The computer has many possible uses in reading and
language arts (Geofferion and Geofferion: 1983,
Balajthy:1986). It can serve as an electronic flash
card, a vocabulary quizzer, a drill, a crossword
puzzle, a word scrambler, a language experience
lesson, a word processor, a simulator , a manager of
instruction, a teacher utility, and so on. The
computers used in education are "general purpose"
computers, capable of doing whatever their software
commands them to do. The computer can diagnose,
prescribe, present daily tutorial instruction and
drill reinforcement, and monitor achievement.
(Balajthy:1987). Reading is a process of constructing
meaning. Since reading comprehension involves making
predictions, teacher need to look for activities that
offer learners opportunities to test and confirm their
predictions. Like predictions about what might happen
next in a particular story or about what questions
might be answered in an informational passage. Readers
construct meaning best when they have whole,
meaningful text with which to interact rather than

fragments. Programmes that focus on word recognition and word meanings are likely to be most effective when they offer these skills in context and in conjunction with one another. Readers are required to be active participants in the process of reading, and good readers are clearly well be in control of what they are about. To learn to read individuals must view themselves as actively involved in the process. Such readers are most likely to see themselves as competent learners, possessing the power and responsibility to affect their own learning. Computer materials are most effective when they allow the learner some degree of decision making and control over the task. Interactive materials, which encourage students not only to respond to stimuli but to influence or control outcomes, are imperative (Strickland et al.1987). The computer offers the opportunity to control the interaction between the students and the text and to intensify the reading experience.

1.2.3 COMPUTER AND VOCABULARY

Computer as a tool used in teaching language can carry this task effectively and enhance students performance. Computer can wait till the student masters the word, the computer is patient and will tirelessly go over the same points for as long as the user wishes. Teaching

vocabulary through computer can be fun for children. Palmderg (1988) conducted a study to teach vocabulary through computer adventure game, and proved to be successful in raising the achievement level of students. The most satisfactory way of presenting words for vocabulary instruction may well be the use of real text, highlighting the words of interest. Students may be asked to identify the part of speech of a highlighted word, or to locate a synonym of a highlighted word somewhere else in the text, or to decide which word should fill in a blank. Breaking words into prefixes, suffixes, and roots is an important vocabulary-teaching tool. The process of growing up, or becoming familiar with one's world, is one continuous vocabulary-learning experience. Therefore learning vocabulary in a proper way is important. Students learn words better when led to think about them actively. The ability of the computer to respond immediately to the students performance is one of its most useful characteristics. The computer is ideally suited to match the rate of learning to each individual student. Presentation of words for meaning can take advantage of the dynamic qualities of the screen. A word and its associated picture, for example, or its synonym, homonym, translation, or prefix can be highlighted at the same time. Words can be made to move across the screen to fill in appropriate blanks in sentences or to be paired

with other relevant words or pictures. Words and images can dissolve and re-appear, or be replaced by an antonym or a word from the same paradigm. The computer can support countless types of exercise to drill and test vocabulary, including matching procedures, identifications, multiple-choice formats, fill in the blanks, and short answers. Computerised exercises can help students become familiar with significant amounts of vocabulary at the elementary and intermediate levels. Most of the power of a computer derives from its ability to compare many things very rapidly. Even a novice programmer will soon learn how to store lists of words, flash them on the screen, and compare students' answers with right answers. Reading and vocabulary present two of the areas of the language curriculum where computer-assisted learning theoretically holds the greatest promise (Wyatt:1984). One way of teaching vocabulary is to present words along with definition and sentences. Once these word have been studied, students are quizzed by the presentation of words and four numbered definition options. Another way is the sentence-completion exercise which present a sample sentence and the definition of the vocabulary word. The key to vocabulary development is use or practice. The more often a word is used, the more likely it is to become part of a student's own personal vocabulary. Crossword puzzles can be used to reinforce

vocabulary in content area instruction. Specifically,
when teaching about paragraph structures in
reading/language arts. Giving students opportunities to
manipulate language is important for development.
Studying vocabulary by computer proved to have advantages
for both students and teachers. The students could get
explanations immediately without having to wait to see
the teacher during the next class, anonymously without
having to admit to the class that they did not understand
the topic and efficiently without having to listen to
explanations of what they already knew.

