CHAPTER - 11
CHAPTER II

TEACHING - AID , COMPUTER AND ERROR ANALYSIS

The present study _A Study of Computer as an Effective Teaching -
Aid to teach English Grammar for Engineering Students (An Empirical
Study on ELT with CALL)_ focuses on the following aspects:

- Teaching – Aid
- Computer and its functions
- Error analysis

PART - A

2.1 TEACHING - AIDS- A BRIEF SUMMARY

The history of communication is contemporaneous with the history of
man. Primitive man certainly learnt to convey his thoughts by signs ,
gestures, facial expressions and crude imitations long before he developed a
vocabulary with which to express them orally. For centuries, visual aids
were used even in more formalized education. Real objects and specimens
had always been used to illustrate and inform. Many great thinkers,
educators and leaders like Erasmus, Pestolozzi, Rousseau, Treebell,
William Penn and Horace Mahn have recommended the use of these aids.
Professional parlance words such as visual aids, sensory aids, audio -
visual instruction and multi- sensory aids were freely used.
2.1. VARIETY OF TEACHING – AIDS

![Diagram of Teaching Aids]

2.2 CLASS ROOM TEACHING – AIDS - A BRIEF SUMMARY

2.2:a BLACK – BOARD

The black-board is a familiar and much used teaching device but "it is often carelessly used and without the realization of its potential" (Walter A. Thurber, Teaching Science in Secondary Schools, 266). The teacher should plan in advance just what are the parts of lesson to be presented by means of the black – board. "Talk and chalk done well, with suitable questions and subsequent creative and active work by the class is still a most important method of teaching and as such it will not be displaced altogether, by more elaborate visual and other method" (Summer W.L, Visual Methods in Education,17).
Uses of Black Board:

- It can be used advantageously for group instruction
- It provides opportunity for closely supervised pupil activity
- Black - Board writings and drawings intensify pupil’s interest and attention
- It is economical, because it can be erased and used repeatedly.

2:2:b BULLETIN BOARD

It is best adopted for displays of picture and clippings through other flat material. If the bulletin board is intelligently used, it will

- Motivate, supplement and enrich learning
- Provide intriguing educative opportunities
- Serve as an advertising medium

Materials that may be displayed are numerous advertisements, reports, assignments, bulletins, clippings, creative projects, informal items, news and notices.

TYPES OF BULLETIN BOARDS

Based on the purpose and usage, there are three types of bulletin boards available to promote the learning activities. They are,

- School Bulletin Board
- Class Bulletin Board
- Subject Bulletin Board
The school bulletin board is used largely for promotion of events and activities of interest. Class room or Subject – wise bulletin board reflects materials of specialized interest to a particular group. Making and maintaining a bulletin board represents an excellent school, student council or class project. A bulletin board committee should be formed and it should look after the activities of the bulletin board. "The committee studies the science of display, promotes the production; evaluates; selects and posts material" (Ram Seth & Suk Ram Singh, Education Screen, 248).

2:2:c FLANNEL BOARD

Flannel board is an inexpensive aid. It is primarily used for demonstration purpose. The items to be shown on the flannel board are to be prepared well in advance and are instantly attached to the fuzzy surface of the board and just as quickly replaced by other prepared items. Stretch a yard or two of good cotton outing flannel over a piece of plywood or board.

The nap of the flannel will catch and hold the nap of another piece of flannel or sand paper that is placed against it. Any picture that is blacked with flannel will stick to the board. The flannel board should be tripped slightly, so that the objects on it are not likely to fall off.
They are free, inexpensive, easily procured and stored. They can be studied for the study of very large or small objects that are unavailable in the classroom. Commonly used types of still pictures are the so-called flat picture or unprojected pictures, photographs, paintings, stereographs, projected pictures, opaque and transparent sheets. If properly used, however a good set of pictures can still be one of the most effective audio-visual aids. A school can have pictures that capture slices of reality and tell a story in a language of their own. Photographs and clippings may be stored in a letter file; related photographs may be kept in a folder having topic heading.

