Effectiveness of Computer Assisted Instruction on Achievement in English Among the Higher Secondary School Students

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Abstract

The present study was Effectiveness of Computer-Assisted Instruction on Achievement in English among the Higher Secondary School Students. There is no significant difference in the Pre-test and Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students in Total. There is no significant difference in the Pre-test and Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Demographic variables such as Gender and Student's Residence.

The study is an Experimental one with pre-test and post-test design. Two groups of students namely the Experimental Group and Controlled Group were taken for the study. The investigator had selected higher secondary school students. 30 students each group of Controlled and Experimental group. Control group through Traditional teaching and Experimental group through CAI teaching. The sample selected for this experiment was the purposive random sample. The present study is concerned only with the XI standard students. It's my conclusion that the present study reveals that conventional classroom instruction techniques can be modified based on the technological advances in the field of education CAI is a technological method, which is used effectively teaching-learning process at the level of teaching in English with the help of CAI enhances the achievement of the students.

Keywords: Effectiveness, Computer Assisted Instruction, PowerPoint presentation, Achievement in English and Higher Secondary School Students.

Introduction

Education provides opportunities to forms the socially accepted behavior among the young children in accordance with the aims and goals of rational life. Though English is a foreign language, it occupies an important position in our country. It is spoken at home, in government and private offices in our educational system in court trade and commerce and in day to day activity life. English holds an important position and continues to hold at the same. In order to understand the importance of English and position of English, we shall have study the history of this language in our country.

Need And Importance Of The Study

English has been holding, is asset and will prolong to hold a unique situation in India. No doubt, English is a language, borrowed from six thousand miles away and it belongs to an entirely different nation. But it does not mean that we have no relationship with it. It has been dominating the whole science in the past. It fact, it is the language of the world civilization. Its fortune, its elasticity, its style, its self-respect seem to have made it generally accepted. English is badly needed, if we want to have good relations with fast advancing countries of the world. It is the language of service and technology.

A person knowing good English can get appointment easily as compared to other subjects. Teaching by computer Power Point presentation program Provides unique experience to students. Animation and sound effects help to stimulate interest in, student who tends to remember facts better, if computer aids. PowerPoint presentation animations and sound effect are used explain concept. Hence the present study has been attempted to make use of "Effectiveness of Computer Assisted Instruction on Achievement in English among the Higher Secondary School Students".

Research Studies

Umbara, Uba; Munir; Susilana, R.; Puadi, Evan Farhan Wahyu (2020) the investigation that, Increase Representation in Mathematics Classes: Effects of Computer Assisted Instruction Development with Hippo Animator. This present study is about just beginning and testing the effectiveness of Computer Assisted Instruction (CAI) through multimedia in mathematical representation Features that are developed using the hippo animator provide learning instructions with the tutorial model. The theory of self-regulated learning and mastery learning are both the approach in learning to make certain students to be able to learn to be autonomous and inclusive. For these purpose, R&D was selected in this study with prepared and organized phases through severe excellence organize. The result of the present study shows that multimedia developed is sufficient to be created and used in mathematics learning. Finally, utilize of CAI through multimedia plays a significant role in facilitate mathematical learning, particularly in getting better mathematical representation.

Sharifi, Maryam; Rostami AbuSaeedi, AliAsghar; Jafarigohar, Manoochehr; Zandi, Bahman (2018) study identified that, Retrospect and Prospect of Computer Assisted English Language Learning: A Meta-Analysis of the Empirical Literature. Encouraged by this discussion, we attempt to provide an updated meta-analysis on the learning effect of computer-assisted English language instruction on a wide range of study characters. This meta-analysis of the experimental literature compares computer-assisted English language learning with traditional face-to-face treatments, including 140 computer-assisted learning versus classroom instruction studies, which yield 158 achievement effects. The behind investigative the methodological quality, the overall weighted average effect size for achievement was +0.50, and it was heterogeneous. The result indicates that computer-assisted instruction had an in the general average outcome on English language development.

