THE USE OF CALL IN TEACHING ENGLISH WITH SPECIAL REFERENCE TO THE DEVELOPMENT OF WRITING SKILLS IN THE POLYTECHNICS OF ASSAM

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

MAMUN AZAM BARBHUIYA
REGISTRATION NO- 026 of 2011

SCHOOL OF HUMANITIES & SOCIAL SCIENCES
DEPARTMENT OF ENGLISH & FOREIGN LANGUAGES
TEZPUR UNIVERSITY
JULY 2011

ABSTRACT

The study is based upon the assumption that Computer Assisted Language Learning, henceforth (CALL), can be used in teaching English especially for developing writing skills. During this study, the survey and experiment method was adopted to test the null hypothesis that the use of CALL has no effect on the teaching and learning of English, especially for developing writing skills of the students of the Polytechnics of Assam. The statistical software *SPSS* was used to analyze the data.

The content of the thesis has been organized in six chapters.

In the first chapter, an attempt has been made to study the needs for English language teaching in the Polytechnics of Assam and the problems of ELT in these institutions. The present compulsory English course cannot develop communicative skills especially the writing skill of the learners. The contents and methodology adopted by teachers cannot equip the students with necessary language competence. Students appear to be more concerned with doing well in their technical subjects and therefore give less importance to English because they have just to secure pass marks in the subject. Hence it is necessary to motivate and induce the learners to develop their writing skills as such skills cannot be neglected in view of their future academic and professional needs.

A sub-section on review of related literature focusing on discussions of relevant research works in the area is also included in this chapter.

The chapter also spells out the objectives of the study and the methodology adopted for realizing these objectives. The main objectives of the study were to:

i. analyze the attitudes of the teachers and the learners of English in the Polytechnics of Assam towards the application of computer in teaching and learning English especially in developing writing skill;

ii. explore the possibilities of integrating CALL into the syllabus especially for developing writing skills both in and outside the classroom;

iii. work out a model and suggest an alternative or modified syllabus for using CALL in developing writing skills among the students of the polytechnics in Assam in order to encourage them to use the skills in real-life situations;

iv. conduct an experiment among two groups of students to see the efficacy of the modified syllabus.

The second chapter contains a discussion of the history and development of CALL. The three main stages of CALL i.e. Behaviouristic CALL, Communicative CALL and Integrative CALL were discussed in detail. The chapter also contains a discussion of various types of CALL such as web-based CALL i.e. CMC (synchronous and asynchronous), the Internet, and multimedia CALL.

In the third chapter, the uses of CALL for developing writing skills have been discussed in detail from the theoretical point of view. Word processors, grammar-checkers, use of dictionary, etc. are helpful in developing language skills of the learners. At the end of the chapter, eight writing activities in CALL for a wide range of communicative purposes as propounded by de Szendeffy (2005) were also discussed.

The fourth chapter contains of a discussion of the survey conducted among the randomly selected students and teachers of the two Polytechnics of Assam viz. Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati to know their attitude towards the teaching-learning of English in technical education and the need for using CALL for developing communication skills of the learners.
The findings of the survey indicated that both teachers and students had positive attitude towards the use of CALL for developing writing skills. On the basis of the findings of the survey and other research studies a modified syllabus was designed incorporating CALL in teaching English in the traditional English classroom.

The fifth chapter contains a model syllabus that was designed for using CALL, especially word processor, in teaching English in and outside the classroom and a discussion of an experiment carried out to implement the syllabus The

model syllabus consisted of the contents such as grammar and vocabulary, listening, speaking, reading and writing. The main features of each of the contents were listed along with the examples of materials and scope for test and evaluation.

An online experiment (asynchronous) was conducted among the two groups of students (selected randomly) of Nowgong Polytechnic, Nagaon (Group A) and Girls' Polytechnic, Guwahati (Group B) in a computing environment. Twenty students in each group participated in the experiment and communications with them were made via email only. The collected data were subjected to statistical analysis to determine Mean, Standard Deviation (SD), and *t*-test by using the statistical software *SPSS* programme.

At the beginning of the experiment, an Entry-level test was conducted among the participants of the two groups. There were four tasks given to the participants, namely, (i) IT vocabulary and elementary grammar—in this task questions were divided into two groups: Group A & Group B. In group A, questions were framed on the basic terminology in the field of information technology and in group B, questions were asked mainly on elementary grammar such as tense, preposition, use of appropriate vocabulary, etc; (ii) paragraph writing—in this task, students were asked to write a paragraph on a given topic by developing the points given. One of the main objectives of the task was to get an idea about the knowledge and creativity of the students; (iii) comprehension—in this task, students were given an unseen paragraph with some comprehension questions on it. Students were asked to write the answers in their own language; and (iv) summary writing—in this task, students were asked to write a summary of an unfamiliar prose passage. All these tasks were prepared on the basis of 'CALL in writing activities' propounded by de Szendeffy (2005).

The result of the Entry-level test shows that that the mean value of Group A was higher than that of Group B. It also shows that the mean value of Task I was higher in the same group (Group A) whereas in the case of Group B, the mean value was higher in Task IV. The analysis shows that students of Group A have more knowledge of the IT vocabulary and elementary grammar than their

counterparts in Group B. At the same time it was also observed that students of both the Groups were weak in writing skills.

After analyzing the students' performance in the Entry test the researcher involved the selected groups in the process of developing their skills by applying CALL. The researcher provided exercise materials (online and offline) to make them aware of the opportunity for using CALL materials in and outside the classroom, and to familiarize them with different types of computer-based tasks/exercises. The participating students expressed their willingness to devote extra-time and do more exercises and revise them repeatedly in order to improve their writing skills. The two groups took part in the experiment and continued their CALL activities for a period of six months. At the end of the period an Exit test was conducted to see whether the students could improve their skills through CALL activities.

The result of the Exit test shows that the students' progress during different phases was highly significant or significant except during the period between Task III to Task IV. The findings of the frequency test show that students of both the groups developed their writing skills during the period of Task I—Task IV. During this period 85% of the respondents in each group improved their writing skills with the use of CALL, mainly word processor. When the achievements of both groups were compared, it was found that 85% of the students showed a positive change in their writing skills. This, besides the analysis of other tests by *SPSS*, also proves that the model as well as the method of experiment was highly significant and it rejected the null hypothesis.

It is found from a comparative analysis that the mean value of all tasks in Exit test is higher than that of Entry level test in both the groups and thus the difference in the achievement is highly significant.

When the performance of students from Entry Test Task I to Exit Test Task IV was compared, it was found that the mean value of Task IV in Exit test was higher as compared to Task I of Entry test in both the groups. After the experiment, a survey was conducted among the participants of the two groups on the frequency

of the uses of computer programmes/ tool menu during Entry-level and Exit tests to find out whether repeated use of such programmes/ tool menu helped students in developing their writing skills.

Thus the experiment and the analysis of the findings with the help of *SPSS* reflect the validity of the test which rejected the null hypothesis.

The concluding chapter recapitulates the discussions of the earlier chapters, points out the limitation of the present study and future scope of research. This is followed by references and appendices.

xxxxxxxxxxxxxx

DECLARATION

I hereby declare that the thesis *The Use of CALL in Teaching English with special reference to the Development of Writing Skills in the Polytechnics of Assam*, submitted to Tezpur University for the degree of Doctor of Philosophy, is the result of my own research, except where otherwise acknowledged, and that this thesis has not been submitted for a higher degree at any other institution. To the best of my knowledge, the thesis contains no material previously published or written by any other person except where due reference is made in the thesis itself.

Mamun A. Barbhuiya

Mamun Azam Barbhuiya

Date: 08-07-2011

Place: Tezpur

CERTIFICATE OF THE SUPERVISOR

This is to certify that the thesis titled **The Use of CALL in Teaching English with special reference to the Development of Writing Skills in the Polytechnics of Assam** submitted to Tezpur University in the Department of English and Foreign Languages under the School of Humanities and Social Sciences in partial fulfillment for the award of the degree of Doctor of Philosophy in English is a record of research work carried out by Mr. Mamun Azam Barbhuiya under my personal supervision and guidance.

All helps received by him from various sources have been duly acknowledged.

No part of this thesis has been reproduced elsewhere for award of any other degree.

Date: 27.6.2011
Place: Tezpur

Signature of the Supervisor
Designation: Professor
School: Humanities and Social Sciences
Department: English and Foreign Languages

FORM-XVIB

TEZPUR UNIVERSITY

(Format for Certificate of the External Examiner and ODEC)

This is to certify that the thesis entitled The Use of CALL in Teaching English with special reference to the Development of Writing Skills in the Polytechnics of Assam submitted by Mr Mamun Azam Barbhuiya to Tezpur University in the Department of English and Foreign Languages under the School of Humanities and Social Sciences in partial fulfillment of the degree of Doctor of Philosophy in English has been examined by us on 31/01/2012 and found to be satisfactory. The Committee recommends for the award for the degree of Doctor of Philosophy.

Signature of:

Principal Supervisor

External Examiner

Associate Supervisor

Co-Supervisor

Date: 31.01.2012

ACKNOWLEDGEMENTS

Many people have supported, encouraged and guided me during the years of conducting this research. This study would never have been completed without the mentorship and support provided by my supervisor Dr. Madan M. Sarma, Professor, Department of English & Foreign Languages, Tezpur University, Tezpur to whom I owe my sincere gratitude. All through my long journey, he was my role model on the one hand, and guide and mentor, on the other. It has been a pleasure to work under his supervision. Despite all his duties and busy schedule, he has always had time for discussions and guidance. His enthusiasm for doing research has greatly motivated me along these years. I want to thank him for his encouragement, warmth, and friendliness.

I want to thank my fellow doctoral students, Jonali Shrama, and others for sharing the joys and sorrows of thesis writing and for their friendship. Without them this journey would not have been as joyful as it has been.

I extend my thanks to all Faculty members at the Department of English and Foreign Languages, Tezpur University, Tezpur for creating a nice and pleasant working atmosphere.

I am also greatly indebted to Dr. R. U. Ahmed and Dr. S. K. Dutta, ex-Principal & Principal respectively of Dhing College, Dhing for their support and encouragement in completing the work.

I am grateful to the Librarians of Tezpur University Library, Tezpur and the Ramesh Mohan Library of The English and Foreign Languages University, Hyderabad for providing access to important books and journals for this study.

I express my gratitude to all the teachers of Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati for their voluntarily participation in this study. I also wish to thank the students who actively participated in the experiment during this study.

I thank Mr. Rustam Ali who has helped me in analyzing the data statistically.

I would like to express my gratitude to my colleagues at Dhing College for their encouragement.

My acknowledgement would remain incomplete if I do not mention the name of my wife Shabby who freed me from all domestic worries and encouraged me to complete this work.

Date Mamun Azam Barbhuiya

Place

Table of Contents

List of Appendices..... Page

List of Tables

xxxxxxxxxxxxxx

CHAPTER I

Background of the Study

English Language Teaching in the Polytechnics

English is an associate official language in India. It is the language of the Parliament and the Law Courts. English is the medium of instruction in most of the universities and institutes of higher education. English has been taught in Assam as a core or compulsory school subject since 1858. The ELT scenario of the State has undergone drastic changes especially after the independence. However, changes have been noticed more in syllabus design and materials production than in actual classroom practices. The impact of the communicative approach to language teaching has also been felt in the syllabuses now in force in the schools of the State.

The English language teaching scenario in the Polytechnics in Assam is no different from other traditional institutions of the state. There are nine Polytechnics in the State, namely:

Silchar Polytechnic, Silchar
Nowgong Polytechnic, Nagaon
H.R.H. the Prince of Wales Institute, Jorhat
Assam Engineering Institute, Guwahati
Girls' Polytechnic, Guwahati
Bongaigaon Polytechnic, Bongaigaon
Golaghat Residential Girls' Polytechnic, Golaghat
Dibrugarh Polytechnic, Dibrugarh
Assam Textile Institute, Guwahati.

All these Polytechnics come under the purview of the Directorate of Technical Education, Govt. of Assam. These institutions follow a common curriculum in all the branches of studies including humanities and social sciences.

In these Polytechnics, English is the only medium of instruction. All examinations including the sessional and class tests are conducted in English. Practical, project works, laboratory works and viva voce – all are well managed and maintained through the medium of English. The libraries in these institutions have books on various branches of studies written in English. Thus it has been observed that the English language in these institutions has been given much importance.

In these Polytechnics, English is taught as a core Course in the first two Semesters. The title of the compulsory English course in the Polytechnics of Assam is *Communication in English-* I & II for Semesters I & II respectively, carrying 100 marks in each Semester, the total contact hours being 45 in each Semester. The following table illustrates the distribution of marks and duration of contact hours of the existing syllabus:

Table 1: Distribution of marks and duration of contact hours

SEMESTER –I	SEMESTER—II
A. Total marks—100 i Theory (End Term Exam.)—70 ii Internal Assessment - 30	A. Total marks—100 i Theory (End Term Exam.)—70 ii Internal Assessment - 30
B. Total Contact Hours—45 i Theory—30 ii Tutorial-- 15	B. Total Contact Hours—45 i Theory—30 ii Tutorial-- 15
C. Credit—3	C. Credit—3
D. Contents— i Grammar—10 hrs. ii Reading— 10 hrs. iii Listening—15 hrs. iv Speaking-- 10 hrs.	D. Contents— i Speaking—20 hrs. ii Writing — 25 hrs.

In Semester II one of the components of the compulsory English Course is "Writing" which has the following tasks:

To structure and integrate information into cohesive and coherent paragraphs and texts for target audience while

- Writing General--- Specific paragraphs
- Writing process—Descriptive paragraphs
- Writing problem—Solution paragraphs
- Writing data—Comment paragraphs
- Writing technical reports (short)
- Writing letters--- asking for quotations, placing orders of complaints, of adjustments
- Writing job applications—Covering letters and Curriculum Vitae

Needs for and Objectives of English Language Teaching

As communication at the national and international levels through the medium of English has increased in the aftermath of globalization, the demand for communicative competence in English for technical students has also increased in the country. Keeping in view the opportunities for higher studies especially in the field of science and technology and the requirements of the chosen professions of the students after the completion of the three-year diploma programmes, the importance of developing students' ability to communicate through English cannot be overemphasized. A diploma holder from any of the Polytechnics has to communicate with his/her peers, seniors and juniors. Technical report writing forms an important activity of the diploma students. Emphasizing the importance of communication skills for engineers Riemer (2002) has said:

> Communication skills are essential for an engineer who aspires to carry out his/her professional practice in the global arena. Engineering communication skills basically constitute several core

elements such as the fluency in the English language and the fundamentals of visual communication (p.91).

The professional profile of a modern qualified engineer should include well-developed communication skills and high English language proficiency to help him achieve success in the highly competitive and modern global work arena. In the process of educating future engineers special emphasis on English for Science and Technology (EST) becomes necessary. Students of Engineering and Technology are the main stakeholders of EST. Huckin and Olson (1983) referred to the survey conducted by the American Society for Engineering Education to determine which academic subjects were needed for engineering careers in industry. The findings of the survey revealed that communication skills were given top priority.

National Knowledge Commission, Govt. of India (2008) also observed that in the current scenario, an understanding of and a command over the English language have emerged as important determinants of access to education, employment possibilities and social opportunities. NCERT (2006) in the position paper of the National Focus Group on the Teaching of English has suggested 'a comprehensible, input-rich curriculum that lays the foundation for spontaneous language growth with the understanding of spoken and written language as precursors to language production (speech and writing)' (p.5).

Researchers such as Elley and Manghubai, 1983; Krashen, 1985; Prabhu, 1987, etc. have stressed on the meaning, not on the form for learning a language. The result of this shift of focus from form to meaning was the emergence of innovative methods/approaches: Bangalore Project or Communicational Teaching Project (Prabhu, 1987), the Communicative Approach (Widdowson, 1978) and the Natural Approach (Krashen and Terrell, 1983). In the area of literacy acquisition, researchers such as Adams, 1990 and Stanovich, 2000 have focused on both skills and meaning.

The title of the compulsory English course for the Polytechnics in Assam suggests that the designers want to develop the abilities of the learners to communicate in the target language to meet the challenges in the real life situation. In the professional life, students have to encounter many such situations where their communicative ability can help them in reaching the goals. Seen from this perspective, the prescribed compulsory English course in the Polytechnics does not appear to develop in the students the required communicative skills, especially the skill of writing.

Problems of ELT in the Polytechnics

Traditionally, the engineering curriculum focuses on the instrumental competence, that is, the competence in the students' chosen branches of specialization. Engineering students are taught the basic disciplines and they learn to apply their knowledge in their chosen field of engineering. Schools for management and policy train their students in all kinds of knowledge and capabilities implied in the strategic competence. Most students in engineering disciplines have access to lessons in strategic behaviour too. In addition, some elements of the communicative competence are part of their training.

The diploma-engineering students use English in different settings and for different purposes. The aim of the compulsory English course is to impart to the students the skills that they need in their academic, and later in their professional life while performing the duties in their professional career. But the conventional course materials and the methodology of teaching (classroom lecture) are not conducive to the development of study skills and communicative competence.

Research has revealed that engineering professionals face several challenges in the job market in this age globalization and liberalization. The main reasons behind this lacuna are as follows:

a) Lack of proficiency in English language.

b) Casual attitude towards oral and written skills.

c) Low level of confidence and exposure

d) Less emphasis on reading skills.

e) Scarcity of skillful trainers.

The contents and methodology adopted by teachers of the Polytechnics do not appear to fulfill the requirements of the learners' communicative competence in this age of globalization and science and technology. Students are more concerned with doing well in their technical subjects and give less importance to English because they have just to secure pass marks in the subject. Hence it is necessary to motivate and induce the learners to develop their writing skills because such skills can not be neglected in view of their future academic and professional needs. The use of appropriate technology can be effectively used for developing students' language skills in order to enable them to communicate by using a variety of media and formats. Computer-assisted language learning (CALL) can play an important role in this. CALL and language-learning are valuable intellectual pursuits in themselves. Besides, administrators value CALL for enhancing and extending learning at times of economic restrictions and reorganizations.

Importance of Using Computer in Teaching Language

Information Technology in language teaching and learning has been acknowledged as one of the driving forces in shaping the new generation of young learners for real life situations, for example, in academic or corporate life, and in intercultural interaction or cross-border trade and commerce. Researchers and practitioners now realize the important role that computers play in learning and teaching English as a second or foreign language and look for effective ways to integrate them into various types of English language courses.

Many researchers have discussed the reasons for using information technology (IT) in the teaching profession. Smith and Baber (2005) have underlined a number of reasons for using information technology to empower a teacher and improve his/her teaching (p.11):

a. IT facilitates access to up-to-date teaching-learning materials on any topic.
b. It can help the teacher to utilize classroom time more meaningfully as he/she can produce reusable learning and practice.
c. Incorporation of IT helps students to study at their own pace.
d. As IT can be intrinsically motivating, students may learn faster and can enjoy learning.

The Directorate General of Education and Culture (n.d.) in the report *The Impact of Information and Communications Technologies on the Teaching of Foreign Languages and on the Role of Teachers of Foreign Languages* has summarized the reasons for using technology in foreign language teaching as follows. Technology facilitates:

a. exposure to 'authentic' language
b. access to wider sources of information and varieties of language
c. opportunities to communicate with the outside world
d. a learner-centred approach
e. development of learner autonomy

The use of information technology in teaching does not at all mean the replacement of traditional teaching rather it can play a complementary role in fulfilling the requirements of the traditional teaching. de Szendeffy (2005) has said that teachers can not be replaced by computers, rather "...teachers actually take on more responsibilities in a CALL environment than in a teacher-centered, lecture-based class" (p.7).

Today computers are used in teaching all other subjects and no field is kept outside the scope of using computer in teaching. As Kenning & Kenning (1983) have observed, "Computer, like any other electrical or mechanical gadget, such as trench-digging machines or public-address systems, provides a means of amplifying, or extending the effectiveness of, our natural talents and capabilities" (p.1).

Teachers should pay serious and considered attention to the use of computer technology in their teaching profession. As Subbiah (2008) has said:

"Engineering teachers have enormous responsibilities in producing competent and readily employable graduates with good communication skills, who would experience a smooth transition from the college environment to corporate life" (p.17). Computers can be used as an important aid, not as a substitute to teachers. " It is not a self-sufficient means of language teaching, but rather a valuable aid which should take its place alongside other already established devices for helping the language learner" (Ahmad, Corbett, Rogers, & Sussex, 1985, p.10).

There is a great vision of the future of English language teaching as a result of the rapid development of the technology. Chapelle (2003) has discussed three perspectives on technology and its implication for ELT in the following manner:

Table 2: Perspectives on technology and its implications for ELT

Vision of the ...	Focus on...	Perspective...	Implications for ELT
Technologist	Technological potentials	Rapid advances in technology suggest pervasive access to and use of technology in a very different high-tech life style.	Teachers and researchers should be educated about possibilities of improve or change their work.
Social pragmatist	Human practices in technology use	Imperfect technologies and normal human working practices act as constraints affecting technology use.	Teachers and researchers should carefully analyze their real options in view of the experience of others and their own context and experience.

Critical analyst	Value implications of technology	Technology is neutral and inevitable.	Teachers and researchers should be critically aware of the connection between technology and culturally-bound ideologies.

Source: Chapelle, 2003, p.10

It is essential to examine the ways in which technology helps English language learners, their teachers, and teacher education.

Review of Literature

In the late 1960s ELT experts and practitioners highlighted the limitations of the Grammar Translation and the Audio-lingual approaches to language learning and teaching. The methods and materials developed by following these approaches have failed to meet the needs of the learners in developing their communicative ability in real-life situations. The communicative approach was a revolt against the structuralist approach to language description as well as the behaviourist theory of language learning which had characterized teaching methods like Audiolingualism (in America) and the situational language teaching (in Britain).

In the 1970s and 1980s, communicative language teaching, henceforth, CLT, approach highlighted learners' 'communicative competence' (Hymes, 1972). The term 'communicative competence' was first used by Hymes in deliberate contrast to Chomsky's linguistic competence which was felt to be limited in its concern since it ignored the use of language in social contexts.

Hymes' 'communicative competence' involves:

a. Whether (and to what degree) something is formally possible.

b. Whether (and to what degree) something is feasible in virtue of the means of implementation available.
c. Whether (and to what degree) something is appropriate (adequate, happy, successful) in relation to a context in which it is used and evaluated.
d. Whether (and to what degree) something is, in fact done, actually performed and what its doing entails.

Communicative competence can be defined as the learners' ability to efficiently express what they mean or intend to mean in the target language and successfully achieve communication in real-life situations. The history of language teaching reveals that communication has always been the goal of language courses, though orientations and methodology have changed over the years. The communicative approach developed its framework (syllabus) from within the notional-functional syllabus. Thus CLT emerged as a reaction to the limitations of the grammar-translation and audio-lingual approaches. CLT approach has 'emphasized the communicative activities that involve the real use of language in daily life situation' (Huang & Liu, 2000). Howatt (2004) has very succinctly pointed out that: "The notion at the heart of the 'communicative movement' in applied linguistics and language pedagogy after 1970 was the conviction that language teaching should take greater account of the way that language worked in the real world and try to be more responsive to the needs of learners in their efforts to acquire it" (p.326).

The communicative approach tries to ensure that the interactions which take place in the classroom are replications of or necessary prerequisites for a communicative operation. The focus changes from the production of isolated utterances to the fluent selection of appropriate utterances in communicative contexts. The learner is concerned with 'using' language rather than with its 'usage'. As Sarma (2009) has said:

[CLT] it helps learners develop skills and strategies for using the repertoire

> at their command to communicate in interpersonal situations and broader social contexts (p.455).

In order to do this, the learner takes on roles and interacts with other learners who also take up roles.

Communicative Language Teaching (CLT) approach has been developed theoretically and practically by many researchers (Brumfit & Johnson, 1979; Hymes, 1972; Nunan, 1989; Yalden, 1983; etc,). Littlewood (1981) has pointed out, " One of the most characteristic features of communicative language teaching is that it pays systematic attention to functional as well as structural aspects of language, combining these into a more fully communicative view" (p.1). In this approach, the main aim is to develop the learners' ability to take part in the *process of communicating* through language. Thus, it has been observed that CLT is usually characterized as a broad *approach* to teaching, rather than as a teaching *method* with a clearly defined set of classroom practices. As such, it is most often defined as a list of general principles or features. One of the most recognized of these lists is David Nunan's (1991) five features of CLT:

i. An emphasis on learning to communicate through interaction in the target language.
ii. The introduction of authentic texts into the learning situation.
iii. The provision of opportunities for learners to focus, not only on language but also on the learning management process.
iv. An enhancement of the learner's own personal experiences as important contributing elements to classroom learning.
v. An attempt to link classroom language learning with language activities outside the classroom.

In the classroom CLT often takes the form of pair and group work requiring negotiation and cooperation between learners, fluency-based activities that encourage learners to develop their confidence, role-plays in which students

practice and develop language functions, as well as judicious use of grammar and pronunciation focused activities.

The kind of impact CLT has had in India appears to be different from the impact it had in the West. As there was no 'prescribed CLT methodology, communication skills classes were no different from the earlier talk-chalk based classrooms' (Gupta, 2004, p.266). However, by the year 2000, CLT scenario in India began to change because of the impact of liberalization of the Indian economy and development of Information Technology especially the Internet and multimedia technology. The learners are now more aware than ever that the demands of the socio-economic context and of their professional career can not be met unless they acquire communication skills in English.

During this period, researchers also developed and framed modalities for using computers in teaching and learning especially in the field of language. Computer Assisted Language Learning, henceforth CALL, is an approach to language teaching and learning in which computer technology is used as an aid to presentation and reinforcement of materials to be learned. As Beatty (2003) has pointed out: "CALL essentially presents different kinds of learning opportunities from those available in a traditional classroom. There are also more opportunities for learners using the same CALL programme to study different things or study the same things in different ways" (p.145). Discussing the role of computers in teaching languages Ahmed et al (1985) have pointed out: "The computer can be used as the mainstay of a course, or for back up, revision, reinforcement, extension, or a variety of other purposes. It may communicate with the student visually by displaying text, graphics (diagrams, graphs, line drawings) or video images on a screen" (p.3). It has been observed that with the development of technology, there was a great change in English language teaching. As Chapelle (2003) notes, such international academic events as the IATEFL special conference on *CALL in the 21st Century* and such publications as *TESOL Quarterly* (Special Issue) have highlighted the changing features of ELT with its focus on technology (p.2).

EUROCALL (2010), in the *Research Policy Statement* 2010, has pointed out that 'CALL is an established but rapidly evolving academic field that explores the role of information and communication technologies in language learning and teaching. It includes highly interactive and communicative support for listening, speaking, reading and writing, involving extensive use of the Internet, and a wide range of activities and initiatives in materials development, pedagogical practice, and research'.

The computer technology is distinguished from other pieces of equipment, such as tape recorders and film projectors, because of its 'interactive capability'. The computer has the ability to interact with students and can also help them in solving their problems.

Kenning & Kenning (1983) have observed that computer 'promotes the acquisition of knowledge, develops the learner's critical faculties, demands active participation, and encourages vigilance' (p.2-3).

Some prominent researchers in the field of CALL are Ahmad et al, 1985; Chapelle, 2001, 2003; Hardisty, 1988; Higgins, 1988; Kern & Warschauer, 2000; Levy, 1997; Singhal, 1997; Taylor, 1980; and Warschauer, 1996a; etc. Chapelle (2001) has emphasized the need for the technology-mediated tasks: "[...] any one concerned with second language teaching and learning in the 21st century needs to grasp the nature of the unique technology-mediated tasks learners can engage in for language acquisition and how such tasks can be used for assessment" (p.2). Ybarra (2003) has suggested that computer can be used in vocabulary learning, improving reading ability and developing the writing skills of the students. Kern & Warschauer (2000), on the other hand, have discussed a specific form of CALL, i.e. network-based language teaching (NBLT) which involves the use of computers connected to one another in either local or global networks (p.1). Singhal (1997) has pointed out the importance of the use of the Internet and E-mail which is a specific feature of the Internet: e-mail can encourage students to use computers in realistic, authentic situations in order to develop communicative and thinking skills.

The works of Bax (2003), Hardisty (1988), Warschauer (1996a), etc. have shown that CALL had to undergo many changes since its inception in the1960s along with the development of technology especially with the advent of multimedia and Internet in the 1990s (details have been discussed in the next chapter).

Since inception, a good number of studies on Computer Assisted Language Learning (CALL) have been conducted and many published articles provide us different ways of using computer in language teaching and learning. Many researchers in different regions of the world reviewed the effects of these studies. Quanyou (2008), in his survey on CALL studies from 1994-2005, found that 74% of the studies were theoretical (discussion on theory); mere 11% of them on 'practice' i.e. based on real applications of computer in language class and .03% of the studies were based on software and programming. Interestingly in 12% of the studies, CALL was included as one of the keywords but not many details on CALL were given.

Bangert-Drowns (2003) wrote a meta-analysis review of 32 studies on the effects of word-processor (one form of CALL) on writing skills and found that 20 of the studies contained quantitative information on overall quality of writing. Again in 13 of these 20 studies, the students who wrote with word processors produced higher quality compositions, but in 7 studies, the students who wrote with paper and pencil produced the better compositions. The report of *SRI International* prepared by James A. Kulik (2003) *Computer Use Helps Students to Develop Better Writing Skills*, has found that the use of computer tools for writing and reference helps students to develop better writing skills. The report has also found that effects of computer use are positive in each area (effects of word processor use, computer writing prompts, and computer enrichment programmes), but it also cautions that the improvements due to computer use, although statistically significant in most studies, are nonetheless small in many cases.

