Study of the Effectiveness of Computer Assisted Instruction Program (CAI) on Achievement in Grammar

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Abstract

Learning-Teaching is the continuous process which is obtained through the traditional as well as the modern methods. There is a need of innovation in our traditional system of instruction to meet the challenges of the present day society. Technology as automation is the only situation to solve all problems.

The present study attempts to assess the effectiveness of traditional teaching and CAI-Computer Assisted Instruction on std.8th students of S.V.S. school, Khdaki, Pune, by applying experimental method and two group post test design.

Researcher used achievement test for data collection. Mean and 't' test are used as statistical tools. Students were found benefited learning through Computer Assisted Instruction program. The students' knowledge, retention level was increased after viewing the computer assisted instruction (CAI).

Keywords: Computer Assisted Instruction, Innovation

Introduction:

The present research works attempts to find out the effectiveness of Computer Assisted Instruction (CAI). The main purpose of CAI program is to provide individual instruction to students keep in view their personal abilities and interest and make the learning process effective. Therefore for this research the student of standard 8th class of S.V.S. High School , Khadki, Pune was selected . Experiment method, random sampling method and statistical methods were applied to find out the results. It is concluded that the CAI is one of the most effective method or strategy for learner.

Need:

Learning-Teaching is the continuous process which is obtained through the traditional as well as the modern methods. 21st century is the age of Information and Communication Technology (ICT). Therefore, there is a need of innovation in our traditional system of instruction to meet the challenges of the society.

Statement of Aim: "Development of a Computer Assisted program(CAI) of English Grammar regarding (achievement test) & Study of its effectiveness on students of Std. 8th."

Objectives:

1. To prepare a CAI program for English grammar for the unit of active and passive voice.
2. To implement CAI program on students of std.8th.
3. To compare the effects of traditional teaching and CAI program.

Assumption:

Students know how to operate computer.

Limitation:

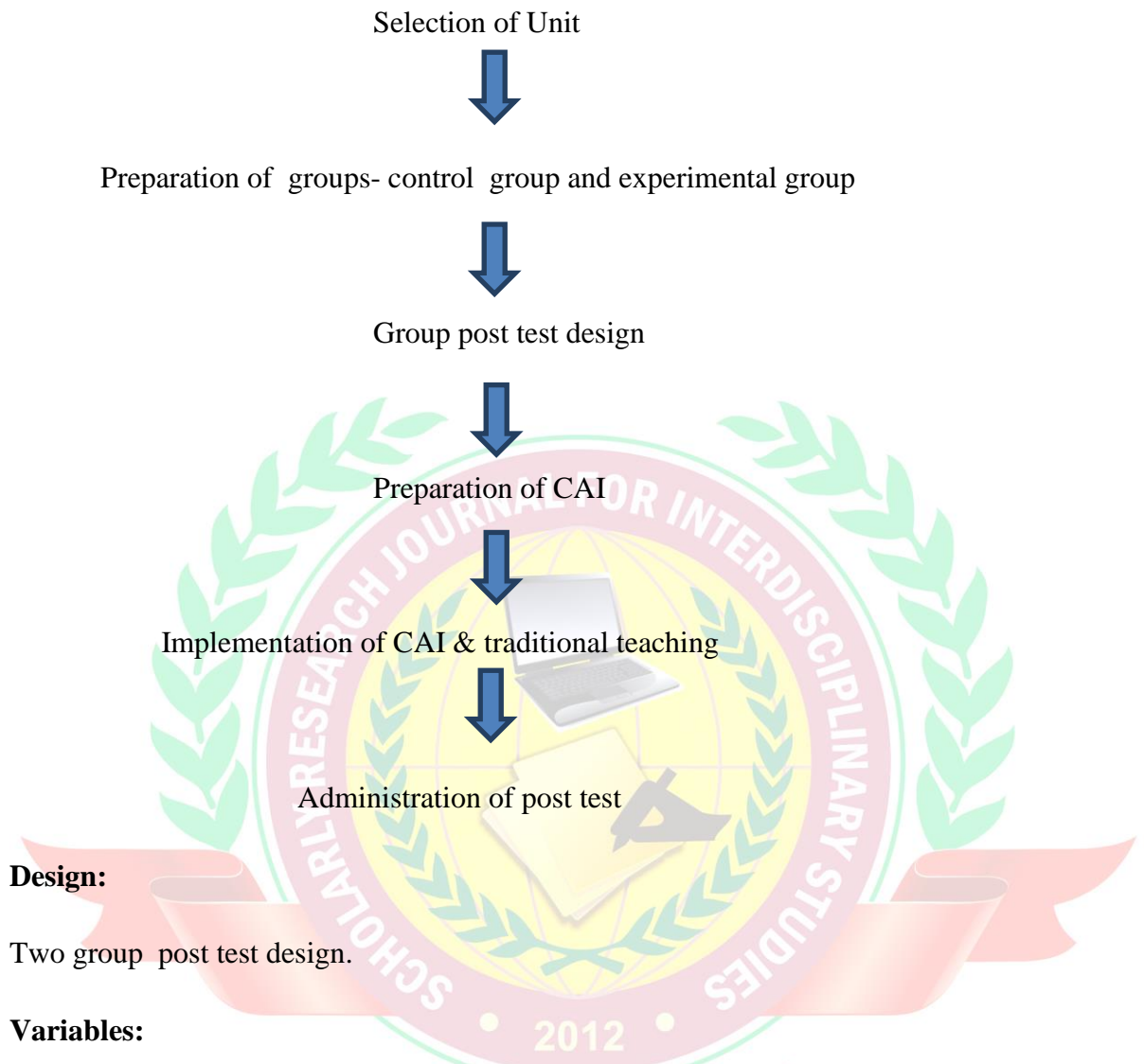Conclusion of the study is depends on the response given by the students to the program.