These aids are better adopted for individual study than for class use. As in the words of Ruswell, "Usually what the pupil has already seen in the pictures represents experience that will help him to interpret more readily and easily what the teacher points out or emphasizes" (G.T.Ruswell, How People look at Picture, 322). The main advantage of the stereo-graphs is that it presents a more realistic view than is presented in any other type of pictorial representations.

The realism is due to the fact that view is seen in three dimensions where as the photograph has no depth. The chief limitation of the stereograph is that it is designed for individual instruction only. However
this may not be a handicap but an asset because individualized instruction is an ideal of modern education.

2:2:e CHART

Charts are standard equipment in most of the class rooms: "Chart is a visual symbol for summarizing or performing other helpful ... sciences in exploring subject matter" (Edger Dale, 325). The charts may be left up as needed but slides cannot be projected indefinitely. Charts have important uses in supplementary demonstration, discussions and they may be also very much useful in 'review and recapitulation'.

2:2:f MODEL

Models tend to be superior to many diagrams and pictures because they introduce a third dimension. Models fall into different classification. Scale models are designed to duplicate the appearance of a real object as closely as possible but are usually larger or smaller. Diagrammatic models emphasize selected features and suppress others for the sake of clarity. Display models show structural characteristics. "Models can be defined as recognizable three dimensional representation of real things" (Whittich, Walfer. A. Audio–Visual Materials, 48). The value of the model lies in its presentation of the parts in their proper spatial relationships. The degree to which a model resembles the real object is
important. Plastic has similar use as clay. Plaster of paris is a versatile material and it is very useful for modelling.

2:2:g RADIO

Radio is an instructional aid which was effectively used by the westerners before three decades. Even today the programme for children is now a regular feature of All India Radio (AIR). Frequently, AIR presents on scientific topics which are of immense value to the children as well as teachers. The teacher can very easily select the topics which he thinks are of great educational value and suit the curriculum of the learner. As in the words of George Watson, "Radio is an addition to education... Radio is not something to be placed on top of education, rather radio is education" (Sharma. R.C Teaching of Science, 161).

R.G. Reynolds writes that radio is the most significant medium for education in its modest sense that has been introduced since the beginning of the century. The teacher should select the programme carefully and should motivate the children to make use of the broadcast. "The teacher should not consider radio as a substitute for teaching but as a supplement. The lesson and programme should be correlated and integrated with the class room work" (Kolandaivel. K, 169).
2:2:h FILM STRIPES & SLIDES

The advantage of 'film stripes & slides' is their versatility. The teacher can alter the time allotted to any scene or series of scenes. In addition, the teacher can turn back readily to any scene for consideration. In the slides, he may present the picture in any order and delete those that are inappropriate. They are inexpensive and operation is simple. They are arranged sequentially first and are supplemented by captions that serve the scene function as the narration of a sound film. The same suggestions aid in the preparation, showing and follow up as in a motion picture.

A few slides make possible comparisons that would otherwise be difficult. A slide may make an answer to unexpected questions. Film stripes compared with the slides are relatively inflexible. The pictures are arranged in a fixed sequence and supplemented by captions. Film stripes and slides may be stored up and a library may be developed.

2:2:i MOTION PICTURES

No other scientific invention can claim to have rendered more service to education than the cinematograph. Educational films can be divided into classroom films, industrial films, school made films, documentary films and newsreels. More important than the film itself is the method of showing it.

Necessary equipment should be made available well in advance. The time, date and day should be notified. New films should be previewed
before they are presented to the class. A thorough background should be given to the pupils. After the show there should be discussions, comments and questions. If the situation demands and time permits, the film may be shown again. The materials taught by the film should be reviewed from time to time.

2:2:j TELEVISION

The importance of television in the communication of information, ideas, skills and attitudes has been affirmed by sophisticated observers as well as by researcher: Gerald Beadle, the Director of BBC (British Broadcasting Corporation) in 1960 made a comment at a meeting in New York, “Next to the home and school I believe television to have a more profound influence on the human race than any other medium of communication. It deserves to be taken very seriously indeed” (Edwin Emery Phillips, Introduction to Mass Communication, 249).

Television has proved to be the single most pervasive social phenomenon of the 20th century. Television or doordarshan means ‘seeing at a distance’. If the distance is not very long, broadcasts are carried from the starting point to the receiving point by cable (or sometimes microwaves). This type of television is known as ‘Closed Circuit Television’.