1.2.4 COMPUTER AND GRAMMAR

Despite the many options and possibilities that
computers and programming languages provide, computer-
assisted instruction has been the most successful in the
teaching and practice of grammatical structures:

"It is often when applied to the grammar learning
situation that the analytical and interactive
capabilities (of the computer) have been used to good
advantage. There are no grammatical constructions that do
not lend themselves readily to effective treatment by the
computer via multiple-choice, or constructed formats"
(Holmes and Kidd:1982). Computer assisted programmes for
teaching grammar range from simple drill and practice to
elaborate tutorials. Example of drill and practice is a

drill where students supply a given form such as a verb or adjective. Another simple possibility is the multiple-choice exercise where students choose the correct form. In a tutorial programme students are taught a specific grammatical concept and then drilled on its application. The tutoring takes place on a one-to-one basis, and all instruction is geared to students' individual response."The computer's ability to store a large quantity of information related to the student's most common mistakes provides the opportunity for tutorial advice that should help to overcome errors and reinforce grammatical patterns and structures"(Hope et al.1984). Good error analysis can help students learn as they move from one item to the next. Exercises should be generally uniform, so that students can improve their performance as they move from item to item. This "potential is what distinguishes computer-based drill from other kind of written work"(Hope et al.1984). Possibly the oldest use of computers in the language arts is as a drill master for grammar skill development. Generally programmes used in skill instruction take one of three approaches: drill and practice, tutorial, and educational games. Drill and practice programmes involve root learning and repetition. They assume that a teacher has given students some initial instruction in a skill, and they test understanding of that skill by repeating a long series of

questions about it. For example, a drill-and-practice programme on parts of speech might ask students to identify the preposition in a sentence. The student might be given one or two chances, and then the programme would go on to the next sentence; at the end, the student is given a total score for the exercise. Tutorial programmes are those that teach as well as test. They often start with two or three screens of information about a concept (definition of a noun, for example), and then test to see whether a student has understood the concept. Fill-in exercises are especially useful for work with conjugation, declensions, and cases. Many grammar programmes on the computer use this format because it reduces the possibilities for error. In the teaching of grammar the computer can (a) act as the teacher of rules (b) supply a corpus of well-formed utterances from which the learner should be able to generalize his own rules and (c) calculate the correct grammatical form for the student whenever necessary. First the computer states the grammatical rule and from the student's response to questions, checks whether certain items have been understood. If not the learner is referred to a remedial branch in the programme. The main programme then illustrates the rule from items in its data store and initiates a test procedure to ensure that the material have been learnt or if there is a need for the student to

be taken back to relearn the rule (Robert:1981). Almost all activities in the language classroom can be said to involve grammar. Free discussion, simulation, reading and writing tasks bring students' grammatical abilities into play constantly. Language learning abounds in exercises designed to practice particular areas of language: much classroom time is spent in oral exercises with a grammatical focus, and written grammar exercises with answer keys are much vogue in self-access rooms. Computers can provide a useful and motivating medium for this kind of work. They are useful in two ways:

(1) Computerised versions of traditional question-and-answer and multiple-choice exercises provide feedback for the students. In class, this frees the teacher from the role of "correct-answer-giver" groups of students can be working productively at the keyboard, leaving the teacher free to deal with particular problems that arise in particular groups. In the self-access room, the computer gives the student more sophisticated feedback than a written answer sheet; the computer well for example, allow a second try after a wrong answer, and may provide, a clue if the student has difficulty answering a question.

(2) The computer makes possible a variety of exercise formats that would not be possible or practical in

class or in the self-access room (Jones and Fortescue:1987).

These are but some of the ways in which computer can be used to teach grammar in the classroom, and it is up to the teacher to incorporate the use of computer in his class.

1.3 ADVANTAGES OF THE COMPUTER IN LANGUAGE LEARNING

The advantages of the computer in language learning and teaching are of three types.

A: Those which are part of the inherent nature of the computer.

B: Those which benefit the teacher, and

C: Those which benefit the learner.

1.3.1 INHERENT ADVANTAGES OF THE COMPUTER

(1) It offers interactive learning. The learner is constantly prompted to respond to what is presented and the dialogue can be shaped in terms of those responses.

(2) It is unfailingly accurate and precise. It does not tire, and its attention does not falter.

(3) The computer is a mentor with the patience of job and a consistency of attention and immediate feedback unmatched by the most masterful teacher. It can offer more frequent feedback than a teacher.

(4) It can supplement regular classes to a certain extent.

(5) It can accommodate different speeds of learning.

(6) The computer is consistent unbiased, and has no "off days".

(7) The computer can be an extremely powerful educational tool, offering individualized attention and allowing students to work at their own pace.

(8) Programmed properly, it can diagnose areas of weakness and provide appropriate practice materials.

(9) In comparison with other means of producing visual information, the computer is very efficient. A computer can store, move around, retrieve and present thousand of different pages in any order it is told to in seconds.

(10) The computer is also extremely versatile, it can produce a wide range of visual information and display it in various different ways. Text and graphics may be mixed, pictures, or parts of them, can slowly appear or disappear, there can be movement in the picture: letters, words, figures, people, animals etc. can move at various paces.

(11) CALL programmes present the learner with novelty. They teach the language with different and more interesting learning conditions, and present

language through games and problem solving techniques. As a result, even the tedious pattern drills can become more interesting.

(12) They offer a valuable source of self access study adaptable to the learner's level.

(13) Using computer in teaching languages can offer unlimited types of activities with considerable potential for learning situations. The computer can be connected to a video for visual input or to a cassette recorder for listening comprehension.

