



EFFECTIVENESS OF CALL IN LEARNING ENGLISH**Dr. N. Balasubramanian****Former Professor & Head , Department of Education , Bharathiar University ,
Coimbatore , Tamil Nadu.****ABSTRACT**

The increasing importance of ICT in day to day life has led to the emergence of computers in education at the international level. The international recognition gained for the importance of computer in education compelled the educationists to revise the existing system of education supported with ICT application. Even the developed countries realized that unless they invest heavily in computers, they will be left behind in the informatics revolution. Computers are used as an educational aid to improve children's skills in academic subjects. The ICT application in education brought out changes in the content and methods of education. It is to note that without realizing whether the computer is a positive educational force, enormous investment is being made in hardware, software and teacher training. We are witnessing an enormous worldwide change in the way things are produced and consumed. This trend may be attributed to the information revolution, the basis of which is associated with much more rapid flow of information and the capacity for its storage. Computers being exponentially smaller and cheaper with greater problem – solving potentially, become fundamental to the information revolution. As teachers, we have to prepare the young people for jobs which require knowledge of computer technology and to enhance and shape their learning capability with computer based instruction. In this study, the Researcher attempted to investigate the effectiveness of CALL in learning English at Std. VIII. Syllabus based computer software package has been developed for teaching of English as a second language at Std. VIII. An experiment was conducted adopting Pre-Test, Post-Test, Equivalent Design. The investigator has developed Criterion Referenced Tests for all the content areas covered in the development of CALL package and administered as post-tests while conducting the experiments towards testing the spelt out hypotheses. Single group of 20 students of Std. VIII was formed to establish the effectiveness of CALL package in each of the content areas viz. The verb, tense, degrees of comparison, articles, prepositions, concord and text – based vocabulary items and phrases spreading across the Government Girls' Higher Secondary School, Perundurai, Municipal Boys Higher Secondary School, Gobichettipalayam and Bharathi Matriculation Higher Secondary School, Coimbatore. Pre-tests in the respective content areas were conducted to all the groups before the experimentation. The students of each group were given the instructional treatments availing the CALL materials in the respective content area. Immediately after the experimental treatment was over, post-test, viz., CRT in the respective content area was administered to all the groups. The responses made by the students of all the groups to the pre-tests and the post-tests were scored, tabulated and analysed availing appropriate statistical techniques. It was concluded that the CALL facilitates the acquisition of writing skill in English among the pupils of Std. VIII.

KEYWORDS: Computer Assisted Language Learning, Criterion Referenced Tests, Pre-test-Post Test Equivalent Groups Design and Hypothesis.



INTRODUCTION

The increasing importance of ICT in day to day life has led to the emergence of computers in education at the international level. The international recognition gained for the importance of computer in education compelled the educationists to revise the existing system of education supported with ICT application. Even the developed countries realized that unless they invest heavily in computers, they will be left behind in the informatics revolution. Computers are used as an educational aid to improve children's skills in academic subjects. The ICT application in education brought out changes in the content and methods of education. It is to note that without realizing whether the computer is a positive educational force, enormous investment is being made in hardware, software and teacher training.

We are witnessing an enormous worldwide change in the way things are produced and consumed. This trend may be attributed to the information revolution, the basis of which is associated with much more rapid flow of information and the capacity for its storage. Computers being exponentially smaller and cheaper with greater problem – solving potential, become fundamental to the information revolution. As teachers, we have to prepare the young people for jobs which require a knowledge of computer technology and to enhance and shape their learning capability with computer based instruction.

It is assumed that the principal source of future economic and social development will be the production and consumption of information that may increase the demand for higher level of skills. It is obvious that the use of computers in education is directly related to the development of the types of skills needed to the emerging jobs. It is also claimed that interactive computer based learning can change the human thought structure (Papert, 1980) and the systematicity and potential multi-dimensionality of computers as interactive, individualized tutors improve the overall level of student achievement (Martin, Hugh and Liza, 1987).

STATEMENT OF THE PROBLEM

Computer as a tool of learning develops the skills and knowledge of the young people. Systematicity and multidimensionality of computer as interactive individualized tutor help them change their thought structure. Self – pacing, immediate feedback, freedom from classroom inhibition, etc., motivate the learner learn effectively. However, there has been no conclusive evidence whether computer is a positive educational force, worth an enormous investment in different cultural and social groups. Research in this area would help the decision makers to face the new challenges arising from the increasing use of computers in the society. It is seen that English as a curricular subject ranks first in the percentage of failure in examinations at different levels. Hence, it is high time that the educational technologists who are also specialized in English language teaching should endeavor to exploit the advantages of the new medium in order to ensure that quality teaching-learning process occurs in the English classrooms at schools.