In 1990s, the effectiveness of television was analyzed by the education commission of NCERT (National Council of Educational
Research & Training) and emphasized its need in the curriculum. Television combines the best element of the radio and potentialities of the films. The UGC (University Grants Commission) programme 'Countrywide Classroom' is the closest approach in India towards tapping the educational potential of television technology.

Telecast twice a day (The second transmission being a repeat) the lessons spanning a wide range of themes and covering several disciplines have evoked a lot of interest in the last ten years. The programme telecast have been produced in different Audio Visual Research Centers (AVRC) and Educational Media Research Centres (EMRC) spread all over the country. Some of the programmes have been produced abroad. Even today UGC presents many lectures given by the subject experts through DDI (DoorDarshan – India) and many lectures for the students of IGNOU (Indira Gandhi National Open University) are being given through television.

Keeping in view, the scarcity of qualified personnel and lack of well equipped laboratory, the television is being made use of in teaching the class room syllabus. Within the 40 minutes available, first 5 minutes are reserved for testing the previous knowledge of the pupils. In the next 20 minutes, television lesson is given and the remaining 15 minutes are left for follow up work after the lesson.
ADVANTAGES OF TELEVISION IN TEACHING

Television has both physiological and psychological advantage of being 'alive'. It is better than classroom teaching and the pupils are active as in the classroom. Adjustment to individual differences among pupils is limited. Subject matter gets into the mind of the pupils through vision and hearing which help in acquiring permanent learning.

A serious setback of this programme is, the divorce of the timings of College with the broadcasting timings of television stations.

2:3 COMPUTER

A computer is a power-driven machine equipped with key-boards, electronic circuits, storage compartments and recording devices for the high speed performance. The National Policy of Education has emphasized the use of computer and new technology in English language teaching. As mentioned in the report, "Some specific programmes are to be taken up for implementation as mentioned in the programme of action" (‘Programme of Action’, National Policy on Education, 166).

The report says,

- Research in the methodology of effective teaching and learning of languages with particular emphasis on the use of computers and other communication media.

- Infrastructure facilities of language and other training institutes for training of teachers and experimentation in Computer assisted instruction and the use of new communication technology.
Development of textual materials for ensuring attainment of specified language abilities

The Central Institute of Indian Languages (CIIL), Kendriya Hindi Sansthan and Dakshin Bharat Hindi Prachar Sabha have been provided with BBC micro computers for undertaking experimentation in computer assisted language instruction and learning.

The Central Institute of English and Foreign Languages (CIEFL) has set up an educational media research centre for English Language Teaching (ELT). The researcher has chosen the device 'Computer' for his research. He wants to make a research on using computer to teach English grammar for engineering students. The following are the questions which focus the main objectives of the study.

- Will a computer assist a language teacher?
- Will a computer be used as a teaching aid?
- Will a computer be effective in class room?
- Will a computer be comparatively more effective than the conventional teaching?
2:4 TECHNOLOGY IN EDUCATION & TECHNOLOGY OF EDUCATION

This term ‘Educational Technology’ means to a group of teachers as only using films, slides, television and using other materials. The other group believes that it is nothing but programmed learning or some variation based on the behaviourists conditional model.

The National Council of Educational Technology which was established in 1967 in the UK at its second meeting in October 1967, came out with a working definition of educational technology as “the development, application and evaluation of systems, techniques and aids to improve the process of human learning” (Educational Technology: Progress and Promise p.13).

When the emphasis is on the technology in education, it reflects the totality of the gadgets and mechanical aids or devices used in education. Thus, the term educational technology got limited to the use of hardware, but this should not be identified with technology of education which is a science of improving the teaching as well as learning process.