1.3.2 ADVANTAGES TO THE TEACHER

(1) The exercises are modifiable unlike a textbook lesson.

(2) It frees the teacher from some constraints imposed by heavy teaching schedules. By taking over tedious mechanical tasks like the correcting and marking of simple exercises, it allows them to spend more time on preparation and on activities such as discussion, simulation, or project work.

1.3.3 ADVANTAGES TO THE LEARNER

(1) Accessibility (the learner can walk into the computer room whenever he wishes and can work with it whenever he chooses)

(2)   Feasibility of distance teaching. Computer Networking will be a boon to distance learners. They can sit right at home and communicate with their peer group, and their tutors, provided they have a computer/terminal which is networked or connected to other computers/terminals at the disposal of the other distance learners and tutors.

(3)   Potential for personalized instruction. A teacher in a (conventional) class room will not be able to concentrate on each and every learner and give each learner the instruction(s) he needs. A computer on the other hand has potential for personalized instruction, devoting attention to each and every learner.

(4)   The learner has the exclusive attention of the computer when he is working with it unlike in a classroom where the teacher cannot concentrate on the activities of a learner all the time.

(5)   Groups of learners can work at a single computer or terminal.

(6)   Element of competition. Most of the programmes has a scoring pattern which awards points for a right answer and takes a way points for a wrong answer. This creates an element of competition among the learners.

(7)   A powerful motivation. Source for productive study-
      the computer acts as a catalyst, stimulating
      learners' responses.

(8)   Immediate feedback. A computer takes in the correct
      responses, and acknowledge it and it informs the
      learner immediately if the response is incorrect.

(9)   The programmes respect the individuality of the
      students by allowing them to make frequent choices
      with many options.

(10) The feedback to the user helps the students to
      analyse patterns in the language.

(11) Besides teaching a foreign language, CALL
      programmes will provide the learner with some sort
      of computer literacy, which is becoming essential
      in modern society and could be of great help in
      future training and career prospects.

(12) Students are more relaxed; they are no longer
      afraid of being corrected, judged, or watched. In
      fact, they create their own environment around the
      computer, a sort of privacy where intruders are not
      welcome.

Thus, many principles of language pedagogy, such as
flexibility, individualization, accuracy in detail, and
rapidity of response are fundamental advantages of
teaching with computers.

Computer awareness is an essential part of the child's educational experience, and nothing but good can come from extending the role of the computer into the language teaching area of the curriculum. Not only will education increasingly be a life-long process, with the need to learn new skills and discard old ones, it will also be no longer linear and hierarchical but multifaceted experience branching not just upwards, but onwards into a long number of unexpected avenues.

1.4 DISADVANTAGES OF THE COMPUTER IN LANGUAGE LEARNING

1.4.1 STEMMING FROM THE INHERENT NATURE OF THE COMPUTER ITSELF

(1)   It is not a complete substitute for a teacher.

(2)   It can not effectively conduct an open-ended dialogue with the learner.

(3)   Learners who do not have prior experience in using the keyboard may waste a lot of valuable time identifying letters on the keyboard in order to print their responses.

(4)   Working with computers normally means that the learners work in isolation. This obviously does not help in developing normal communication between the learners, which is a crucial aim in any language lesson. In practice learners tend to revert to

their mother tongue in discussing their strategies or responses.

(5) CALL programmes deal mainly with reading and writing skills, and although some listening programmes have been developed recently, they are very limited. As for the spoken language, it, is almost completely neglected.

(6) CALL programmes that deals with developing communicative interaction normally present predetermined uses of language based on the writer's imagination of what would take place rather than what people really say in real situations. This sometime create confusion and frustration in the learner when a genuinely grammatical and appropriate utterance is rejected as being incorrect by the computer.

(7) The time and effort required to develop CALL programmes could be considerable, and thus their cost effectiveness becomes questionable.

(8) Computers can not cope with the unexpected.

(9) It is more tiring to read from a screen than from a printed text.

(10) The computer can not talk properly yet.

1.4.2 RELATING TO THE PRESENT STATE OF CALL

(1) Computer programmes are seldom "portable". In other

words, a programme developed on a particular "make"
of a computer will not run on another make/brand of
computer.

(2)   Modifications in the programme can be made to run
        on a different computer but it is prohibitively
        time-consuming and very expensive.

(3)   The quality of CALL programmes available in the
        market is not so encouraging. They have to improve
        a lot still. The difficulty in programming also
        stops the teachers as well as the learners from
        building up programmes.

Limitations of the computer thus are seen in terms of
difficulty of handling the subtleties and complexities of
human speech, especially spontaneous writing and
speaking. One of the features of many CALL programmes is
that the users have to type in exactly the answer the
computer expects, since the computer can only accept the
answers it has been programmed to accept. These
limitations in practice can be very useful, since it
provides motivation for the learners to be careful, to
use the language as accurately (need not be structural
accuracy always) as possible and pre- and post- computer
work with any programme can focus on both aspects of
accuracy and fluency.