Research works have shown that computer has a positive effect on teaching and learning language, for example, Hegelheimer, *et al,* 1996; Sullivan & Pratte,

1996; etc. Hegelheimer, *et al* (1996) has reported that the computer was an effective tool for teaching language skills like writing. Cunningham (2000) had undertaken a study to assess students' attitudes towards the word processing experience in the EFL writing class. The findings indicated the following: (a) 88% of the students believed the computer helped them to improve their writing skills; (b) 53% found it was not difficult to learn to use the computer. He also indicated in his study that students, in general, found the word processing class to be challenging and non-threatening. These students believed that word processing benefited their performance in writing. They also felt that using word processing helped concentrate their attention on certain aspects of their writing (grammar, word choice, and organization).

Wright's study (1993) evaluated the effects of computerized workbook on language learning in a German course – for vocabulary and grammar study. Computerized and standard workbooks contained similar content and exercises, but the computerized workbooks also gave instant feedback and suggestions for finding correct answers. The study showed that the average scores were higher for the CALL group on all three chapter exams used as the criterion test.

Al-Asmari (2005), in his study, has found that while EFL teachers in the colleges of technology in Saudi Arabia showed limited use of the Internet they had positive perceptions of the Internet as a tool for pedagogical purposes.

Almekhlafi (2006) has investigated the effects of computer-assisted language learning (CALL) on elementary-preparatory students' improvement in English as a foreign language and their attitude towards the use of computer programmes. The study has revealed that students who used computer programmes achieved significantly higher scores than students who did not use these programmes. The study has also revealed that students in the CALL group had a positive attitude towards the CALL, believed the CALL helped them learn EFL, and had strong intentions to use the CALL in the future.

Shudooh (2003) conducted a study on the impact of computers on the progress in writing classes in a college of Midwestern University and found that

the application of computers gave the students a lot of flexibility to do the course work at a suitable time. The study also revealed that 'writing with the computer was more convenient than the traditional way of pencil/pen and paper' (p.64). In their study on the relationship between prior computer use and their performance on extended test on computer, Russell and Plati (2001) has found:

> Students accustomed to writing on computers perform significantly better when open-ended tests are administered on a computer, (p.28).

Ritzenthaler (2009) conducted a study on how educational technology was implemented in the classroom in the general teaching environment. The data were gathered through online survey and it was found that technology-based tools including databases, spreadsheets, desktop publishing, and the Internet were used to complement certain instructional events focused on the analysis, synthesis, and assessment levels. The study also revealed a basic level of implementation and a minimal integration of educational technologies in the classroom.

Latio (2009) conducted a study on teachers' use of computers and their barriers in integrating computers into classroom instruction and learning in Ohio Public High Schools. The result has shown that 77% of the participants considered themselves well prepared, and 83% were proficient in computer technology integration. The study has also revealed that although the majority of the participants had attained the necessary computer skills, teachers' use of computers for classroom learning was low and sporadic.

Navaruttanaporn (2010) has investigated whether computer-based learning (CBL) could help students improve their English proficiency and the result showed that students participating in the CBL did not score significantly higher on the English Language Learning and Instruction System (ELLIS) Test than those who participated in the text-based learning (TBL). But at the same time, Navaruttanaporn also found that majority of the students preferred using computer programmes as learning tools in language classroom because it encouraged and motivated them to learn English.

Justification of the Study

The review of relevant literature in the previous section shows that though a number of works on CALL were undertaken in the Western and European countries, not much research on this area has been conducted in India. In India, a number of studies have been conducted on CLT and also on the theoretical aspects of CALL in the Indian context. However, studies combining the two fields- CLT and CALL- are not common. There has been no research on CALL in the North-Eastern Region of the country so far.

The government of Assam started a computer literacy scheme namely, Rajiv Gandhi Computer Literacy Programme at the secondary level in 2004. The nine Polytechnics of the State which are the subject of the present study received extra financial grant both from the Central and the State Governments to set up state-of-the-art computer laboratories. It has been observed that over the last decade, the availability of and the access to computers in educational institutions, especially in the technical institutions, has increased rapidly. The researcher thought that this was the time to introduce to the students the benefits of CALL which is not much used in the educational contexts in Assam.

The findings obtained from this study would show whether the use of CALL improves students' English language proficiency especially their writing skills. In addition, this study would provide information about students' attitude towards English in the curriculum of the Polytechnics and also towards the use of CALL. Such information might help the language teachers to initiate certain changes in their roles as teachers of English in technical institutions.

Objectives of the Study

The objectives of the study are to:

a. analyze the attitude of the teachers and the learners of English in the Polytechnics of Assam towards the application of computer in

teaching and learning English especially in developing writing skills in English.

b. explore the possibilities of integrating CALL into the syllabus especially for developing writing skills both in and outside the classroom;

c. to work out a model and suggest an alternative or modified syllabus for using CALL in developing writing skills among the students of the Polytechnics in Assam in order to make them use the skills in real-life situations;

d. to conduct an experiment among two groups of students to see the efficacy of the modified syllabus.

Null Hypothesis

The null hypothesis of the proposed study is:

The use of CALL has no effect on the teaching and learning of English, especially for developing writing skills of the students of the Polytechnics of Assam.

This null hypothesis will be supported or will not be supported on the basis of the findings of the experiment.

Research Design

While undertaking the research, the researcher adopted the following methodology:

(a) Survey: The researcher conducted a survey among the students and teachers of the Polytechnics of Assam with the help of questionnaires and interviews to understand:

i. Students' attitude towards CALL

ii. Students' and teachers' attitudes towards the application of CALL in teaching English especially for developing English communication skills (written),

iii. Students' and teachers' attitudes to the contents of the existing syllabus and their perception about the needs for modification,

(b) Experiments: Experiments were conducted with the modified syllabus among selected students of Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati on the use of CALL as an additional tool in the traditional scheme of teaching English, especially in the teaching of writing skills in the Polytechnics of Assam. Students were given practice in the use of CALL while trying to improve their writing skills.

xxxxxxxxxxxxxx

CHAPTER 2

CALL: Its Development and Types

Introduction

The use of computer technology in education can be classified into three categories (Plomp et al: 1997):

a. Computers can be considered as an "object" which students learn about (hardware and software).
b. Computer technologies can be an "aspect", which means using them as tools in subjects, such as computer-aided design courses, or generals in educational settings, such as the use of graphic design software to create web pages for a school.
c. Computer technologies are a "medium" for instruction. In this category, computer technologies can be used for teaching and learning.

It is observed that computer technology can be used in different ways depending on the objectives of its use. The main objectives of using computer technology in education are:

i. To raise the standards of students' achievement by increasing the use of ICT in their learning;
ii. To enable teachers to make sound judgments about when and how to integrate ICT in the Classroom; and
iii. To enable teachers to acquire the confidence and skills to make use of and to integrate ICT into their lesson plans and teaching of the subjects in the classroom.

Computer technology plays an important and effective role in language learning and teaching. de Szendeffy (2005) has pointed out that computers can bring about positive changes into language learning (p.4):

a. Computers can be an alternative and reliable source of target language knowledge.

b. Computers can make authentic materials in the form of multimedia contents accessible to the individuals who can make use of them at their convenience.
c. Computers can be utilized for providing the learners with additional or supplementary practice or exercise materials and feedback from time to time.
d. Students can develop their writing skills by trying to write for a larger audience via e mail and web pages.

The Role of the Computer in Language Learning and Teaching

Though computer is used in language learning and teaching, its role is not always determined in one stereotyped manner. It can play the following three important roles in teaching-learning:

- Computer as tutor for language drills or skill practice
- Computer as a tool for writing, presenting, and researching
- Computer as a medium of global communication.

Computer can be used as an instructional tool for developing language skills of the students in teaching-learning process. According to Kotker (1984), "The computer is also a worthwhile teaching tool, and more important, it is a tool that does not duplicate what was already available. It is particularly helpful for developmental students, who seem to acquire some distance from their work when they put it on the computer screen" (p.6).

According to Wilson and Thayalan (2009) the use of computers in CALL for communication purpose is realized at three levels: computer as tutor; computer as stimulus; and computer as tool. Specifically, one can distinguish two types of roles for individuals engaged in CALL (ibid, 2009). They are:

1. Institutional: This includes classroom teachers, specialists of various kinds, language lab managers, language skill area specialists, etc. and professionals whose careers centre on CALL.
2. Functional : This includes practitioners, developers, researchers and trainers.

Many educators and researchers have begun developing their own programmes to encourage students to use computers as part of learning English (Higgins, 1993; Jarvis, 2003). As Navaruttanaporn (2010) has said:

> In applying technology, computer programmes as part of teaching and learning English should be taken into consideration. It can promote students' language learning proficiency and can fulfill the growing demand for proficient English speakers in the workplace (p. 4).

Thus Computer can be used in and outside the language classrooms to help students learn or conduct activities independently, in small groups, or individually with some support from teachers.

Definitions of CALL

Computer Assisted Language Learning (CALL) is an approach in which computer is used in the learning and teaching of languages. Many scholars and experts have defined it from different angles in different contexts. The following are some of the definitions given by experts and accepted by critics:

a. Computer-assisted language learning (CALL) was the expression agreed upon at the 1983 TESOL convention. This term is widely used to refer to the area of technology and second language teaching and learning despite the fact that revisions of the definition of the term are suggested regularly (Chapelle, 2001, p.3).
b. Computer Assisted Language Learning (CALL) may be defined as the search for and study of applications of the computer in language teaching and learning (Levy, 1997, p.1).
c. Given the breadth of what may go on in computer-assisted language learning (CALL), a definition of CALL that accommodates its changing nature is any process in which a learner uses a computer and, as a result, improves his or her language (Beatty, 2003, p.7).
d. CALL has come to encompass issues of material design, technologies, pedagogical theories and modes of instruction.

Materials for CALL can include those which are purpose-made for language learning and those which adapt existing computer-based materials (Beatty, 2003, p.7-8).

e. Torat (n.d.) has defined CALL as 'the use of computer technologies that promote educational learning, including word processing, presentation packages, guided drill and practice, tutor, simulation, problem solving, games, multimedia CD-ROM, and internet applications such as e-mail, chat and the World Wide Web (WWW) for language learning purposes'.

CALL is a confusing term. A number of alternatives have been used for CALL. Some of these are: as Computer-assisted learning (CAL), Computer-based learning (CBL), Computer-assisted Instruction (CAI) and so on. Blease (1986) has used the term CAL and has divided it into following categories (as cited in Beatty, 2003, p.140):

1. by subject;
2. by mode of presentation (relations between the teacher, learner and computer);
3. by internal technique (models, simulations, chance and probability, information retrieval);
4. by educational paradigm (instructional, revelatory, conjectural, emancipatory;
5. by psychological theory; and
6. by clarity of structure (interface). .

History of CALL

Computer- Assisted Language Learning (CALL) can be discussed in three different phases historically, viz., (i) 1950s and 1960s, (ii) 1970s and 1980s and (iii) 1990s.

1950s and 1960s: In this phase the large mainframe computers which were available at the University Campuses were first used for language learning. These mainframes were very costly and a very limited time was allotted for teaching and

learning. The three pioneering institutions Stanford University, Dartmouth University and University of Essex took the lead in creating first CALL programmes. In these CALL programmes, the focus was given on teaching the Russian languages but gradually other foreign languages were also taken up and included in these programmes (Beatty, 2003, p.17-18).

The Programmed Logic/ Learning for Automated Teaching Operations (PLATO) was the first CALL programmes used on the computer for language learning (Ahmed et al, 1985, p.30-32). The University of Illinois developed it in 1959 with a business partner Control Data Corporation.

1970s and 1980s: With the advancement of technology micro-computers were developed and sold in the mid 1970s. Small computer applications on language teaching and learning were also developed during this period. During this period, the focus of CALL research was videodisc technology – a high volume storage system. This format has been replaced with Compact Disc Read-Only Memory (CD-ROMs). The CD-ROMs have a greater installed base in personal computers and feature a format that is smaller, more convenient and less prone to warping. With the development of technology, the CD-ROMs were again replaced with Digital Videodiscs (DVD).

Some of the main features of videodisk learning are priority of listening over speaking; exclusive use of the target language; implicit rather than explicit grammar, etc. There are many learning programmes on videodisc technology but the researchers have suggested that the following three were mainly developed for learning purposes:

1. Macario,
2. Montevidisco and Interactive Digame, and
3. ALLP (the Athena Language Learning Project).

CALL in 1990s: With the development of multimedia technology and Internet, thousands of CALL software programmes have been published but there is a lack of guidelines for preparing the programmes to be used in a multimedia CALL environment.

The Development of CALL from the Pedagogical Perspective

Since its inception in the 1960s, CALL had to cover various stages from the pedagogical perspective. These stages have been analyzed by many researchers, e.g. Hardisty, 1988; Warschauer, 1996a; Bax, 2003, etc. Hardisty has said that two basic ideas were paramount at the start of the CALL:

- Firstly, there should be a principal approach to the use of CALL, integrating it into the general language curriculum.
- Secondly, the technology should be made as easy to use as possible for teachers and students.

Hardisty (1988) has proposed three stages of CALL:

STAGE	FOCUS
1. Paper-like	classroom
2. Application-like	classroom/world
3. World-linking	world

Main features of these stages are given below:

Stage 1: Paper-like

During the first stage of CALL, we see similar activities on screen as one would on paper and students have to fill in blanks which are a familiar exercise on paper. According to Hardisty (1988), the advantage of doing this type of activity on the screen is that the computer can interact with the learners and enable them to obtain the right answer e.g. through various help devices.

Stage 2 Application-like

During this stage of CALL, personal computers are used for writing text, which may or may not include graphics, storing information, calculating and communicating with other computers or users of computers. Software which enables the computer to carry out these tasks is called application software, for example, word processors, etc. Though this application software was not made for

educational use, it was possible to use it in many creative ways. This stage has encouraged teachers/ designers to develop word processing lessons which 'encourage the communication possibilities of transferring information on a Network' (Hardisty, 1988).

Stage 3 World linking

The third stage of CALL, according to Hardisty (1988), involves the following:

a. Expanded use of application packages.
b. Bringing the real world into the classroom- experientially and linguistically.
c. Enabling the students to communicate with the real world from the classroom.

Thus Hardisty has summarized the three stages of CALL:

> There are ways in which CALL can be used to bring the real world into the classroom, and communicate with the real world from the classroom. Language itself and its use and skill components are changing and more channel-specific sub-skills are occurring (1988).

Hardisty has concluded:

> [...] good use of CALL involves attaining a degree of compute-racy where one can mix one's general professional pedagogic approach to lesson planning and syllabus design with the unique potential of this technology and produce stimulating material for all participants involved in the teaching and learning process.

Warschauer's Analysis of CALL

According to Warschauer (1996 a) the three stages of CALL are:

1. Behaviouristic CALL

Early CALL developments in the 1960s and 1970s were based on the technological possibility of programming computers to respond to user input. Computers could be programmed to ask questions, receive answers and tell the

users whether the answers were right or wrong. It is believed that repeated exposure to the same material is beneficial or even essential to learning. This phase corresponds with the Behaviourist approach to learning in which importance has been given to drill and practice of the same material. The main propagator of the behaviouristic approach is B.F.Skinner whose theory is based upon the idea that learning is a function of change in overt behaviour. Changes in behaviour are the result of an individual's response to events (stimuli) that occur in his or her environment. When a particular stimulus and response pattern is reinforced through rewards, the individual has been conditioned to response. Beatty (2003) has said:

> "Within the area of CALL, behaviourist aspects generally include stating the purpose of the programme or task, offering reinforcement through the text, images, audio, animations or video and providing a marks system for each task summarized at the end with grades or some other statement of progress" (p.85).

During this phase, a computer is used for carrying out repeated drills, since the machine i) does not get bored with presenting the same material, ii) it can provide immediate non-judgmental feedback and iii) learners can practice the same thing at any time outside the classroom even. Thus, a computer is used as a tutor, presenting material and feedback on an individualized basis, allowing students to proceed at their own pace and freeing up class time for other activities. Drill and practice still exist for vocabulary study and grammar practice 'because repeated exposure to such material has been shown to promote its acquisition , and the computer provides both immediate feedback and presents material at the learner's pace' (Fotos & Browne, 2004, p.5).

2. Communicative CALL

Around the late 1970s, the development of personal computer applications, including games and word-processors opened up new technological possibilities for CALL. Language learning software applications modelled on games became

popular and were often used as a stimulus for communicative language practice. Word processors and desk-top publishing application were also used as a resource for writing instruction. Personal computing applications were essentially used as tools to support communicative language teaching activities.

Motteram (1999), in his review of Levy (1997), has pointed out that the PC, the beginnings of communicative language teaching, and teacher programmers came together in the seventies and eighties. He has also said that the PC allowed ordinary teachers to produce their own software for language teaching.

The principal use of the computer in this stage is communicative exercises i.e. to practice language use in non-judgmental format. During this phase, computers are used to stimulate discussion, writing or critical thinking. As Fotos and Browne (2004) have said, "CALL software followed a cognitive model of language learning that aimed to stimulate students' motivation, critical thinking, creativity, analytical skills rather than merely the achievement of a correct answer or the passive comprehension of meaning" (p. 5-6). Students are encouraged to generate original utterances rather than just manipulate prefabricated language. Warschauer (1996a) has referred to Underwood (1984:52) who, according to him, advocated certain principles of Communicative CALL. However, what Underwood had said was in connection with CLT in general, not in connection with communicative CALL in particular.

During this phase, computers were used as a tool (e.g., word processors, spelling and grammar checkers, and concordancers) and the target language was used exclusively because the principal objective of this phase was to develop fluency in the target language.

During this period a number of professional organizations were formed. Some of them are: Computer Assisted language Instruction Consortium (CALICO) in the United States and European Association for Computer Assisted Language Learning (EUROCALL) in Europe. A number of journals also came to be published. Among them are: *CALICO Journal* and *ReCALL*' (Fotos & Browne, 2004, p.5). [See Appendix A for a list of CALL Organizations/Associations]

3. Integrative CALL (1990s -present)

Since the advent of local networks and the Internet in the early 1990s, the use of computers for authentic communication has become widespread in language teaching. Web browsing and authoring; email and chat are now widely used in language teaching - often in the context of project work. In such projects, the computer tends to function as a messenger communicating information to and from the learners. This kind of learning is often called 'network-based language learning'. Much of the concept for integrative CALL is derived from the Vygotskyan socio-cultural model of language learning in which interaction is regarded as essential for the creation of meaning. Writing through LANs and e-mail exchange programmes among students, classes, and institutions are examples of interactive learning activities. Because of flexibility and self-paced access to information (Warschauer, 1999), another feature of integrative CALL, both teachers and students increasingly view computers and CALL as means to an end—the end being authentic, web-based communication for meaningful purposes—rather than merely as a tool for language learning (Fotos & Browne, 2004, p.7).

In integrative CALL, the view of language is socio-cognitive, that is, language is developed in social interaction through discourse communities. In this phase of CALL, the principal use of computers is for authentic discourse (to perform real-life tasks).

Bax's Analysis of CALL

Bax (2003), on the other hand, was sceptical about Warschauer's analysis of CALL and found a number of significant weaknesses in it such as 'inconsistencies', 'unclear criterion' and termed Integrative CALL as 'doubtful assertion' in his framework. He extended an alternative analysis of CALL which is presented below in Table 3:

Table 3
Bax's Analyses of CALL

	Restricted CALL	Open CALL	Integrated CALL
Types of task	Closed drills Quizzes	Simulations Games CMC	CMC Web-based programmes
Type of student activity	Text reconstruction Answering closed questions Minimal interaction with other students	Interacting with the computer Occasional interaction with other students	Frequent interaction with other students Some interaction with computer through lesson
Type of feedback	Correct/ incorrect	Focus of linguistic skills development Open, flexible	Interpreting, evaluating, commenting, stimulating thought
Teacher role	Monitor	Monitor/ facilitator	Facilitator/ Manager
Position in curriculum	Not integrated into syllabus-optional extra Technology precedes syllabus and learner needs	Toy Not integrated into syllabus-optional extra Technology precedes syllabus and learner needs	Tool for learning Normalized Integrated into syllabus, adapted to learners' needs Analysis of needs and context precedes decisions about technology
Position in lesson	Whole CALL lesson	Whole CALL lesson	Smaller part of every lesson
Physical position of computer	Separate computer lab	Separate lab- perhaps devoted to language	In every classroom

The three stages of CALL discussed above are closely inter-related and so there cannot be a clear-cut boundary line among these stages. Pascoe and Wiburg (2003) have said that there was a close relationship between the use of different types of CALL programmes and the stages of language acquisition (p.9):

> In the pre-production stage, the behaviouristic approach is more emphasized. CALL software is used to provide comprehensible input and ask learners to give limited responses through controlled exercises.
>
> In the advanced stage, the communicative and integrative approach is more emphasized. Telecommunications activities and interactive video and simulation programmes of real-life experiences that foster critical thinking and problem solving are more needed. Learners are encouraged to manipulate technology to complete tasks or communicate with audiences around the world.

In the history of CALL, each stage did not exactly replace its predecessor. For example, much of the language learning software produced on CD-ROM today follows a structural/computer-as-tutor model. Therefore, when we look at current CALL applications and methods, we can often evaluate them in terms of three interrelated factors:

a. Pedagogical approach
b. Level of technology
c. Role of the computer

According to Kern and Warschauer (2000), each stage corresponds to a certain stage in the history of language teaching. These three inter-related factors are presented in the following manner:

Pedagogical approach		Technology		Computer role
↓		↓		↓
Structural	→	Mainframe computing	→	Tutor
Cognitive	→	Personal computing	→	Tool
Socio-cognitive	→	Internet computing	→	Messenger

Though these three stages of CALL are inter-related, one can differentiate between early CALL and modern CALL .

Table 4: Differentiation between early CALL and modern CALL:

Early CALL	Modern CALL
- behaviouristic - individualized drills - programmed learning - viewing language as discrete components - emphasizing the importance of control - giving extrinsic feedback	- communicative and integrative - task-based, collaborative activities - providing alternatives to learners - viewing language as whole - emphasizing the importance of guidance - giving both extrinsic and intrinsic feedback

Source: Pascoe and Wiburg, 2003,p.9

Types of CALL

Two types of CALL: Multimedia CALL (CD-ROMs) and Web-based CALL (on the Internet)

A) Multimedia CALL

Advancement in computer technology has triggered the development of multimedia CALL programs which can present information in different formats using graphics, sound, text, and video with links to other chunks of information. Davies (2004) has defined multimedia as follows:

> Nowadays multimedia refers to computer-based materials designed to be used on a computer that can display and print text and high quality graphics, play pre-recorded audio and video material, and create new audio and video recordings.

According to Hofstetter (1994), interactive multimedia is the use of computers to present and combine text, graphics, audio, and video with links and tools that let the user navigate, interact, create, and communicate. In interactive multimedia individual learners can set their own pace and branch according to their interest. The interactive multimedia provides an opportunity to learn by doing and increases attention, understanding, and retention of information being communicated (Kalmbach, 1994).

Characteristics of multimedia CALL can be summarized below:

a. They create a more authentic learning environment using different media.
b. Language skills are easily integrated through multimedia.
c. Students have a high degree of control over their learning through hypermedia.

B) Web-based CALL

The characteristics of the Web-based CALL are as follows:

A) **CMC**

Language learning takes place most effectively in social settings through communication. An important part of teaching is to structure opportunities for communication for the learner - the learner must be communicating about something real and interesting. Through Computer Mediated Communication (CMC) a wide range of communication channels are possible.

Main advantages of computer mediated communication (CMC) are:

1 It provides authentic synchronous and asynchronous communication channels. CMC can be divided into synchronous where interaction takes place in real time such as online chat, computer, audio, and video conferencing, and asynchronous where participants are not necessarily online, such as email, discussion forums and mailing lists (Simpson, 2002). Language learners can communicate directly, inexpensively, and conveniently with other learners or native speakers of the target language at any time and in any place.

CMC can be carried out in several forms; it can be one-to-one, one-to-many, or many-to-one.

The types of computer-mediated communication (CMC) with a brief description of each are given below:

Type	Brief Description
Electronic mail	Electronic communication (written or voice) between individuals
List Servers	Applications which will distribute messages to all subscribers on a list which includes facilities for subscribing, un-subscribing and moderation of postings.
Computer Conferencing	Software which manages conferencing on computer Networks.
Bulletin Boards	An electronic space for notices for particular interest groups.

(B) **The Web**

Students can search through millions of files around the world within minutes to locate and access authentic materials exactly tailored to their own personal interests.

Students can use the Web to publish their texts or multimedia materials to share with partner classes or with the general public.

History and Development of the Internet

In Western and European countries, now-a-days, computers are used in most language classrooms and Internet is also being introduced in the second language classroom as teachers have become more familiar with it. First of all, it is necessary to look at what exactly the Internet is. The Internet is an international network of computers, which makes it possible to share information between the various computers in various ways. People sometime think that Internet is same as WWW and/ or E-mail but it is a misconception and not the proper observation. Internet is an infrastructure through which we receive information; we share our views in various ways. It is a confederation of thousands of computers from various sectors of society. Internet is the world's largest computer network, the network of networks, scattered all over the world. Any single individual, company or country does not own this global network.

We live in the Information Age, where knowledge is power. The Internet leads this knowledge revolution by accessing, sharing and disseminating information globally beyond geographical boundaries to millions of users. The Internet helps us in three obvious ways:

a. to get information,
b. to provide information, and
c. to compile information.

The Internet is a computer network that connects millions of computers globally and provides world-wide communications to business, schools, homes and governments. The Internet is the outgrowth of a network established in the 1960s to meet the needs of the researchers working in the defence industry in the USA then called the ARPANET. The network was chiefly experimental, and was used in research, and to develop and test networking technologies. From a handful of computers in 1971, the ARPANET or Internet grew to 10,000 computers by 1987 and to more than 100000 by 1989. In 1973, ARPANET went beyond the boundaries of the United States by making its first international connections to England and Norway. In 1990, ARPANET ceased to exist, but the Internet

continued to grow to estimated 1million computers in 1992, 2 million in 1993. The Internet now offers both information access and a fast and inexpensive means of communication to the public.

In the 1970s and 1980s, we saw a number of significant developments in the networking system. FTP (file transfer protocol) for standardizing the transfer of files between network computers was introduced. The other significant events include the introduction of desktop computers, the development of the networking tools such as telnet, FTP and WWW, and the release of graphical browsers. The number of people who use Internet is growing exponentially and will continue to grow faster. Today, Internet provides fast, easy and cheap access to information and people around the world.

The newest Internet service World Wide Web (WWW) has revolutionized and reshaped computer-mediated communication (CMC) and its use in second language classroom. The World Wide Web (WWW) began as an experimental project in 1989 at CERN in Switzerland and was perfected in 1993. It consists of thousands of documents- all are linked by 'hypertext'- documents that have links embedded into other documents. The World Wide Web is a part library, part-publishing house, part telephone, part interactive television. Users are attracted to the World Wide Web because it is very easy to use, and because it combines graphics, text, sound and animation making it a rich medium of communication. It also provides a network of interactive documents and software for accessing them. The users 'surf' from one page to another by pointing and clicking on the hyperlinks in texts and graphics.

Since Internet does not have a governing body or central authority, it is difficult to estimate the number of people who have access to the Internet. Computers and Internet are so common today that Naughton (1999) has observed:

> The Internet is one of the most remarkable things human beings have ever made. In terms of its impact on society, it ranks with print, the railways, the telegraph, the automobile, electric power and television (as cited in Crystal, 2001, p.vii).

Teachers have been using the WWW in different ways and for various purposes, for example, for providing linguistic exercises (Li, 1995), for accessing authentic language materials (Lixl-Purcell, 1995), and as a medium of student publishing (Bowers, 1995).

The rapid development of ICT resulted in the growth of interest in computer-mediated communication (CMC). This computer-mediated communication (CMC) is an umbrella term which refers to human communication via computer. This communication can be either synchronous or asynchronous. During synchronous communication, all users logged on and go on chatting at the same time. This communication is called real-time communication and can be achieved either by using special software programmes for LAN (local area network) or via Internet—Internet Relay Chat or Web Chat programmes. Discussion/chat over LAN has been very popular in the United States in foreign language, ESL and English composition classes. Synchronous communication is very helpful in focusing on the question of participation, language use and writing improvement. This can be used as a supplement to general language classes.

In asynchronous communication, participants are not necessarily online simultaneously. It is based on delayed message system, which is carried out most frequently via e-mail and mailing list, etc.

There are three types of Internet access that can be used by the ESL/EFL teachers:

a. World Wide Web (WWW)
b. E-mail and mailing lists
c. Newsgroups

A primary goal for many is to harness the intrinsic motivational quality of technology by learning Internet as Carrier (1997) has pointed out:

> The Internet can not teach students to speak English, but as a resource in the hands of a skilled teacher it can provide a wealth of

> authentic materials, with which the skilled teacher can build motivating and productive activities.

While discussing the use of Internet for developing language skills, Carrier has also suggested that students would be able to use Internet to:

a. research and locate authentic materials, texts and programmes
b. develop searching skills as a group problem-solving activity
c. develop reading skills and vocabulary via extensive reading of Internet material
d. develop writing skills in reporting on their research
e. develop academic skills of research and selection, and formalizing of writing.

One does not have to follow a hierarchical path for finding out resource or resources. Thus one can:

(i) jump from one link (source) to another;
(ii) go directly to a resource if URL is known (its address); and
(iii) even jump from specific part of a document to another link.

That is why it is easy to browse the pages and find authentic materials for learning and teaching second language and also for research purposes. There is great flexibility in organizing, presenting and describing the information resources.

The World Wide Web (www) can be used by teachers of English as a tool for their own development and as a resource for classroom teaching. There are authentic resources and materials, places where the teacher can find prepared lesson plans and worksheets where he or she can share his/her ideas and thoughts with other teachers around the world. As Chapelle (2003) has rightly observed:

> "An hour of browsing through English language teaching Web sites reveals a wide variety of activities for learners, from ESL chat-rooms, and discussion boards, to resources for listening, sites for finding communication pals, and pages and pages of quizzes" (p. xii).