REVIEW OF RELATED LITERATURE

Nancy Sullivan and Ellen Pratt (1996) showed students' improvement in writing in the computer assisted classroom than in traditional oral classroom. They also showed that the teacher's domination is less in computer assisted classroom. Bonnie Sdair Hauck, Laurel Willingham Mc. Lain and Bonnie Earnest Youngs (2000) indicated that though neither group change significantly in motivation and anxiety, the experimental group performed well in listening, reading, and writing and also in overall achievement. Shinde (1998) revealed that CAI package are more effective than the traditional method in teaching English grammar. The students of the experimental group have shown positive opinion about the CAI and they felt that CAI packages were useful. Peiya Gu (2002) found that the web based learning had potential in motivating the learners and bringing positive learning effects to the students. The study also emphasized that the web based project learning can be a more effective source when it is managed and supported by learners, teachers and administrators at all levels. ShuChingYang and Yi-JuChen (2006) found that the students experienced the pleasure of learning there by increased their learning possibilities. The study also demonstrated that learners who are passively oriented towards Internet English learning require careful

guidance from pedagogical applications to this approach. Saad-Al-Amri (2007) indicated that testing mode has no significant effect on the overall validity and reliability of the tests and the majority of the students preferred CBT (computer based test) to PBT (paper based test) due to ease of changing answers, time saving and navigation features. Jshita M. Badiyani (2008) showed that computer assisted language package was more effective than computer aided language learning package in terms of achievement scores. Karina Collentine (2009) indicated that most common holistic language units are produced in multimodal task based synchronous computer mediated communication. Mark.W.Tanner and Melissa.M.Landon (2009) indicated that the treatment had a significant effect on perception of pausing, word stress and intonation, but not on overall comprehensibility. Tsung-Yu Liu and Yu-Ling Chu (2010) showed that the use of these games assisted the students to gain better learning motivation, attention, relevance, confidence and satisfaction. Olibie, Eyiuche Ifeoma (2010) indicated CALL has a overall positive effect on students' achievement in English language than conventional English language instruction. Gimenez Lopez et al. (2011) indicated that the students showed great interest in using mobile phones for learning. They also evinced their interest in independent autonomous training through mobile technology. Pei- Shan Tasi et al. (2011) showed that electronic libraries supported the traditional classroom. It also assisted the teachers in developing web-based problem solved activities. Moussa Traore and Lydia Kyei-Blankson (2011) showed that the students perceived the technological devices as education tools that helped enhance their understanding and engagement with the content given in the book and the technology enabled easier and accurate evaluation of the characters and events in the literature. Jacobijn Sandberg, Marinus Maris and Kaspar de Geus (2011) showed that the group which took the mobile phone home improved the most and the students are motivated to use mobile phone for learning in their spare time. Abdallah Abu Naba'h (2012) revealed that the computer based grammar instruction could be as effective as or more effective than traditional instruction. Jiyeon Lee (2012) indicated relatively high degree of interaction and participation even in a large enrolment course. There was a high portion of higher phase of knowledge construction and meta-cognitive interaction. Sitkiye Kuter, Zehra Altinay Gazi and Fabriye Altinay Aksal (2012) showed that the three phased videotaped simulated instruction is a viable model for trainees' professional growth. It also gave them opportunities of an indepth analysis of instructional process. . Balasubramanian (2014) concluded that the CALL facilitates the acquisition of writing skill in English among the pupils of Std. VIII. Balasubramanian (2015) the effectiveness of the syllabus based CALL package in English varies with regard to developing the language skill viz. writing among Higher Secondary Students. Drill and Practice as a mode of CALL is more effective when compared to Tutorial as another mode of CALL in realizing the instructional objectives in English at Higher Secondary stage. The psychological variables of the pupils viz. intelligence, achievement motivation, achievement anxiety and scientific attitude determine the effectiveness of the CALL package in developing their language skills.

OBJECTIVES OF THE STUDY

The objectives of the study are stated as follows:

1. To develop CALL package for teaching of English as a Second Language..
2. To verify whether the developed CALL package facilitates the acquisition of the writing skill in English among the pupils.

HYPOTHESES OF THE STUDY

The hypotheses of the study are stated as follows:

- i) Computer Assisted Language Learning (CALL) facilitates the acquisition of the 'writing skill' in English among the pupils of Std. VIII.
- ii) There is significant difference among different modes of CALL package viz., Tutorial, Drill and Practice and Simulation in terms of their effectiveness in facilitating the acquisition of the writing skill in English among the pupils of Std. VIII.

DESIGN OF THE STUDY

Syllabus based computer software package has been developed for teaching of English as a second language at Std. VIII. In order to establish the effectiveness of the CALL package in facilitating the acquisition of the writing skill in English among the pupils of Std. VIII, an experiment was conducted adopting Pre-Test, Post-Test, Equivalent Design. The investigator has developed Criterion Referenced Tests for all the content areas covered in the development of CALL package and administered as post-tests while conducting the experiments towards testing the spelt out hypotheses. The steps involved in the development of CRT are preliminary considerations, review of competency statements, item writing, assessment of content validity, revision of test items, field test administration, revisions of test items, test assembly, using the test in the classroom and establishing reliability and validity. Pre-test, Post-test, Single Group Design was attempted to test the formulated hypothesis viz., 'Computer Assisted Language Learning'(CALL) facilitates the acquisition of 'writing skill' in English among the pupils of Std. VIII". Single group of 20 students of Std. VIII was formed to establish the effectiveness of CALL package in each of the content areas viz. The verb, tense, degrees of comparison, articles, prepositions, concord and text – based vocabulary items and phrases spreading across the Government Girls' Higher Secondary School, Perundurai, Municipal Boys Higher Secondary School, Gobichettipalayam and Bharathi Matriculation Higher Secondary School, Coimbatore. Pre-tests in the respective content areas were conducted to all the groups before the experimentation. The students of each group were given the instructional treatments availing the CALL materials in the respective content area. Immediately after the experimental treatment was over, post-test, viz., CRT in the respective content area was administered to all the groups. The responses made by the students of all the groups to the pre-tests and the post-tests were scored, tabulated and analysed availing appropriate statistical techniques.