2:4:a MULTIMEDIA APPROACH

Our senses are the gateways to acquire knowledge. The natural way of learning by children is principally through the employment of senses. Sampath says “Experience and research have shown that the following figures are generally valid” (Sampath & Paneerselvem Introduction to Educational Technology, 27)
We learn

- 1% through Taste
- 1.5% through Touch
- 3.5% through Smell
- 11% through Hearing
- 83% through Sight

We remember

- 20% of what we Hear
- 30% of what we See
- 50% of what we See and Hear
- 80% of what we Say
- 90% of what we Say and Do

2:4:b EDGAR DALE’S " CONE OF EXPERIENCE "

Edgar Dale formulated a 'Cone of Experience' to classify the role of the audio-visual aids according to their effectiveness in communicating ideas. His suggestion to the designer of methods is "go as low on the scale as you need in order to insure learning, but go as high as you can for the most efficient learning" (10)

There is an old-saying,

I hear, I forget

I see, I remember

I do and I understand
Learning by direct, concrete sensory experience would be the most ideal method to help the learner acquire complete knowledge. The learning stimuli that impinge upon our perception are mainly audio-visual. As the Chinese saying goes "A thousand hearing are not so effective as one seeing" (D.A Henry, 142)

Attention is greater if the stimuli sensations are clear, vivid and strong. The more vivid the perception, the more often the experience is repeated and the more deep seated is the modification more permanent and more efficient in retention, recall and remembering. Recently many innovations aiming at evolving more effective teaching have emerged. Since this study is related to the use of computer in teaching English, it is more appropriate to explain the fundamentals of computer.

2:5 COMPUTER - AN INTRODUCTION

Strictly speaking, computer is a calculating device. The name, derived from the Latin word 'Computre', and its meaning is "to reckon". However, the term "computer" has come to mean a special type of calculating device having certain definite characteristics. In simple terms, a computer is a glorified calculator with a difference. Computer has the capacity for "storing" or "memorizing" a large amount of information and producing or retrieving any of them when called for. It is an effective device when it is in the hands of an informative teacher.
2:5:a PARTS OF COMPUTER

Speaking in general, parts of a computer can be classified into three different features. They are as follows,

**Computer**

- **Input Device**
- **Central Processing Unit**
- **Output Device**

- **Memory Unit**
- **Control Unit**
- **Arithmetic & Logic Unit**

**INPUT DEVICE:** KEY BOARD

One can interact with computers by typing on a key board just like a typewriter. The device which is used to give the information/pass instructions to the computer is known as the memory. As regards output, it can be displayed in the monitor of the computer or it can be printed on a paper or micro-film or stored on a tape, floppy or disc (a magnetic device).

**CENTRAL PROCESSING UNIT**

The unit in which the given information are stored and processed is known as central processing unit. This is the important unit which is known as the brain of the computer. This unit is divided into three small units, they are,

- **Memory Unit**
- **Control Unit**
- **Arithmetic & Logic Unit**
MEMORY UNIT

In this unit, the memory store contains all the information, which has been fed into the computer through the input device. The capacity of the memory varies from computer to computer; but today's micro computers have a bigger memory than the old generation computer. One can store the desired information on disc. These storage media is known as secondary storage or auxiliary memory.

CONTROL UNIT

The unit that controls the whole activities of the system is known as the control unit. This unit is known as the supervisor of the computer. This unit directs the memory to receive the information from the input device and directs the **ALU (Arithmetic & Logic Unit)** to process the information.

ARITHMETIC & LOGIC UNIT

This unit /part of a computer involves in the application where the calculations and all sort comparisons are made. In this unit, all the data processing occurs and it is directed by control unit.

OUTPUT DEVICE

This device helps us to see/ know the processed result of the computer. Normally, monitor of the computer helps us to see the information stored. Multi media speakers of a computer help us to hear information stored in the memory unit irrespective of the sounds, songs and any sort of document.
2:6 COMPUTER LITERACY : NEED OF THE HOUR

Computer literacy is second literacy today. There is little doubt that in order to survive in such a rapidly changing society, one must possess an understanding of how a computer plays its role in almost every walk of life. In future, no teacher can afford to brush aside the use of the computer in the classroom because the teaching of basic computer literacy is no longer confined to students of mathematics or computer science. The use of computers as vehicles for the achievement of these various educational goals is almost certain to continue to increase.