There are several billion pages of content and that number is growing all the time. It is not very easy to locate all the relevant materials because as Eastment (2001) has remarked: "The Web is open to all, however, and as long as any one can publish, the junk will remain: the 'cobweb' sites, which have not been updated for years; the 'under construction' pages which are never completed; the trivial, dull and the simply misleading. For the teacher finding worthwhile material is not an easy task." Therefore, one of the most important skills to develop is that of effective searching. A number of new tools have been developed that enable information published on the web to be searched and discovered more effectively. There are two independent approaches:

i. Browsing through subject trees and hierarchies (web indexes); and

ii. Keyword searching using search engines.

Information resources related to ELT are also available on the web. These can be found via a 'link page'. These papers are part of a larger site and are maintained 'either by the site owner directly or by inviting the owners of other web pages to register their sites' (Eastment, 2001). The most important example of 'link page' is The Internet TESL Journal (http://iteslj.org) which has links to over 6000 ELT related web pages. These web pages are well-designed and well maintained. Some other important sites are Eva Easton's site (www.eleaston.com) which focuses on the English language and Dave Sperlang's ESL Café (www.eslcafe.com/search/index.html) which links to over 3000 links. Apart from these information resources there are ELT discussion forums for students on the web: ESL Partyland and ESL Café (www.eslpartyland.com & www.eslcafe.com).

For teachers of English, some sites are very reliable and worth mentioning. The Internet Public Library is a key resource for teachers. It has a set of research guides on web materials. There are two newspaper supplementary for English teachers: *The Guardian* and the *New York Times*. In *The Guardian*, there is a TEFL section named Guardian Unlimited (www.educationunlimited.co.uk/tefl) which provides articles, county profiles and other specific information helpful for

teachers of English all over the world. *The New York Times* site offers the New York Learning Network (www.nytimes.com/learning). This site is meant for American school children but its materials are 'appropriate for young adults in international schools' (Eastment, 2001).

Conclusion

As the Internet has changed the way we think about the transfer of information, it has eliminated the sense of distance between the citizens of other countries and us. International contracts are an integral part of many careers. People without the skill and sensitivity to deal with other cultures are at a disadvantage. Many college programmes are adopting innovative ways of teaching language that involve the use of computers and the Internet which connect the students of one country with those of other countries.

xxxxxxxxxxxxxx

CHAPTER 3

Use of CALL in Writing Skills

Introduction

The discussion in the previous chapters has shown that computers can be used as an effective tool in language teaching and learning. The review of various works and studies on the use of CALL in language teaching and learning has made this amply clear. This chapter focuses on the opportunities for students to develop writing skills by using computer.

Approaches to Writing

Writing, one of the four skills of language, is an extended form of thinking. It is a personal achievement and is valuable almost in every occupation. It is a continued process of discovery involving a series of steps. Through writing the writers express their ideas and thinking. According to Reinking, Hart, and Oshen (1988, p.3) there are many advantages of writing for both teachers and students:

a. There is an opportunity for the writers to express what they want, they can shape and reshape their written materials to their satisfaction.
b. Writing gives the advantage of effective and precise communication.
c. Through writing one can record one's thoughts, actions and decisions.

A skill is a learned activity. It is something one can develop through practice and reflection. Writing skills are an important part of communication skills. Professional engineers are expected to write reports, e mails, memos , notices and letters to their peers, subordinates and the public as a whole for communicating with them for a variety of purposes. If any of these written communications is badly, incorrectly or inappropriately structured or framed, the

peers or subordinates will waste time trying to make sense of it. Badly written communication also open to misinterpretation..

Writing is the primary basis upon which the work, the learning and the intellect of a person will be judged—in colleges, in the workplace, and in the community. It is an active process of discovery and reinforcement. It prevents students from becoming passive.

According to Reid (2001) teaching ESL writing differs from teaching other language skills in two respects:

a. L2 writing was not viewed as a language skill to be taught and used as a support skill in language learning, and
b. With the gradual development of theory and practice, ESL teaching followed the native English speaker (NES) composition theory (p, 28).

Not much importance was assigned to the teaching of writing till late 1970s. However, L2 researchers have been stressing on the teaching of writing skills since the 1980s. Earlier, students were given grammar exercises to ensure accuracy in the English language but with the passage of time, especially in the early 1980s, teachers became aware of the importance of native English speakers' composition theory and need for ESL in academic environments (Reid, ibid).

Writing is an aid to learning, e.g., to consolidate the learning of new structures or vocabulary or to help students to remember the use of new items of language. Each writing exercise has a purpose. Sometimes a number of purposes may be combined. Coffin, Curry, Goodman, Hewings, Lillis, and Swann (2003) have outlined the purposes of writing: as assessment; as an aid to critical thinking, understanding and memory; as a means to extend students' learning beyond lectures and other formal meetings, to improve students' communication skills; and to train students as future professionals in particular disciplines (p, 21). Reinking et al (1988) have mentioned some other purposes of writing such as to inform, to persuade, to express oneself and to entertain. He has highlighted such qualities of good writing as fresh thinking, a sense of style and effective organization.

Students have to involve themselves in the process of communication in the classroom. To be able to communicate effectively in the classroom and outside it they need to develop their writing skills. As Brumfit (1984) has suggested, in the early stages the teachers should involve students in both controlled and guided writing exercises. Teachers should allow students to express their own ideas and produce correct forms of the language.

There are several approaches to the teaching of writing which gained importance in the 1970s. Of the various approaches to teaching writing skills product approach and process approach are mainly discussed in this section. The product approach to writing draws on the behaviourist theory of Skinner and on Audiolingualism which emphasized drill and practice in language learning. In this approach writing is regarded as a simple, straight-forward process during which writers planned, wrote and revised in a linear fashion. Within this approach, "writing is seen as a product constructed from the writer's command of grammatical and lexical knowledge, and writing development is considered to be the result of imitating and manipulating models provided by the teacher" (Hyland, 2003, p.3). This approach is mainly concerned with the structure of language and hence teachers are mainly preoccupied with the grammatical accuracy of the finished product. Practice and repetition in the teaching process are regarded as essential for achieving accuracy in students' language.

The process approach was the result of growing dissatisfaction with the prevalent practice of teaching writing i.e. the product approach. Tribble (1996) has defined the process approach as 'an approach to the teaching of writing which stresses the creativity of the individual writer, and which pays attention to the development of good writing practices rather than the imitation of models' (p.160). Thus, the focus shifts from the final product itself to the different stages of composing. Since writing is recursive process the learners have to go through these stages for developing their language skills.

Emig (1971), in her case study, identified five stages in the composing process:

a. Prewriting (brainstorming, generating ideas)

b. Drafting (writing)
c. Revision (re-reading the ideas)
d. Editing (error correction)
e. Publication (sharing of product in the classroom).

On the basis of these stages it is considered that writing is a recursive process rather than a linear process – since students do not appear to follow these stages in a strictly straightforward order. Once students have finished their revision they may move back to prewriting stage if they think that the content of their papers is not adequate or sufficient or if they feel that they should incorporate fresh ideas.

At the beginning of the 21st century, a new pedagogy has begun to develop in teaching writing; a balanced approach has been adopted in writing classrooms and 'writing is viewed as a communicative social act' (Reid, 2001, p, 29). Teachers are involved in practicing individualized process of writing activities for developing learners' language skills. In the present study experiments involving individualized processes of writing activities in some selected tasks were conducted (see details in Chapter V).

Writing with the Word Processor

In today's world of advanced information technology, a computer has the following technology tools in writing (Pennington, 2004)

a. composing and revising text (word processor)
b. correcting text (spell checkers and grammar checkers)
c. storing and reproducing text (disks and printers)
d. sending text electronically (email and Internet)
e. creating new kinds of computer text (hypertext and web pages).

There are many ways in which computers can facilitate and ameliorate language learning process but the word processor is regarded as the commonest and most frequently used tool in the majority of the institutions. In particular, Hyland (1993) has claimed that 'word processing is perhaps the most accepted and universal use of computers in education today' (p.21). A large number of researchers have recognized and discussed the potential of word processors to facilitate and enhance the writing experience (Daiute, 1985; Pennington, 1993; 2003; 2004; Phinney, 1991; Stevens, 1999). Warschauer (1996b) has said, many composition and language teachers believe that word processing encourages new pedagogical relationships in the class by facilitating student revision and collaborative writing. Brierley & Kemble (1991) have described it as the most enabling and beneficial of all the processors for EFL learners as it facilitates different types of computer-based activities (p.17). Becker and his associates (1999) conducted a survey among teachers to know the objective of students' use of computers (as cited in Kulik, 2003). They found that 44% of the teachers believed that computers helped students to express themselves in writing. Again 55% of the teachers reported that their students were using word processing software regularly. The survey has also revealed that students are able to write less self-consciously and more freely, and for longer periods. They can also write longer texts. According to Stevens (1999) the word processor has a positive effect on the development of students' proficiency in writing. He designed several word processor-based exercises and activities, and suggested the following to be used in the computer-writing class:

a. Finding the missing word and writing it.
b. The use of search and replace letters in a certain text.
c. Double-clicking a word, cutting it, and asking a student to paste it in the correct place.
d. Editing: the teacher presents a text with errors, and students work individually or cooperatively (in groups or pairs) to revise it.

e. Sentence completion: the teacher gives students a number of open-ended sentences or cloze exercise to complete.

Thus it is easy to edit a text with the word processor. As Tuman (1993) has said:

> While there are other advantages of word processing-- flexibility in page layout; spell-checking and other forms of file-checking; and new, economical, and flexible means of storing and transmitting files--it is this first advantage of editing that has been at the center of the initial attraction to computers for most writers and teachers.

While talking about the effectiveness of CALL in improving students' performance in the basic skills, specific skill areas, grade levels, and content areas, etc., Neu and Scarcella (1987) highlighted the following findings:

a. writing quality of students can be improved by using word processors;
b. higher grades tends to be achieved for word processed assignments;
c. attitude towards writing and motivation can be improved; and
d. students want to write multiple drafts when word processing is used.

Before using any type of word-processing software, one needs to be familiar with certain terms. In Microsoft Word, some technical terms are used to articulate certain features of the software programme, its function/navigation methods, and common word-processing terms: arrow keys, close, save, save as, border, click, double click and many more. According to Brierley & Kemble (1991), there are seven major applications for the word processor in writing: formatting, cutting and pasting, insertion and deletion, search, editing up, editing down, and editing across (p.33). These functions can be performed through the *Word 2003*, the word processor which is used in this study. It has: "Edit", "View", "Insert", "Format", "Tools (track changes)," etc. For writing skills editing is very important. By editing – deleting, moving, or adding characters, changing font styles, inserting bulleted items, and altering the color of the text- one can modify a document. On this function of the word processor, Kulik (2003) has observed,

'with regular use of word processors, young writers might even get into the habit of revising and reorganizing their compositions, and this habit might affect the quality of their writing even when they were writing with paper and pencil alone' (p.3).

Spelling and Grammar, one of the standard tools in word processor, can also help the learners in improving their knowledge of vocabulary. Two grammar checkers *Whitesmoke Writing Software* and *Serenity Software Editor,* developed in the 90s, can be used for checking mistakes and they offer suggestions for correcting the potential grammatical errors. Since good grammar is essential in writing, students can make use of it while composing texts in the computer.

Dictionaries and thesaurus are also available for the student in the word processor. They can use them 'interactively'. Dictionary is used in language learning as a resource and learners can use this resource for developing language skills, especially writing skills.

Another important feature available with most of the word processors is that learners can also learn synonyms and antonyms while using a computer. As Ahmed et al (1985) have remarked, 'supplying synonyms and antonyms can be dealt with very neatly by requiring learners to match items from lists of words' (p.108). Thus it is observed that word processing has brought about interesting developments in the way writers write.

The advantages of the use of word processor in developing written language can be summarized in the words of Chadwick and Bruce (1989)

> Computers change the writing process in that their various text manipulation features allow writers to jump backwards and forwards in their texts, revise and rephrase, delete and insert and at the same time provide the writer with a hard copy at any stage. Once the first draft is completed the student can read and reread, make any number of changes without the generation of non-productive labour or fear of spoiling the presentation of the text. The student no longer faces the frustrating dilemma of whether to

> rewrite the whole, involving meaningless copying, or leave changes with he or she knows should be made but wants to avoid .... The student can therefore exhaust his or her own intuitions about what is good or bad, what needs changing or leaving alone, before requesting feedback from a tutor or teacher (p.18).

Writing in E-mail Communication

E-mail, a form of asynchronous computer-mediated communication, has been called "the mother of all Internet applications" (Warschauer, Shetzer, & Meloni, 2000, p. 3). Electronic mail (E-mail) is used to send and receive messages. One can send e-mail practically to any one with an e-mail address, anywhere in the world. Hundreds of millions of people now use email daily for countless purposes, from carrying out administrative tasks and distributing announcements of public events to sharing recipes and keeping in touch with family and friends. In its simplest form, e-mail is an electronic message sent from one computer to another. Now days, one can send or receive personal and business-related messages with attachments like pictures with sounds, graphics and other documents. In this type of communication, one can communicate quickly and easily with millions of people around the world anytime 24 hours a day 7 days a week. Email communication can be group-based (newsgroup, discussion group and so on) and two-person email communication.

E-mail is considered an important form of CALL. Many books on the use of E-mail in developing writing skills of the learners have been published. One of the important books is Warschauer's *E-mail for English Teaching* (1995) which stresses on the role of e-mail exchange in developing linguistic proficiency, cultural knowledge, and communicative competence in L2 learners. Students can use e-mail and share files and thus they can collaborate together with other classmates, peers and teachers. Belisle (1996) has observed that networking electronically can help learners create, analyze, and produce information and ideas more easily and effectively. Students can also communicate, send messages to

native speakers and in the process of exchanging messages they can increase their social awareness and confidence. Many people have observed that composing an email message *feels like* talking even though it is written; others have noted that at least in some respects it even *looks like* talking—some of its linguistic features resemble those of speech (Danet, 2002).

Many researchers have found various ways and means of the use of E-mail for language teaching and learning. According to Smith and Baber (2005), the following are some of the uses of e-mail (p.16):

a) Homework and feedback by email: The simplest way to incorporate email in teaching is to give the students homework via email. This homework can be corrected in the class or outside the class and then sent to the students with feedback. Writing tasks, or exercises such as filling in gaps or matching exercises, etc may be suggested as homework. The teacher can include the homework directly in the text of the email. He/ she can also compose the homework in Word and send it as an attachment.

b) Student activities: The students can use email to work on exercises and tasks alone and collaboratively. They can send their writings to other students (one-to- many) of the class and in this way email can be used for various student activities. Email can also be used (among students) for information gathering and transferring classroom activities into email text.

c) Proofreading students' documents: Students need to write texts in English—business emails, academic writings, technical reports and newspaper articles, etc. They can send their writings to the teacher through email for proofreading and the teacher can return the same to the students with comments and suggestions for modification.

d) Keeping students informed: The instructor can inform the students via email about various issues such as website address, a newspaper report, and so on. He/ she can recommend to his/ her students relevant topic(s) to read before starting the next lesson.

e) Email discussion groups: The teacher and the students can join email discussion groups namely, Yahoo, Google, Rediff, etc. An email discussion group is normally devoted to a single topic such as Word processor and developing writing skills, Internet as resource tool and so on. Any member can initiate a discussion on a specific topic and all the members will get the mail sent by another member because all the members will be given one email ID to send messages. In this way, a student can develop his proficiency in English by participating in and contributing to the discussion.

Researchers such as Gonglewski, Meloni and Brant (2001) have described the pedagogical benefits of E-mail. Some of these can be mentioned below:

a. E-mail extends what one can do in the classroom, since it provides a venue for meeting and communicating in the foreign/second language outside the classroom.
b. Email provides a context for real-world communication and authentic interaction with other native and non-native speakers.
c. Email expands topics beyond classroom and gives learners an additional context for discussion.
d. Email communication promotes student-centered language learning. In stead of trying to produce a mistake-free composition a student can communicate with another person in the target language.
e. Email encourages equal opportunity for participation in the class. Research suggests that those students who are reluctant to speak in face-to-face contexts are more willing to participate in the electronic context.
f. Email connects speakers quickly and cheaply and allows students to communicate with native speakers of the target language or with other learners frequently.

It is obvious that E-mail can be used for a variety of purposes in the second language classroom. Students can send massages to their counterparts in e-mail discussion groups and in turn each of them receives reply in his / her mailbox. The students get opportunities for authentic communication with the native speakers and with others all over the world. They can carry out collaborative projects through E-mail.

Through e-mail a teacher can interact with his/her student or group of students at a convenient time; it may be inside the classroom. However, it need not be confined to a classroom. It is easier for the teacher to group the mails by the names of students, by dates received or by project names. This process of collaboration and communication helps the learner in developing and improving his/her language skills with the help of practice with peers and teachers. The frequency of communication between teachers and students, and among students can be increased through dialoging. Belisle (1996) has experienced three types of dialoguing in ESL writing class:

(a) Student to teacher:

(i) The student can ask questions and answer those questions;

(ii) They can also send progress report and updates on their study.

(b) Teacher to student: The teacher can send message of announcements, assignments and home works.

(c) Student to student: A student can communicate via e-mail to another student or group of students. They can also create interesting messages. They can send messages on social events and announcements.

The text of email can be composed online and offline but the language used in the text is different. As Danet (2002) has said:

> Email composed offline is likely to be relatively more writing-like in its linguistic features than email composed on the fly when logged on. In offline, there is time to edit; one can use a word-processor and import the letter into the email interface or enclose the edited text as an attachment.

CALL Activities in Writing

Computer-assisted language learning (CALL) programs have been found to be effective in many language learning studies (Almekhlafi, 2006, Cunningham, 2000; Hegelheimer et al, 1996). The results of the studies have shown that those students who used CALL programs performed better than those who used traditional programs. CALL programmes can provide individualized instructions and allow students to work at their own pace. de Szendeffy (2005) has described eight writing activities in CALL for a wide range of communicative purposes (p.32-51). A brief description of all these activities is given below:

Activity 1: Word-Processing Basics—The main objective of this activity is basic text manipulation. In this activity students can correct a paragraph while learning to manipulate the text. The required software is word processor.

Activity 2: Academic (Manuscript) Formatting—The main objective of this activity is formatting academic papers. In this activity, students will be able to know how to format a paper 'partly to meet the expectation of teachers and others reading them and partly to shift their focus from how the text looks (big, funky, colourful fonts) to what it says' (ibid, p.36). The required software is word processor.

Activity 3: Using Built-in Language Tools— Most of the modern word-processors have tools menu such as spell checker, grammar checker and thesaurus and these tools can be used for the purpose of developing writing skills. In this activity, students are taught to use these tools properly. Most spelling tools suggest alternative words based on those with similar spellings or sounds. The thesaurus tools ostensibly offer the prospect of introducing students to new words whereas grammar checkers may point out errors such as incomplete sentences, comma splices, faulty subject-verb agreement, or case mistakes. The required software is word processor.

Activity 4: Using Other Writing Resources—The main objective of this activity is to use dictionary and encyclopaedia programmes or sites while composing,

manipulating, editing the text in the word-processor. Students are taught to use CD or free web-based dictionaries that offer audible pronunciation of words and hyperlinked definitions in order to develop writing skills. "Encyclopaedias in the target language, either online or on CD or DVD, provide good, general resources to language students in writing classes and encourage exploration of related or adjacent items or random discovery" (ibid, p.42). The required software is word processor, dictionary and encyclopedia programme or online versions.

Activity 5: Story Starter—The content objective is collaborative writing (among students). In this activity, students write a story whose first line is given to them. This activity can be done in either synchronous or asynchronous mode or it is possible to use both the modes. While contributing writings students get an opportunity to introduce themselves to collaborative writing tools. This activity can be done in word processor, e-mail programme.

Activity 6: Interview—The content objectives are interviewing, note-taking, writing interviews, etc. In this activity, students can interview each other in pairs or in a chain on any interested topic.

Adding photos or other graphics in the text document is an expanding interview activity.

Activity 7: Business Writing—The content objective is to use business templates for many different kinds of documents, such as correspondence, inter-office memos, resumes, newsletters, brochures and manuals. While formatting documents students can add content to placeholder text.

Activity 8: Editing Student Writing—The objective is to use proofing tools while editing students' writings. Now a days, more and more students in writing classes submit their writing assignments electronically to their teacher as e-mail attachments. Teachers can make comments on a student's paper and then send a copy back to the student by e-mail or by saving to the designated saving location for the class. Word processor with comments and track changes feature is the required software to edit students' writing.

Limitations of Computer

The advantages and effects of CALL in developing writing skills, so far, have been discussed. Though computer has an inherent advantage which can help learners in developing language skills, it has also some limitations.

Thus a computer:

a. cannot judge unexpected input,
b. cannot provide individualized feedback beyond a predetermined list of messages,
c. cannot engage learner in rich negotiation of meaning, a characteristic of face-to-face interaction,
d. cannot motivate depth and quality of engagement, a characteristic of human interaction.

Computers do not have any ability to make use of natural language. According to Kemp (1992), "...computers can not grasp the meaning in text and therefore are helpless in evaluating the rhetorical elements that modern composition studies feel to be the most important in producing effective writing: audience, purpose, tone, and context".

Some other limitations of CALL are mentioned below:

a. Some CALL hardware and software are very expensive. It is difficult for the schools/ institutions that have limited funding to acquire them.
b. A cooperative teamwork is needed to design a good CALL software.
c. Not all students can access CALL (e.g. the internet). In many developing countries, there is a problem of "have" and "have not" Internet between the rich and the poor. Teachers of ELT may have negative attitudes towards CALL.
d. There is fear that CALL might replace teachers.
e. Many ELT teachers are not enthusiastic about CALL because they have limited skills and experience in CALL theory and delivery.

f. A lot of CALL activities (e.g. Behaviorist CALL) are limited to certain types of exercises such as multiple choices, true false, matching, ignoring question-answer interactions.
g. A lot of CALL software (e.g. Drill and Practice type) focus on teaching separate, discrete language skills and components, ignoring discourse, contexts, and cultures.

Conclusion

Teachers can implement CALL programmes for teaching writing depending on the situation suitable for the learners and their requirements (needs). The teacher can decide that a certain part of the syllabus can be handled on the computer. Many teachers now a days ask their students to write essays, letters, stories and send these to their classmates, and other students who in turn may correct the writings and give suggestions.

In India, however, not much research or meta-analysis has been conducted in this field. It would indeed be worthwhile to find out if Computer Assisted Language Learning (CALL) has the potential to bring about increased achievement in the Indian context. It would also be interesting to see how it compares with general classroom teaching.

xxxxxxxxxxxxxx

CHAPTER 4

Survey

Introduction

Information and Communication Technologies (ICT), in various forms, have a profound impact upon human activities concerned with all fields especially education and training. Computers are used in teaching all subjects and no field remains outside the scope of their use. Computer technology can play a very crucial role in teaching the English language in educational institutions in general, and technical institutions in particular. Keeping in view the theories regarding the use of technology in language teaching and learning and in consonance with earlier surveys (Aslam, 1995;IIT, Kanpur, 1990; Islam, 1999; Subbulakshmi, 2008; etc.) this researcher conducted a survey among the students of the Polytechnics of Assam about certain aspects of learning English.

It has been observed that syllabus designers in the Polytechnics of Assam have overlooked the significance of satisfying the social and professional needs of the participant or groups of participants who learn a Target Language (TL). Munby's (1978) approach to needs analysis is still very pertinent especially in designing programmes for teaching English in technical institutions. In India, the analysis of needs of science and technical students carried out by IIT, Kanpur (1990) has clearly indicated that there is a sharp mismatch between students' perception of their wants and the teachers' prediction of what the students want. Subsequently, other researchers, for example, Aslam, 1995; Sood, 1995; etc., also conducted surveys to elicit information about the needs for and attitude towards English. The survey carried out by Rayan (2007) among recruiters, EST practitioners, engineering professionals, and engineering students has revealed that 73% of the respondents thought that most of the engineering students lacked such skills as creativity in communication, problem solving and independent thinking. These respondents also felt that it was very important to foster the skills in future

engineers in order to prepare them to face the challenges ahead in the age of globalization.

Significance of the Survey

This survey is important because it is probably the first of its kind in English Language Teaching in the Polytechnics in Assam, dealing with both students' perceptions about the needs for studying English and their attitude towards using CALL in teaching English in the traditional classroom. The findings of the survey helped us in designing a model syllabus of English incorporating CALL for the first year diploma engineering students in the Polytechnics of Assam. Besides, the findings of the survey would provide useful and practical information to the technical institutions in designing syllabi and to Al India Council for Technical Education (AICTE) also to prepare guidelines for these institutions to take remedial measures in order to improve language skills of these students.

Objectives of the Survey

The researcher conducted a survey among the teachers and the students (selected randomly) in the technical institutions namely Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati to know the participant's perceptions about the necessity of English in technical institutions, and attitudes towards using the computer in teaching and learning English in and outside the classroom and for developing communicative skills of the learners.

Methodology

For eliciting information from the survey two questionnaires were designed (Appendix B: Questionnaire for Teachers and Appendix C: Questionnaire for Students). The first part of the questionnaires elicited background information of

the informants and their approach to the teaching and learning of English. The second part contained questions relating to their perception about the use of computer in the teaching and learning of English.

Table 5: Categories of the questionnaire (Part I)

Category	Teachers' questionnaire	Students' questionnaire
1	Background of the teachers and Teacher's use of English and other languages	Background of the students
2	Teachers' assessment of students' language skills	Learners' own assessment of their language skills
3	Teachers' perceptions about necessity of English/ language skills	Students' perceptions about necessity of English

Table 6: Categories of the questionnaire (Part II)

Category	Teachers' questionnaire	Students' questionnaire
1	Teachers' views on CALL	Learners' views on CALL
2	Teachers' use of computer/ computer technology	Learners' use of computer/ computer technology
3	Access to computer technology	Access to computer technology

Population of the Survey

The researcher distributed 247 survey questionnaires to students randomly (130 in Nowgong Polytechnic, Nagaon and 117 in Girls' Polytechnic, Guwahati). Between the two institutions, the response from Girls' Polytechnic was really overwhelming-- the students returned 115 questionnaires. The students of Nowgaon Polytechnic returned 92 questionnaires. A total of 207 questionnaires (Girls'-59.42% and Boys - 40.58%) were received by the researcher. 43 survey questionnaires were distributed to teachers randomly in the two above-mentioned technical institutions of which the researcher received 24 questionnaires. Out of this 14 were Male (58.33%) and 10 (41.66%) were Female.

Rationale for Selecting Population

There are nine Polytechnics in the State and all these Polytechnics come under the purview of the Directorate of Technical Education, Govt. of Assam. The Directorate conducts a Common Entrance Test for admitting students in these institutions. These institutions follow the common curriculum and the same evaluation system. The Government appoints teachers of these institutions. The teachers can be transferred from one institution to another. At the time of admission, the student can choose more than one Polytechnics in order of preference. Thus it can be said that all these nine Polytechnics come under one umbrella and follow the same rules and regulations, curricula (courses of study), examination system, administration and jurisdiction.

Analysis of the Data

A. Students' Questionnaire

Part I

Category 1: Background of the students

It was found that most of the students (55%) belonged to the age group of 19-20 years. 23% of them are in the age group of 16-18 years whereas 17% of

them in the age group of 21-23 years. It was also found that most of the students (77%) completed their High School education in vernacular medium. During the interview with them these students said that they wanted to develop their communication skills in English for better understanding of their technical courses. The analysis also showed that students from urban and rural areas study in these institutions. The findings of the survey relate to other studies such as Sood, 1995; Dayal, 2005, etc.

Students' responses are given below:

(1) Age Group

16-18	19-20	21-23(above)	No Response
23.18 %	54.58 %	16.90 %	5.31 %

(2) Sex

Male	Female
40.58 %	59.42 %

(3) Rural/ Urban

Rural	Urban	No Response
40.05 %	40.57 %	19.38 %

(4) Medium of instruction in school

English	Mother tongue	No Response
23.18 %	73.93 %	2.89%

Category 2: Learner's Own Assessment of their Language Skills

The survey reveals that 18.95% and 6.45% of the respondents think that they are very good in reading and writing respectively whereas only 5.79% and 29.46% of them are very good in speaking and listening respectively. It also reveals that 49.81% and 7.26% are very weak or weak in speaking and listening respectively. The language skills of these students are self-assessed and thus it

reveals their attitude towards the necessity of developing language skills. The findings are in line with Dayal (2005) who found that majority of the students regarded themselves to be good in listening and reading but needed help in speaking and writing skills.

Table 7: Learners' own assessment of language skills (in %)

	Listening	Speaking	Reading	Writing
Very Good	29.46	5.79	18.95	6.45
Good	60.86	40.72	45.86	12.47
Weak	5.32	41.6	23.64	22.39
Very Weak	1.94	8.21	7.69	56.23
No Response	2.42	3.68	3.86	2.46

Category 3: Students' Perception about necessity of English

In this category, the students' perception about the necessity of English is taken into account. The study reveals that 98% of the students think that there is a need for the English language-learning programme in their technical course and 86% of them like to devote some extra-time to the learning of English; 72% of them like to learn English as compulsory course against 13% as self-study. Again 71% of them think that for Technical Education a lack of proficiency in English is a disadvantage. The positive response about the importance of English in their future career is overwhelming (99%).

Students' responses are shown below:

(1) Do you think there is a need for the English language learning programme in your technical course?

Yes	No	No Response
98.55 %	0.96 %	0.49

(2) How do you like to learn English?

As Compulsory course	As Optional Course	Self-study	No Response
71.98 %	13.52 %	13.04 %	1.44%

(3) What should be the medium of Instruction at your institution?

English	Hindi	Regional Language	No Response
97.10 %	0 %	2.41 %	0.48%

(4) Do you want English to be retained as medium of Technical Education?

