

## Research Article

## A Study on the Effect of Computer Assisted Instructional Package as a Self-Learning Material in Learning English Grammar among the VIII Standard Students

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### Abstract

Education refers to the process by which society, through its different institution deliberately transmit its cultural heritage to its young its accumulated values, knowledge and skills from one generation to another. Education is often regarded as synonymous with learning, as the acquired experience of any sort of intellectual, emotional or sensory-motor experienced. Thus Education is a product of experience. The main issues of enhancing the teaching learning process are a large collection of people in the classrooms. The number of students is so large with diverse learning needs and the resources are so meager that the objectives of the system becomes far reaching the goal and require much longer time if the system depends entirely upon traditional instruction. Educational technology is a system in education in which machines, materials, media, men and methods are integrated and work together for the fulfilment of educational objectives. The present education system is utilizing the mode of audio and video technology for communication. The children are passive learners and are becoming auto learner. The child is motivated to learn on his own. The Child is forced to set pattern of thinking and learning. They are stimulated by the imaginary world of computers. The children are unconsciously thrown into fantasy world. This exposure is making the child to imitate the modes and roles and devoid of thinking.

**Keywords:** Computer Assisted Instruction, Self-Learning Material, English Grammar, VIII Standard Students, Educational Technology, Audio-Visual Learning, Student-Centered Learning, Teaching-Learning Process

### **Educational Technology in English teaching**

Educational Technology has been regarded as an integral part of the whole teaching learning process. The role of the teacher in a class room is still significant, but has to acquire and promote new methods to become more relevant and easy. It can also help to overcome the difficulties such as lack of verbalizing faced in the classes, to improve the quality of education. The audio-visual aids improve the teaching and make learning more effective.

Due to scientific development and technological improvements a monumental amount of educational technology devices have been invented. These devices have changed many activities in class room teaching especially in English grammar teaching. Computers pave a fruitful way for the study of English Grammar

### **Need for the Study**

Due to poor understanding some students particularly the average and slow learners find difficulties in understanding the structural usage in English language. The English grammar is one area which challenges to the average and slow learners. Unless some device is made, these pupils cannot comprehend the concept in the said content area. Hence it is the duty of the English teacher to device an instructional strategy which would support him in realizing the envisaged instructional objectives. Here comes the Educational Technology particularly computer technology in teaching to rescue the English teacher from the said crisis.

### **Review of Related Literature**

J. Cooper (2006) made a study on 'The digital divide' on this study examines the evidence for the digital divide based on gender. The evidence shows that the digital divide affects people of all ages and across international boundaries. We suggest that the digital divide is fundamentally a problem of computer anxiety whose roots are deep in socialization patterns of boys and girls and that interact with the stereo type of computers as toys for boys.

J. Horne et al (2007) made a study on 'Gender differences in computerized and conventional educational tests. This study shows no significant difference on the computerized modules, but girls performed significantly higher than boys on the paper version of the spelling module. It is possible that computerized assessment does not detect the established gender

effect due to differences between males and females in motivation computer experience and competitiveness, Further large- scale studies are necessary to confirm these findings.

**OBJECTIVES OF THE STUDY:****GENERAL OBJECTIVES:**

To develop, validate and standardize a CAI package on English grammar teaching for VIII standard students.

To find out whether there is any significant difference between the Conventional Lecture Method (CLM) and the Computer Assisted Instruction (CAI) as an individualized instructional strategy in teaching English grammar among VIII standard students.

**SPECIFIC OBJECTIVES:**

- To find out the effectiveness of conventional method of teaching on English grammar for VIII standard students.
- To find out the effectiveness of CAI package on English grammar teaching for VIII standard students.
- To compare the effectiveness in learning through two different methods (CAI teaching method and Conventional Lecture method) in teaching English grammar among the VIII standard students.

**METHOD OF RESEARCH:**

In this present Study Two group Experimental design was employed.

**Sampling**

In the present study the investigator has selected secondary school novice students ie., eighth standard students who have not been exposed to the content of the particular grammatical usages (until, since, for, as long as) by using purposive sampling technique .They are the students of Chavara Vidya Bhavan Higher Secondary School, Coimbatore.