As in the words of S.S.Kulkarni,

Teaching aids like chalk, board etc., only helped a teacher in presenting his messages. Radio and Television went further and in a sense, broke the walls of class room and took over many of the functions of a class room teacher. The computer however, is going much beyond. It can perform many functions which no human teacher can perform and those too at a place and time convenient to the learners (Educational Technology, 401).

2:7 COMPUTERS IN TEACHING – A HISTORICAL VIEW

In 1812, Charles Babbage, Professor of Mathematics at Cambridge University, created a machine called ‘different engine’ to perform simple computations needed for trigonometric and logarithmic tables automatically. An important theoretical development occurred between
1847 and 1854 as George Boole, an English logician devised and perfected an algebraic system, now called "Boolean Algebra" for representing and manipulating logical expressions. It was binary nature of TRUE / FALSE problems which made link with computer developments.

The first generation of computers were valve based machines based upon Von Neumann's design principles. The second generation of computers used transistors instead of valves. The usage of transistors reduced size; manufacturing costs; running cost and improved reliability and processing power.

Third generation of computers were made up of ICs (Integrated Circuit) and entered the market in 1964. This third generation of computers can be classified into three major titles, they are as follows:

- **Main Frames**
- **Mini Computer**
- **Micro Computer**

The fourth generation of computers were made up of 'Advanced ICs' which quenched the needs of the consumer. The fifth generation i.e. current generation of computers are made of 'Artificial Intelligence' which is considered a scientific wonder. Presence of such computers in the classroom will make the learning process not only interesting but also a permanent one.
2:8 ANALYSIS OF THE ERRORS

The researcher has also studied and consulted books on error analysis. Error analysis is the part of investigation of the language learning process. As in the words of David Crystal, "Errors a term used in psycholinguistics referring to the mistakes in spontaneous speaking or writing attributable to a manufacturing of the neuro muscular commands from the brain" (A Dictionary of Linguistics and Phonetics, 23). In addition to that, Pit Corder stresses the importance of error analysis in language teaching as well as learning. He says, "...From the study of errors of a student we are able to infer the nature of his knowledge at that point in his learning career and discover what the student still has to learn..." (The Significance of Learner's Errors, 257). J.C. Richards states that, "two types of errors committed by the learners: they are intralingual error and the other one is developmental error" (A Non-contrastive Approach to Error Analysis, 27).

An intralingual error means those, which reflect the general characteristics of rule learning such as over generalization and incomplete application of rules etc. Developmental errors are those the learner commits while attempting to build up hypotheses about English language from his limited classroom and textbook experience.
THE TYPES OF ERRORS

J.C. Richards also categorizes the common causes of errors as follows:

- **Over generalization**
- **Ignorance of rule restriction**
- **Incomplete application of rules**
- **False concepts hypothesized**

2:8:a OVER GENERALIZATION

This term means the use of previously available strategies in new situations. In second language learning 'some of these strategies will prove helpful in organizing the facts about the second language. Over generalization covers instances where the learner creates a deviant structure on the basis of his experience of other structures in the target language. For example, 'he can sings', 'we are hope', 'it is occurs' and 'he come from'. With the omission of the third person- s, over-generalization removes the necessity for concord, thus relieving the learner of considerable effort.

2:8:b IGNORANCE OF RULE RESTRICTION

Learners of a second language are given certain rules to follow in order to make flawless language; but at the same time errors may occur when the learner applies the rules that they have learnt to the context when they do not apply. For example 'the man who I saw him', violates the limitation on subjects in structures with 'who'. This is also a type of
generalization or transfer. Analogy may also seem to be an important factor in the occurrence of error. Errors due to these factors are common to the use and misuse of prepositions.

2:2:c INCOMPLETE APPLICATION OF RULES

An error of this type occurs to the learner in the process of developing rules for the target language and has not completely mastered it. The learner finds considerable difficulty in the formation of questions. The statement has to undergo a few changes in order to become an interrogative sentence. The formation of questions made by the learner using a few rules he has learnt seems erroneous.