Yes	No	No Response
95.16 %	2.44 %	2.41%

(5) Is English Important for your future career?

Yes	No
99.51 %	0.48 %

(6) Do you think that for Technical Education lack of proficiency in English is a disadvantage?

Yes	No	No Response
71.01 %	26.57 %	2.41

(7) Would you like to devote some extra-time to learning English?

Yes	No	No Response
85.99 %	10.14 %	3.86 %

(8) Do you find your language course specially designed for your technical studies?

Yes	No	No Response
63.28 %	35.26 %	1.46%

(9) Indicate your opinion about the Text/ Learning Materials provided for your language course?

Useful	Not Useful	Interesting	Boring	No Response
59.42 %	4.83 %	27.53 %	5.79 %	2.43%

Part II

Category 1: Learners' views on CALL

In this part of the survey the learners expressed their views about CALL / use of computer technology in learning and teaching English. The study reveals that 88% of the students like to learn English through computer which itself expresses their positive attitude towards the use of CALL. Again 93% of the learners agree or strongly agree that a computer gives them more chances to practice English. The data also reveal that 47% students believe that they can learn English faster by using computer.

The main objective of the survey was to know the learners' attitude and perceptions about the use of CALL in developing communicative skill in and outside the classroom. The survey reveals that 93% students think that E-mail helps people to learn from each other and the equal number of students agreed that communicating by E-mail is a good way to improve their English. The study also reveals the fact that 87% of the respondents enjoy communicating through E-mail with their classmate/ teachers.

A majority of the students (64%) like to use computer as a tool in the traditional English Classroom which bears testimony to the fact that students have positive attitude towards using computer technology in learning English. But only 22% expressed the opinion that computer could be used as a tool in the traditional English classroom occasionally. 61% of the students want their English teacher to use computer in teaching them English but 24% were not sure about using computer in teaching English by their teacher. The questions and the responses of the students are shown below:

(1) Do you know that computer can be used in teaching and learning English language?

YES	NO	No Response
79.71%	19.32 %	0.96 %

(2) Do you like learning English through computer?

YES	NO	No Response
87.92 %	9.17 %	2.89 %

(3) Do you think E-mail helps people to learn from each other?

YES	NO
92.75 %	7.24 %

(4) Communicating by e-mail is a good way to improve my English.

Strongly Agree	Agree	Disagree	Strongly Disagree	No Response
30.43 %	62.80%	3.86 %	0.96 %	1.93%

(5) Do you enjoy using the computer to communicate with your classmate/ teachers?

YES	NO
86.95 %	13.04 %

(6) Using a computer gives you more chances to practice English.

Strongly Agree	Agree	Disagree	Strongly Disagree	No Response
33.81 %	59.42 %	2.98 %	2.41 %	1.44 %

(7) You can learn English faster when you use a computer.

A lot	A little	Never	No Response
46.85 %	46.37 %	4.83 %	1.93%

(8) Do you like to use computer as a tool in the traditional English Classroom?

YES	NO	Occasionally	No Response
63.76 %	12.56 %	22.22 %	1.44 %

(9) Do you want your English teacher to use computer for teaching you English?

Yes	No	Not sure	No Response
60.86 %	14.49 %	24.15 %	0.48%

Category 2: Learners' Use of Computer

In this survey, the researcher wanted to know the learners' use of computer. It was found that 43% of them were good in using computer whereas 9% are poor as they assessed themselves in the survey. It seems that students have a basic knowledge of computer which helped the researcher to conduct an experiment in a computing environment (see chapter V for details). While 33%, 23% and 25% of the respondents use computer in word- processing, E-mail and www respectively, 12%, 29% and 28% of students have never used these programmes (word-processing, E-mail and www) in the computer. Students' responses to the questions are given below:

(1) Please rate your use of computer

Poor	Fair	Good	Very Good	Excellent
9.21 %	18.84 %	42.99 %	20.28 %	8.69 %

(2) How much do you use a computer to do the following things

	A lot	A little	Never	No Response
Word processing	32.85%	49.75%	12.07%	5.33%
Email	23.21%	38.64%	28.98%	9.17%
WWW	25.12%	37.68%	27.53%	9.66%

(3) Assess your knowledge about/of Computer

	Very Good	Good	Weak	Very weak	No Response
Word processing	18.35%	58.93%	15.45%	5.31%	1.96%
Power Point	27.05%	48.79%	13.04%	8.21%	2.93%
Internet Browsing	15.94%	39.61%	25.12%	15.17%	4.34%
Communication through E-mail	17.39%	37.68%	23.18%	17.39%	4.36%

(4) Please rate your typing ability

Poor	Fair	Good	Very Good	Excellent	No Response
9.66 %	23.18%	49.75%	10.14 %	5.31 %	1.96 %

Category 3: Access to Computer Technology

In this category the researcher wanted to know the availability of computer technology and its access in the institution and also at home. The findings of the survey can help the researcher in fulfilling the objectives of the study. The said survey again finds that 52% of the respondents have computers at home but 50% of the students have E-mail ID as they can send or receive mail through computer from café. It is interesting to find that 77% of the students never send mails to their teachers. This indicates their unwillingness or hesitation in communicating with their teachers. The responses are shown below:

(1) Do you have a computer at home?

YES	NO	No Response
52.17 %	45.41 %	2.41%

(2) Do you have an E-mail ID?

YES	NO	No Response
49.75 %	47.34 %	3.09 %

(3) Have you ever send E-mail to your teacher?

YES	NO	No Response
20.77 %	77.29 %	1.93 %

Analysis of the Data

B. Teachers' Questionnaire

The researcher also conducted a survey among the teachers of Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati with the help of a

questionnaire. He also interviewed some of them. The main objective of the survey was to know their perceptions, views and attitude towards the development of communication skills of the students in the Polytechnics of Assam. The findings of each category of the questionnaire are discussed below.

Part I:
Category 1: Background of the teachers and Teacher's use of English and other languages.

In this category, 58.33% and 41.66% of the teacher respondents are male and female respectively. The study reveals that majority of the teachers (87.5%) use English all the time/ always while interacting with students in Lectures whereas 58.33% of them use Regional language in the classroom/lab sometimes as the medium of instruction. Thus it indicates that teachers use English widely while teaching and interacting with students. Responses are given below:

(1) Age

30-35	35-40	41-above	No Response
8.33%	41.67%	50%	Nil

(2) Sex

Male	Female	No Response
58.33%	41.67%	

(3) Teacher uses English while interacting with students in..

A. Lecture

Always	Sometimes	Rarely	Never	No Response
87.5%	12.5%	00%	00%	00%

B. Explaining difficult teaching points..

Always	Sometimes	Rarely	Never	No Response
37.5%	45.83%	12.5%	4.17%	00%

C. Viva Voce/ Interview

Always	Sometimes	Rarely	Never	No Response
75%	25%	00%	00%	00%

D. Seminar/ Project Sessions:

Always	Sometimes	Rarely	Never	No Response
75%	25%			

E. Hostel/ Social Activities

Always	Sometimes	Rarely	Never	No Response
12.5%	75%	12.5%	00%	00%

(4) Teachers' use of Regional Language in Classroom/ Lab:

Always	Sometimes	Rarely	Never	No Response
12.5%	58.34%	25%	4.16%	00%

Category 2: Teachers' assessment of students' language skills:

This category is very important and the findings are also very pertinent regarding the assessment of language skills of the students by their teachers. The study reveals that students are weak (70.83%) in 'speaking' whereas they are good (79.16%) in 'listening'. Again 50% students are weak/or very weak in writing skills which is highly significant because teachers assessed their students. Interestingly, 56.23% of the students think that they are very weak in writing. Focus should be given on all aspects of the skills. Listening and speaking can not be isolated as one is dependent on the other.

Table 8: Teacher's assessment of students in language skills:

	Very good	Good	Weak	Very weak
Listening	12.5%	79.16	8.34	00
Speaking	4.18%	16.66%	70.83%	8.33%
Reading	25.00%	54.17%	20.83%	00
Writing	4.17%	45.83%	37.5%	12.5%

Category 3: Teachers' perceptions about necessity of English/ language skills

In this category, teacher's perceptions about the necessity of English and the existing language course were taken into account. The most striking revelation is that all (100%) of the teacher respondents think that there is a need for developing communicative ability of the students in the target language (English). Most of the teachers (66.66%) think that for Technical Education lack of proficiency in English is a disadvantage. The same number of teachers (66..66%) like to have some supplementary texts in the language course of the three-years Diploma Programmes. Other findings in this category are:

a. All respondents (100%) would like their students to devote some extra-time to the learning of the English language whereas 83% of them would like their students to have a special intensive English language course.
b. A majority of the teachers (79%) consider speaking more important than other skills for students' Engineering/ Professional career but 29% would like to focus on writing.
c. Teachers give equal importance to all the four skills of language- listening, speaking, reading and writing but 45% of them expressed the view that learners should improve their vocabulary.
d. Teacher respondents were divided (50% positive and 50% negative) in their opinion about the time to be allotted for the English language class. For 50% of them the time allotted now was inadequate for attending to students' specific problems and weaknesses in English.

(1) Do you think there is a need for developing communicative ability of the students in your institution?

Yes	No
100%	Nil

(2) What should be the medium of instruction at your institution?

English	Hindi	Regional language
100%		

(3) Is English important for your students' future career?

Yes	No
95.83%	4.17%

(4) Are you aware of the contents of the existing syllabus?

Yes	No	To some extent
66.66%	20.84%	12.5%

(5) Do you think that for Technical Education lack of proficiency in English is a disadvantage?

Yes	No
66.66%	33.34%

(6) Would you like your students to devote some extra-time to the learning of the English language?

Yes	No
100%	Nil

(7) Would you like your students to have a special intensive English language course?

Yes	No
83.33%	16.67%

(8) At which level would you like to put English language course?

Semester I	Semester II	Semester (III/IV/V/VI)
75%	12.49%	20.83%

(9) Do you find the current prescribed English programme beneficial for developing / improving communicative skills of the students?

Yes	No
70.83%	29.17%

(10) Would you like to have some supplementary text in your language course?

Yes I	No	Not Applicable
66.66%	8.33%	25%

(11) Do you think students will understand your subject better if regional language is sometimes used in the class?

Yes	No
79.16%	20.83%

(12) Do you think that the technical subjects can be taught more effectively through regional languages?

Yes	No
4.17%	95.83%

(13) Do you think that English is learnt better through books & lectures in your technical subjects rather than through an English language course?

Yes	No
33.34%	66.66%

(14) Which language skill do you think is more important than others for students' Engineering/ Professional career?

Listening	Speaking	Reading	Writing
All-(3) 3	19—79.16	4--16.66	7--29.16%
Some respondents have chosen more than one option			

(15) The skill that you find most important according to the place of use:

	Listening	Speaking	Reading	Writing
In classroom	66.68%	20.83%	4.16%	8.33%
In study	4.16%	4.16%	79.16%	33.33%
In workshop/lab	33.33%	50%		25%
Outside classroom	4.16%	91.66%	8.33%	8.33%
Some respondents have chosen more than one option				

(16) Do you feel that your students need to improve their English?

Yes	No
95.83%	4.17%

(17) Indicate the skill you would like your students to improve for the purpose of Engg./ Technical profession:

Listening	Speaking	Reading	Writing
All (1)4—16.66	18—75%	3--12.5	4--16.66
Some respondents have chosen more than one option			

(18) Identify the area of your students weakness in using the English language:

Pronunciation	Vocabulary	Writing	Reading	Speaking	Accent
12.5%	45.83%	37.5%	4.16%	37.5%	8.33%
Some respondents have chosen more than one option					

(19) Do you think that the time allotted for the English language class is sufficient to attend to students' specific problems and weaknesses in English?

Yes	No
50%	50%

(20) Would you like your students to have self-access learning aids like computers, video lessons & audio cassettes through which they can improve their English language proficiency?

Yes	No
95.83%	4.17%

This researcher also interviewed some teachers and their opinions and suggestions are given below:

a. Prescribed texts should include subject-related essays or articles in order to develop the students' basic skills of communication.
b. Students are weak in writing skills and communication skills. So they tend to communicate in their mother tongue.

c. Students should cultivate the habit of reading, not only the text books but other books/ reference books etc. This was they would be familiar with new words and expressions and new sentence patterns.
d. In-depth study of grammar and if possible with some aids should be emphasized.
e. Special class on spoken English should be made compulsory in lower semesters.
f. In classroom interaction, students should speak English only and no other language.
g. Computer should be used in the classroom for developing language skills.

Part II

This part of the survey reveals teachers' views on the use of CALL in developing communication skills of the students. A majority of the respondents (87%) know that computer can be used in teaching and learning the English language whereas 66.66% would like to teach English through computer as against 29.16% who have negative attitude towards this. The other findings of this part of the survey are given below:

a. 83.33% of them think E-mail helps people to learn from each other.
b. Most of the teachers either strongly agree (8.33%) or agree (75%) with the statement that communicating by e-mail is a good way to improve the students' knowledge of English; 16.66% disagreed.
c. A majority of the teachers-- strongly agree (12.5 %) or agree (66.66%) with the statement that using a computer gives them/ their students more chances to practice English. only 20.83% disagreed.
d. A good number of teachers (33.33%) would like to use computer as a tool in the traditional English Classroom and the same number (33.33%) would like to use computer as a tool in the traditional English Classroom occasionally.

e. It suggests that most teachers are willing to use computer in teaching language though some of them prefer to use computer occasionally.

As a whole the teacher- respondents expressed their willingness to use computer as a tool in the English language classroom. Again a good number of teachers have good knowledge of computer but they hardly send any mail to their students though most of them (62.5%) have e-mail ID.

Category 1: Teachers' views on CALL

(1) Do you know that computer can be used in teaching and learning the English language?

Yes	No	No Response
87.5%	12.5%	

(2) Do you like teaching English through computer?

Yes	No	No Response
66.66%	29.17%	4.17%

(3) Do you think E-mail helps people to learn from each other?

Yes	No	No Response
83.33%	16.67%	

(4) Communicating by e-mail is a good way to improve knowledge of English.

Strongly agree	Agree	Disagree	Strongly Disagree	No Response
8.33%	75%	16.67%		

(5) Do you enjoy using the computer to communicate with your students/ teachers?

Yes	No	No Response
58.33%	41.67%	

(6) Using a computer gives you/ your students more chances to practice English.

Strongly agree	Agree	Disagree	Strongly Disagree	No Response
12.5%	66.66%	20.84%		

(7) You can teach English faster when you use a computer.

A lot	A little	Never	No Response
25%	45.83%	12.5%	N/A 16.67%

(8) Do you like to use computer as a tool in the traditional English Classroom?

Yes	No	Occasionally	No Response
33.34%	25%	33.33%	8.33%

Category 2: Teachers' use of computer/ computer technology

(1) Please rate your use of computer

Poor	Fair	Good	Very Good	Excellent
4.16%	8.33%	54.16%	29.16%	4.16%

(2) How much do you use a computer to do the following things

	A lot	A little	Never	No Response
Word processing	66.66%	29.17%		4.17%
E-mail	33.34%	54.16%	8.34%	4.16%
WWW	41.67%	37.5%	20.83%	

(3) Assess your knowledge about/of Computer

	Very Good	Good	Weak	Very weak	No Response
Word processing	25%	62.5%	12.5%		
Power Point	16.67%	66.66%	16.67%		
Internet Browsing	29.16%	37.5%	29.17%	4.17%	
Communication through E-mail	29.17%	50%	12.5%	8.33%	

(4) Please rate your typing ability

Poor	Fair	Good	Very Good	Excellent	No Response
4.16%	29.17%	58.33%		8.37%	

Category 3: Access to computer technology

(1) Do you have a computer at home?

YES	NO
83.33%	16.67%

(2) Do you have an E-mail ID?

YES	NO	No Response
62.5%	37.5%	

(3) Have you ever sent E-mail to your student/ students?

YES	NO	No Response
8.37%	91.66%	

Comparative Analysis

The researcher has made a comparative analysis of both the students' and teachers' perceptions about the use of computers in teaching and learning English and also the use of computer in the traditional English classroom. It is clear from the survey that both teachers and students like to use computer in teaching and learning English (67% and 88% respectively). While comparing the views regarding E-mail and its benefit, it is found that both teachers and students (93% & 84%) think that communicating by Email is a good way to improve English communication skills especially writing skills. From the survey it is also observed that both teachers and students have strong and positive attitude to the use of computer in the traditional English classroom. The findings of the survey correlate with other research studies.

Conclusion

The survey clearly demonstrated that the students and the teachers realize the importance of developing English language skills in the technical institutions. They have a positive attitude towards the use of computer in teaching English in such institutions. The findings of the survey are not different from the findings of some of the earlier studies on the needs of English and the use of technology in English language teaching (e.g. IIT, Kanpur, 1990; Islam, 1999). The findings of the present survey helped the researcher in designing a model syllabus for the first year students of the Polytechnics of Assam. The model syllabus is discussed in the next chapter.

xxxxxxxxxxxxxx

CHAPTER 5

Model Syllabus for Using CALL: The Experiment

Introduction

The researcher investigated students' and teachers' attitude towards using computer technology in teaching and learning English especially for developing communicative skills of the learners. This has been discussed in Chapter 4 of the present study. Based on the findings of the survey and also on the findings of other similar studies (IIT, Kanpur, 1990; Islam, 1999; Aslam, 1995; etc.) the researcher has proposed modification of the existing English syllabus for the Polytechnics of Assam. The modified, model English syllabus provides scopes for using CALL in a traditional English classroom and also outside it. The objective of using CALL outside the classroom is to help the learners in learning the language independently, to promote learner autonomy and to create flexible virtual- learning environment. Because the goal of redesigning/modifying a syllabus is to "map a course that would prepare students to move fully and fluently from one setting to another, understanding differences, learning intellectual tact, and competing in national and international market" (MacLeod & Soven, 1992, p.xi).

Educational psychologist John Keller (1987) has suggested seven key factors in course design. These factors highlight the roles of the teacher, the relationship between the individual course and the curriculum, and the importance of student-centredness. They are:

a. Relevance: It is important to make the course design relevant and fitting to the curriculum.
b. Reasonable time-scale: It is essential to make the time-scale for accomplishment of assignments and other requirements reasonable.
c. Matching level: It is useful to adjust the content and material to students' level.

d. Feedback and reward: The teacher must build a feedback and reward mechanism.
e. Success opportunities: The teacher must provide sufficient opportunities for students to perform well on the course to find meaning in the learning process.
f. Satisfaction: The teacher or course designer should devise mechanisms and incentives for maintaining student performance in the course.
g. Enthusiasm: There should be a room for generating enthusiasm and minimizing frustration.

There are a number of aspects of the English syllabus where ICT has been claimed to enhance teaching and learning. The report of the Becta (2003) has suggested that technology can enable students to:

a. manipulate and transform their own and others' writing using a word processor and publishing packages
b. develop an understanding of language and their own critical literary skills
c. engage with key characteristics and features of texts
d. discuss the merits and limitations of particular text types
e. compare a range of ways in which information is presented
f. locate information quickly, confidently and accurately
g. speak, read and write for a range of purposes and communicate with a wider group of people, thereby encouraging different types of interaction and promoting collaborative learning.

The report also suggested that English teachers can maximize the impact of ICT by ensuring that both they and students-

h. use ICT as an integral part of lesson
i. present ideas dynamically and in a range of media
j. understand visual literacy.

Need for the Model Syllabus

As the range of employment for engineers and technologists has expanded in the twenty-first century, there is a need to teach multiple skills to engineering students: "As engineering students are required to communicate effectively in different situations, think creatively and critically, demonstrate good personal and team skills, and have soft skills demanded by recruiters, the Engineering English course should be modified based on the needs of students and expectations of recruiters" (Rayan, 2007).

The discussion in the previous chapters leads us to conclude that communication skills of the students in technical institutions (Polytechnics of Assam) need to be developed to meet the challenges in their professional career and real-life situations. The existing syllabus, materials and methods of teaching are inadequate to substantially improve the language skills of these students. The survey (see chapter 4) reveals that lack of proficiency in English for technical education is a disadvantage (71%). It also reveals that a large majority of respondents (85%) like to devote extra time to learning English. The findings of the survey (see Chapter 4, Part II, category 1- Learners' views on CALL) necessitate the inclusion of CALL in the English curriculum for the students of three-year diploma programmes. While interacting with us, most of the students expressed their willingness to improve communication skills during their course of studies so that the acquired proficiency would have positive effect on their academic activities and personality building. Keeping in mind the learning needs and the inadequacy of the existing syllabus, the researcher designed a model syllabus for the students of the 1st year in the Polytechnics of Assam incorporating CALL for developing the four skills of language viz., listening, speaking, reading and writing to pursue the technical education/ other subjects (science & technological subjects) with confidence.

Besides, the fruit of information and communication technologies should be tested and implemented in a model framework which can help learners in fulfilling the required goals of learning in a systematic manner. The UNESCO in its position paper *Information and Communication Technologies in Secondary Education* has stressed the needs and rationale for using ICT:

> More and more people are being drawn into the information society as learners, workers and consumers. People all over the world have high hopes that new technologies will lead to healthier life, greater social freedoms, increased knowledge and more productive livelihoods (UNESCO-IITE, 2004).

Purposes and Objectives of the Course

The objectives of the course can be spelt out as follows:

a. To emphasize the role of computer technology in classroom activities by students.
b. To develop the four language skills especially the writing skills by means of computer technology, even in a traditional English language classroom and to encourage students to continue writing outside the classroom for various purposes.
c. To encourage the students to enhance the language skills by reading textbooks, articles, and other materials.
d. To encourage the students to demonstrate the skills learned in class by means of computer technology, and to share them with the classmates and also with others in the society.

The overall objective of the model is to develop communication skills of the students of technical institutions (Polytechnics) by using CALL in the areas of speaking, listening, reading and writing even in the traditional English classroom

so that they can communicate and express themselves in English both in real life situations and in professional activities.

Course Design

This course provides students with a fundamental understanding of the principles underlying the use of computer technology in language learning and teaching. The course materials include some parts of the textbook now in use. The main components of the syllabus are given below under different sub-headings.

Introduction to CALL

Description of computer terminology, for example, CMC (synchronous and asynchronous), Email, different tool menu in word-processor, etc.

Objective: The learner should know the basic IT terminology which would be regularly used in implementing the syllabus.

Basic Language skills

Grammar and usage, and Vocabulary.

Objective: The learner should develop the basic skills of the target language in order to use them while communicating in real situation. The reinforcement of these skills of English is essential for the learner to use them more confidently in practical situations.

Grammar

- Tense (past, present and future)
- Voice (active and passive)
- Sentence construction
- Vocabulary
- Technical and general words

- Word formation, transformation of words-- verbs to nouns, adjectives to noun
- Suffixes and Prefixes
- Nominal compounds

CALL Activities:

- multiple-choice and true/false quizzes
- gap-filling exercise/ cloze exercises
- matching

Materials: (both print and computer-based): The teacher can use computers in doing the exercises in the classroom. He/She can produce printed copy of the task to the students or the particular task can be sent through the mailing list and learners can complete the task at home and re-send the same to their teacher with remarks and observations.

Methodology: The teacher can adopt different methods to teach the above contents in the classroom and also outside the classroom. He/ She may, for example, ask students to do gap-filling exercises or cloze exercises through LAN.

Listening

Listening was first recognized as a major component of language learning and teaching in the late 1970s. According to Krashen and Terrell (1983), comprehension precedes production. That is, listening and reading skills will be acquired before speaking and writing skills. According to Poole (2008) listening skills fall into three categories:

- Passive listening (for pleasure or entertainment);
- Active listening (listening to learn and retain information); and
- Critical/Analytical listening (listening to critique or make judgment about what one has heard). In CALL there are various opportunities both for teachers and students to develop listening skills.

The focus of teaching is on communicating ideas with little or no attention to grammatical accuracy in the early comprehension and production stages. Computers allow teachers to add texts, sounds, pictures, video and animation, which provide meaningful contexts to facilitate comprehension. Computer also allows learners to hear the available input as many times as needed until they feel they understand it.

Objectives

a. To enable the students to develop their listening skill and improve their pronunciation.
b. To equip students with necessary training in listening so that they can comprehend the speech of people of different backgrounds and regions.

The above objectives can be fulfilled with the help of computer technology (both offline and online).

Aspects of Listening

- Listening for general content
- Listening to fill up information
- Intensive listening
- Listening for specific information

CALL Materials:

Multimedia programmes can be designed to present material at different difficulty levels with adjustments in speed of delivery according to individual learner needs.

Examples:

- Randall's ESL Cyber Listening Lab
- John's ESL Community- Listening Activities
- BBC Learning English (http://www.bbclearningenglish.com)
- (http://www.teachingenglish.org.uk)
- CD-ROMs

Reading

The online computer is becoming a major platform for reading materials of all kinds. More and more people now-a-days read news on their computers and many institutions and universities such as Harvard and MIT are currently engaged in digitizing whole libraries of academic books and making them freely available online. Many publishers have started online versions of their journals, magazines, etc. to make them accessible to the teachers and learners around the world.

Objectives:

a. To develop an awareness in the students about the significance of silent reading and comprehension.
b. To develop the ability of students to guess the meaning of words from the context and grasp the overall message of the text and draw inferences.

Aspects of Reading

- Skimming the text
- Understanding the gist of an argument
- Identifying the topic sentence
- Reading long and short passages – Stories
- Reading for vocabulary—for pronunciation- stress – intonation
- Reading different types of texts for effect, clarity and emphasis
- Reading to explain

According to Grabe (1991) six component skills and knowledge areas are essential for reading fluency:

a. automatic word recognition skills
b. vocabulary and structure knowledge
c. formal discourse structure knowledge
d. content/ world background knowledge
e. synthesis and evaluation skills
f. metacognitive knowledge and skills

Examples:

- Online Dictionaries such as Cambridge Dictionaries Online (http://dictionary.cambridge.org),
- Merriam-Webster (http://www.merriam-webster.com),
- Oxford Dictionaries (http://www.oxforddictionaries.com).
- Online concordancers (http://www.laxtutor.caconcordancers/concord_e.html)
- Word Games (http://www.wordgames.com)

Speaking

Objectives:

a. To make students aware of the role of speaking in English and its contribution to their success in academic and professional arenas.
b. To enable students to express themselves fluently and appropriately in social and professional contexts (real life situations).

Aspects of Listening

- Oral practice
- Describing objects/ situations/people
- Short speeches- classroom exercises
- Exhaustive practice in the classroom enabling students to speak fluently
- Dialogues for various situations
- Framing different types of questions & answers
- Telephonic conversation
- Narration of incidents

Methodology: Teachers need to draw on more than one approach and use a variety of instructional tools, such as audio-tapes, videos, and multimedia computer technology, to meet different students' needs in teaching speaking skills.

Purpose of using computers: We use the computer technology to create an environment that encourages communication and provides increased and more varied communicative opportunities for students to utilize their oral skills.

In teaching speaking skills:

a) The Computer is used as a Tutor (human-to-machine interaction)
b) The Computer is used as an Instructional Tool (human-to-human interaction via the computer in the classroom) Example: Conversation Question for the ESL/EFL Classroom
c) The Computer is used as a Communication Medium (human-to-human interaction via the computer outside the classroom) -- Chat Rooms

Computer-based activities/ programmes of pronunciation instruction include the following:

- Articulatory charts
- Sample words utilizing the targeted sound
- Minimal pairs / comparison words
- Dictations
- Exercises on Suprasegmental features (including intonation, rhythm, stress and timing)

Examples:

- Sounds of English (http://www.soundsofenglish.org)
- English Pronunciation (http://www.englishclub.com)

Writing

Language teachers can integrate computer technology into their lesson planning in various forms such as text formation, editing, revising, note taking, etc. in order to make students perform better in writing. Various studies also suggested the use of available technology for developing writing skills.

Objectives:

a. To develop an awareness among the students about writing as an exact and formal skill.
b. To equip them with the components of different forms of writing.

Aspects of Writing

- Writing sentences
- Writing short massages
- Use of appropriate vocabulary
- Paragraph writing
- Narration / description
- Note making
- Formal and informal letter writing
- Editing a passage
- Laboratory report writing
- Letter of application
- Letters to the editor

CALL activities

- Composing with the word-processor
- Revising and editing
- Spelling and grammar check
- Thesaurus programmes
- Self-correction
- Editing a passage/ topic/ copy/ paste, etc.
- re-ordering/ sequencing
- Email communication

Besides, the web offers numerous resources for authentic content materials lesson plans. For example, Encyclopedia Britannica (http://www.britannica.com), Wikipedia (http://www.wikipaedia.org), etc.

Integration of Four Skills

Although we look at how computers assist L2 learners in their learning of four separate language skills, it is important to adopt a holistic approach to reading, writing, listening and speaking. As Lucantoni (2002) has said:

> Language skills are rarely used in isolation, therefore skills should not be learned and developed in isolation. Language skills are integrated: they 'cooperate' with each other (p.8).

Language skills are usually grouped as:

k. receptive skills—listening and reading
l. productive skills—speaking and writing

Full mastery of a language requires both the receptive and productive abilities because focusing on one particular skill may invariably lead to the use of another skill. Though they are related to each other, efficiency in one aspect does not necessarily lead to efficiency in another. Each of the four skills: listening, speaking, reading and writing requires due attention.

These four skills can be developed both in individual programmes and in collaborative learning centres. A computer-based English language learning, developed by Pascoe and Wiburg (2003), is given below:

A. Individualized skill development programmes:

Characteristics

- autonomous and self-pacing
- immediate feed and reinforcement
- branching
- motivating
- self-esteem

Tools and resources

- grammar software

- word processor
- pronunciation programmes with speech processing
- web-based writing grammar labs

B. Collaborative learning centres

Characteristics

- interactive
- anxiety reducing
- communicative
- exploratory
- authentic language use
- integrated skills

Tools and resources

- word-processor
- global projects
- email and keypals
- electronic databases
- chat rooms
- discussion lists
- teleconferencing

The Experiment

Theoretical Basis of the Online Experiment

Computer-mediated communication (CMC) refers to human communication via computers. Computer-mediated communication (CMC), both synchronous (online chat, audio, and video conferencing) and asynchronous (e-mail, discussion forums and mailing list), can play an important role in English language teaching, especially in the teaching and learning of writing skills. As Warschauer (2004) has said: 'The development and spread of the personal

computer and the Internet have brought about the most significant changes in the technology of writing since the diffusion of the printing press' (p1).