1.5 THE EFFECTIVENESS OF COMPUTERS IN LANGUAGE LEARNING

How effective computers are in the language classroom will therefore depend on the way the teacher and the learners use them, and in this respect they are not different from any other medium such as Radio or Television. Computers are however different from other media in two main respects.

(1) They can allow the learners to

(A) Carry out tasks more efficiently than in other media(such as automatically providing feedback on certain kinds of exercises).

(B) Carry out tasks much more conveniently than in other media (such as editing a piece of writing by deleting, moving and inserting text).

(2) They can allow individualization.

(A) Learners can work through some exercises on their own and get immediate feedback from the computer, for example: multiple choice exercises, and total deletion programmes.

(B) Learners can carry out exploratory work which can not be assessed by the computer, but which allows them to see the results of their decisions (for example: word processing, and simulating programmes).

1.6 FEATURES AND ELEMENTS OF CALL

Interaction and Individualisation of learning are the
two most important features of CALL.

1.6.1 INTERACTION

When a learner interacts with some one or something,
he/she communicates with someone or something and vice
versa. Communication in the classroom is vital for an
integrative environment as teachers share with learners,
learners share with learners and teachers shares with
teachers. The computer is an effective facilitator of
both spoken and written communication. It is a non-
threatening, non-judgmental device which stimulates minds
and creates perceptions. The teachers most important and
affective activity in the classroom is to interact with
the learners and their personal contributions, enhance
class discussions, question and answer sessions and even
simple drill and practice lessons. When mistakes are
made, good teachers help learners realise their errors
and come up with correct answers. Unfortunately,
interaction techniques are difficult to use extensively
with large groups of learners and work best on a one-to-
one basis or with only a small group. They can become
very expensive because they require for the most part
unrealistic teacher-learner ratios. In most teaching
situations, individualized interaction between teachers

and learners or among learners are rare or too few. One
of the most attractive features of the computer , the
uses to which it can be put to in the teaching of
language revolves around the idea of interaction. The
user of a computer involves interaction between the user
and the machine, either by reading or by writing, despite
the fact that the computer is incapable of independent
thought or action in its own right. A computer is a means
of communication between the programmer and user.

1.6.2 INDIVIDUALIZATION

Many CALL programmes exhibit features which are
reminiscent for programmed instruction, a popular
pedagogical development principally in the United States,
during the 1950s and sixties. Skinner (1954) provided the
theoretical basis of programmed instruction (PI). The
following points are relevance to CALL.

(a) Programmed Instruction laid great emphasis on
breaking the language task down in a highly
directive way into small discrete steps. A similar
approach was found in much early work in CALL, and
is still in evidence today.

(b) Programmed Instruction can be applied to the more
specific, less elusive areas of language (Ornstein
1968) the most obvious areas are morphology,

vocabulary and certain parts of syntax; these have been taken up in many CALL programmes.

(c)   Most aspects of language taken in isolation could in principle be presented in a Programmed Instruction format. It is in the process of integration for communication purposes that the problems arise (Littlewood 1974 a:15). The question of integration for communicative purposes remains problematic for CALL.

(d)   The presentation of specific formal areas of language in discrete steps provided a context in which students could determine their own pace of learning. Self-pacing is an advantageous feature of CALL; however, self-pacing is equally possible with lesson models which are very different from those found in Programmed Instruction.

(e)   Provision of immediate feedback to the students was an essential part of the Programmed Instruction approach to learning. It is also widely quoted as a positive feature of CALL, since the computer provides feedback on written work much more quickly than the teacher can. The major advantage of CALL over Programmed Instruction in terms of feedback is its ability to give much more finely tuned information (based on the student's current or previous answers or on the computer's own

representation of the subject area) (Ahmad et al:
1985). Owing to this striking similarity between
Programmed Instruction and CALL, there is a common
misconception, a total misconception-that CALL is
identical to Programmed Instruction. The fact that
CALL grew out of Programmed Instruction does not
mean that the two are indissolubly bound now.

1.7 THE PRESENT STUDY

The present study has been conducted to develop a
package to teach English to std.VIII students and to see
its effect on the students achievement in term of
vocabulary, grammar and, comprehension. It is also
intended to see whether the high achievers and low
achievers students have the same attitude toward the
package? And whether students irrespective of their IQ
and Motivation level achieve to the same level in
grammar, vocabulary and comprehension.