Title Of The Study

The present title of the study is **"Effectiveness of Computer Assisted Instruction on Achievement in English among the Higher Secondary School Students"**

Operational Definitions Of The Key Terms

❖ **Effectiveness:** It is the ratio of output usually with respect to energy. The term teacher–effectiveness is very ambiguous and it is difficult define. It is relative term. It consist two words teacher and effectiveness. Teacher means a person who has teaching skills and processes certain professional qualities of teaching the following is the important definition of a Teacher.

❖ **Computer Assisted Instruction**: Computer Assisted Instruction refers to instruction remediation presented on a computer. Many educational computer programs are available online and from computer stores and text books companies. They enhance teacher instruction in several ways Computer Assisted Instruction improves instruction for students.

❖ **Achievement in English:** Achievement in English is the level of success in the same area.

❖ **English Language**: There are hardly any hands on practice in contemporary aspects of evaluation, use of computers; in poem, prose, grammar, detail and non-detail prose, novel, etc., "English is an International Language".

❖ **Higher Secondary Level:** Higher secondary level refers to the students those who are studying in XI and XII standard are called higher secondary level.

Objectives Of The Study

The major objectives of the study for the following

The major objective of the study was found out the effectiveness of Computer Assisted Instruction on Achievement in English among the Higher Secondary School Students.

❖ To find out the difference between Pre-test Mean scores of Controls and Experimental groups in total.

❖ To find out the difference between Post-test Mean scores of Controls and Experimental groups in Total.

❖ To find out the difference between Pre-test Mean scores of Controls and Experimental with respect to Gender.

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- ❖ To find out the difference between Post-test Mean scores of Controls and Experimental groups with respect to Gender.
- ❖ To find out the difference between Pre-test Mean scores of Controls and Experimental groups with respect to Student's Residence.
- ❖ To find out the difference between Post-test Mean scores of Controls and Experimental groups with respect to Student's Residence.

Hypotheses Of the Study

The following are the hypotheses of the present study,

i. There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students in Total.

ii. There is no significant difference in the Post - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students in Total.

iii. There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Gender.

iv. There is no significant difference in the Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Gender.

v. There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Residence.

vi. There is no significant difference in the Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Residence.

Delimitations Of The Study

- ❖ The finding of the study is confined only Veppanthattai Taluk in Preambalur district of Tamilnadu state.
- ❖ The present study is confined only higher secondary school students, especially XI standard.

- ❖ The title of the Prose Name is Mercy and Justice, as there was no need to conduct the survey in Matriculation schools and Anglo –Indian schools.
- ❖ With limited time the investigator confirmed his study with controlled group of 30 control group 30 experimental group students, including both boys and girls and experimental group of 30 students.
- ❖ Including boys and girls of a government school which is a co-education school.

Methodology

The study belongs to an Experimental Method, as it is indented to find out the level of effectiveness of Computer Assisted Instruction on Achievement in English among the higher secondary school students.

The study is an Experimental one with pre-test and post- test design. Two groups of student namely the Experimental Group and Controlled Group were taken for the study. The Experimental Group was taught through CD and the lecture method was used for controlled group.

Selection and Size of the Sample

The investigator had selected higher secondary school students. 30 students each group of Controlled and Experimental group. Control group through Traditional teaching and Experimental group through CAI teaching.

Sampling Design for Final Study

Sample selected for this experiment was purposive random sample. The present study is concerned only for the XI standard students. The school selected for the present study is Government Higher Secondary School, Poolambadi. The investigator selected two groups from XI standard one group were taken as an experimental group and another group namely for control group.

Development of computer assisted leaning slides

The investigator has prepared a Computer Assisted Learning package on the topic teaching English (General Introduction, Shakespeare, Prose Story, Moral, and Concept) for the study. This topic is for the XI Standard English students. The following steps were used for developing the Computer Assisted Learning package.

Selection of topics

The investigator has selected the topic advent prose Mercy and justice of General

Introduction, Shakespeare, Prose Story, Moral, and Concept XI Standard English prose. This topic is basic and difficult for the students to understand by traditional method of teaching. So the investigator has selected the topic for developing Computer Assisted Learning.