Delimitations:

1. Results are limited only for 8th std. students of S.V.S English medium school   khadki, Pune.

2. The study is based by considering the English grammar active and passive voice.

Methodology:

Types of Research: Action Research

Research Method: Experimental Method

Flow chart of procedure:

Selection of Unit

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Preparation of groups- control group and experimental group

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Group post test design

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Preparation of CAI

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Implementation of CAI & traditional teaching

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Administration of post test

Design:

Two group post test design.

Variables:

Dependent Variable: students learning or response given to the traditional teaching and CAI program.

Independent Variable:

Program developed by researcher for Computer Assisted Instruction and Traditional teaching.

Population:

All 8th std.students studying in English medium School of S.S.C. board.

Sampling:

S.V.S.English medium School,khadki, Pune was selected by purposive method. because it was convince to investigator for study.

Selection of Student :

60 students were selected by using random sampling method from 8th std.

Research Tools:

Data collection tools: Achievement test

Statistical tools: Mean, 't'test

Achievement test: In achievement test in the form of post test of criteria developed by researcher was used for data collection.

Mean:

M is calculated from students score in achievement test and used for 't' calculation.

't' test:

't'test is used for testing the significant difference between mean of two equivalent post test, means traditional teaching post test and CAI program .

Analysis & interpretation of collected data:

According to the achievement test and evaluation criteria were given, marks were given for the post test.

From the scores of students in both test mean and S.D. are calculated and 't' test was used to study the difference between means of student score in post test of traditional and CAI program**.**

Hypothesis:

Null hypothesis

There is no significant difference in means of students' scores in achievement test related to traditional teaching.

Observation and interpretation:

Sr. No.	Content	Post test	
		Experimental group	Control group
1	Number of students	30	30
2	Mean	19.6	9.27
3	S.D.	.81	1.20
4	(M1-M2)	10.13	
5	't' value	38.46	
6	Significant value	.01	
7	Degree of freedom	58	
8	't' table	2.65	

Observation:

't' value=38.46------I

't' table=2.65-------II

From I&II (at .01 significant level and for df=58)

Interpretation:

Table 't' value is less than calculated 't' value, therefore Null hypothesis was rejected. It indicates that CAI program is effective than the traditional teaching.

Conclusion:

1 The result of the study indicated that there exists significant difference in students, achievement in grammar when taught through computer assisted instruction program.

2. CAI program is effective for 8th std. students of S.S.C.board. This program helped to increase interest of grammar, effective learning, and better retention, time saving and speed of solving. This indicates that teaching through CAI strategy is superior than traditional teaching for achievement in English for 8th class students.

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Edutracks, June 2011, Vol.10. No.10

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