1.8 RATIONALE OF THE STUDY

With the development of modern technology, many
schools are having computers, and they have started
utilizing them for educational purposes. Computer has
established itself as an important feature of modern
life. Because of its ability to store and retrieve a huge
number of data, computers are used in many fields like

banks, railway, traffic control, social security, industry, and recently it is used for language teaching. The review of the related literature carried out revealed clearly that CALL has an effect on students' achievement level in terms of vocabulary, grammar, reading, writing, attitude, feedback and anxiety. In Baroda city the subject of English is taught in some of the schools as first language and in some other schools it is taught as a second language. In many schools where English is taught as a second language, students are facing a lot of problems in learning to read, write and communicate in the English language, and this is because of the predominance and interference of the mother tongue, and lack of exposure to English in a proper way hinder the students from communicating in the language. The huge number of students in the classroom also hinders the teacher from interacting with all the students, and also it hinders him from paying individual attention to each student.(Shah,1996, Sharma, 1986, and Soni,1978). Based on the findings of the related literature and on the interactive nature of the computer and its ability to individualize the learning experience, the investigator feels that the computer assisted language teaching which he has developed may be appropriate to teach English as a second language for Gujarati medium students. It is because now a days with the development of technology the

computer can be used in teaching all aspects of language i.e., vocabulary, grammar, reading, and writing. It is observed from the related literature that the computer enhances the students' achievement through self evaluation by practicing and observing their own learning and by correcting their mistakes, with out the fear of being ridiculed by their teacher, and also they can learn by themselves and at their own pace.(Last, 1979, Rosenbaum, 1969, Levy, 1987, and Magidson, 1978). As students learn by themselves through CALT, high achievers may finish the task at hand with little time, whereas the low achievers may take alittle longer to finish the same task. But the achievement level of both the groups i.e. high achievers and low achievers may be the same in terms of vocabulary, grammar and comprehension because they will be learning by themselves and at their own pace. So certain questions arise at this stage are as follow:

(1)   Whether the programme will have significant effect on the achievement of the students in terms of vocabulary, grammar and comprehension or not?

(2)   Whether high achievers and low achievers, bright and dull students will develop the same attitude towards the package, and they will be affected to the same extent or not?

(3)   Whether students and teachers will like the package or not?

(4) Whether the package will have any effect on students' Vocabulary, Grammar and Comprehension with respect to their Motivation, IQ and Attitude or not.

1.9 STATEMENT OF THE PROBLEM

DEVELOPMENT OF COMPUTER-ASSISTED ENGLISH LANGUAGE TEACHING FOR VIII STD. STUDENTS.

1.10 OBJECTIVES OF THE STUDY

(1) To develop a Computer Assisted English Language Teaching programme for STD. VIII Gujarati medium students.

(2) To study the effectiveness of the Computer Assisted English Language Teaching programme on students' Achievement in terms of,

     a. vocabulary

     b. grammar, and

     c. comprehension,

    by taking pretest and IQ as covariate.

(3) To study the effectiveness of the Computer Assisted English Language Teaching programme on the Experimental group students' Achievement in Vocabulary, Grammar and Comprehension with respect to their Intelligence, Motivation and Attitude.

(4) To study the Attitude of the students towards the usefulness of the Computer Assisted English Language Teaching programme.

1.11 HYPOTHESES

1. There will be no significant difference between the adjusted   Mean   Achievement   scores   of   the Experimental group and the Control group students in Vocabulary taking IQ as covariate.

2. There will be no significant difference between the adjusted   Mean   Achievement   scores   of   the Experimental group and the Control group students in Vocabulary taking pretest as covariate.

3. There will be no significant difference between the adjusted   Mean   Achievement   scores   of   the Experimental group and the Control group students in Grammar taking IQ as covariate.

4. There will be no significant difference between the adjusted   Mean   Achievement   socres   of   the Experimental group and the Control group students in Grammar taking pretest as covariate.

5. There will be no significant difference between the adjusted   Mean   Achievement   socres   of   the Experimental group and the Control group students in Comprehension taking IQ as covariate.

6. There will be no significant difference between the adjusted Mean Achievement socres of the Experimental group and the Control group students in Comprehension taking pretest as covariate.

7. There will be no significant difference between the adjusted Mean Achievement socres of the Experimental group and the Control group students in Vocabulary, Grammar, and Comprehension taken together by taking IQ as covariate.

8. There will be no significant difference between the adjusted Mean Achievement socres of the Experimental group and the Control group students. in Vocabulary, Grammar, and Comprehension taken together by taking pretest as covariate.

9. There will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Vocabulary.

10. There will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Grammar.

11. There will be no significant difference between the Mean Achievement scores of students with High

Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Comprehension.

12. There will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar and Comprehension taken together.

13. There will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Vocabulary.

14. There will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Grammar.

15. There will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Comprehension.

16. There will be no significant difference between the Mean Achievement scores of students with High

Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar and Comprehension taken together.

17. There will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Vocabulary.

18. There will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Grammar.

19. There will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Comprehension.

20. There will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar and Comprehension taken together.

1.12 OPERATIONAL DEFINITION OF THE TERMS

1.12.1 COMPUTER-ASSISTED ENGLISH LANGUAGE TEACHING

It is the computer package which was developed by the investigator to teach Vocabulary, Grammar and Comprehension of the four lessons that were selected from the English textbook (Gujarat State Board Of School Textbooks 1992. Published by: S. M Patel, Director on behalf of Gujarat State Board Of School Textbooks, Gandhinagar.) of Std.VIII Gujarati medium. Those lessons are; Mr Nair's Circus, A Railway Station, Dr Jadeja's Hospital, and In The Kitchen.