Selecting the package

The investigator has selected computer assisted learning package. Microsoft word using for preparing picture with presentation, sounds are edited and interested in computer animated based learning package through sound force. Thus the investigator had selected the above package for preparing the computer assisted learning package for the XI [th] students.

Description of the treatment

Computer Assisted Learning package consist of 23 slides and pictures, colors were incorporated different slides which explains the concepts very simply, with color pictures it has been presented colorfully to attract the students. The students can use without it can difficulty within computer-based learning, using the slides material. At the same content in English subject was taught experimental group students.

At the same content was taught by the teacher using the conventional method of the controlled group students.

Before and after the treatments Pre and Post test were conducted both control and experimental students.

Validation of computer Assisted Learning Slide Package

The validation power point presentation package was done as Expert's validation. Individual tries out and Groups try out.

Hypotheses Testing
Hypothesis: 1

There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students in Total.

Table -1: Showing mean, SD and 't' test for Pre-test Mean scores of Control and Experimental groups in Total

	Variables	N	Mean	SD	t-value
Total	Control	30	4.93	1.94	.19**
	Experimental	30	5.03	2.60	

** Not Significant at 0.05 level

From the above Table - 1 it is seen that the 't' value 0.19 is not significant at 0.05 level. On observing the results it is inferred that the Pre - test Achievement in English Scores of both Control and Experimental Group students in total were similar. Hence, the framed null hypothesis is found to be accepted.

Hypothesis: 2

There is no significant difference in the Post - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students in Total.

Table - 2 Showing mean, SD and 't' test for Post-test Mean scores of Control and Experimental groups in Total

	Variables	N	Mean	SD	t-value
Total	Control	30	17.27	1.57	1.91*
	Experimental	30	26.77	1.63	

* Significant at 0.05 level

From the above Table -2 it is seen that the 't' value 21.91 is significant at 0.05 level. On observing the results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students in Total is significantly higher than the Control Group students in Total. Hence, the framed null hypothesis is found to be rejected.

Hypothesis: 3

There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Gender

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Table - 3 Showing mean SD and 't' test for Pre - test Mean scores of Control and Experimental groups in Total with respect to Gender

Gender		N	Mean	SD	't' Value
Male	Control	10	5.20	1.98	0.87**
	Experimental	13	6.08	2.81	
Female	Control	20	4.80	1.96	0.81**
	Experimental	17	4.24	2.19	

** Not Significant at 0.05 level

On observing the above Table -3 it is seen that the 't' Values 0.87and 0.81are not significant at 0.05 level. It is understood from the results that the Pre - test Mean Achievement in English Scores of both Control and Experimental Group students with regard to Gender were similar. Hence, the framed null hypothesis is found to be accepted.

Hypothesis - 4 :

There is no significant difference in the Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Gender.
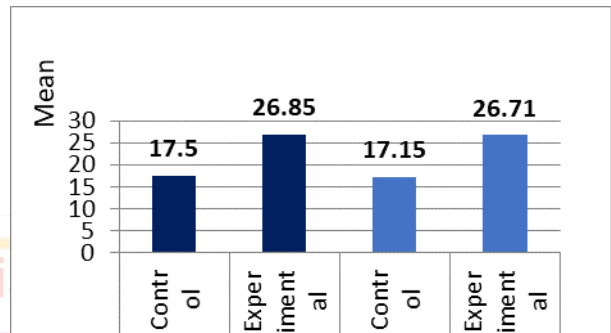
Table - 4 Showing mean SD and 't' test for Post-test Mean scores of Control and Experimental groups in Total with respect to Gender

Gender		N	Mean	SD	't' Value
Male	Control	10	17.50	1.50	13.64*
	Experimental	13	26.85	1.77	
Female	Control	20	17.15	1.63	18.11*
	Experimental	17	26.71	1.57	

* Significant at 0.05 level

On observing the above Table 4 it is seen that the 't' Values 13.64 and 18.11are significant at 0.05 level. On observing the results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students are better than the Control Group students with regard to Gender. Hence, the framed null hypothesis is found to be rejected.