A number of studies have evaluated the degree of student participation in computer-mediated tasks and compared them with face-to-face discussion. All these studies found that the total amount of student participation in electronic discourses (both synchronous and asynchronous) ranged from 85% to 92%.

Studies (Sullivan and Pratt, 1996; Schultz, 2000) have also found that there is a significant development in students' writing skills in online discussion (Computer Assisted Classroom Discussion, CACD). Sullivan and Pratt (1996) have compared two ESL writing classes (one using online discussion and one not using online discussion) and found a significant improvement in the writing of students who participated in online discussion. Schultz (2000), in his study, has found that advanced language students made more detailed, local revisions after feedback via CACD, whereas they made more extensive, global revisions after feedback via face-to-face discussion. Simpson (2002) has observed that 'levels of learner participation and of turn-taking initiation are greater in the computer mode'. Tella (1992), has carried out an ethnographic study – a series of exchanges between several high school classes in Finland and England and found that (as cited in Warschauer, 2004):

1. There was shift from teacher-centred to learner-centred working environment and a shift from standard syllabus to the students own writings.
2. The e-mail communication gave a good chance for practicing language in open-ended linguistic situations.
3. There was a change in the process of writing and it was observed that students edited, revised their compositions and most often made use of collaborative methods. In composing their Email messages.
4. The quality of writing improved as writing changed from teacher-sponsored to student-initiated and led to the real purpose writing with genuine audiences around the world.

5. Students composed in versatile mode- from narrative and descriptive genres to personal, expressive and argumentative use of the language.

In second language writing, Wang (1993) has also compared the discourse of ESL students' dialogue journals written in both e-mail and traditional paper format. She found that the students using e-mail journals wrote greater amount of text, asked more questions, and used different language functions more frequently than did the students writing on paper (as cited in Warschauer, 2004).

Tasks for the Experiment

Tasks, especially communicative in nature, play an important role in curriculum planning, implementation and evaluation. Researchers have found the tasks valuable because they provide a purpose for the activity which goes beyond the practice of language for its own sake. A task can be of anything, for example, buying shoes, making reservations, finding destinations, writing cheques, and so on. According to Richards, Platt, and Weber (1985), a task is:

> Any activity or action which is carried out as the result of processing or understanding language (i.e., as a response). For example, drawing a map while listening to tape, listening to an instruction and performing a command, may be referred to as task (p.289).

In order to conduct an experiment involving the modified or model syllabus, the researcher prepared four tasks. At the beginning of the experiment, an Entry-level test was conducted among the participants of the two groups: Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati, henceforth Group A and Group B, respectively. There were four tasks given to the participants during the period of Entry-level test namely (i) IT vocabulary and elementary grammar: in this task questions were divided into two groups: Group A and Group B. In group A, questions were framed about the basic terminology in the field of information technology and in group B, questions were asked mainly on elementary grammar such as correct word order, use of correct tense, auxiliaries, appropriate

vocabulary, etc; (ii) paragraph writing: in this task, students were asked to write a paragraph on a given topic on the basis of the points/hints provided at the beginning of the task. One of the main objectives of the task was to get an idea about the knowledge/level of creativity of the students; (iii) comprehension: in this task, students were given an unseen paragraph with some short/ comprehension questions on the text. Students were asked to write the answers in their own language; and (iv) summary writing—in this task, an unseen passage was given to the students to make a summary of the passage keeping in mind the main points of the passage. All these tasks were prepared by the researcher on the basis of 'CALL in writing activities' propounded by de Szendeffy (2005, p.32-54). Structural significance of these tasks can be justified from the following remarks of Breen (1984):

> A task is: any structured language learning endeavour which has a particular objective, appropriate content, a specified working procedure, and a range of outcomes for those who undertake the task. 'Task' is therefore assumed to refer to a range of work-plans which have the overall purpose of facilitating language learning—from the simple and brief exercise type, to more complex and lengthy activities such as group problem-solving or simulations and decision making (p.23).

An exit test was also conducted among the same of groups of students after they were given practice in utilizing CALL (discussed in this Chapter). Then the same or related tasks were given to them to see the improvement in their writing skills over a period of time and at the end. Earlier studies, for example, Navaruttanaporn (2010) has used the same materials and same contents for both the control group (with textbook) and the experimental group (with computer programme & CD-ROM). It is necessary for teachers to develop syllabus-based/ task-based instructional strategies to promote a communicative and interactive classroom and learning environment. In this environment, students participate in

activities and tasks to practice and achieve real communication or to solve problems they encounter.

Prior to the development of materials and online experiment of the tasks, the researcher collected information about the students' knowledge of and attitude towards CALL (mainly word processor, email, and Internet) by interviewing two groups of students from two Polytechnics of Assam namely Nowgong Polytechnics, Nagaon (Group A) and Girls' Polytechnics, Guwahati (Group B); each group consists of 20 students who opted to take part in the experiment. The interview was a short structured one, and each student responded to the same set of five questions (see Table No 9 for questions and their rationale).

Table 9: Interview questions and their rationale

Question	Rationale
1. How did you learn English in High/ Higher Secondary School and whether you studied in English or vernacular medium?	To get an idea about the students' background and experience of learning English
2. Do you have any knowledge of computer especially word-processing and e-mail?	To find out the students' knowledge of computer especially word processor and e-mail
3. Have you ever tried to learn English through computer?	To know their experience in composing texts, etc. using computer.
4. Do you have an email ID and have you ever sent any mail to your classmates/ teachers?	To find out their familiarity with sending email, browsing Internet and composing texts online, etc.
5. Do you know all the components of word processing such as save, save as, copy, paste, select, edit, spell check, punctuation, track change, etc.?	To know the participants' knowledge of word processing (software) and its application in various forms

It was found that all the students of both the groups followed teachers and textbooks and prepared themselves for passing the examination only but some of them, mainly from vernacular medium schools, were scared of the English language course and took very little initiative to improve their English by devoting extra time in or even outside the classroom. It was also found that no student had ever tried to learn English through computer though they had basic knowledge of computer. All the students of the groups except for two of Group A and four of Group B had email IDs but they never sent any mail to their teachers. Regarding the response to the question no 5, it was found that many of them were not acquainted with all the components of the word processor such as spell check, grammar check, track changes and other facilities or word processor components. A majority of them, especially those from Group B, did not have much confidence in learning English without teachers' presence or instructions. They felt the need to have a strong motivation and a clear learning goal if they were asked to learn something by using CALL independently or in the classroom. They welcomed English learning through computer and were eager to practice language skills outside the classroom.

Methodology

An online experiment (asynchronous) was conducted among the two groups consisting of 20 participants, selected randomly, in each group of two Polytechnics namely Nowgong Polytechnic, Nagaon (Group A) and Girls' Polytechnic, Guwahati (Group B) on writing components of the modified syllabus for the Polytechnics. This was done after taking into consideration the students' needs, the opinions expressed by students on CALL and the findings of the survey conducted by the researcher (see Chapter 4). Since the experiment deals only with the writing contents of the modified syllabus, the weightage of each task was analyzed in percentage. All the members of the groups had E-mail IDs except four participants who were asked to sign up for an e-mail ID. Thus the researcher made

a group or mailing list (namely 'Polystudents') of these participants in his mail ID to make it easier for him to send group-mail to them. While doing the experiment, CALL, mainly E-mail and word processors, were used for both the Entry-level test and the Exit test. The tasks were sent through E-mail as attached file(s) but the writing activities were done in *Word 2003.* Suggestions, reminders, instructions were communicated through email as computers could be used for additional mode of communication. As Bork (1980) has remarked:

> The computer can drive an electronic mail system, with the instructor broadcasting messages to the students, with the students sending queries to the instructor, and with the instructor replying to such queries (603).

The researcher demonstrated some CALL activities during the period between the Entry test and the Exit test. In short, the asynchronous instructional system was applied in this study and the email was the main delivery system that connected the researcher to the students/participants.

The researcher also prepared a list of all the participants and sent them their individual code numbers for using the same in their respective answer sheets/ worksheets.

He also sent them guidelines for understanding the requirements of the tasks. During the entire course of study, Email was extensively used for all sorts of communication with the students. There were many studies where Email was used as the sole medium of communication as Držić and Štih (2009) has remarked:

> We encourage our students to contact us by email whenever they have any questions or a problem. This sort of communication reveals not only the student's literacy, but also his/her personality. In this way the teacher can immediately spot some weak sides of students' knowledge, such as the handling of prepositions or tenses, and direct student's attention to correct them (p.42).

Rationale for Choosing Writing Skills for the Experiment

The survey conducted by this researcher (see Chapter IV) reveals that students give utmost importance to the development of their writing skills as this has a direct impact on their future career as engineers. Besides, it is not possible to take up all the contents of the syllabus for experimentation. The findings of the experiment involving the two groups, though small, can be generalized because of the nature of the syllabus and the situation in which they are taught. Keeping all these in mind the researcher chose writing skills for the experiment.

Rationale for Choosing Population

The researcher had earlier conducted a survey (see Chapter 4) among the students of Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati to know their attitude towards using computer in teaching and learning English. Before experimenting with the modified syllabus, he conducted another survey by interviewing 40 students of two groups (one each in Nowgong Polytechnic and Girls' Polytechnics Guwahati) who voluntarily participated in the online experiment (asynchronous mode via E-mail). The modified syllabus was prepared by the researcher for the students of Polytechnics of Assam in order to develop their language skills by using CALL during the three-year professional diploma courses in different technical branches. The experiment was conducted by involving these two groups in a computing environment.

Provision of Sending Feedback

Feedback is a part of the process of teaching and learning. According to Freeman and Lewis (1998), "Students need information on which to act, and the motivation to use the information. The source of the feedback and the form it takes, are both important influences on student' motivation" (p.48). The following are considered to be the important characteristics of good feedback on students' work (ibid, p.49):

- the feedback should be relevant
- it should be informative
- it should encourage dialogue

In the present study, students received immediate feedback on their performance in the Entry-level test. Thereafter, the students received their feedback periodically only after the completion of each task. The feedback was useful and it reported, along with other suggestions and information, the score of each task attempted by the students and the average score of other students who had completed the same task. This enabled a student to reflect on and compare his or her performance with other students', and motivated him or her to improve their performance of skills. In the absence of face-to-face interaction with the researcher, the students utilized the opportunity to discuss and to interact with researcher and also among themselves via email.

During the period between the Entry test and the Exit text the researcher involved the two groups in writing activities. During this period the researcher communicated with the participants, gave suggestions and provided exercise materials (online and offline) to make them aware of the opportunities for using CALL materials in and outside the classroom and to familiarize them with different types of computer-based tasks. The participating students in the present study expressed their willingness to devote extra-time and do more exercises and revise them repeatedly in order to improve their writing skill. Some of them sent completed exercises via email which encouraged and motivated them to interact with peers and their instructors outside the classroom.

Analysis of the Data

The researcher evaluated the students' performance of the tasks (help had also been taken from the concerned teacher while evaluating the performance) and calculated the scores obtained in each task by the students of the two groups in percentage. The collected data were analyzed by applying the statistical software *SPSS*, version 10. Mean, Standard Deviation (SD) and Standard Error (SE) were

determined with the help of the software. The researcher grouped similar data in each group and then compared and contrasted the data to find out differences and their significance.

The Tasks (Entry-Level Test)

The researcher introduced the model syllabus, its objectives and goals to the students before giving the tasks. He also discussed the three steps to start writing (Shudooh, 2003, p.91-93) : (i) planning (ii) drafting, and (iii) organizing. As discussed in Chapter 3 of this study, the writing activities on CALL is based on the process approach to the teaching of writing. Detailed discussions on the tasks to be performed were also made. The following is the description of the tasks, their pedagogical rationale and criteria for the evaluation of the answers:

Task 1: The first task was on IT vocabulary and elementary grammar. The main purpose of the task was to ascertain the levels of their knowledge of IT vocabulary and elementary grammar. [Appendix D]

Rationale of Task 1

The students should have basic knowledge of the terminology generally used while browsing Internet and receiving and sending E-mail messages. Since CALL is used in teaching and learning languages, students need not be computer experts, but they should know the basics of a computer and its use. Some knowledge of grammar can help students to take control of their writing: they can craft and create because they understand what they are doing. Research suggests that teaching selected aspects of grammar in the context of student's own writing can be productive (Weaver, 1996). By using grammatical forms repeatedly in meaningful ways, students would learn and at the same time develop their skills in language. They should apply these grammatical forms directly in their writing and could see improvement in their skills in writing.

The students' responses were evaluated on the basis of the following criteria:

- Knowledge of the IT terminology

- Expression and appropriateness of ideas while defining the terms
- Basic knowledge of grammar (tense, appropriateness, etc.)
- Time management

Task 2 Paragraph Writing [Appendix E]

Task 2 involved writing a paragraph in English since writing paragraph is one of the means of developing writing skills.

Rationale of Task 2

A paragraph is a group of sentences that deal with one subject. The sentences are all related to the subject. This task was prepared keeping in mind one of the main objectives of the study i.e. to develop the writing skills of the students. The pedagogical rationale behind this task is as follows:

- Paragraphs are used to create structure in writing. They can also be used to make writing more lively and interesting.
- Presentation of the sentences in proper sequence can help in developing language skills especially reading and writing.

Points to be looked into while evaluating the task 2

- Sentence structure
- Sequence of tenses
- Use of appropriate words and clarity of expression
- Creativity and the use of own language
- Other grammatical and structural mistakes
- Overall language skills

Task 3 Comprehension [Appendix F]

Task 3 for the two groups involved 'comprehension', and the aim was to know the students' ability and creativity in reading and writing. In this task, students were given an unseen paragraph followed by some objective type questions based on the text/ paragraph. Students were asked to write the answers in their own English.

Rationale for Task 3

The rationale behind this task is:

- to focus on developing reading and writing skills
- to provide exercises which familiarizes the students with pre-reading and pre-writing exercises.

Points to be looked into while evaluating the answers related to comprehension:

- Correct and to the point answers
- Creativity and use of appropriate words
- Clarity of expression
- Correct sentence structure

Task 4 Summary writing [Appendix G]

The fourth task was to write a summary of a long passage in one-third (approximately) of its total length. A summary is a brief reinstatement, in own words, of the content of a piece of writing. An unseen passage is given to the students to make a summary of the passage keeping in mind the main points of the passage. A good summary is brief, complete and objective.

Rationale of Task 4

Good summarizing skills are essential for success in writing, and are crucial in preparing to write a report and to communicate with others in one's profession. Students need these skills because summarizing is efficient and it helps one distinguish between more and less important materials in a passage. The students can also develop their reading and understanding capability because without knowing the meaning of the passage, one can not write a summary. .

Points to be looked into while evaluating the task....

- Title of the passage/ Topic sentence
- Whether summary is related to the main theme/ subject.
- Use of correct sentences
- Use of appropriate words
- Overall language skills

Assessment of Tasks

Assessment is defined as the judgement of a sample of relevant student behaviour. A valuable assessment is one in which the judgement can be generalized in other circumstances or on other occasions. Freeman and Lewis (1998) have categorized different purposes of assessment in the following way (p.10):

- to select
- to certificate
- to describe
- to aid learning
- to improve teaching

Out of these the last two i.e. to aid learning and to improve teaching are most important in the context of the present study. According to Freeman and Lewis (1998, p.11), assessment can stimulate learning in different ways, for example,

- promoting or otherwise motivating students
- giving students practice so they can see how well they are achieving learning outcomes
- following the practice with feedback to help students diagnose their strengths and areas that need improvement
- providing information that helps students plan what to do next
- helping students, and others concerned with their learning, to track progress.

The researcher assessed students performance in each of the tasks as assessment is a 'single most important influence on learning' (Freeman & Lewis, 1998, p.1). It should be noted that no differentiation is made between the terms 'evaluation' and 'assessment' in the present study. While assessing/ evaluating the

tasks, some important aspects such as student's knowledge of creativity, appropriateness, etc. were taken into account.

Using Computers in Assessment

The computer can be helpful in the assessment of students' writing activities. According to Freeman and Lewis (1998) there are many functions that computer can help us perform while assessing students' learning activities (p.132-141). Some of them are:

FUNCTION	SOME EXAMPLES
Process text, data and figures	Typing assessment using a word processor Storing assessments on a computer
Manage assessment	Storing assessment results Storing learner profiles Analyzing assessment results (such as with a spreadsheet programme) Issuing timetables, attendance lists, results tables
Deliver assessments (no computer marking)	Tutors or learners printing out a test from a computer Tutors or learners downloading a test over the Internet
Create assessment answers	Learners using a computer to create answers-say, word processing an essay, preparing a spreadsheet

Submit assessments	Learners using an intranet or the Internet to submit their work to their tutors
Provide feedback	As part of computer marking Storing a set of feedback comments—tutor selecting which ones to print for which learners
Self-assessment with marking and feedback	Computer holding diagnostic and formative tests that learners do to check their own progress
Report assessment results	A computer holds a profile from into which teachers can type comments for individual learners. The completed forms can be printed out and sent to whoever needs them

In the present study, some of the above-mentioned functions were used while assessing the students' performance of the tasks. For example, the tasks were sent through e-mail, were evaluated in the computer especially in 'track changes' and the evaluated tasks were again sent to the respondents with comments. So the respondents assessed themselves and their performance:

> By means of assessment feedback, they can recognize and build on their strengths and address their weaknesses (Freeman & Lewis, 1998, p.13).

Thus assessment of the tasks of the present study with the help of a computer was satisfactory as revealed by the respondents but it was difficult to generalize about the role of a computer in assessment. As Bull (1994) has remarked '...there are no rules. What may work in one subject may be inappropriate in another' (as cited in

Freeman & Lewis, 1998, p.140). In the study, it has been observed that the assessment in the computer actually motivated the students/ respondents in storing their tasks, editing their works and improving their language skills. In this study the computer-based assessment especially informal assessment of their works before the exit test played a significant role in motivating the students to revise their works outside the classroom.

Such assessments also help teachers and administrators to improve their teaching because information gathered from assessment can help teachers to review the effectiveness of teaching and learning arrangements.

Results and Discussion (Entry-Level Test)

All the participants (i.e. 40) of the two groups completed their tasks during a period of six weeks. Initially they were given 7 days for each task and the deadline was extended by 3 days after sending them a reminder and accordingly they returned the assignments through e-mail.

Answers of all the tasks of both the groups were evaluated and the individual mean score is provided below in Table 10.1 & 10.2

Table 10.1: Individual mean score in Entry Test: Group A

Participants Code No	Task-I Mean	Task-II Mean	Task-III Mean	Task-IV Mean
01-A	50 00	43 33	46 67	43 33
02-B	60 00	50 00	53 33	46 67
03-C	50 00	40 00	43 33	43 33
04-D	56 67	50 00	53 33	46 67
05-E	53 33	46 67	50 00	50 00
06-F	46 67	40 00	43 33	43 33
07-G	43 33	40 00	43 33	43 33
08-H	50 00	36 67	40 00	40 00
09-I	43 33	40 00	43 33	43 33
10-J	40 00	33 33	36 67	36 67
11-K	36 67	36 67	36 67	36 67
12-L	46 67	43 33	46 67	43 33
13-M	50 00	43 33	46 67	43 33
14-N	43 33	40 00	43 33	43 33
15-O	43 33	40 00	43 33	43 33
16-P	46 67	43 33	46 67	43 33
17-Q	43 33	36 67	40 00	40 00
18-R	36 67	36 67	40 00	40 00
19-S	40 00	36 67	40 00	40 00
20-T	46 67	43 33	46 67	43 33
Total	46 33	41 00	44 17	42 67

Table 10.2: Individual mean score in Entry Test: Group B

Participants Code No	Task-I	Task-II	Task-III	Task-IV
	Mean	Mean	Mean	Mean
GP-01	33 33	36 67	40 00	46 67
GP-02	40 00	40 00	43 33	46 67
GP-03	33 33	30 00	36 67	40 00
GP-04	46 67	46 67	43 33	46 67
GP-05	40 00	43 33	43 33	46 67
GP-06	43 33	36 67	36 67	40 00
GP-07	30 00	33 33	36 67	36 67
GP-08	46 67	43 33	40 00	40 00
GP-09	40 00	43 33	40 00	43 33
GP-10	33 33	40 00	33 33	33 33
GP-11	30 00	36 67	33 33	36 67
GP-12	36 67	40 00	40 00	43 33
GP-13	36 67	43 33	43 33	40 00
GP-14	46 67	46 67	43 33	43 33
GP-15	33 33	33 33	33 33	36 67
GP-16	30 00	33 33	36 67	36 67
GP-17	36 67	40 00	40 00	43 33
GP-18	40 00	40 00	40 00	43 33
GP-19	43 33	46 67	46 67	40 00
GP-20	43 33	43 33	40 00	40 00
Total	38 17	39 83	39 50	41 17

From Table 11 it is clear that the mean value is higher (46.33) in Tasks I in comparison with other tasks in Group A whereas the lowest (41.00) is found in Task II and no significant difference is found between Task III and Task IV of the same group. It is also found that the mean value is higher (41.17) in Task IV in comparison with other tasks in Group B whereas the lowest (38.17) is found in Task I and no significant difference is observed between Task III and Task IV.

Table 11: Total mean scores of entry test: Group A & B

Task	Group Variables	Mean
Task-I	A	46.33
	B	38.17
Task-II	A	41.00
	B	39.83
Task-III	A	44.17
	B	39.5
Task-IV	A	42.67
	B	41.17
All Task	A	43.54
	B	39.67

The significant level is at P <0.05

It is observed that students of Group A have more skill/knowledge of IT vocabulary and elementary grammar than their counterparts in Group B. At the same time it is also observed that students of both the Groups are weak in writing skills as the *t*-value suggests.

Activities after the Entry Test

After analyzing the students' performance in the Entry test the researcher involved the selected groups in the process of developing their skills by applying CALL, especially word processor. Writing is a recursive process and as mentioned earlier in this chapter the researcher discussed the steps involved in writing i.e. planning, drafting and organizing with the students. In order to lead the participants through these steps the researcher gave them time and opportunity to have adequate practice and use the target language in activities in and outside the classroom. As Xin (2007) has said:

> [...] the most important thing in teaching writing is to give learners as many chances as possible to have adequate exposure to the language through activities, so that they could sense the language function as a communication system.

The researcher provided exercise materials both online and offline to make them aware of the opportunity for using CALL materials in and outside the classroom and to familiarize them with different types of computer-based tasks during a period of four months. As Larsen-Freeman (1986) has said all tasks and activities in CLT classrooms support communicative intent to provide students more opportunities to practice as to how to communicate effectively and appropriately in different contexts. These tasks and activities were divided into groups depending on the tasks performed in the Entry-level test. They were:

(i) Grammar, vocabulary, appropriate use of words, correction of words, etc: In this category, students were given websites/ URL of different organizations/institutions to practice various activities in grammar, etc., for example, BBC Learn English (http://www.bbs.co.uk/worldservice/learningenglish); British Council (http://www.britishcouncil.org/en); [Appendix H].

They were also provided with passages that contained mistakes in spelling, inappropriate expressions and were asked to correct them by using word processor.

(ii) Writing of different types of sentences and joining sentences with conjunctions, etc: After general discussion on different types of sentences the researcher provided exercises to practice writing activities online, for example, to find out mistakes in the sentences, to choose the correct answer from the options given (mostly from Oxford Practice Grammar) and writing short report,etc. A screenshot of an online exercise is given in Appendix I

(iii) Writing answers after reading the unseen passage(s): In this category intensive practice sessions were experienced on reading and writing. Students were given unseen passages with questions on them. They were instructed to write answers in their own language

and the same passages were repeated a number of times which also helped them to develop their language skills [Appendix J] .

(iv) Summary writing/ note taking: The demonstrations on summary writing and note taking were also given. This type of practice enabled the students to grasp the main theme of the passage and to make a summary of it. Students were given enough opportunity to carry on this type of activity outside the classroom because it would lead them to judge their own activities independently [Appendix K].

Of all the exercises the largest number was on writing answers from the unseen passage(s) and summary writing. Students used word processor repeatedly to edit their answers. Besides the online references and exercises, the researcher gave the students some tasks as attached files via Email to motivate them to use computers outside the class. In this way students were engaged in different activities and they took advantage of exercise materials offered by the researcher for communicating and negotiating meaning along with grammatical patterns. The participating students expressed their willingness to devote extra-time and do more exercises and revise them repeatedly in order to improve their writing skills. They shared their composing experiences with the rest of the class and with the researcher. The two groups took part in the experiment and continued their CALL activities for a period of four months, that is, for almost an academic semester. During the course of discussion and demonstration and composing, students revised and edited their works to develop writing skills.

At the end of the period an Exit test was conducted to see whether the students could improve their skills through CALL activities.

Exit Test

The researcher conducted an Exit test to make a comparison between the achievements in Entry-level test and Exit test in order to support or not to support

the null-hypothesis. The same number of students who participated in the Entry test were asked to complete the tasks for the exit test during a period of four months.

The same patterns of tasks (also some cloze tests) as given for the entry test were given to the student during the exit test and so the exit test was identical with the entry-level test.

The gap between the tasks was 30 days.

Tasks

1. Grammar and a cloze exercise
2. Writing a paragraph
3. Comprehension
4. Summary of an unseen passage

Rationale for choosing the tasks

In the Exit test, the same tasks or tasks related to the earlier one were given to the students in order to see the progress of the students in developing writing skills with the use of CALL over a period of time. The researcher sent the tasks to the participants in phases.

Results and Discussion (Exit Test)

During Exit test, 19 students of Group A completed all the four tasks and one could not complete all the four tasks (completed 2 tasks only). Out of these, one student failed to improve his writing skills. Likewise, 19 students from Group B completed all the four tasks, one could not complete all the four tasks and 2 students failed to improve their writing skills. The details of the performance of students are discussed below:

Frequency test

The main objective of the experiment was to see whether the use of CALL especially the word processor could develop writing skills of the students. The result suggests that 85% of the students developed their language skills in writing.

The result of the Frequency test (Table No 12) shows that 75% of the students in each group have positively improved their skills in writing whereas 15% and 10% of them in Group A and Group B respectively did not show much progress during the period of Task I –II. During the same period, the percentage of negative change (they could not develop their skills in writing) was in Group B (15%). This percentage is higher than that of Group A (10%) whereas average 12.5% of the students could not develop their writing skills and the same number of students remained unchanged during this period.

Table No 13 shows that 90% and 65% of the respondents of Group A and B respectively and on average 77.5% of them developed their skills during the period between Task II and Task III. It is also observed that students of Group A (90%) performed better than their counterparts in Group B (65%).

Again, in Table No 14, the percentage of positive change is much higher in Group A (80%) than Group B (65%) whereas the average percentage of positive change is lower (72.5%) when it is compared with Task II—Task III phase.

The result of the Frequency test (Table 15) shows that the students of both the groups developed their writing skills during the period between Task I and Task IV. During this period 85% of the respondents in each group improved their writing skills with the use of CALL which proves the effectiveness of the experiment. When the achievements of both the groups are compared, it is found that 85% of the students showed a positive change in their writing skills. The following tables illustrate the results:

Table 12, Comparison between Task I & Task II in Exit Test

Level of	A		B		Total	
	Count	%	Count	%	Count	%
No Change/Un-change	3	15 0	2	10 0	5	12 5
Positively Change	15	75 0	15	75 0	30	75 0
Negative Change	2	10 0	3	15 0	5	12 5
Total	20	100 0	20	100 0	40	100 0

Table 13: Comparison between Task II & Task III in Exit Test

Level of	A		B		Total	
	Count	%	Count	%	Count	%
No Change/Un-change			5	25.0	5	12 5
Positively Change	18	90.0	13	65.0	31	77.5
Negative Change	2	10.0	2	10.0	4	10.0
Total	20	100.0	20	100.0	40	100.0

Table 14: Comparison between Task III & Task IV in Exit Test

Level of	A		B		Total	
	Count	%	Count	%	Count	%
No Change/Un-change	3	15.0	6	30.0	9	22.5
Positively Change	16	80.0	13	65.0	29	72.5
Negative Change	1	5.0	1	5.0	2	5.0
Total	20	100.0	20	100.0	40	100 0

Table 15: Comparison between Task I & Task IV in Exit Test

Level of	A		B		Total	
	Count	%	Count	%	Count	%
No Change/Un-change	1	5.0			1	2 5
Positively Change	17	85.0	17	85.0	34	85 0
Negative Change	2	10.0	3	15.0	5	12 5
Total	20	100.0	20	100.0	40	100 0

Mean Scores and *t* Values

Answers of the students are evaluated and individual mean score is provided below: (Table16.1 & 16.2)

Table 16.1: Individual mean scores of Exit Test: Group A

Participants Code No	Task I Mean	Task II Mean	Task III Mean	Task IV Mean
01-A	60 00	66 67	73 33	80 00
02-B	56 67	70 00	73 33	76 67
03-C	53 33	60 00	66 67	73 33
04-D	60 00	66 67	73 33	73 33
05-E	63 33	70 00	73 33	80 00
06-F	53 33	60 00	66 67	73 33
07-G	53 33	53 33	60 00	66 67
08-H	53 33	56 67	60 00	66 67
09-I	60 00	56 67	60 00	60 00
10-J	56 67	60 00	66 67	80 00
11-K	40 00	40 00	36 67	33 67
12-L	60 00	66 67	73 33	80 00
13-M	60 00	66 67	73 33	80 00
14-N	53 33	60 00	66 67	73 33
15-O	53 33	53 33	60 00	66 67
16-P	53 33	60 00	73 33	80 00
17-Q	43 33	33 33	0 00	0 00
18-R	56 67	60 00	66 67	73 33
19-S	53 33	60 00	66 67	76 67
20-T	60 00	66 67	76 67	80 00
Total	55 17	59 33	63 33	68 68

Table 16.2: Individual mean scores of Exit Test: Group B

Participants Code No	Task I Mean	Task II Mean	Task III Mean	Task IV Mean
GP-01	40.00	46.67	60.00	70.00
GP-02	43.33	53.33	53.33	66.67
GP-03	43.33	46.67	53.33	53.33
GP-04	53.33	53 33	63.33	73.33
GP-05	46.67	56.67	56.67	70.00
GP-06	43.33	33.33	33.33	30.00
GP-07	43.33	50.00	60.00	60.00
GP-08	53.33	46.67	43.33	43.33
GP-09	50.00	56.67	66.67	73.33
GP-10	46.67	53.33	53.33	66.67
GP-11	46 67	53.33	56.67	70.00
GP-12	50.00	56.67	56.67	73.33
GP-13	46.67	43.33	0.00	0.00
GP-14	53.33	60.00	66.67	66.67
GP-15	50.00	50.00	56.67	66.67
GP-16	46.67	53.33	63.33	73.33
GP-17	50.00	53.33	66.67	76.67
GP-18	56.67	60.00	73.33	80.00
GP-19	53.33	60.00	70.00	80.00
GP-20	53.33	60.00	66.67	66.67
Total	48.50	52 33	56.00	63.00

The analysis of the result (Table 17) shows that the mean value of all tasks is lower (54.96) in Group B compared to Group A (61.63). The mean value is the highest in Group A (68.68) in Task IV followed by Task III (63.33) for the same group while the lowest mean value is found in Task I (55.17). In the case of Group B the highest mean value is found in Task-IV (63.00) followed by Task III (56.00). It is also found that the total mean value is highest in Task IV (68.68).