2:2:d FALSE CONCEPTS HYPOTHEORIZED

The learner's poor comprehension of the target language makes him commit certain errors in the target language. The form 'was' for example interpreted by the learner of the past tense leading to faulty sentence as 'one day it was happened'. So also 'is' may be understood as the marker of present tense causing faulty utterance such as 'he is speaks French'. Confusion is also possible with the use of present tense and present continuous tense.
PART – B

2.9 REVIEW OF RELATED LITERATURE

TECHNOLOGICAL DEVELOPMENT IN EDUCATION

In this chapter, the investigator deals with the ‘Review of Related Literature’ which means reviewing the earlier researches as it is related to the present investigation. The purpose of this chapter is to record briefly a few research studies carried out in India as well as in other countries and present some concepts on the English grammar and using computers in the classrooms. It means reviewing the earlier research as it is related to the present investigation. The role of reference material in any research is the most significant for the researcher and without which the thesis would not be completed or a successful one. The research studies would throw light on various aspects of the present study. Besides, it would aid the methodology of the present investigation and help the investigator to get insights. It is the task of the investigator to find out the available material in his study.

The rapid technical changes have brought about an increase in educational problems, and both laymen and educators have felt in recent years that it is only through that one can have better educational methods and make sweeping curriculum changes to meet the educational change of a highly technical and rapid changing society.
Agarwal, one of the well known educationalists, states:

Educational research brings vividness, completeness and comprehensiveness to complex problems in education. It makes our generation more weight, fruitful and effective... research increases our insight of a particular situation and makes us more enlightened.... Research enables us to study, the uniqueness of the child and adopt appropriate curriculum methods of teaching and disciplinary techniques (Educational Research – An Introduction, 2-3).

Research on the different aspects of teaching English occupies a prominent place in Indian life. A considerable amount of research work as “influence of mother tongue in learning the second language”, “place of errors in the process of language learning and the causes of the errors” have been done in the English language. The language institutions at Hyderabad, Mysore and Bangalore have been doing useful work in the field of teaching and learning process.

Prepositions in English present many difficulties to the students because they are the hardest working words in English language. A thick volume would be required to deal adequately with prepositional usages and even then, it may not be possible to say with any amount of certainty that all aspects of prepositional function have been fully covered.
The students’ task is not made easier because of the fact that very often there is a transfer of function from one meaning of the same word to another which is a common feature in English language. Preposition is a tiny but essential form of word with its phrases playing a vital role in the syntax of English. It is derived from the Latin word ‘praeposito’ and means ‘placing –before’

In the following pages the summaries of a few selected research studies conducted in the English Language Teaching Aspects as well as in CALL (Computer Assisted Language Learning) in foreign countries and in India are presented.

2:10 RESEARCHES CONDUCTED IN FOREIGN COUNTRIES

Scientific researches on the mistakes committed by pupils in the use of prepositions are few and far between. Most of the diagnostic studies in learning English are general in nature and they make only scanty and passing references regarding prepositional usages. An attempt in this section is made to review the studies available to the investigator, made by foreign authors. The investigator had surveyed a few research studies conducted in foreign countries at post graduation as well as doctoral levels. The investigator had utilised the web-surfing facility for this purpose, there is a website called -http/ www/research abstract/English/links through which one can have an idea about the researches done in foreign countries.
LYMAN (Summary of Investigation relating to Grammar Language and Composition, 1989, University of Chicago) analysed the types of errors in oral English found by investigators who had conducted studies among university students in Kansas City, Bonham, Texas, Columbia, Missouri, Detroit, Hibbing, Minnesota, New Jersey and Pittsburgh. He shows that 0 to 1% of the errors are due to confusion of prepositions and conjunctions.

MAC PHRHART (Diagnostic and Remedial Teaching, 1993, Oklahoma State University) analysed a total of 1112 themes written by 147 pupils of grade IX and found that of the grammatical errors committed by the pupils 15.4% involved prepositions and conjunctions.

RODERS (A Critical Study of the Grammatical Errors of Junior High Schools Pupils, 1962, University of Berkeley) asked 29000 pupils of Junior High Schools in Los Angeles to write a friendly letter of three paragraphs. On an analysis of 1200 of these papers, she found three types of common errors with regard to prepositions:

➢ Omission of prepositions
➢ Use of terminal prepositions, and
➢ Use of wrong prepositions
SCOTT (Error Analysis and English Languages Strategies of Arab Students, 1974, American University @ Beirut) examined the proficiency of 22 Arabic speaking students enrolled in a low-intermediate English course at the American University@ Beirut. Written and oral samples were taken at the beginning and end of the term. Errors in prepositions both in oral and written productions ranked next to the highest number of errors in the usages of verbs.