Graph – 1
Significant Difference in the Post Test Achievement Scores in English among the Higher Secondary School Students with respect to Gender

Hypothesis - 5:

There is no significant difference in the Pre - test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Residence.

Table - 5 Showing mean, SD, 't' test for Pre-test Mean scores of Control and Experimental groups in Total with respect to Residence.

Residence		N	Mean	SD	't' Value
Hostel	Control	3	5.33	0.57	0.73**
	Experimental	9	4.67	2.55	
Days Scholar	Control	27	4.89	2.04	0.42**
	Experimental	21	5.19	2.67	

** Not Significant at 0.05 level

On observing the above Table 5 it is seen that the 't' Values 0.73 and 0.42 are not significant at 0.05 level. It is understood from the results that the Pre - test Mean Achievement in English Scores of both Control and Experimental Group students with regard to Residence were similar. Hence, the framed null hypothesis is found to be accepted.

Hypothesis - 6:

There is no significant difference in the Post-test Achievement scores in English among the Higher Secondary School Students of Control and Experimental group students with respect to Residence.

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Table - 6 Showing mean, SD, 't' test for Post-test Mean scores of Control and Experimental groups in Total with respect to Residence

Residence		N	Mean	SD	't' Value
Hostel	Control	3	16.67	1.15	**11.51** *
	Experimental	9	26.78	1.71	
Days Scholar	Control	27	17.33	1.61	**19.87** *
	Experimental	**21**	**26.76**	**1.64**	

* Significant at 0.05 level

On observing the above Table 6 it is seen that the 't' Values 11.51and 19.87are significant at 0.05 level. It is understood from the results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students are better than the Control Group students with regard to Residence. Hence, the framed null hypothesis is found to be rejected.

Summary And Findings

The findings of the investigation are as following:

❖ The results it is inferred that the Pre - test Achievement in English Scores of both Control and Experimental Group students in total were similar.

❖ The results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students in Total is significantly higher than the Control Group students in Total.

❖ The results that the Pre - test Mean Achievement in English Scores of both Control and Experimental Group students with regard to Gender were similar.

❖ The results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students are better than the Control Group students with regard to Gender.

❖ The results that the Pre - test Mean Achievement in English Scores of both Control and Experimental Group students with regard to Residence were similar.

❖ The results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students are better than the Control Group students with regard to Residence.

Conclusion

The present study reveals that Effectiveness of Computer Assisted Instruction on Achievement in English among the studying XI standard Students the research was carried out in control group = 30 and experimental group = 30 samples based randomly. After collecting the data they were analyzed using statistical tools such as t-test. The result concluded that The results it is inferred that the Pre - test Achievement in English Scores of both Control and Experimental Group students in total were similar and also demographical variables likewise Gender and Students Residence. The results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students in Total is significantly higher than the Control Group students in Total. The results it is inferred that the Post - test Mean Achievement in English Scores of the Experimental Group students are better than the Control Group students with respect to their demographical variables likewise Gender and Students Residence.

Therefore the conventional classroom instruction techniques can be modified based on the technological advanced in the field of education CAI is a technological method, which is used effectively teaching learning process at the level of teaching in an English with the help of CAI enhances the achievement of the students.

Educational Implications

❖ As the study revealed significant difference group.CAI Software introduced in all subjects irrespective of standard.

❖ Most software prepare to stimulation so that students may study full enthusiasm.

❖ Teacher and students trained for the development and trained the utilization of software teaching learning process.

❖ The government can arrange training programmes for the teachers to develop such programmes.

Suggestions For Further Research

Future research needs to continue to focus on the following aspects,

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❖ The present study was confined to XI standard Students, whereas, a similar attempt could be made to study among students of all levels of education Such as; Arts and Science college Students, Technical College Students, High secondary school students.

❖ The present study is restricted to only Veppanthattai Taluk in Preambalur district of Tamilnadu state. It could be extended to state/ nationwide by taking samples from other District /states, also.

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