The analysis also shows that significant variation is observed in Task I and Task II and that no significant variation is observed in Task III and IV.

Table 17: Total Mean Scores of Exit Test: Group A & B

Task	Group Variables	Mean
Task-I	A	55.17
	B	48.50
Task-II	A	59.33
	B	52.33
Task-III	A	63.33
	B	56.00
Task-IV	A	68.68
	B	63.00
All Task	A	61.63
	B	54.96

The significant level is at $P < 0.05$

Periodical Performance in Exit Test

The Exit test was conducted during a period of four months. The participants were given thirty days to complete each task. The researcher made a comparative study of the progress made by them periodically in a phased manner i.e. from Task I to Task II, Task II to Task III, and Task III to Task IV to see whether the students really improved their performance during the period of the Exit test.

Results and Discussion

The paired samples test (Table 18) shows that the periodical performance during Task III—IV is highly significant and it also shows that in all other tasks, the mean value is highly significant except during Task II – III. The overall performance i.e. from Task I—IV in the same group is highly significant.

Table No 19 shows that during the Task I—II and Task III & IV, the mean value is significant/ highly significant. The overall performance of the students i.e. from Task I –IV in the same group is significant.

The analysis of the data presented in Table No 18 shows that the periodical development between the tasks is highly significant/or significant.

Table 18: Pair differences (Exit Test): Group A

Pair	Mean	SD	SE	*t*	Df	Sig (2-tailed)	Remarks
Task-I & II	-4 17	4 94	1 10	-3 77	19 00	0 00	HS
Task-II & III	-4 00	9 34	2 09	-1 92	19 00	0 07	NS
Task-III &IV	-5 35	3 77	0 84	-6 35	19 00	0 00	HS
Task-I & IV	-13 52	15 44	3 45	-3 92	19 00	0 00	HS

The significant level is at P <0.05

Table 19: Pair differences (Exit Test): Group B

Pair	Mean	SD	SE	*T*	Df	Sig (2-tailed)	Remarks
Task-I & II	-3 83	5 33	1 19	-3 22	19	0 01	S
Task-II & III	-3 67	12 23	2 73	-1 34	19	0 20	NS
Task-III &IV	-7 00	6 11	1 37	-5 13	19	0 00	HS
Task-I & IV	-14 50	18 30	4 09	-3 54	19	0 00	HS

The significant level is at P <0.05

Table 20: Pair differences (Exit Test): Group A & B

Task	Mean	SD	SE	*T*	Df	Sig (2-tailed)	Remarks
Task-I & II	-4 00	5 08	0 80	-4 99	39	0 00	HS
Task-II & III	-3 83	10 74	1 70	-2 26	39	0 03	S
Task-III &IV	-6 18	5 08	0 80	-7 69	39	0 00	HS
Task-I & IV	-14 01	16 72	2 64	-5 30	39	0 00	HS

The significant level is at P <0.05

The discussion of the results makes it clear that students of both the groups of Nowgong Polytechnic, Nagaon and Girls' Polytechnic, Guwahati have developed their_writing skills with the use of CALL. The experiment suggested that the use of CALL has brought about a positive change in 85% of the participants in the experiment. Only 12.5% of them could not develop their writing skills. The researcher analyzed the results of various tests with the help of the

statistical software *SPSS* and found that the mean scores and t-values in Exit test for both the groups were highly significant/or significant.

Comparison between Entry-level test and Exit test

In the end the researcher attempted a comparative analysis of the findings for the Group A (Entry and Exit tests) and those for Group B (Entry and Exit tests) in order to find out the differences (with *t*-test) in the performance of the same group between Entry test and Exit test.

Table No.21 shows that the mean value of all tasks in the exit test is much higher (61.63±14.71) compared to the mean value of the entry test (43.54±5.04). It is also observed that the mean value in all the tasks independently in the exit test is higher than the mean value of the tasks in the entry test of the same group. The test also reveals that the mean value of Task IV (68.68±19.47) is higher than all other tasks in the Exit test. In all the cases the mean difference shows that the method of the experiment is justified and that the null hypothesis of the study has been rejected.

Table 22 reveals that the mean value of all the tasks in the exit test is higher (54.96±13.96) compared to the mean value of all the tasks in the entry-level test (39.67±4.67) for the same group. It is also observed that the mean value in all the tasks in the entry level test independently is lower than the tasks in the exit test which, after statistical data analysis, proves that students developed their writing skills during the period of Exit test with the model and the methods of the experiment prepared by the researcher.

The tables 21 and 22 (*t*-test) show that the difference in the achievement (writing skills) of students in both the groups during the Entry level test and the Exit test is significant.

Table 21: Comparison between Entry Test & Exit Test: Group A

Task	Levels	Mean	SD	SE	*t*	Df	Sig (2-tailed)	Remarks
Task-I	Entry	46 33	6 11	1 37	-4 74	38	0 00	HS
	Exit	55 17	5 67	1 27				
Task-II	Entry	41 00	4 47	1 00	-7 96	38	0 00	HS
	Exit	59 33	9 28	2 07				
Task-III	Entry	44 17	4 70	1 05	-4 77	38	0 00	HS
	Exit	63 33	17 34	3 88				
Task-IV	Entry	42 67	3 17	0 71	-5 91	38	0 00	HS
	Exit	68 68	19 42	4 34				
All Task	Entry	43 54	5 04	0 56	-10 39	158	0 00	HS
	Exit	61 63	14 72	1 65				

The significant level is at P <0.05

Table 22: Comparison between Entry Test & Exit Test: Group B

Task	Levels	Mean	SD	SE	*t*	Df	Sig (2-tailed)	Remarks
Task-I	Entry	38 17	5 67	1 27	-6 37	38	0 00	HS
	Exit	48 50	4 52	1 01				
Task-II	Entry	39 83	4 89	1 09	-6 75	38	0 00	HS
	Exit	52 33	6 68	1 49				
Task-III	Entry	39 50	3 79	0 85	-4 46	38	0 00	HS
	Exit	56 00	16 10	3 60				
Task-IV	Entry	41 17	3 94	0 88	-5 00	38	0 00	HS
	Exit	63 00	19 13	4 28				
All Task	Entry	39 67	4 67	0 52	-9 29	158	0 00	HS
	Exit	54 96	13 96	1 56				

The significant level is at P <0.05

Performance from Entry Test to Exit Test

It is found that the students really developed their writing skills during the period leading to the Exit test. It is also observed that this development was gradual and incremental. It has been found, after the application of the *t*-test, that the mean value of Task IV in the Exit test for Group A is much higher than that of Task I in the Entry test for the same Group (Table No 23). Likewise, Table 24 shows that the mean value of Task IV in the Exit test for Group B is much higher than that of Task I in the Entry test for the same Group. It is also observed that the difference in the students' performance between Task I of the Entry test and Task IV of the Exit test for both the groups is highly significant.

Table 23: Comparison between Entry Test Task I & Exit Test Task IV: Group A

Level/ Task	Mean	SD	SE	*t*	Df	Sig (2 tailed)	Remarks
Entry level Task I	46 33	6 11	1 37	-4 91	38	00	HS
Exit level Task IV	68 68	19 42	4 34				

The significant level is at P <0.05

Table 24: Comparison between Entry Test Task I & Exit Test Task IV: Group B

Level/ Task	Mean	SD	SE	*t*	Df	Sig (2 tailed)	Remarks
Entry level Task I	38 17	5 67	1 27	-5 57	38	00	HS
Exit level Task IV	63 00	19 13	4 28				

The significant level is at P <0.05

Use of Computer Programmes/ Tool Menu

Students used computer programmes and tool menu while doing their exercises and performing the activities during the period of the experiment. After each test (entry-level and exit), the researcher conducted a survey among the participants of both the groups on the frequency of the use of computer programmes and other tool menu in the word processor such as 'Edit', 'Spelling and Grammar', 'Thesaurus', 'Online dictionary', 'Email communication' 'Internet Browsing', etc. for developing writing skills. The main objective of the survey was to find out whether repeated use of such programmes/ tool menu helped students in developing their writing skills from the entry level to the exit level. A survey questionnaire was prepared to elicit information about the students' use of computer programmes/ other tool menu during the period of the experiments (see Appendix L). The questionnaire was sent to all the respondents of both the groups and the data collected were analyzed in percentage.

The researcher received 19 completed questionnaire from Group A and 18 from Group B after the completion of entry-level test. Again after the exit test, 18 respondents from Group A and 17 from Group B sent completed questionnaire. The following tables illustrate the use of computer programmes/ tool menu in percentage:

Table 25: Participants' use of computer programmes/ tool menu: During Entry Test

Computer Programmes/Tool Menu	Group A				Group B			
	Levels of usage				Levels of usage			
	Very frequently (in %)	Frequently (in %)	Occasionally (in %)	Never (in %)	Very frequently (in %)	Frequently (in %)	Occasionally (in %)	Never (in %)
Edit	5 26	10 53	84 21	0 00	0 00	11 11	88 89	0 00
Spelling & Grammar	5 26	15 79	78 95	0 00	0 00	11 11	88 89	0 00
Track change	0 00	0 00	10 53	89 47	0 00	0 00	5 56	94 44
Thesaurus	0 00	15 79	31 58	52 63	0 00	11 11	27 78	61 11
Online Dictionary	0 00	0 00	26 32	73 68	0 00	0 00	22 22	77 78
Email Communication	5 26	26 32	42 11	26 32	0 00	27 78	33 33	38 89
Internet Browsing	0 00	21 05	31 58	47 37	0 00	16 67	27 78	55 56

Table 26: Participants' Use of computer programmes/ tool menu: During Exit Test

Computer Programmes/ Tool Menu	Group A				Group B			
	Levels of usage				Levels of usage			
	Very frequently (in %)	Frequently (in %)	Occasionally (in %)	Never (in %)	Very frequently (in %)	Frequently (in %)	Occasionally (in %)	Never (in %)
Edit	38 89	50 00	11 11	0 00	29 41	47 06	23 53	0 00
Spelling & Grammar	44 44	50 00	5 56	0 00	29 41	47 06	23 53	0 00
Track change	11 11	27 78	61 11	0 00	0 00	23 53	70 59	5 88
Thesaurus	22 22	55 56	22 22	0 00	17 65	58 82	23 53	0 00
Online Dictionary	0 00	50 00	44 44	5 56	0 00	41 18	41 18	17 65
Email Communication	38 89	44 44	16 67	0 00	35 29	41 18	23 53	0 00
Internet Browsing	22 22	44 44	33 33	0 00	0 00	35 29	64 71	0 00

It is clear from the tables that the use of computer programmes and other tool menu in both the groups was much more frequent during the period leading up to the Exit test than during the period of the Entry test. This shows that the students developed their writing skills by using CALL and that the frequent use of computer programmes and tool menu played a key role in developing their writing skills.

Summing up

The experiment introduces CALL approach for teaching compulsory English to the students of 1st Semester in the Polytechnics of Assam in order to develop their communication skills. It is based on a computer-assisted writing course, paragraph writing, grammar exercise, etc. on the word processor, one of the most important forms of CALL. During the entire period the researcher maintained contact with students via Email.

The researcher initiated the discussion in this chapter by emphasizing the importance of CALL in teaching and learning languages. Then he proceeded on to identify the specific objectives of developing a model for using CALL in English classroom in the Polytechnics of Assam. The researcher designed a model by modifying the existing English syllabus and incorporating CALL into it especially for developing the writing skills of the students. On the basis of this framework he went on to develop some Tasks to conduct an online (asynchronous) experiment among the two groups of students (Group A – Nowgong Polytechnic and Group B—Girls' Polytechnic) in a computing environment. The students' responses were evaluated and the score was calculated in percentage (%). The collected data were analyzed with statistical software *SPSS*. The Exit test score of the experiment has indicated a very positive effect of the use of the CALL especially word processor and email. Table 23 and 24 indicate that students developed their writing skills gradually during the period of the experiment by using CALL, especially word processor. Research studies have shown that writing and composing with a computer can improve the students' performance in writing activities (Dauite,

1985; Stevens, 1999; etc.). The findings of the experiment were in harmony with other studies, for example, Hegelheimer, *et al,* 1996; Sullivan & Pratte, 1996; etc.

Abu Seileek (2006) conducted a study on the effect of using word processor on the development of EFL learners' performance in writing among the selected students in the Department of English Language and Literature, College of Arts, King Saud University. The result has shown that the members of the experimental group achieved better results in the writing test than their counterparts in the control group.

While talking about the use of computer in a language classroom in an engineering institute, Držić and Štih (2009) noted:

> The student groups using computers were more receptive to learning, the otherwise lengthy process of vocabulary acquisition went much quicker. When a task was given out during our one week absence to make up for a missed lesson, the group using the computer classroom proved to be more independent in self-study and prepared the lesson more readily in comparison to students from the traditional classroom who were rather reluctant to browse the Internet on their own" (p.41).

The most important aspect of the present study was that the experiment was conducted in a computing environment. The researcher wanted to experiment and prove that CALL could be used in and outside the classroom in a computing environment in order to develop communication skills, especially writing skills.

The findings did not exactly corroborate some of the studies: for example, Lio, Wang, and Hung-Yeh's (1992) study examined CALL effects on students studying English as foreign language at N T H University (Taiwan) and results suggested that the combined effect of classroom instruction and CALL was helpful for writing instruction.

It is observed that the use of CALL, especially word processor and Email, gave the students a chance to: overcome lexical problems, speed up their writing,

and correct themselves. Students made an excellent use of tool menu in word processor, Email communication and the thesaurus to improve their skills. They frequently used synonyms to add consistency, variety and flavour to their style. They could also present and communicate their ideas more concisely and effectively.

The experiment has proved the effectiveness of the model and at the same time its utility for three-year diploma programmes in the Polytechnics of Assam. Validity and reliability are the key factors for the justification and significance of any research study. The use of multiple sources of evidence or data such as questionnaires (see Appendices B & C) and surveys (see Chapter IV); instructional delivery system of tasks via email and the statistical significance of the findings of the experiment ensured validity and reliability of the present study. As Nunan (1992) has remarked:

> If you carry out the procedures already described, that is, randomly assigning your subjects to either the control or experimental group, and administering a pre- and post-treatment test, then you could reasonably claim to have carried out what is known as 'true' experiment (p.27).

The study has demonstrated that the use of computer/CALL in writing facilitates and capacitates the process of writing. But computer-aided writing class will lose its main aims and objects if it is merely a replica of the face-to-face classroom. The computer should enhance the activities that are normally performed in a face-to-face classroom. It is not justifiable to think that if one uses the computers/ CALL, s/he will be a good writer and vice versa. In the present study it is observed that CALL has provided students with easily adaptable techniques that helped them to improve their language skills. It is the researchers' conviction that the students themselves played a significant role in using CALL for developing their writing skills which in turn did not support the null hypothesis.

CHAPTER 6

Conclusion

Overview of the Study

The study is based upon the assumption that Computer Assisted Language Learning can be used in teaching English, especially for developing writing skills of the students in the Polytechnics of Assam. This study also tried to gauge teachers' and students' attitudes towards the need for English language skills and the use of computer technology in teaching English in the Polytechnics of Assam. For this purpose a survey was conducted with the help questionnaires and interviews. On the basis of the findings of the survey and the insights gained from the findings of other similar studies, the researcher modified the existing syllabus, incorporating CALL in the traditional English class. An experiment was conducted between two groups of students of Nowgong Polytechnic, Nagaon (Group A) and Girls' Polytechnic, Guwahati (Group B) on some selected tasks. The study was conducted during the span of one academic year. The main objective of the study was to use CALL, especially word processor, in teaching English in the Polytechnics of Assam. The justification of the study was that in India many research works have been done on CLT approach and some on theoretical basis of CALL in the Indian context, usually looking into their own domains. Research combining the two fields is not much common and no one till date has done research on the incorporation of CALL in teaching communicative English in any technical institution of Assam.

In the following sections of this chapter, the findings arrived at after analyzing the relevant data are presented. The findings are presented under three headings in relation to the major themes that have emerged from the study. These headings are: summary findings; limitations of the study and suggestions for further research.

Summary Findings

The findings that were arrived at from the survey in Chapter IV and from the analysis of the data pertaining to the experiment in Chapter V are presented in four subsequent sections. The first section below presents the findings of the pre-computer use survey: students' and teachers' attitude towards the need for and the use of computers in teaching English (Chapter IV), and the other three subsequent sections are: students' performance in the Entry test, their performance at different stages during the period of experiment leading to the Exit test, a comparison of students' performance in the Entry and the Exit tests; and lastly the effects of CALL on the development of the writing skills.

Students' and teachers' attitude towards the need for and the use of computers in teaching English (Chapter IV)

It is clear from the findings of the survey that both teachers and students like to use computer in teaching and learning English (67% and 88% respectively). While comparing their views about E-mail and its benefit, it is found that both teachers and students (93% & 84% respectively) think that communication and interaction by Email is a good way to improve English communication skills especially writing skills. It is also observed that both teachers and students have strong positive attitude towards the use of computer in the traditional English classroom. But it can be mentioned that both teachers and students have little communication through Email which often results in the lack of coordination among them.

Students' performance in the Entry test, their performance till the Exit test, and a comparison of their performance in Entry and Exit tests

On the basis of the model syllabus discussed in the previous chapter the researcher conducted an online (asynchronous) experiment involving two groups of students (Group A – Nowgong Polytechnic and Group B—Girls' Polytechnic) in a computing environment. The tasks for the experiment on writing contents of the modified syllabus were prepared on the basis of 'CALL in writing activities' propounded by de Szendeffy (2005, p.32-54). The answers of the students were

evaluated and the weightage was calculated in percentage. The collected data were analyzed with the help of the statistical software *SPSS.* The exit test score of the experiment has indicated a very positive effect of the use of the CALL especially word processor in developing writing skills (see Table 23 and 24). The study shows that students achieved significantly higher scores on all the tasks in the Exit test compared to the Entry test. Thus the findings of the study did not support the null hypothesis that the use of CALL has no effect on the teaching and learning of English, especially for developing writing skills of the students of the Polytechnics of Assam.

The effects of CALL on the development of writing skills

The researcher discussed the principles of the product and process approaches to writing and the features and the roles of word processing in composing in Chapter 3, and conducted the experiment and analyzed the use of CALL (word processor) in developing writing skills in Chapter 5. The experiment and its results show that CALL, especially the word processor, is the most significant composing medium and a valuable tool for the implementation of a process approach to writing. In the present study the process approach was adopted during the experiment and hence the defining characteristics of the word processor such as the ability to copy and paste parts, to insert and delete others, and to use grammar and spell checkers were extensively used by students for developing their writing skills.

The researcher also conducted a survey on the use of computer programmes and tool menu after Entry and Exit tests to find out whether the frequency of use has had any impact on students' writing abilities. The result showed that frequency of the use of computer programmes/ tool menu has positive effect on developing students' writing skills.

Limitations of the Study

The following limitations of the present study should be acknowledged:

1. The sample of the participants in the experiment was limited to twenty in each group. Statistical analysis becomes more valid when the number of the participants is bigger.
2. The number of tasks for experiment was four only. Students should be provided with more and more tasks and activities in the process approach to writing.
3. The study was conducted in a technical institution. However, it is advisable that comparative studies should be undertaken with students from technical and non-technical institutions to investigate whether CALL can be effectively used for developing language skills.
4. Lastly, it is difficult to make any generalizations of the findings of the study due to the diversity of students' past experiences, differences in individual skills and infrastructure facilities provided by the institute.

Suggestions for Further Research

This study examined the use of CALL in teaching English especially for developing writing skills in the Polytechnics of Assam. The study specifically experimented with the writing skills of the students by using CALL in a number of writing tasks. However, classroom/ online (synchronous) demonstration of the process approach to writing as perceived by teachers was not undertaken. Thus, further research on teachers' observation of classroom activities and demonstration and active participation of teachers in evaluating the answers might be carried out for improving the teaching and learning of English. Also, case studies might be undertaken to understand how teachers could plan the integration of computer technology into their teaching. Further studies may also be undertaken to find out the correlation between the teachers' use of computer technologies and student achievement.

Conclusion

To conclude, this study corroborates and extends previous studies on the use of CALL in teaching English especially for developing writing skills among the students in the technical institutions such as the Polytechnics of Assam. The findings of the study have indicated that the effects of using CALL for developing writing skills are positive even after taking into account such individual and social factors as the students' diverse language learning backgrounds. These findings not only provide further support for previous studies that had suggested the importance of CALL in teaching and learning language skills but also serve as an empirical validation for incorporation of CALL in non-technical education, particularly in this part of the country.

xxxxxxxxxxxxxx

References

AbuSeileek, A. (2006). The use of word processor for teaching writing to EFL learners in King Saud University. *Journal of King Saud University,* Riyadh, vol. 19, pp. 1-15.

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print.* Cambridge, MA: MIT Press.

Ahmad , K . , Corbett , G . , Rogers , M. & Sussex , R. (1985) . *Computers, language learning and language teaching.* Cambridge : Cambridge University Press.

Al-Asmari, A.M. (2005). *The use of the Internet among EFL teachers at the colleges of technology in Saudi Arabia* (Doctoral Dissertation). The Ohio State University. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=osu1119089945

Almekhlafi, A. G. (2006). The effect of computer assisted language learning (CALL) on United Arab Emirates English as a foreign language (EFL) school students' achievement and attitude. *Journal of Interactive Learning Research, 17*(2), 121-142. Retrieved on 7.6.2011 from http://www.u.arizona.edu/~rcote/Almekhlafi.pdf

Aslam, M. (1995). Needs analysis of the Indian learners of English. In R.K. Agnihotri & A.L. Khanna (Eds.), *English language teaching in India: Issues & innovations,* pp. 152-166. New Delhi: Sage Publications.

Bangert-Drowns, R. L. (1993). The word processor as an instructional tool:

A meta-analysis of word processing in writing instruction. *Review of Educational Research 63* (1), pp.69-93.

Bax, S. (2003). CALL – past, present and future. *System, 31*, 13-28. Retrieved from: http://www.iateflcompsig.org.uk/media/callpresentpastandfuture.pdf

Beatty, K. (2003). *Teaching and researching computer-assisted language learning.* New York: Longman.

Becta. (2003). *What the research says about using ICT in English.* Retrieved from http://www.education.gov.uk/publications/eOrderingDownload/15013MMIG2797.pdf 27-01-2009

Belisle, R. (,1996, December). E-mail activities in the ESL writing class. *The Internet TESL Journal 2* (12). Retrieved on 12-05-05 from http://iteslj.org/Articles/Belise-E-mail.html .

Bork, A. (1980). Interactive learning. In R. Taylor (Ed.), *The computer in school: Tutor, tool, tutee* (pp. 53-66). New York: Teachers College Press. Also available at http://www.citejournal.org/vol2/iss4/seminal/CITEBorkSeminal1.pdf pp. 589-607

Bowers, R. (1995). Web publishing for students of EST. In M. Warschauer (Ed), *Virtual connections: Online activities and projects for networking language learners,* (pp. 363-364). Honolulu, Hawai'I: University of Howai'I, Second Language Teaching and Curriculum Centre.

Breen, M. (1984). Process syllabuses for the language classroom. In C. Brumfit

(Ed.), *General English syllabus design*. Oxford: Pergamon Press.

Brierley, B. & Kemble, I. (1991). *Computers as a tool in language teaching.* New York: Ellis Horwood.

Brumfit, C.. (1984). *Communicative methodology in language teaching.* Cambridge: Cambridge University Press.

Brumfit, C. & Johnson, K. (1979) . (Ed.). *The communicative approach to language teaching.* New York: Oxford University press.

Butler-Pascoe, M.E. & Wiburg, K. M. (2003). *Technology and teaching English language learners*. New York: Allyn & Bacon.

Carrier, M. (1997). ELT online: The rise of the Internet. *ELT Journal, 51*(3), pp. 279-309.

Chadwick, S., & Bruce, N. (1989). The revision process in academic writing: From pen & and paper to word processor. *Hongkong Papers in Linguistics and Language Teaching,* 12 (April), 1-27.

Chapelle, C. A. (2001) . *Computer applications in second language acquisition* . New York : Cambridge University Press.

Chapelle, C.A. (2003). *English language learning and technology.* Amsterdam/ John Benjamins Publishing

Chen, C-F. E. (n.d.). *Multimedia CALL and evaluation of CALL software.* Retieved From http://www2.nkfust.edu.tw/~emchen/CALL/unit4.htm

Coffin, C, Curry, M. J., Goodman, S., Hewings, A., Lillis, T.M. and Swann, J.

(2003). *Teaching Academic Writing: A toolkit for higher education.* London, Routledge. Retrieved from http://www.kantakji.com/fiqh/Files/Reasearch/t118.pdf

Crystal, D. (2001). *Language and internet.* Cambridge: Cambridge University Press.

Cunningham, K. (2000). Integrating CALL into the writing curriculum. *The Internet TESL Journal, vol 6*(5). Retrieved September 20, 2005 from http://iteslj.org/Articles/Cunningham-CALLWriting

Daiute, C. (1985). *Writing and computers.* Don Mills, Ontario: Addison-Wesley.

Danet, B. (2002, June). *The language of e-mail.* Rome, European School Summer School, University of Rome, Lecture II.

Daniel, J. (2002). Foreword. In P. Resta (Ed.), *Information and communication technologies in teacher education: A planning guide* (pp. 3-4). Paris: UNESCO.

Davies, G. (2004). *Introduction to multimedia CALL.* Retrieved on Aug 25, 2008 from http://www.ict4lt.org/en/en_mod2-2.htm

Dayal, S. R. (2005). English language learning in the ESP context: An Indian experiment. *Language in India*, 5(8). Retrieved from January 22, 2011 http://www.languageinindia.com

de Szendeffy, J. (2005). *A practical guide to using computers in language teaching.* Michigan, USA: The University of Michigan Press.

Directorate General of Education and Culture (n.d.). *The impact of information*

and communications technologies on the teaching of foreign languages and on the Role of Teacchers of Foreign Languages. Retrieved October 24, 2010 from http://www.ec.europa.eu/education/policies/lang/doc/ict.pdf

Držić, B. & Štih, A. (2009, July). The old and the new. *Modern English Teacher, 18*(3), 41-43.

Eastment, D. (2001). Search engines, web directories, and sites for news and current affairs. *ELT Journal,* 55:1 pp 102-106.

Elley, W. & Mangubhai, F. (1983). The impact of reading on second language learning. *Reading Research Quarterly* 19, pp. 53–67.

Emig, J. (1971). *The composing processes of twelfth-graders.* Urbana, IL: National Council of Teachers of English.

European Association for Computer-Assisted Language Learning (EUROCALL), (2010). *Research policy statements 2010.* Retrieved from http://www.eurocall-languages.org/research/research_policy.html

Fotos, S. & Browne, C. .(2004). The development of CALL and current options. In S. Fotos & C. Brown (Eds), *New perspectives on CALL for second language classrooms* (pp. 3- 14). Mahwah, NJ: Lawrence Erlbaum Associates.

Freeman, R. & Lewis, R. (1998). *Planning and implementing assessment.* London: Routledge Falmer.

Gonglewski, M., Meloni, C. & Brant, J. (March, 2001). Using Email in foreign

language teaching: Rationale and suggestion. *The Internet TESL Journal, 7* (3), March, 2001. Retrieved from http://iteslj.org/Techniques/Meloni-Email.html

Grabe, W. (1991). Current development in second language reading research. *TESOL Quarterly, 25* (3), 375-406.

Gupta, D. (2004). CLT in India: Context and methodology come together. *ELT Journal 58*(3) : 266-269.

Hardisty, D. (1988). Lessons from the classroom. In T. Bongaerts , et al (eds.), *Computer applications in language learning,* pp. 35-45. Dordrecht: Foris. The Netherlands.