PHON KHAMPANG (Thai Difficulties in using English Prepositions, 1984, University of Thai) conducted a diagnostic test with three parts were administered to 159 students: 40 Thai; 48 Japanese; 28 Spanish and 43 others. The prepositions investigated were 'at', 'by', 'for', 'from', 'in', 'on' and 'to'. The analysis showed that there was no significant difference in the group of total scores; all four groups had difficulty with prepositions. There were no items that were specifically 'Thai' problems, rather their problems with prepositions were shared by all groups.

A contrastive analysis via a translation task provided information on how English and Thai prepositions differ. The results showed that while English and Thai prepositions systems contrast in many ways and predictions can be based on these contrasts, error analysis was just as effective in showing problems for Thai students have with English prepositions.
Liao, Thomas Shu-Hui investigated the article errors in the written English of Chinese college students (A Study of Article Errors in the written English of Chinese College Students in Taiwan, 1984, University of Colorado@ Boulder). The investigation focussed on the errors in articles committed by the Chinese college students of Taiwan. A sample of 100 English sentences with 157 final examination papers written by the English major students at Tamkang University in Taiwan was analysed. In the 100 sentences all occurrences of the articles were identified and classified. Then the 157 papers were scanned. Both absolute and relative frequencies of the error were calculated and compared.

In comparing some aspects of signalling article functions between Chinese and English, it was found that since Chinese students learn not Chinese grammar but English grammar in high school, the article errors made by the Chinese college students were due largely to the 'under teaching' rather than mother tongue interference.

Mizuno, Harumitsu attempted an interlanguage analysis of article and prepositional errors (An Analysis of Article and Prepositional Errors in English among the Japanese adult learners in an acquisition - poor environment, 1986, Columbia University). This study explored the types of errors committed by the adult Japanese ESL learners made in an acquisition poor environment.

The study was conducted with 353 subjects selected from the sample of 800 high school and university students in Japan. They took four kinds
of elicitation tests: three judgmental and one productive. The data revealed that the Japanese adult learners committed errors in co-occurrence, word-order, under extension, over extension and substitution. The overall results demonstrated that semantic constraints were more influential than syntactic constraints in the interlanguage development on those tested. These findings showed that attention could be given to the concept of the Zero-article and the functional knowledge of prepositions with the semantic domain in presenting the English articles with the speakers of a language which lacks an article system.

ARANI, MAHMOUD TABATABAI investigated the structural errors made by the Iranian University students. This study was primarily concerned with the types and the causes of major structural errors made by a selected sample of Iranian University students when they wrote in imaginative and expository mode in English. The sample of the study was 20 Iranian students.

The data for the research were drawn from 32 compositions written by the students, the results of the interviews conducted with the students and the questionnaire filled out by them. It was found in general that the students committed more errors in expository writing than in imaginative writing. Errors in tenses, prepositions, number, etc were noticed. Interference from Persia, complexity of English language, students' incomplete knowledge or ignorance of certain structures, the interference of conversational English into written English, lapses of memory and lack of
sufficient practice in formal writing were among the major causes of error occurrence.

MECK, GEORGE HENRY (Formal Learning? Naturally! The Influence of Conditions of Second Language use and Learning on the incidence of Transfer, 1984, University of Pennsylvania) investigated the influence of native language over the learner’s errors in the second language. He had analysed the errors in the second language use made by the adult learners of English as second language.

Some errors had been explained as being due to developmental or language internal factors while others had been explained as being due to transfer, the interfering influence of a learners’ native language. Transfer had been characterised as more likely to appear informal, artificial, non-communicative language situations such as classrooms, rather than in other natural communicative situations. Also transfer had been deemed more likely to occur in the language use of those learning in a formal environment than those learning in the so-called real world environments.
The researcher has surveyed a few researches conducted at the M.Phil level in the University of Madras and Annamalai University in Tamilnadu. The researcher has also utilized 'Web-Surfing' facility to get the information about the researches done at the national level.