1.12.2 VOCABULARY

Those words which were taken from the four lessons selected for developing the package, and those words only which appear inside the box at the beginning of each lesson are taken as vocabulary.

1.12.3 GRAMMAR

The four parts of speech viz. Noun, Pronoun, Adjective and Preposition which are there in those four lessons. The selected four parts of speech are taken as grammar.

1.12.4 COMPREHENSION

The text of the four lessons included in the package i.e. Mr Nair's Circus, A Railway Station, Dr Jadeja's Hospital and In The Kitchen. Will be used as comprehension in the package.

1.12.5 INTELLIGENCE

Alfred Binet considered intelligence as a complex set of qualities including (i) appreciation of a problem and the direction of the mind towards its execution; (ii) the capacity for making the necessary adaptations to reach a definite end; and (iii) the power of self-criticism. Else where, he wrote." To judge well, to understand well, to reason well, these are the essential activities of intelligence." Wachsler define intelligence as " the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment." According to Thorndike, " intelligence consists in the capacity for more association or connection forming." Here in this study intelligence is the person's capacity at the time of test to apprehend meaningless figures presented for his observation, see the relations between them, conceive the nature of the figure completing each system of relations presented, and , by so doing, develop a systematic method of reasoning. The measure of students' intelligence was

obtained by administering to them the Ravens' Standard Progressive Matrices. The Ravens' Standard Progressive Matrices was developed in Great Britain by Ravens (1960). It consists of 60 matrices, or designs, from each of which a part has been removed. The subject chooses the missing insert from six or eight given alternatives. The items are grouped into five series A, B, C, D, and E each containing 12 matrices of increasing difficulty but similar in principle. The earlier series require accuracy of discrimination; the later, more difficult series involve analogies, figures permutation and alteration of pattern, and other logical relations. The test requires education of relation among abstract items. It is a non-verbal test and has been claimed to be a language-free, education-free and culture-free test. The test is administered with no time limit, and can be given individually or in groups. Percentile norms are provided for each half-year interval between 8 and 14 years, and for each five-year interval between 20 and 65 years. The number of items correctly solved is the score which is then translated into a percentile rank.

1.12.6 ATTITUDE TOWARDS CAELT

Like most abstract terms in the English language, attitude has more than one meaning. Derived from the Latin word "aptus" which means "fitness" or

"adaptedness" and also which connotes a mental state of preparation for action. The concept of attitude does not refer to one's single act or response, but is based on a number of related acts or responses. The acts or responses, which refer to one's attitude, are acquired and/or learnt. Attitude is a latent or dormant variable and, therefore, cannot be observed, but can be deduced from statements, actions, responses, etc. of an individual. The term attitude has been defined by many psychologists in different ways. Allport (1935) has defined an attitude as "a mental and neural state of readiness, organised through experiences, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related". In this definition of attitude it is clear as to how the attitude of an individual towards various objects determines his response towards the object. An attitude is acquired through experience. Krech Crutchfield (1948) has defined an attitude as "an enduring organisation of motivational, emotional, perceptual and cognitive processes with respect to some aspect of individual's world". Thus an attitude involves motivational, emotional, perceptual, and cognitive processes. If these are the fundamental processes then behaviour is explicable in terms of these processes. It is organised and enduring. An attitude towards an object

or a person is a state of readiness to think of, to feel about and to act towards that object or a person in a certain way. Campbell (1950) suggests that a social attitude is consistency in response to social situation. It is apparent that the concept of attitude implies a consistency or predictability of responses. An attitude governs or mediates, or is evidenced by a variety of responses to some specified set of social objects, or situations. He has summarized this view neatly in presenting an operational definition of attitude as " an individual's special attitude is an (enduring) syndrome of response consistency with regard to (a set of) social objects." Guilford (1955) defines attitude as "a tendency of an individual to favour or not to favour some type of object or situation." To Stephens (1951), attitude means something that is learned without any attention whatever it is. Morris (1946) says that attitudes are associated with likes, dislikes and consequently have an emotional content. Finally, to quote Thurstone (1946), attitude is " the degree of positive or negative affect associated with some psychological object. It is the way in which a person feels about a psychological object. It is the amount of 'degree' of positive or negative feeling a person has towards the object of attitude". An individual who has associated positive affect or feeling with some psychological object is said to like that object or to

have a favourable attitude toward the object. An
individual who has associated negative affect with the
same psychological object would be said to dislike that
object or to have an unfavourable attitude toward the
object. Here in this study attitude is the liking or
disliking of a student to the Computer Assisted Language
Teaching Programme developed by the researcher. The
students attitude toward the Programme was collected by a
scale consisting of 20 items with a five-point scale
format ranging from "strongly agree" to "strongly
disagree" in likert-type scale. The draft of the
instrument consisted of 20 items keyed to six Computer-
Assisted Language Teaching attitude categories viz.,
Vocabulary, graphics, grammar, comprehension, sequence of
presentation and feedback. The students were invited to
tick the spot on the scale which reflected their feelings
about the programme.