Hegelheimer, V.; Mills, D.; Salzmann, A. and Shetzer, H. (1996). World Wide Web activities that work (and why). *International Conference of Teachers of English to Speakers of Other Languages, Chicago., Illinois.* Retrieved from http://www.deil.lang.uiuc.edu/resources/Tesol/WWW_Activities.html,

Higgins, J. (1988) . *Language , learners and computers.* London: Longman

Higgins, C. (1993). Computer-assisted language learning: Report of the current programmes and projects. Retrieved from http://www.cal.org/resources/digest/higgin01.html

Hofstetter, T. (1994). Is multimedia the next literacy? *Journal of Educational Communication & Technology 4* (2), 22-27.

Howatt, A.P. R. (2004). A history of English language teaching (2nd ed). Oxford: Oxford University Press.

Huang, S-J. & Liu, H-F. (2000,February). Communicative language teaching in a multimedia language lab. *The Internet TESLJournal, 6* (2). Retrieved on 10-10-05 from http://iteslj.org/Articles/

Huckin, T.N. & Olson, L.A. (1983). *English for science and technology: A handbook for non-native speakers*. Singapore: McGraw-Hill.

Hyland, R. (2003). *Second language writing*. Cambridge: Cambridge University Press.

Hymes , D . (1972) . On communicative competence. J.B.Pride & J Holmes (Eds.) . *Sociolinguistics.* Harmondsworth, England: Penguin Books.

Indian Institute of Technology, Kanpur(1990). *Report of the EST needs survey.* Kanpur: IIT.

Islam, K.M.B. (1999). *The use of new technologies in ELT classrooms in technical institutions of Assam: A quasi-experimental study.* (Unpublished Doctoral Dissertation). Tezpur University, Tezpur.

Jarvis, H. (2003). Integrating information and communication technology into English for academic purposes by utilizing the skills of practitioners and students. *The English Teacher, 6*(3), 291-297).

Kalmbach, J. A. (1994). Just in time for the 21st century: multimedia in the classroom. *Journal of Educational Communications & Technology 39* (6), 29-32.

Keller, J.M. (1987). Development and use of the ARCS model of motivational design. *Journal of Instructional Development, 10*(3), 2-10. Also available at http://www.learning-theories.com

Kemp, F. (November 1992). Who programmed this? Examining the instructional attitudes of writing-support software. *Computers and Composition, 9* (1) pp.9-24. Retrieved 23.08.2009 from http://computersandcomposition.osu.edu/archives/v10/10_1_html/10_1_1_Kemp.html

Kenning, M.J. & Kenning, M-M. (1983). *Introduction to computer assisted language teaching.* Oxford: Oxford university Press.

Kern, R. & Warschauer, M. (2000). Theory and practice of network-based language teaching. In M.Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice.*Cambridge: Cambridge University Press, pp 1-19.

Kotker, J.G. (August, 1984). Computers and tutors. *Computers and Composition, 1*(4), pp 6-7. Retrieved on 12.03.2009 from http://computersandcomposition.osu.edu/archives/v1/1_4_html/1_4_04_Kotker.html

Krashen, S. D. (1985). *The Input Hypothesis: Issues and Implications*. London; New York: Longman.

Krashen, S. D. and Terrell , T. D., (1983). *The natural approach: Language acquisition in the classroom*. Hayward, CA: Alemany Press.

Kulik, J.A. (2003, May). *Computer use helps students to develop better writing skills.* SRI International, Arlington, Virginia. Retrieved on 12.5.2008 from http://www.sri.com/policy/csted/reports/sandt/it/Kulik_Itink-12_Writing_IssueBrief.pdf

Larsen-Freeman, D. (1986). *Techniques and principles in language teaching.* Oxford, UK: Oxford University Press.

Latio, G.W. (2009). *Examination of factors that influence computer technology use for classroom instruction by teachers in Ohio Public High Schools.* (Doctoral Dissertation [Abstract]). Ohio University, Ohio. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=ohiou1236265376

Levy, M.(1997). *Computer Assisted Language Learning: Contexts and conceptualization.* Oxford: Oxford University Press.

Li, R-C. (1995). English as a second language home page. In M. Warschauer (Ed), *Virtual connections: Online activities and projects for networking language learners,* (pp. 349-350). Honolulu, Hawai'I: University of Howai'I, Second Language Teaching and Curriculum Centre.

Lio, H. C., Wang, S. H. & Yeh, Y.H. (1992). Can grammatical CALL help EFL writing instruction. *CALICO Journal 10*(1):23-44.

Littlewood , W . (1981) . *Communicative language teaching* . Cambridge: Cambridge University Press .

Lix-Purcell, A. (1995). German area studies on the net. In M. Warschauer (Ed), *Virtual connections: Online activities and projects for networking language learners,* (pp. 292-294). Honolulu, Hawai'I: University of Howai'I, Second Language Teaching and Curriculum Centre.

Lucantoni, P. (2002). *Teaching and assessing skills in English as a second language.* Cambridge: Cambridge University Press .

MacLeod, S.H. & Sovern, M. (1992). *Writing across the curriculum: A guide to developing programmes*. New Delhi: Sage Publications.

Motteram, G. (1999, October). [Review of the book *Computer-assisted language*

learning: Context and conceptualization, 1997]. *ELT Journal*, *53*(4), pp. 234-237.

Munby, J. (1978). *Communicative syllabus design* (8th Ed.). Cambridge: Cambridge University Press.

National Council of Educational Research and Training, (2006). *Position paper on Teaching of English.* New Delhi: Publication Department, NCERT, p. 5.

National Knowledge Commission (NKC). (2008, November). Recommendations on language. New Delhi: NKC retrieved from http://www.knowledgecommission.gov.in

Navaruttanaporn, S. (2010). *Computer assisted language learning to improve English for hotel at a university in the northeastern region of Thailand.* (Doctoral Dissertation). Srinakharinwirot University, Thailand. Retrieved from http://thesis.swu.ac.th/swudis/Eng(Ph.D.)/Srijittra_N.pdf

Neu, J. & Scarcella, R. (1987). Word processing in ESL writing classroom- A survey of student attitudes. In P. Dunkel (ed.), *Computer Assisted Language Learning and Testing: Research Issues and Practice* (pp. 169-183). Newbury House: Harper Collins, New York 991.

Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge: Cambridge University Press.

Nunan, D. (1991). Communicative tasks and the language curriculum. *TESOL Quarterly, 25* (2), Summer, pp. 279-295.

Nunan, D. (1992). *Research methods in second language learning*. Cambridge: Cambridge University Press.

Pennington, M.C. (1993). Exploring the potential of word processing for non-native writers. *Computers and the Humanities, 27* (3), 149-163.

Pennington, M.C. (2003). The impact of the computer in second language writing. In B. Kroll (Ed.), *Exploring the dynamics of second language writing*, pp. 287-310. Cambridge: Cambridge University Press.

Pennington, M.C. (2004). Electronic media in second language writing: an overview of tools and research findings. In S. Fotos & C. Brown (Eds), *New perspectives on CALL for second language classrooms* (pp. 69- 92). Mahwah, NJ: Lawrence Erlbaum Associates.

Phinney, M. (1991). Computer-assisted writing and writing apprehension in ESL students. In P. Dunkel (Ed.), *Computer-assisted language learning and testing,* (pp.189-204). Rowley, MA: Newbury House.

Plomp, T., ten Brummelhuis, A. & Pelgrum, W.J. (1997). New approaches for teaching, learning and using information and communication technologies in education. *Prospects—Quarterly Review of Education*, *27*(3), UNESCO, Paris.

Poole, B. J. (2008). *Using modern computer-based technology to teach and learn the English language*. Retrieved from http://www.pitt.edu/~poole

Prabhu, N.S. (1987). *Second Language Pedagogy*. Oxford; New York: Oxford University Press.

Quanyou, R. (2008). A survey on CALL study in Chaina in recent decade. *Canadian Social Science, 4* (1), 41-44.

Ravichandran, T. (2000). Computer-assisted language learning in the perspective

of interactive approach: Advantages and apprehensions. *Paper presented and published in the Proceedings: National Seminar on CALL,Anna University, Chennai, 10-12 Feb. 2000, pp. 82-89.*

Rayan, A.P. (2007). *English for engineers and technologists*. Retrieved January 24, 2011 from http://www.blogs.siliconindia.com/Albert

Reid, J. (2001). Writing. In R. Carter & D. Nunan (Eds.), *Teaching English to speakers of other languages*, pp. 28-33. Cambridge: Cambridge University Press.

Reinking, J.A., Hart, A.W., & Oshen, R. Von Der, (1988). *Strategies for successful writing: A rhetoric, research guide, and reader*. Prentice Hall: NJ

Resta, P. (Ed.), (2002). *Information and communication technologies in teacher education: A planning guide.* Paris: Division of Higher Education, UNESCO,.

Richards, J., Platt, J., & Weber, H. (1985). *Longman dictionary of applied linguistics*. London: Longman.

Riemer, M.J. (2002). English and communication skills for the global engineer. *Global journal of Engineering Education,6*(1), pp. 91-100. Also available at http://www.wiete.com.au/journals/GJEE/Publish/vol6no1/Riemer.pdf

Ritzenthaler, M.D. (2009). *Integrating technology into classroom instruction. Unpublished* Doctoral Dissertation, University of Ashland, Ashland. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num1245087949

Russell, M. & Plati, T. (2001). *Effects of computer versus paper administrations of*

a State-mandated writing assessment. Chestnut Hill: Boston College. Available at http://escholarship.bc.edu/intasc/12

Sarma, M.M. (2009). Communicative language teaching: Problems of designing Syllabuses and producing materials. In M.A. Vyas & Y. L. Patel (Eds.), *Teaching English as a second language: A new pedagogy for a new century* (pp.450-462). New Delhi: PHI Learning.

Schultz, J. (2000). Computers and collaborative writing in the foreign language curriculum. In M. Warschauer & R. Kern (Eds.), *Network-based language teaching: Concepts and practice* (pp 121-150). Cambridge: Cambridge University Press.

Shudooh, Y. M. (2003). *The application of computers in writing classes*. (Doctoral Dissertation). University of Cincinnati. URL http://www.rave.ohiolink.edu/etdc/view?acc_num=ucin1053095635

Simpson , J . (2002) . Computer-mediated communication. *ELT Journal, 56*(4), pp 414- 415.

Singhal, M. (1987). The Internet and foreign language education. *The Internet TESL Journal* . Retrieved from http:// iteslj.org/Articles/Singhal-Internet.html

Smith, D. G. & Baber, E. (2005). *Teaching English with information technology.* London: Modern English Publishing .

Sood, S.C. (1995). Needs of the Indian undergraduate learners. In R.K. Agnihotri & A.L. Khanna (Eds.), *English language teaching in India: Issues & innovations,* pp. 167-178. New Delhi: Sage Publications.

Stanovich, K. E. (2000). *Progress in Understanding Reading: Scientific Foundations and New Frontiers*. New York: Guilford Press.

Stevens, V. (1999). Language learning techniques implemented through word processing. Available at http://www.netword.com/esl_home

Subbiah, M. (2009, March). *Engineering Education*. Delhi: The Hindu, March 1, p.17.

Subbulakshmi, V. (2008). English for engineering colleges: What do the students want, and what would be the teachers like to change? *Language in India*, *8*(4), pp. 2-7.

Sullivan, N. , & Pratt, E. (1996). A comparative study of the two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System, 24*(4), 491-501.

Taylor, R. (Ed.). (1980). *The computer in the school: Tutor, tool, tutee*. New York: Teachers College Press.

Torat, B. (n.d.). *Computer-assisted language learning: An overview*. Retrieved on May 26, 2011 from http://www.warwick.ac.uk/CELTE/tr/ovCALL/booklet1.htm

Tribble, C. (1996). *Writing*. Oxford, Oxford University Press.

Tuman, M. (August, 1993). Campus word processing: Seven design principles for a new academic writing environment. *Computers and Composition, 10*(3), pp. 49-62. Retrieved on 12.03.2009 from *http://computersandcomposition.osu.edu/archives/v10/10_3_html/10_3_3_Tuman.html*

Underwood, J. (1984). *Linguistics, computers, and the language teacher: A Communicative approach.* Rowley, MA: Newbury House.

UNESCO. (1998). *Teachers and teaching in a changing world.* World Education Report. Paris: UNESCO.

UNESCO Institute for Information Technologies in Education. (2004). *Information And communication technologies in secondary education* [Position Paper]. Moscow. Retrieved from http://www.iite-unesco.org

Warschauer , M. (1995). *E-mail for English teaching*. Waldorf, MD: TESOL publications.

Warschauer , M . (1996a). Computer-assisted language learning: An introduction. In S. Fhotos (Ed.), *Multimedia Language Teaching* (pp 3-20). Tokyo: Logos International.

Warschauer, M. (1996b). Motivational aspects of using computers for writing and communication.. In Mark Warschauer (Ed.), *Telecollaboration in foreign language learning: Proceedings of the Hawai'I symposium.* (Technical Report # 12) pp. 29-46.

Warschauer, M. (1999). *Electronic literacies: Language, culture, and power in online education.* Mahwah, NJ: Lawrence Erlbaum Associates.

Warschauer, M. (2000). The death of cyberspace and the rebirth of CALL. *English Teachers' Journal, 53*, 61-67.

Warschauer, M. & Kern, R. (2000). *Network-based language teaching: Concepts and practice* . Cambridge: Cambridge University Press.

Warschauer, M., Shetzer, H. & Meloni, C. (2000). *Internet for English teaching.* TESOL Publication.

Warschauer, M. (2004). Technology and writing. In C. Davidson and J. Cummins

(Eds.), *Handbook of English Language Teaching*. Kluer: Dordrecht, Netherlands. Also available at http://astro.temple.edu/~heimbach/readings/Warschauer-2004-in-Handbook-of-ELT.pdf

Weaver, C. (1996). *Teaching grammar in the context of writing*. Retrieved Jul. 06, 2005, from http://www.english.vt.edu/~grammar/GrammarForTeachers/readings/weaver.html.

Widdowson, H.G. (1978). *Teaching Language as Communication*. Oxford: Oxford University Press.

Wilson, D. D. & Thayalan, V. (2009). *The role and relevance of CALL.* Coimbatore: India. Retrieved July 2, 2009 from http://www3.telus.net/linguisticsissues/rolecall.html

Wright, D. A. (1993). The reciprocal nature of universal grammar and language Learning strategies in computer assisted language learning. Master's thesis, university of Arizona. *Master's Abstracts International, 31,No.* 01 (1993):49. (UMI Number: aat1349137).

Yalden, J (1983). *The communicative syllabus: Evolution, design and implementation.* Oxford: Oxford University Press.

Yang, S. C. (2001). Integrating computer-mediated tools into the language curriculum. *Journal of Computer Assisted Learning 17*, 85-93.

Ybarra, R. (2003). Using technology to help ESL/EFL students develop language skills. *The Internet TESL Journal 9 (3).* Retrieved on 12-05-05 from http://iteslj.org/ Articles/Ybarra-Technology.html

Xim, Z. (May 2007). Reflective thinking on communicative teaching in writing. *US-China Education Review, 4* (5), ISSN1548-6613, USA.

APPENDIX A

1. EUROCALL, European Association for Computer-Assisted Language Learning
   http://www.eurocall-languages.org/
2 CALICO, The Computer Assisted Language Instruction Consortium, http://www.calico.org/
3 IALLT, International Association For Language Learning Technology, http://www.iallt.org/
4 IATEFL Computer SIG, The International Association of Teachers of English as a ForeignLanguage Computer Special Interest Group, http://ltsig.org.uk/
5 KAMALL, Korea Association Of Multimedia-Assisted Language Learning, http://www.kamall.or.kr/
6 JALET, The Japan Association for Language Education and Technology, http://www.j-let.org/
7 PacCALL, Pacific Computer Assisted Language Learning Association, http://paCALL.org/
8 ROCMELIA, The Multimedia English Learning and Instruction Association in the Republic of China, http://www.rocmelia.org.tw/
9 TESOL CALL-IS, Teachers of English to Speakers of Other Languages Computer Assisted Language Learning Interest Section, http://darkwing.uoregon.edu/~call
10 WORLDCALL, http://www.worldcall.org/
11 IndiaCALL, http://www.facebook.com/indiacall
12 Asia-Pacific Association for Computer-Assisted Language Learning http://www.apacall.org
13 ISLLT, The International Association for Language Learning Technology http://www.iallt.org

APPENDIX B

CALL in Developing Communicative Skills: Survey Questionnaire (For Teachers)

The following questionnaire consists of two parts (Part I & Part II). The questions for Part I is prepared on the basis of the prescribed syllabus of compulsory English Course for the students of Polytechnics of Assam whereas Part II is based on the basic uses of computer such as word processor, Internet, e-mail, etc. The main purpose of the survey is to know the teachers' attitude towards the need for developing communicative skills of the students through the use of computer. The teacher is given full assurance that the information given by him/her will be kept confidential and used for the purpose of research only.

NOTE: Please fill up your answer or tick mark (√) where necessary

PART-I

1. Name :

2. Age : ☐ Male ☐ Female
3. Department:
4. Institute:
5. Mention the subject you teach:
6. You use English while interacting with students in...

   A. Lecture

   ☐ Always ☐ Sometimes ☐ Rarely ☐ Never

   B. Explaining difficult teaching points:

   ☐ Always ☐ Sometimes ☐ Rarely ☐ Never

   C. Viva Voce/ Interview

   ☐ Always ☐ Sometimes ☐ Rarely ☐ Never

   D. Seminar/ Project Sessions:

☐ Always ☐ Sometimes ☐ Rarely ☐ Never

E. Hostel/ Social Activities

☐ Always ☐ Sometimes ☐ Rarely ☐ Never

7. Do you use Regional Language in Classroom/ Lab:

☐ Always ☐ Sometimes ☐ Rarely ☐Never

8. Assess your students' overall language skill:

a) Listening ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

b) Speaking ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

c) Reading ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

d) Writing ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

9. Do you think there is a need for developing communicative ability of the students in your institution?

☐ Yes ☐ No

10. What should be the medium of instruction at your institution?

☐ English ☐ Hindi ☐ Regional language

11. Is English important for your students' future career?

☐ Yes ☐ No

12. Are you aware of the contents of the existing syllabus?

☐ Yes ☐ No ☐ To some extent

13. Do you think that for Technical Education lack of proficiency in English is a disadvantage?

☐ Yes ☐ No

14. Would you like your students to devote some extra-time to the learning of the English language?

☐ Yes ☐ No

15. Would you like your students to have a special intensive English language course?

☐ Yes ☐ No

16. At which level would you like to put English language course?

□ Semester I □Semester II □ Semester (III/ IV/V/VI)

17. Do you find the current prescribed English programme beneficial for developing / improving communicative skills of the students?

□ Yes □ No

18. Would you like to have some supplementary text in your language course?

□ Yes □ No □ Not Applicable

19. Do you think students will understand your subject better if regional language is sometimes used in the class? □ Yes □No

20. Do you think that the technical subjects can be taught more effectively through regional languages?

□ Yes □ No

21. Do you think that English is learnt better through books & lectures in your technical subjects rather than through an English language course?

□ Yes □ No

22. Which language skill do you think is more important than others for students' Engineering/ Professional career?

□ Listening □ Speaking □ Reading □ Writing

23. Tick (√) the skill that you find most important according to the place of use:

A. In classroom: □ Listening □ Speaking □ Reading □ Writing

B. In study: □ Listening □ Speaking □ Reading □ Writing

C. In workshop/ Lab. □ Listening □ Speaking □ Reading □ Writing

D. Outside the classroom: □ Listening □ Speaking □ Reading □ Writing

24. Do you feel that your students need to improve their English?

□ Yes □ No

25. Indicate the skill you would like your students to improve for the purpose of Engg./ Technical profession:

□ Listening □ Speaking □ Reading □ Writing

26. Identify the area of your students' weakness in using the English language:

□ Pronunciation □ Vocabulary □ Writing □ Reading □ Speaking □ Accent

27. Do you think that the time allotted for the English language class is sufficient to attend to students' specific problems and weaknesses in English?

☐ Yes ☐ No

28. Would you like your students to have self-access learning aids like computers, video lessons & audio cassettes through which they can improve their English language proficiency?

☐ Yes ☐ No

29. Would you like to record any other observations on English language teaching programme? Mention/ give details.

PART-II

1. Do you know that computer can be used in teaching and learning the English language?

   ☐ Yes ☐ No

2. Do you have a computer at home? ☐ Yes ☐ No

3. Please rate your use of computer:

   ☐ Poor ☐ Fair ☐ Good ☐ Very good ☐ Excellent

4. How much do you use a computer to do the following things:

   a) Word Processing: ☐ a lot ☐ a little ☐ never

   b) E-mail: ☐ a lot ☐ a little ☐ never

   c) WWW: ☐ a lot ☐ a little ☐ never

5. Assess your knowledge about/ of computer:

   i. Word Processing:

      ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

   ii. Power Point:

      ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

   iii. Internet Browsing:

      ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

   iv. Communication through E-mail:

□ Very Good □ Good □ Weak □ Very Weak

6. Please rate your typing ability:

   □ Poor □ Fair □ Good □ Very good □ Excellent

7. Do you like teaching English through computer?

   □ yes □ No

8. Do you have E-mail ID? □ Yes □ No

9. Have you ever sent E-mail to your student/ students:

   □ Yes □ No

10. Do you think E-mail helps people to learn from each other?

    □ Yes □ No

11. Communicating by e-mail is a good way to improve knowledge of English:

    □ Strongly agree □ Agree □ Disagree □ Strongly disagree

12. Do you enjoy using the computer to communicate with your classmates/ teachers?

    □ YES □ NO

13. Using a computer gives you/ your students more chances to practice English.

    □ Strongly agree □ Agree □ Disagree □ Strongly disagree

14. You can teach English faster when you use a computer.

    □ a lot □ a little □ never

15. Do you like to use computer as a tool in the traditional English classroom?

    □ Yes □ No □ Occasionally

Signature of the teacher

For any clarification, pl. contact
Mamun A Barbhuiya
Research Scholar
Tezpur University, Tezpur
Cell: 9435502032: E-mail: mamun@tezu.ernet.in

APPENDIX C

CALL in Developing Communicative Skills: Students' Attitude Survey Questionnaire

The following questionnaire consists of two parts (Part I & Part II). The questions for Part I is prepared on the basis of the prescribed syllabus of compulsory English Course for the students of Polytechnics of Assam whereas Part II is based on the basic uses of computer such as word processor, Internet, e-mail, etc. The main purpose of the survey is to know the students' attitude towards the need for developing communicative skills through the use of computer. The student is given full assurance that the information given by him/her will be kept confidential and used for the purpose of research only.

NOTE: Please fill up your answer or tick mark (√) where necessary

PART-I

8. Name :

9. Age : ☐ Male ☐ Female
10. State : ☐ Urban ☐ Rural
11. Institute:
12. Class : Diploma 6. (i) Branch: (ii) Semester :
8. You have completed your school in:
   ☐ English Medium ☐ Regional medium ☐ Mother Tongue
9. Medium of instruction at 10+2 (if necessary):
10. Name your School Board:
11. The percentage of marks you obtained in the last School Board Examination:
   (a) Science:.....% (b) Mathematics.....% (c) English.....%
12. Assess your English language skill yourself:
   a) Listening ☐ Very Good ☐ Good ☐ Weak ☐ Very Weak

b) Speaking □ Very Good □ Good □ Weak □ Very Weak

c) Reading □ Very Good □ Good □ Weak □ Very Weak

d) Writing □ Very Good □ Good □ Weak □ Very Weak

13. Do you think there is a need for the English language learning programme in your technical course?

□ Yes □ No

14. How would you like to learn English?

□ As Compulsory Course □ As Optional Course □ Self study

15. What should be the medium of instruction at your institution?

□ English □ Hindi □ Regional language

16. Do you want English to be retained as the medium of Technical Education?

□ Yes □ No

17. Is English important for your future career?

□ Yes □ No

18. Do you think that for Technical Education lack of proficiency in English is a disadvantage? □ Yes □ No

19. Would you like to devote some extra-time to learning English? □ Yes □ No

20. Do you find your language course specially designed for your technical studies?

□ Yes □ No

21. Indicate your opinion about the Text / Learning Materials provided for your language course?

□ Useful □ Not Useful □ Interesting □ Boring

PART-II

1. Do you know that computer can be used in teaching and learning the English language? □ Yes □ No

2. Do you have a computer at home? □ Yes □ No

3. Please rate your use of computer:

□ Poor □ Fair □ Good □ Very good □ Excellent

4. How much do you use a computer to do the following things:

a) Word Processing: □ a lot □ a little □ never

b) E-mail: □ a lot □ a little □ never

c) WWW: □ a lot □ a little □ never

1. Assess your knowledge about/ of computer:

a) Word Processing:

□ Very Good □ Good □ Weak □ Very Weak

b) Power Point:

□ Very Good □ Good □ Weak □ Very Weak

c) Internet Browsing:

□ Very Good □ Good □ Weak □ Very Weak

d) Communication through E-mail:

□ Very Good □ Good □ Weak □ Very Weak

2. Please rate your typing ability:

□ Poor □ Fair □ Good □ Very good □ Excellent

3. Do you like learning English through computer ?

□ yes □ No

4. Do you have E-mail ID? □ Yes □ No

5. Have you ever sent E-mail to your teacher:

□ Yes □ No

6. Do you think E-mail helps people to learn from each other?

□ Yes □ No

7. Communicating by e-mail is a good way to improve my English:

□ Strongly agree □ Agree □ Disagree □ Strongly disagree

8. Do you enjoy using the computer to communicate with your classmate/ teachers?

□ YES □ NO

9. Using a computer gives you more chances to practice English.

□ Strongly agree □ Agree □ Disagree □ Strongly disagree

10. You can learn English faster when you use a computer.

    □ a lot □ a little □ never

11. Do you like to use computer as a tool in the traditional English classroom?

    □ Yes □ No □ Occasionally

12. Do you want your English teacher to use computer for teaching you English?

    □ Yes □ No □ Not sure

Signature of the student

For any clarification, pl. contact

Mamun A Barbhuiya

Research Scholar

Tezpur University, Tezpur

Cell: 9435502032: E-mail: mamun@tezu.ernet.in

APPENDIX D

TASK 1

GROUP – A

Information Technology Vocabulary

Basic vocabulary related to Internet and computers

Some words/ terms are specific to the subject or discipline. There are some words/ vocabularies which are used for information technology only. The following words/ terms/ vocabulary items are meant for/ related to computers and Internet:
Internet; World Wide Web; website; database; browser; search engine; online; home page; link; download; e-mail; word processing; hard drive; floppy drive; folder; document; URL; attach; graphic; bookmark;
Students are asked to write the meaning/ definition of the vocabulary at the right side column of the work sheet.
Do not forget to save the document and then write answers/ complete the task. Also write the personal code numbers which has been supplied to you at the very beginning of the experiment.
Name of the student (not mandatory):
Email:
Code No:

S. No.	Words/ Vocabulary	Meaning / Definition
1	Internet	
2	World Wide Web (WWW)	
3	Web site	
4	Database	
5	Browser	
6	Search Engine	
7	Online	
8	Home page	
9	Link	

10	Download	
11	E-mail	
12	Word processing	
13	Hard drive	
14	Floppy drive	
15	Folder	
16	Document	
17	URL	
18	Attach	
19	Graphic	
20	Bookmark	

GROUP –B

Elementary Grammar

Present Simple

1. We use the present simple to talk about things in general. We use it to say that something happens all the time or repeatedly, or that something is true in general: For example:

Nurses look after patients at hospitals.

I usually go away at weekends.

2. We use the present simple to say how often we do things:

I get up at 8 o'clock every morning.

Julie doesn't drink tea very often.

3. We use present simple when we talk about timetables, programmes, etc. (for public transport, cinemas etc.):

My train leaves at 11.30, so I need to be at the station by 11.15.

What time does the film begin this evening?

4. We can use the present simple to talk about people if their plans are fixed like a timetable:

I start my new job on Monday

What time do you finish work tomorrow?

But the present continuous is more usual for personal arrangements:

* What time are you meeting Ann tomorrow? (not do you meet)

Answer the following questions as directed

PRESENT SIMPLE

Choose the correct answer for each question

1.'I get up at 7 every morning ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I eel right now

2.'I feel terrible.Can we go home?'– why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I eel or think right now

3.'Our train leaves at 6 o 'clock tomorrow evening ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I feel or think right now

4.'He ' s German ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I eel or think right now

5.'What do you think?' -why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I eel or think right now

6.'The course finishes on Friday ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I eel or think right now

* In each group of four, there is one incorrect sentence. Which one is incorrect?

1.Present simple

a. We play football every weekend

b. Do you like fish?

c. I feel sick.

d. He works at home today.

2.Present continuous

a. I am learning Arabic at the moment.

b. Is she sleeping?

c. Look! They 're painting their house red!

d. I ' m really liking this cake – it 's delicious.

3.Past simple

a. We played tennis on Friday

b. Where did you go yesterday?

c. Did you like the film?

d. I knew him all my life until now.

4.Questions

a. Do you want some tea?

b. Is he here?

c. Who did break the window?

d. How often do you have classes?

5.Word order

a. It was a big green bird.

b. She speaks well English

c. Are you feeling OK?

d. Who were you talking to?

6.Auxiliaries

a. I really do not agree with you.

b. Do you want to help me or not?

c. Does he is leaving today?

d. Will you finish this work or me?

* Choose appropriate words from the options given

1. She never ever tells a lie. She is...

a. dishonest

b. honest

c. open

d. direct

2. He is always happy and smiling. He is...

a. cheerful

b. optimistic

c. bright

d. nice

3. He doesn't like to work hard. He is...

a. hard-working

b. relaxed

c. tired

d. lazy

4. He is never late. He is...

a. unpunctual

b. timely

c. punctual

d. quick

5. If you have a problem, she is always ready to listen. She is...

a. sympathetic

b. sensitive

c. sensible

d. generous

6. He is always very quiet when he meets new people. He is...

a. nervous

b. cold

c. sensitive

d. shy

* Fill up the blanks of the following with appropriate terms

1. I don't..... Can you explain again?

know

think

understand

learn

2. At present, we are ..... page number 15.

on

by

in

at

3. Sir, I'm sorry. Could you.....that again, please?

a) say

b) talk

c) shout

d) tell

4. Can I ..... a question, please?

a) put

b) ask

c) do

d) make

5. I didn't have any time to.... ..... my homework.

make

do

study

end

6. Can you.....me your pen drive for two days?

borrow

lend

give

spare

Courtesy: BBC| British Council (www.teachingenglish.org.uk)

APPENDIX E

TASK 2

Paragraph Writing

Name of the student (not mandatory):

Email:

Code No.