T.B. Ramachandran conducted a study in the teaching of English grammar – Active and Passive Voice (Teaching of Active and Passive Voice to the native Tamil students at the Undergraduate Level, 1986, Annamalai University). Apart from suggesting the method of teaching Active Voice and Passive Voice, the investigator had provided a list of sentences where the active as well as passive voices had been wrongly used. The investigator had collected the data from the answer scripts and composition note-books of college students.

The analysis of the data showed that the errors committed by the students in the use of Active Voice and Passive Voice might be due to the mother tongue (L1) interference. The investigator has given a few guidelines for teaching the Active and Passive Voice effectively at the college level.
V. Baskaran conducted a research on the orthographic problems of the college students (*The Orthographic Problems of College Students in Coimbatore District, University of Madras 1990*).

The investigator analysed the spelling mistakes committed by college students and he collected 100 words for analysis and interpretation. These often mis-spelt words had been collected by him from the students' composition note – books and from the university examination answer scripts at the time of valuation when he was an examiner.

B. Ramesh attempted a comparative study of Prepositions in English and the post-positions in Tamil (*A Study of Prepositions in English and post-positions in Tamil, (A Study in comparison on the college entry level in the Bharathiyar University, Coimbatore)*). The study is a detailed one and has a detailed focus on parallel words for prepositions in English and Tamil. This study also concentrates on the influence of mother tongue in the errors committed in English language learning.

ALAM (*An Empirical Study on Prepositional Errors, 1986, Kakatiya University*) analysed the essays written in the 19 answer books of the model examination of the first year students of English Literature of Government degree college, Warangal for errors in the use of prepositions.
The answer scripts of the same 19 students in the final model examination were also subjected to analysis for prepositional errors. There were 111 clear errors of preposition in the first model examination and 94 in the second.

The errors owing to the omission of prepositions amounted to 28.80% of the errors in the first model examination and 22% in the second. The insertion of prepositions where they were not required caused 19.80% of the errors. Confusing one preposition for the other accounted for about 50.40% of the errors. Students erred more with respect to 'to' then 'in'. In the order of difficulty 'at' and 'for' took the successive places respectively.

**SRINIVASAN. C (Influence of Library in the Teaching of History & Geography in the Schools of Tamilnadu, 1989, University of Madras)**

investigated the use of library and audio–visual aids in the teaching and learning programme in history and geography in the higher secondary schools of Tamilnadu with a special reference to Madras city. He found that,

1. The private management schools were better placed in the matter of availability of audio–visual aids.

2. Secondly, the Government and Corporation high schools secured second position with regard to the availability of audio–visual aids.
CHELLADURI S. (A Study of Difficulties faced by the Tamil Medium Students in the English Classes, 1993, Madurai Kamaraj University) investigated the difficulties experienced by the Tamil medium students in English classes at the graduation level and found that,

1. Tamil medium students experienced difficulties in the usage of consonants.
2. Tamil medium students had difficulty in combining consonants.
3. Tamil medium students found it difficult to make simple English sentences.

GIRIJA RAMACHANDRAN. S. (A Study of Teaching-aids used in the Teaching of Tamil in Selected Schools of Gobichettipalayam Educational District, 1991, Annamalai University) investigated the usage of teaching aids in the teaching of Tamil poems and compositions and found that,

1. All the schools had basic teaching aids to teach Tamil subject.
2. 28% of teachers were not interested in using teaching aids.
3. 15% of teachers were not aware of handling OHP and Epidiascope.
4. In the teaching aided classrooms students were interested as well as attentive and most of them remembered the pictures and sounds made in the instruction.
5. Power supply was a set-back in the government schools to use teaching aids in the classrooms.

6. Some of the teaching-aids were too costly.

In our continent, the area of this research 'CALL' is quite a new avenue as well as a new platform to teach English language. Primary level researches are being done at CIEFL, RIE and RISIL. This research is unique because it throws light on conventional methods of teaching, reasons for errors, advantages of a computer as a teaching aid, its effectiveness and creating an optimal software package to teach prepositions in English.