1.12.7 MOTIVATION

The term motivation is usually defined by
psychologists as the processes involved in arousing,
directing, and sustaining behaviour. It is used to
indicate, for example, why an organism is awake and
active rather than asleep, why it works at one task
rather than others that it could work at all, and why it
persist, at that task rather than moving on to other

activities. Frymier (1970) clarifies the concept of motivation by stating that "motivation gives both direction and intensity to behaviour. Motivation to learn gives direction and intensity to human behaviour in an educational context. Motivation to learn in school gives direction and intensity to students' behaviour in a school situation". According to Frymier, 'direction' implies "selection from possible variations in purposes or goals", and 'intensity' implies "possible variation in terms of degree of effort or energy put forth to attain the goal." Frymier has done a great service to the development of research by devising a theoretical model for academic motivation. Students are usually motivated in many different ways, some of which may be positive and some negative. In case of students whose motivation to learn is positive, their academic achievement becomes higher than those whose motivation to learn is negative. But students' conformity to set behaviour in learning does not always produce best results in learning outputs. Thus, students' tendency to follow all instructions given by teachers or in schools is not the reflection of academic motivation in the best sense. Frymier's theoretical model of academic motivation is based on the fundamental assumption that academic motivation has several dimensions. Of these, three dimensions are likely to prove to be factors of academic motivation in the

statistical sense. These three basic dimension of academic motivation are. (1) Internal-External, (2) Intake-Output, and (3) Approach-Avoidance.

The 'Internal' portion of this dimension (i.e. Internal-External) in the word of Frymier "refers to those aspects of personality and value structure which the individual learner brings with him to the learning situation". The 'External' portion of this dimension refers to the environment as a stimuli source. In other words, the Internal-External dimension appears to reflect the source of academic motivation. That is, motivation to learn is in part a function of what resides within the individual and in part a function of the external world he encounters.

The second basic dimension is Intake-Output . Motivation to learn manifests itself in many ways, and these manifestations are encompassed by what is called the Intake-Output dimension or what might be called the consumption-production aspect of academic motivation. Some students seem moved to consume the learning world around them, while others are producers, in the main. This dimension seem to reflect the form and style of academic motivation. The third dimension is 'Approach-Avoidance' refers to the fact that "some students move toward teacher approval, stimulus ambiguity, novelty,

social acceptance, and the like, while other students move away from such things." This dimension, therefore, seems to be the directional dimension of academic motivation. Frymier (1970) has come out with a recent theory on academic motivation. Frymier's theory of academic motivation has the following points. (1) Motivation is an inferred construct. (2) Motivation to learn in school gives direction and intensity to students behaviour in a school situation. (3) Motivation is not the same as ability. Ability is what an organism can do while motivation is what an organism will do or wants to do. (4) Motivation gives direction to behaviour. (5) Motivation, at least, in part is learned and it can be taught. (6) Motivation gives intensity to behaviour and in the following factors- (i) availability and quality of stimuli, (ii) perceptual openness, (iii) handling of dissonance, (iv) physiological functioning, and (v) anxiety- are important in giving intensity to behaviour by motivation. (7) As Frymier himself observes: "students who are too highly motivated may focus on a very narrow segment of higher educational world and miss the relationships in learning that are so important. They are less able to see the patterns and make meaningful interpretations of the complexities of the learning stimuli. Students whose motivation to learn is too low are unable to focus their perceptual energies long enough

or clearly enough to engage in the kinds of experiences which are conducive to learning". The theory of motivation developed by Frymier has the following important points.

(i) Motivation to learn gives direction as well as intensity to the learning behaviour of a student;

(ii) Motivation is a function of values and educational purposes;

(iii) Motivation is affected by the kind and quality of stimuli received by the learner, his perceptual style, dissonance, anxiety, and his physiological functioning;

(iv) Motivation is probably durable rather than fragile;

(v) Motivation need to be thought of in optimal rather than maximal terms, since too much motivation evidently affects adversely positive learning.

Researches and studies on academic motivation have resulted in the identification of some general factors constituting the fiber of academic motivation. According to Frymier (1969,1970) three general factors- value, personality structure, and curiosity, among other things, affect pupil motivation toward school experiences. he says: " motivation, toward school is the result of a pupil's own personality and the kinds of values he holds. Those pupils who are very perceptive and who believe in the world of ideas are more apt to desire

to do good work than those who fell otherwise." When Frymier constructed his tool for measuring pupil's motivation towards school, he had largely drawn upon the three general factors, viz., value, personality, and curiosity. This tool is designated as the Junior Index of Motivation or JIM Scale. In developing the items for this tool, he used six areas initially. These initial areas of concern are as under.