**Sample Details:**

The investigator divides the students into two groups

- (i) Control group 25
- (ii) Experimental group 25 total students -50

**Variables of the study:****Dependent variables:**

The dependent variables are the condition or characteristics that appear, disappear, a change as the experimenter introducer, removes or changes according to the independent variables. In this study the investigator consider the Achievement of the students in the contents as the dependent variables.

**Independent Variables:**

**CAI Package:** CAI is a narrower term and most often refers to drill and practice tutorial or simulation activities offered either by themselves or as supplement to traditional teaching directed instruction.

**Tools used for the study:**

Tools used in the study are as follows

1. Eighth syllabus based Computer Assisted Instructional package was developed in Flash by the investigator having the content area 'grammatical structure usage' prescribed for STD VIII in English language learning.
2. The development of a computer assisted instruction program materials is a very critical task. The investigator considered himself as a programmer. The investigator has selected a topic in English grammar (structural usage) and has developed the teaching material through flash 8 software. The investigator collected the diagrams, pictures, stills from the internet. The pictures and stills are relevant to the content
3. A separate pre-test was developed by the investigator to assess the knowledge of the students in English grammar usages at VIII standard in order to establish the entry level and exit level knowledge among the control group and experimental group in terms of learning in English grammar (grammatical structure usage)
4. Objective based objective tests (CRTS) in the selected areas were developed by the investigator and administered duly .During the post test phase was conducted to assess the terminal behavior of the students who formed as the subject of the experiment.

## **DATA COLLECTION PROCEDURE:**

The investigator has handled two phases of data collection among the selective secondary school novice students.

### **PHASE I:**

On the first day, a pre-test was conducted for the both the groups (viz., experimental and control group). On the second day, conventional teaching of 45 minutes duration was conducted for the control group, whereas the CAI package was administered to the experimental group.

### **PHASE II:**

On the third day, post test was conducted to both the groups at the same time and the data was collected.

## **STATISTICAL TREATMENT**

Considering the objective and hypothesis of the present study the collected data from the two phases were analyzed using the appropriate statistical techniques. The investigator employed t-test to find out the effectiveness of the computer based instruction on correct grammar usages in English language.

## **ANALYSIS AND INTERPRETATION**

### **Hypothesis I:**

There will be a significant mean score difference in knowledge in English grammar between pre-test and post-test phases among the students of the experimental group.

	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t-value</b>	<b>Result</b>
<b>Pre test</b>	25	8.48			
<b>Post test</b>	25	17.56	1.93	7.806	significant

From the table it is observed that the difference is more during the post study phase since the student were exposed to the experimental difference in knowledge between pre and post test phase of the study among the students of experimental group. Variable i.e. CAI package tutorial. Further this difference is statistically significant and 0.01 levels which indicate that the difference is definite due to manipulation of experimental variable. Further, we can

accept the above hypothesis; hence we can conclude that the tutorial mode of CAI package made a significant knowledge acquisition by the learners of the experimental group.

#### **Hypothesis II:**

There will be a mean score difference in knowledge in English grammar between pre-test and post-test among the students of the control group.

Phases	N	Mean	SD	t-value	Result
Pre test	25	11.2	3.85	6.2	significant
Post test	25	16			

From the table it is observed that the difference is more during the post-test since the students were exposed to the control variable (i.e.) conventional teaching. Further difference is definitely due to manipulation of control variable. Hence we accept the above hypothesis. So, we conclude from above findings that there is a knowledge gain between pre and post-test among the learners in the control group.

#### **Hypothesis III:**

There will be a mean score difference in knowledge gain in English grammar between control and experimental group of VIII standard students during pre – post test phases

Phases	N	Mean	SD	t-value	Result
Experimental	25	9.08	1.93	2.122	significant
Control	25	6.84			

From the table it is observed that the difference is more in the experimental group during the pre-post test phase (i.e.) CAI package. As the experimental group was only shown the CAI Package we see differences in the knowledge gain the mean score. Further this, difference is statistically significant at 0.01 levels.

So we conclude that the knowledge gain of experimental group is more than that of the control group.

#### **CONCLUSION**

From the results and findings of the present study it is concluded that the CAI package on English grammar developed by the investigator for the VIII std students is an effective and appropriate one for using as a supportive material to teach English language. The selected VIII

std students have gained more knowledge on the structural usage of grammatical students in English language through the CAI package. Further, CAI package on English grammar is convenient for low achievers and high achievers.

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