TESTING OF HYPOTHESIS

Hypothesis

Computer Assisted Language Learning (CALL) facilitates the acquisition of writing skill in English among the pupils of Std. VIII.

To test the hypothesis, 't' tests were computed between the mean scores of pre and post-tests administered to the students of various experimental groups having been given the experimental treatments using CALL package pertaining to the different content areas viz. The verb, The Tense Forms, the Degrees of Comparison, Articles, Prepositions, Concord, Vocabulary (meaning of words) and Phrases. The mean and standard deviation of the scores of pre and post-tests of the various experimental groups have already been computed. The results are given in the Table 1.

Table 1
Significance of Difference between the Means of the Scores of Pre and Post-Tests Administered to Different Experimental Groups

Sl. No.	Content	N	Pre-Test		Post-Test		D	σ_d	't'
			M ₁	σ_1	M ₂	σ_2			
1	The Verb	15	8.44	2.16	15.25	2.75	6.81	0.90	7.57*
2	The Tense Forms	15	7.82	3.11	14.25	2.82	6.43	1.08	5.95*
3	The Degrees of Comparison	15	9.32	3.24	15.68	2.74	6.36	1.09	5.83*
4	Articles	20	6.84	2.27	14.38	2.44	7.60	0.68	12.67*
5	Prepositions	20	7.33	2.11	14.51	1.89	7.18	0.63	11.41*
6	Concord	25	14.08	3.014	19.48	3.16	5.40	0.40	13.36*
7	Vocabulary	25	10.08	1.75	14.24	1.39	4.16	0.29	14.50*
8	Phrases	25	12.42	1.56	18.47	2.12	6.05	0.48	12.60*
9	Prepositions II	25	10.64	2.12	17.64	2.44	7.00	1.49	4.69*

* Significant at 0.01 level

From the table 1, it is found that there is significant difference at 0.01 level between the mean scores of the pre and post-tests administered to various experimental groups having been given the experimental intervention using the CALL package on various content areas. Hence, the hypotheses is accepted. It is concluded that the CALL facilitates the acquisition of writing skill in English among the pupils of Std. VIII.

DELIMITATIONS OF THE STUDY

The delimitations of the study may be stated as follows:

1. Keeping in mind the practical difficulties involved in administering the study to a large number of students spreading over a wider area, the study was limited to only that too those studying in three schools located in Coimbatore, Perundurai and Gobichettipalayam.
2. While selecting the content areas in English Grammar in the context of developing the CALL package, the Investigator was not able to full justice to cover more elements of grammar in English.
3. In the context of developing the CALL Package in English, Visual Basic Programming Language was chosen which may bring out compatibility problem while running the software at different locations due to changing advancements in operating systems.

EDUCATIONAL IMPLICATIONS OF THE STUDY

The educational implications of the study are stated as follows:

1. In conjunction with other process-product studies, this study contributes to the knowledge of CALL in teaching of English as a second language at upper primary/secondary level.
2. This study provides a rich fund of knowledge for identifying the emerging problems when CALL is introduced in schools and taking appropriate strategies in widespread induction of computers in schools.
3. The CALL Package developed covering wider area in terms of content in English grammar would be a great support to students population both rural and urban areas to develop their knowledge in English as self-learning materials.

SUGGESTIONS FOR FURTHER RESEARCH

Suggestions for further research in the area of CALL may be stated as follows:

1. Studies may be undertaken to establish the relative effectiveness among different forms of web-based teaching-learning process in English viz. Online Learning, Online Tutoring, Virtual Learning, etc.
2. A survey may be conducted to explore and exploit the availability of media based instructional materials in the internet as Open Educational Resources in the context of teaching and learning of English as a second language.
3. The effectiveness of CALL Package supported with multimedia applications viz. audio, video, animation, graphics, stills, etc., in the context of teaching and learning of English as a second language could be established among the student population in rural and urban areas.
4. Studies may also be taken up to find out how far the teachers and the learners are availing the e-learning materials so called Open Educational Resources for their personal/professional developments.

CONCLUSION

The effectiveness of the computer based instructional materials for a country could not be evaluated based on certain factors which may be unique to other countries. Hence, there is an urgent need for the formulation of evaluation criteria based on the learning environment relevant to international community that could help understand the trends in the use of CAI materials. Socio-cultural setting, curriculum objectives, the degree and the type of teacher training, etc. which are very important factors that make the application of ICT in education, a successful one.

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