TABLE- 1.1

COMPARISONS OF INITIAL AREAS OF CONCERN, SUBJECT CLUSTERING OF UNDERACHIEVER CHARACTERISTICS, AND DIMENSIONS SUGGESTED BY FACTORS I THROUGH VI IN FACTOR ANALYSIS STUDY

Initial Areas of Concern	Subjective clustering of Underachiever characteristics	Factor Analytic Dimensions
(1)Attitude toward school	(1)Intense dislike for school	(1) Positive-Negative school attitude
(2)Value for education	(2)_____	(2) _____
(3)Feeling for other people	(3)Unhappiness and fear	(3) Belongingness Alienation
(4)Concern for material things	(4)concern for objective and materials	(4) Idealism- Pragmatism
(5)Sense of personal determination	(5)_____	(5) Personal control- Fatalism
(6)Attitude toward self	(6)Lack of confidence in self Resistance to change and new ideas	(6) Flexibility Dogmatism

Source: Frymier, development and validation of a motivation index pp.85 TIP vol. IX. No.1 1970.

(1) Attitude towards school

(2) Value for education

(3) Feeling for other people

(4) Concern for material things

(5) Sense of personal determination

(6) Attitude towards staff.

The response to the items included in the JIM Scale was subjected to the factorial analysis. This statistical operation yielded the following six clusters of factors.

(1) Positive-Negative School Attitude

(2) Belongingness-Alienation

(3) Idealism-Pragmatism

(4) Personal control-Fatalism

(5) Optimism-Pessimism.

(6) Flexibility-Dogmatism.

In table-1.1 a relationship between the initial areas of concern or components of pupil motivation toward school and their respective factor analytic dimension is shown. Also shown is the relationship among initial areas of concern, subjective clustering of underachievers characteristics and dimensions suggested by factors 1 to 6 as emerged from the factorial analysis study of the items of the JIM Scale.

An attempt was made by Frymier in about 1961 to develop an instrument for assessing young people's motivation to learn in school. This instrument is the famous JIM Scale. The theoretical assumption constructed behind this motivation index is that motivation is something which comes from within rather than something which comes from without. To use Frymier's own words, "motivation toward school was assumed to represent an internalized state of being which manifested itself outwardly in particular ways of behaving". in other words, "motivation was conceived of as that which a student had or was rather than which a teacher or other person did to him." Frymier developed originally more than 300 items based on students' personality structure, his attitudinal structure and his value structure. The items revealed areas such as the students' attitude towards school, the extent to which he valued education, his feeling for other people, the value that he attributed to ideas, his concern for material things, his personal determination, and his attitude toward himself among other things. The author of the tool also used several operational assumptions. these assumptions were as under:

(1)   The instrument should be conventional in nature; i.e. verbal, typical, and reasonably short. Items

should be short, easy to respond to and relatively unambiguous.

(2)   The items should be phrased in such a way that they would be partially projective in nature.

(3)   A number of items should be so phrased that a value hierarchy becomes readily apparent.

(4)   The tool to be developed should be such that it could always be administered under normal classroom teacher.

(5)   The tool should be also such that it can be scored and interpreted by the classroom teacher.

(6)   While finalizing the items of the tool, a pupil's, whose motivational level towards school was known to differ, were identified and tested with various items. Each item should be discriminating among students according to their desire to do good work.

(7)   The instrument should be appropriate to the age-level of youngsters whose academic motivation is to be assessed. The JIM Scale, which will be used in the present investigation to measure pupil motivation to school is devised employing the above mentioned operational assumptions. The scale consists of 80 items in the form of statements. Although there are 80 items, only 50 items are to be scored. The others are filler items, but should be included. For each statement the student

responds by making one of A, B, C, D which represent, agreement, strong agreement, disagreement, strong disagreement with the content of the statement, respectively. Although the questionnaire is not timed, it takes about 30 minutes for students to complete the items. For scoring, responses A, B, C, and D are taken to represent 1, 2, -1, and -2 respectively. Student's score for the 50 items are added algebraically. This sum with sign reversed is the raw score value. This raw score value is then added to +100 algebraically. This score is the student's converted motivation score. Higher scores indicate higher motivational level, and lower scores indicate lower motivational level. In this study the academic motivation of the students was measured using the Junior Index of Motivation (JIM) Scale developed by Jack Frymier. Scores obtained by the students on the JIM Scale were taken to represent their academic motivation.

1.13. DELIMITATION OF THE STUDY

The study is delimited to those four units selected from the English textbook for std.VIII. Gujarati medium and to their contents only in terms of vocabulary, grammar and comprehension.

In term of grammar the study is delimited to the following parts of speech Noun, Pronoun, Adjective and Preposition. Writing and Oral skill were not considered.