Write a Paragraph on the following. The answer should be based on the hints given:

Topic: **Internet and its popularity among students.**

Hints:

Quick and easy access to knowledge and information ---availability of different interpretations/versions/responses to an issue/problem - --easy storage and retrieval of knowledge/information—sharing of ideas, opinions with others--

Instructions/ Guidelines:

Save the document (preferably beginning with your name: example, rajiv_task).

Send your responses/completed task to me as an attached file.

Check your mail to get the corrected version.

APPENDIX F

TASK 3

Comprehension

A comprehension exercise consists of a passage upon which questions are set to test the student's ability to understand the content of the given text and to infer information and meaning from it.

Some hints are given below:

1. Read the passage carefuly and quickly to get the general idea.
2. Read again, a little slowly, so as to know the details.
3. Study the questions (given at the end of the passage) thoroughly. Turn to the relevant portions of the passage, read them again, and then rewrite them in your own words, neatly and precisely.
4. Use complete sentences.
5. If you are asked to give the meaning of any words or phrases, you should express the idea as clearly as possible in your own words.
6. Write your name (not mandatory) at the top of the answer page.
7. Mention your code no and
8. Email:

Linking Languages

In an office in Los Angeles, a woman answers the phone. "What language can I help you with today?" she asks the caller. She listens for a moment, then types a few numbers into a computer. A minute later, a Japanese-language interpreter is helping the caller communicate with his English-speaking doctor—by telephone. In the United States, an estimated 7 million people speak little or no English.

Interlink is the country's largest provider of telephone interpretation. It works with over 150 different languages. For some languages, such as Chinese, there are even interpreters of different dialects. Many of their customers are individuals, like the Japanese man visiting his doctor. Others are government agencies, or large corporations such as insurance and credit card companies.

Interlink was founded ten years ago by Randall Petri, a former international banker. It has now 170 full-time employees and 2,500 interpreters. All customers' calls go to the company's main office in Los Angeles, and a computer sends the calls to interpreters around the world. Interpreters of the most common languages (including Spanish, Korean, Russian) work at the company's two offices, in the U.S. and Peru. The others work at home.

"All of our interpreters work in their mother tongue, and we give them a test to make sure they are proficient in English too," says Petry. "We also check to make sure that their accent is easy to understand, and that they know current slang expressions."

About 70% of Interlink calls are in Spanish, and most calls are about simple, everyday matters. A Vietnamese man has a problem with his credit and company, or a woman from Colombia wants a telephone in her new apartment. But some calls are true emergencies. "We work with police departments in many cities," says Petri. "And some of the calls are very stressful. For example, a woman called one night from her bedroom and said a burglar was walking around in her house."

Sometimes there are cultural problems, too. "We had a call from a Korean man. His wife was having trouble breathing. But he wanted to do the correct formal introduction with our interpreter, saying, 'My name is Mr. Kim., this is the

name of my village in Korea.' And he wanted to know about the interpreter too!" the interpreter called an ambulance, and the caller's wife recovered in the hospital.

Some interpreters specialize in medical or legal terminology, or uncommon languages. "Someone who speaks an African language may get only one call a week," said Petri. "We pay them to stay home and wait for calls. If they receive a call, they are also paid per minute."

Petri pointed to a computer that shows which interpreters are logged on. Speakers of Urdu, Italian, Russian, and Farsi were all at all work. "Now there are 34 Spanish interpreters logged on, but that could change in a minute. For example, if the electricity goes off in Texas, we might get 1000 calls in a second. Then we'll go to our interpreters in New York and Puerto Rico." Business is growing everyday, and Petri expects to hire 200 more part-time interpreters this year.

Source: English for the Humanities, by Kristin L. Johannsen

1. What is the difference between a translator and an interpreter?
2. What happens when a customer calls Interlink?
3. Find this information in the passage.
    a. How many new employees Interlink will have this year?.....
    b. The number languages Interlink works with .....
    c. How many calls an interpreter of an African language gets per week.....
    d. The location of Interlink's offices .....
    e. The number of people in the U.S. who don't speak English well .....

f. The number of calls Interlink can receive in one second

……..

g. Two kinds of businesses that use Interlink

……..

4. Match these words from the article with their meanings.

a. proficient…….. 1. pronunciation that shows what country you're from

b. mother tongue…… 2.popular informal words

c. dialect…….. 3. technical words used in one subject

d. accent…….. 4. first language

e. slang…….. 5. form of a language spoken in only one place

f. terminology 6. able to do something

5. If a tourist in your state has language problems, how can he or she get help?

6. Summarize the passage in one-third of its original length.

APPENDIX G

Task 4

Summery writing

Name of the student (not mandatory)

Email:

Code No.

Instruction/ guidelines

Save the document preferably beginning with your name

You must write your code no.

Read the passage carefully

Write down the summary of the passage given below

Add a suitable title

Man has own his dominant position on this planet by his command of technology. Other animals have to take nature as they find her; they must fit into the environment that she provides as best they can. Man alone changes the shape of his world. He moves things about, he alters them in a constant effort to create an environment more hospitable then that which nature has thrust him into. Technology is the sum total of all different techniques by which man changes his environment.

Technology is characteristic of all human societies, and it exists even among less developed tribes and communities. Even an Eskimo uses a number of techniques to make life more comfortable for him. He makes clothes; he builds an igloo and a boat; he uses needles and knives; he gets food by means of fishing lines and harpoons. All these are techniques for changing his wild habitat into an environment that suits him better.

More advanced civilizations have more complex technologies, but the basic pattern is always the same. There must be means to get food; so the hunter invents the spear, or the bow and arrow, or the boomerang; and the farmer invents the hoe

or the plough. There must be means to move thing about, so the community domesticates the ox or the horse and invents the boat or the wheel. There must be means to ward off the weather, so the community makes clothes and huts and invents the tools that are needed to make them. These and other tools need to be strong and durable, so civilizations gradually move on from stone to bronze, from bronze to iron, and so on. And when we think of our present age as the age of light metals, we see ourselves in the tradition of progresses that began with stone, bronze and iron.

Our own technological progresses, then, has been a natural continuation of earlier trends. When today we breed new strains of corn, we are following the same aims as the first farmers. And when we send a rocket above the atmosphere, we are following the line begun by the invention of the wheel.

However, there is one respect in which our technology is markedly different. We transformed the simple tools of the past into complex machines. For example, man has used such a tool as hammer since long before historical records began. But it was only in historical times that he discovered that the hammer could be made into trip hammer— that is, could be made to deliver its blow again and again automatically. When a tool is made to repeat the same mechanical action, it becomes a machine. Modern civilization is built on the use of machines in this way. However, clever they may appear, all machines at bottom are as simple as the water wheel; they do nothing but save us from carrying out ourselves at fixed and repeated sequence of actions.

When machines repeat their actions, day in and day out, they need a constant source of power. Therefore, a great deal of human invention in the last three hundred years has been directed to taming the power hidden in the nature, and to channeling it into steady source of energy that can drive machines. Accordingly, inventions in the field of energy- all the way from the steam engine to the nuclear reactor- have an important place in the technological growth.

There is another aspect of the machine that will become more and more important in the century ahead of us. This is the discovery that machines are also good at adding up columns of figures or flying an airplane on a fixed beam. Until a few years ago, we used machines only to do heavy repetitive work. Now we realize that all repetition is best done by machines, even if the operation is as complex as controlling the sequence of processes in a chemical plant, or calculating the price of its products. With this discovery, we are on the threshold of a new age of industrial automation.

All progress in technology depends on a scientific understanding of the way in which nature works, in order that we may make her work for our ends. Pure science and technology are independent fields of study. Agriculture can not prosper without the study of genetics, light metals cannot be made without research in chemistry, and automation depends on electronic devices that need a detailed understanding of the physics of matter and of the logic of control systems.

Above all, though, we must understand that technology is the application of scientific knowledge to human problems. Like all knowledge, it can be applied for good or evil—and even when applied with the best of intentions, it can have evil results. In short, every human advance carries with it not only automatic benefits but also a new responsibility; and we must remain constantly aware of the dangers that lie in the possible misuse of our enormous skills. If properly used, however, those very skills could enable whole populations to lead the kind of good life—both material and spiritual—that was once the privilege of a lucky few.

Source: Communication in English for Technical Students (1984). CDC, Technical Teacher' Training Institute (Eastern Region), Kolkata, India. Kolkata: Orient Longman

APPENDIX H

For each of the five questions choose the one correct answer

1. Which one of the following is NOT possible? "My doctor suggested _____ some exercise."

a. that I get
b. that I got
c. me to get
d. that we should get

2. John always insisted _____ paying the bill.

a. in
b. on
c. to
d. with

3. Fill the gap with the correct preposition. "After 3 years training, he succeeded _____ breaking the world record."

a. for
b. to
c. in
d. at

4. I like _____ the night before an exam.

a. relaxing
b. relax
c. to relax
d. relaxed

5. I dreamt _____ you last night, you'd got a new job.

a. about

b. over

c. to

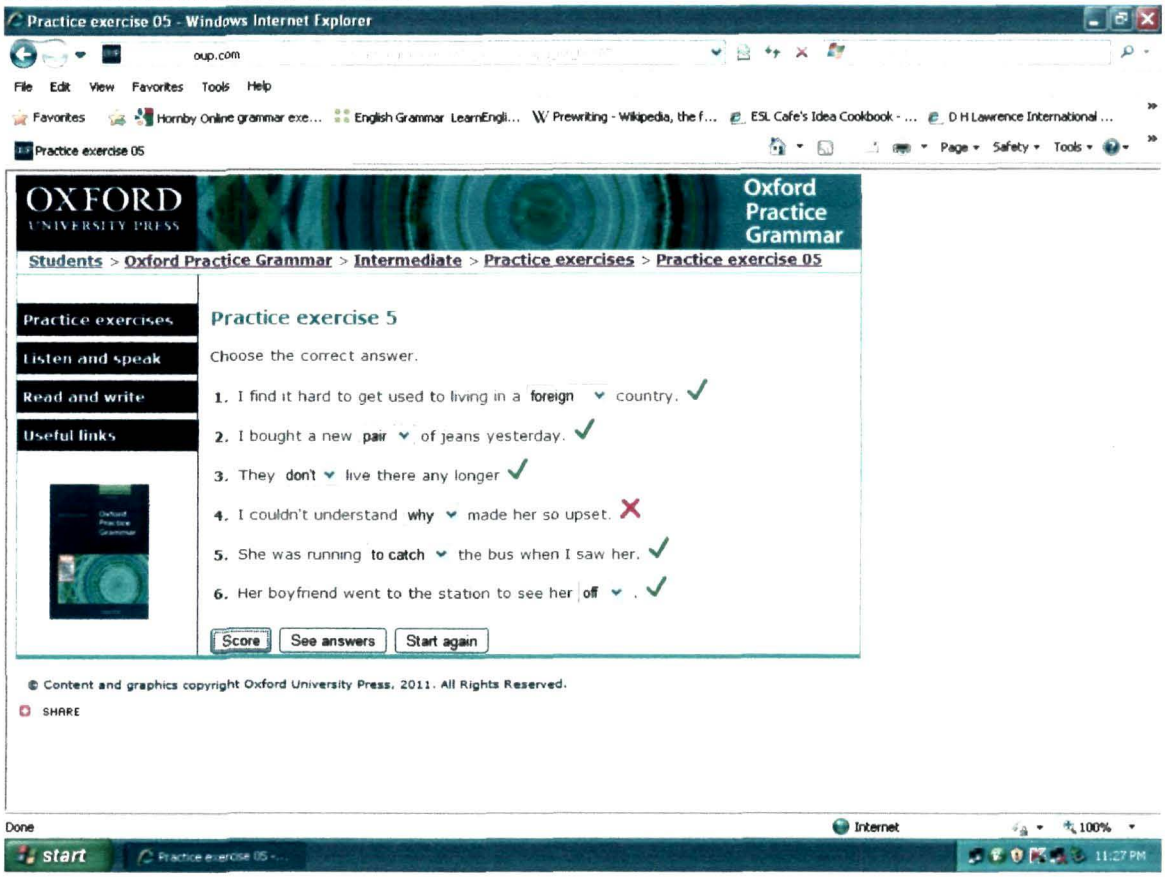
d. around

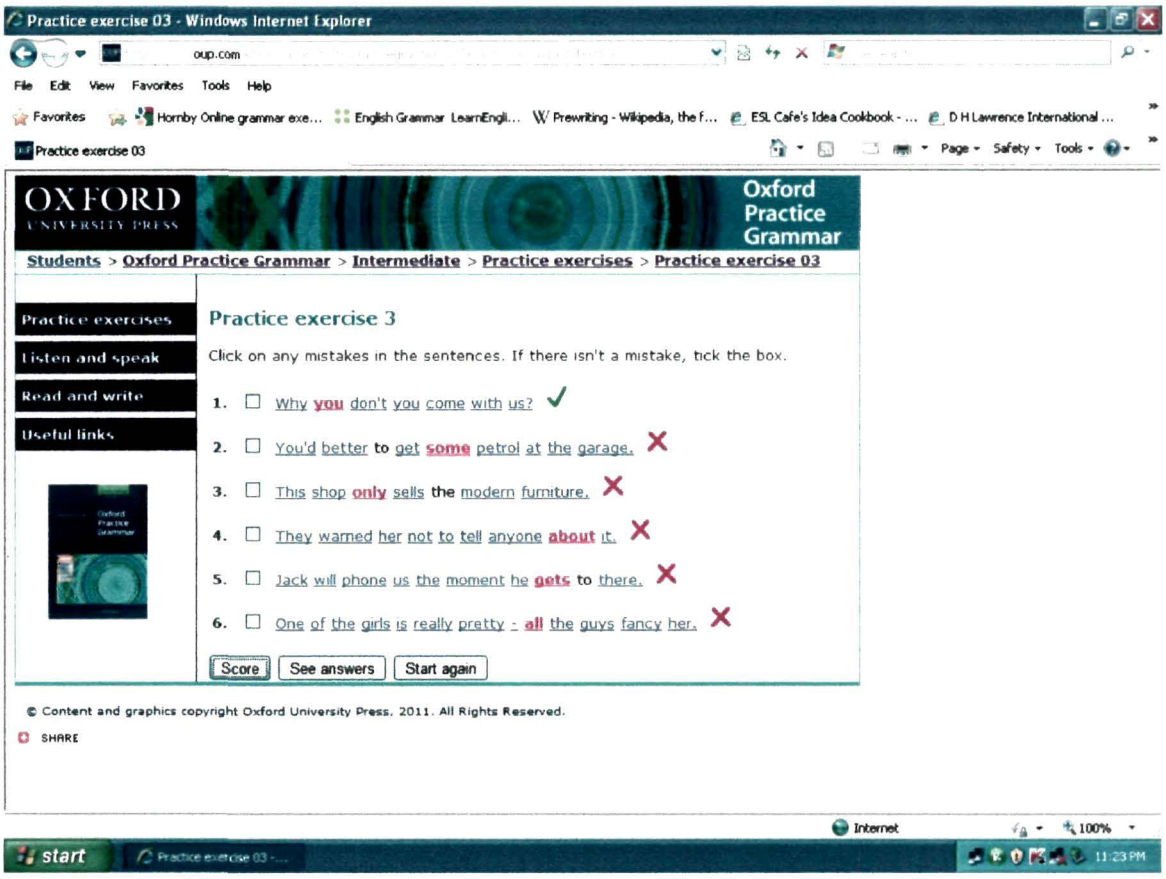
Courtesy: BBC | British Council

www.teachingenglish.org.uk

APPENDIX I

A screenshot of online exercise




Practice exercise 03 - Windows Internet Explorer
oup.com
File Edit View Favorites Tools Help
Favorites
Hornby Online grammar exe...
English Grammar LearnEngli...
Prewriting - Wikipedia, the f...
ESL Cafe's Idea Cookbook - ...
D H Lawrence International ...
Practice exercise 03
Page Safety Tools
OXFORD UNIVERSITY PRESS
Oxford Practice Grammar
Students > Oxford Practice Grammar > Intermediate > Practice exercises > Practice exercise 03
Practice exercises
Listen and speak
Read and write
Useful links
Practice exercise 3
Click on any mistakes in the sentences. If there isn't a mistake, tick the box.
1. Why you don't you come with us?
2. You'd better to get some petrol at the garage.
3. This shop only sells the modern furniture.
4. They warned her not to tell anyone about it.
5. Jack will phone us the moment he gets to there.
6. One of the girls is really pretty - all the guys fancy her.
Score
See answers
Start again
© Content and graphics copyright Oxford University Press, 2011. All Rights Reserved.
SHARE
Internet
100%
start
11:23 PM

APPENDIX J

Women should be treated equally with men. The modern women strive hard together and support each other. In contrast to the traditional approach, the women today are well-educated and are equally talented as men. They have great skills at multitasking and are effective at managing both professional and personal life. Today, women are equally important as the bread winner of the home. Although, women are pleasant and pleasing, they also know the significance of confidence and convincing. They also have convincing skills, which can be revealed from the careers they take up today. Moreover, women had strong will apart from possessing a soft and sensitive nature. Today, women play a vital role in the crucial judgments and also part of the decision making. The women have paved their way in every field like politics, science, technology, education and have proven their ability. In olden days, women were expected to adhere to a rigidly defined domestic role and moral duties, restrictions. However, the modern women has protested against these social reforms and emphasized on the need for being more civilized and worked toward breaking the cultural, racial, economic, and religious barriers. And moreover, the women are experts at maintaining their delicacies and feminity along with focus on their advancement.

Women also prove to be very good at management; they plan every aspect of life, which in turn a great relief to the men. Moreover, they are familiar with ups and downs of life, they understand the taste of life and are empathetic. A woman gives a soothing company to others when compared to a man. They work for the family relentlessly. As we know, no matter what obstacles women face, their focus is always finding a security and comfortable future for their family. Women are proven to be sensible enough to bring their children and family and rarely think about themselves. They give the preference to the family first and they have the maturity to forgive anyone, so they are called angel of mercy. Although, women in

olden days was confined and limited to the social obligations, the modern women has crossed over and come out with her full colors. Today's women is well-educated, equipped with technology and talented to keep her future growing, and she also knows to face the challenges and protest against the ill-treatment.

Questions Based on the Passage in English

How are the modern women and traditional women differentiated?

Explain the different themes discussed in the paragraph?

Define the different barriers the women are trying to cross?

Why women are called angel of mercy?

What are the talents of the modern women?

Source: http://www.tutorvista.com

APPENDIX K

Electronic mail (e-mail) threatens to pervade every one's life -- whether you are living in the western world or in a third-world country. A look at today's business cards verifies this fact. Virtually every business card nowadays sports an e-mail address. Businesses prefer to communicate by e-mail, as it is easier, quicker and cheaper. Furthermore, the message goes direct from the desk of the sender to the desk of the recipient.

All that is needed to be an e-mail user is a PC, a modem, an Internet account and of course, a phone line. Ever since the Internet has been commercialized, Internet Service Providers (ISPs) have sprung up in almost all the countries in the world. Subscribers only need to pay a small yearly subscription fee to an ISP. What makes e-mail extremely popular is the negligible cost. Compared to faxes, e-mails are extremely cost effective. Sending an e-mail to the United States or Germany costs no more than sending it to your neighbor across the street.

It is also very easy to send an e-mail. When the message has been written, all one has to do is to click on the 'send' button on the screen. The mail gets transferred from the PC to the ISP, and is then automatically sent to the recipient. The sender does not have to worry about a busy line at the other end (as compared to sending a fax). The e-mail software can also be configured for the sender to receive a confirmation e-mail when the e-mail has been delivered and downloaded by the recipient. If the e-mail cannot be delivered, it is returned to the sender with a reason given.

One of the most important reasons supporting the use of e-mail is that it is eco-friendly , No papers are used which means no chopping down of trees! Another advantage of using the e-mail is that it is very fast. For example, an e-mail from Asia to the United States would normally arrive in less than two minutes and within the same country, in less than a minute. This means that e-mails and

attached documents, spreadsheets and database files can be routed to friends, family members or colleagues all over the world several times in a day.

Similar to roaming facilities offered on the mobile phone, ISPs offer global roaming for Internet access. A person can dial a local access number in the foreign country (at a small surcharge) and download and upload his e-mails the same way as he does at home, in school or in the office. All that one has to do is to get access to a computer. In short, this means that you can send and receive your mails anywhere and anytime -- e-mails are mobile!

These days, e-mail software provides advanced facilities allowing one to save incoming and outgoing e-mails onto different diskettes. Along with search facilities, this acts as a repository for future reference. This feature is very handy, especially when one is traveling, as a person can now literally carry all his incoming and outgoing communication with him all over the world. In conclusion, using the e-mail is very advantageous and it has become a necessary tool in all fields including education.

Source: http://www.englishdaily626.com

APPENDIX L
Survey questionnaire

Participants' use of computer programmes/ Tool menu

This survey is required to find out the frequency of the use of computer programmes / different tool menu in word processor. You are requested to complete the questionnaire by using tick mark (√). This survey is conducted for the purpose of research only. Read the following tips:

- Open the mail, download the questionnaire and save it in your computer.
- Read the questionnaire and try to understand it.
- Go to 'Format' menu, click on 'Symbol' , copy '√' and paste according to your choice of preference i.e. very frequently, frequently, occasionally, and never.
- You can also take the print out of the questionnaire, complete the survey and send the scanned copy to the researcher.

Name (optional):
Email:
Code No.
You use the following computer programmes/ tool menu during Entry Level Test/or Exit Test

Sl. No.	Programmes/ Tool menu	Very Frequently	Frequently	Occasionally	Never
1	Edit				
2	Spclling & Grammar				
3	Track change				
4	Thesaurus				
5	Online Dictionary				
6	Email Communication				
7	Internet Browsing				

For any clarification, pl. contact:
Mamun A. Barbhuiya
Research Scholar, Dept. of EFL, Tezpur University
Tezpur: Assam
Email: mamun@tezu.ernet.in Mobile No. 9435502032

APPENDIX M

Sample(s) of Students' Writings

Answer

(Entry Test)

Task 2 Paragraph Writing

Name (not mandatory): Rajesh Malakar

Email: rajeshmalakar2009@hahoo.in

Code No- 03-C

Internet and Its Popularity among Students

Internet is very common today. We get Internet in mobile also. It is very easy to use Internet. It is popular and we get Internet in lab but not always. Sometime we go to Café for mail sending. We can send mail from anywhere to anybody. Life become very easy. Internet is popular among students because there is song and many things we can download. Most young man and woman download songs and videos, send photo to their friends and relatives. Any news, information and cricket match also available in internet. In our poly students talk about internet because students like it. Students like Internet for different kind of games. We play these games. Sometime we see photo of different actor/actress in Internet. We can get internet anywhere anytime. We can searched any topic in internet. We can browse internet from anywhere on any thing, for job also. We can apply for job online but we do not get job. For this we use search engines like google to find anything interesting. Many application forms for admission also found in internet. Thus many facilities are there in internet. We see our teachers use internet in lab. They read newspaper. Above all one can join any chat room for online chat but it take too much time. Internet is popular for ad. Also. We can see different models of bike, car, and camera. Now a days online shopping is also popular and some people like it.

Answer

(Exit Test)

Task 2 Paragraph Writing

Name (not mandatory): Rajesh Malakar

Email: rajeshmalakar2009@hahoo.in

Code No- 03-C

Internet and its Popularity among Students

Internet is a connection of computers through network. Internet is gaining great popularity among students day by day. It is easy to get Internet service everywhere- computer lab, café, USB drives and even in mobile also. It provides access to the world of knowledge. Internet has made life easy. We can send mail or communicate to our friends, teachers and to anybody living in any corner of the world. Internet offers various popular means of entertainments for youngsters. We do not need to go to cinema halls for amusement. We enjoy by downloading movies sitting in home through internet. Anybody can download songs, video programmes and many more. We can also exchange our photo with our friends and relatives. The most important benefit of Internet for students is to get study materials of any subject and topic. We are able to get variety of news and information at the touch of a button and this information is generally reliable and up to date. This information can be stored easily for use at a later period. Because of these benefits of Internet, it is popular among students. Internet has become a very important source of information, education, entertainment and learning among students and its popularity is always on the rise.

Evaluated Answer sheet

TASK 1 (Exit Test)

Name of the student (not mandatory):

Code No: 05-E

Email: arindamborkakati@yahoo.in

Group—A

Information Technology Vocabulary

Basic vocabulary related to Internet and computers

S. No.	Words/ Vocabulary	Meaning / Definition
1	Internet	Internet is a network of computers. We can get any information. computer with Internet connection.
2	World Wide Web (WWW)	It's a hypertext-based system for accessing various resources. Also referred to as the Web or WWW.
3	Web site	Series of pages on the ~~i~~Internet connected by links. Particular site of an institution, organization etc.
4	Database	Electronic system that organizes information into different fields and files that can be viewed , sorted and organized.
5	Browser	It's a software used for looking at and accessing information on the World Wide Web or www.
6	Search Engine	A programme that searches a database for specific key words and returns result displayed on the screen. For example: ~~g~~Google
7	Online	Available on the Internet.
8	Home page	First page when a web browser is opened. Main page of a web site.
9.	Link	Connecting of one page/ site to another page/ site in

		the Internet.
10	Download	Copy computer files from remote computer to PC.
11	E-mail	Electronic mail. One can send message through Email to one or many individuals.
12	Word processing	Word processing is a software in which a document can be prepared, edited, saved etc.
13	Hard drive	Storage mechanism on a computer usually *c:*
14	Floppy drive	A place inside the computer that reads stored information.
15	Folder	A structure in a computer where many files can be contained.
16	Document	A single file that is created in word processor.
17	URL	Particular address of an institution/organization used in the world wide web
18	Attach	File that is appended to an e-mail message for delivery over the Internet.
19	Graphic	Picture
20	Bookmark	Address of ~~an~~ a web page can be saved for easy accessing future. In Microsoft Internet Explorer, bookmarks are referred to as *Favourites*.

GROUP—B

Elementary Grammar

Present Simple

* Choose the correct answer for each question

1.'I get up at 7 every morning ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day—**correct** √

c. To talk about a fact

d. To talk about something I feel right now

2.'I feel terrible. Can we go home?'– why do we use the present simple?

a. To talk about facts in the future—**correct** X

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I feel or think right now

3.'Our train leaves at 6 o 'clock tomorrow evening ' – why do we use the present simple?

a. To talk about facts in the future—**correct** √

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I feel or think right now

4.'He ' s German ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I feel or think right now— **correct** X

5.'What do you think?' -why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact

d. To talk about something I feel or think right now—**correct** √

6.'The course finishes on Friday ' – why do we use the present simple?

a. To talk about facts in the future

b. To talk about something I do every day

c. To talk about a fact—**correct** V

d. To talk about something I feel or think right now

* In each group of four, there is one incorrect sentence. Which one is incorrect?

1.Present simple

a. We play football every weekend.

b. Do you like fish?

c. I feel sick.

d. He works at home today. **Incorrect** √

2.Present continuous

a. I am learning Arabic at the moment.

b. Is she sleeping?

c. Look! They 're painting their house red!

d. I ' m really liking this cake – it 's delicious. **Incorrect** √

3.Past simple

a. We played tennis on Friday

b. Where did you go yesterday?

c. Did you like the film?

d. I knew him all my life until now. **Incorrect** √

4.Questions

a. Do you want some tea?

b. Is he here?

c. Who did break the window? **Incorrect** √

d. How often do you have classes?

5.Word order

a. It was a big green bird.

b. She speaks well English. **Incorrect** √

c. Are you feeling OK?

d. Who were you talking to?

6.Auxiliaries

a. I really do not agree with you.

b. Do you want to help me or not?

c. Does he is leaving today?

d. Will you finish this work or me? **Incorrect** X

* Choose appropriate words from the options given

1. She never ever tells a lie. She is…

a. dishonest

b. honest – is **correct** √

c. open

d. direct

2. He is always happy and smiling. He is…

a. cheerful – **is correct** √

b. optimistic

c. bright

d. nice –

3. He doesn't like to work hard. He is…

a. hard-working

b. relaxed

c. tired

d. lazy- **is correct** √

4. He is never late. He is…

a. unpunctual

b. timely

c. punctual- **is correct** √

d. quick

5. If you have a problem, she is always ready to listen. She is…

a. sympathetic—is **correct** √

b. sensitive

c. sensible

d. generous--

6. He is always very quiet when he meets new people. He is…

a. nervous—is **correct** X

b. cold

c. sensitive

d. shy

* Fill up the blanks of the following with appropriate terms

1. I don't **understand**. Can you explain again? √
   a) know
   b) think
   c) understand
   d) learn
2. At present, we are **on** page number 15. √
   a) on
   b) by
   c) in
   d) at
3. Sir, I'm sorry. Could you **tell** that again, please? X
   e) say

f) talk

g) shout

h) tell

4. Can I **make** a question, please? X

e) put

f) ask

g) do

h) make

5. I didn't have any time to **do** my homework. √

a) make

b) do

c) study

d) end

6. Can you l**end** me your pen drive for two days? √

a) borrow

b) lend

c) give

d) spare

Courtesy: BBC| British Council

www.teachingenglish.org.uk

- Overall knowledge of IT vocabulary is good.
- Knowledge of grammar should be improved
- Suggestion; you can modify your answer and can send to me.