



**A COMPARATIVE STUDY OF EFFECTIVENESS OF COMPUTER ASSISTED  
TEACHING AND TRADITIONAL TEACHING ON THE ELEVENTH CLASS  
STUDENTS IN COMMERCE.**

**Latika Thapliyal<sup>1</sup>, Prof. Sunita Godiyal<sup>2</sup>**

<sup>1</sup>Research Scholar

<sup>2</sup>Professor, Dept. Of Education, H.N.B Garhwal (A-Central)University, S.R.T Campus  
Badshai Thaul Tehri Garhwal, Utrakhand. Pin-249001

***Abstract***

*The purpose of the study was to find out the effectiveness of computer assisted teaching in commerce and to compare with traditional teaching method. The investigation was undertaken by using of experimental method. The sample consists of sixty students of eleventh standard. Total sample was divided into two groups, one was designated as a control group, treated with traditional teaching method and the other group was designated as the experimental group, treated with computer assisted teaching. A self developed achievement test on commerce was administered on the students and their scores were analysed by using mean, S.D. and t-test. The finding of the study revealed that computer assisted teaching improves the understanding and enhances the achievement of the low achievers and middle achievers and to some extent in the high achiever students significantly.*

***Key words:*** *Effectiveness, Achievement, Computer assisted teaching, Traditional teaching and commerce*

**Introduction:**

Technology is influencing our lives in a significant way. As new technologies emerge, we decide to integrate them in our behaviour. This phenomenon of responding to changing technology is also evident in the classroom. Technology offers the opportunity to change the roles that teachers and students have traditionally played.

Computer technology is the most outstanding invention that has made an increasing and powerful impact on the working method of research and development especially in the

science and technology. Computer is making profound impact on education and within the span of two decades this has become a major system for education at all levels and in all subjects, like any other wave of technology. Computer was greeted with great enthusiasm. Soon it was realized that merely using computer would not itself improve teaching and learning. The computer like other aspect of technology is like a tool. Researches on computer use have help to uncover appropriate way of using computer in teaching and learning. In this technical advancement and educational utility, they have surpassed all the audio visual equipments. Their demand is increasing day by day in serving the various purposes in field of education.

From early time's teacher have relied upon various forms of visual and auditory aids to supplement classroom learning. Research studies revealed that the significantly higher learning outcomes achieved by the students when using appropriate media integrated in the curriculum. Various studies have also revealed the advantages of using different aids for learning. Teaching aids in this context denote the various materials, technique, strategies, activities and audio-visual media reported for the purpose of assisting the teacher in attaining pupil learning outcome more easily, quickly and effectively. As a teaching aids the Computer have been found to be effective in developing clear concepts and better comprehension. Certain activities and materials designed for teaching a particular lesson have been found to be effective in learning that particular topic.

### **Computer Assisted Teaching (C.A.T)**

Along with the increasing uses of computers in education there comes a growing body of technology assisted teaching researches, which are based on learning theories. C.A.T. is the use of computers in teaching and learning process (Yalcinalp, Geban and Ozkan 1995). It is the most exciting innovation of educational technology. C.A.T. is an interactive instructional technique whereby computer is used to present the instructional material and monitor the learning that take place. It uses a combination of text, graphics, sounds and video in the learning process. C.A.T. refers to the use of computer as a tool to facilitate and improve instructions.

A great deal of research has been conducted during the last two decades on the effect of computer's use on student's achievement, attitude and other variables such as learning rate. It covers the wide range of topics, with computerized learning activities and supplement conventional instructions.

**Objectives of the Study:**

- To compare the achievement of students while teaching through computer assisted teaching and the traditional teaching.

**Hypothesis of the Study:**

- There is no significant difference in students' achievements in commerce while teaching through Computer assisted teaching and traditional method of teaching.

**Sample of the Study:**

The study was conducted on the sample of 60 commerce students of eleventh class of Dehradun district, Utrakhand. These sixty students were grouped randomly into two equivalent groups comprising thirty students each. One group was treated as control group and other was treated as experimental group. Two groups were equalized on the basis of achievement attained by the students in the previous class. Both the groups were further divided into three sub groups on the basis of the marks they scored in the previous class. The first sub group (high achieving group) comprised of ten students of scored high (>70%) in the previous class. The second sub group (middle achieving group) comprised of ten students of who scored 55% to 70% in the previous class and third sub group (low achieving group) comprised of ten students of who scored below the 55% in the previous class.



**Experimental group:-** In the study experimental group was taught through MS Power Point presentation and by the teacher.

**Control group:-** This group was taught through traditional teaching.

**Tool Used:**

To measure the achievement level of the student, self made Achievement test was used.

**Statistical Technique Used:**

To analysis the data, the Mean, Standard Deviation and t-test were used.

**Result:**

Analysis and interpretation of data obtained from the post-test as given in Table- 1

**Difference Between Means Of Post-Test Score Of The Students Of  
Experimental And Control Group**

| Group            |            | No. of students | Mean (M) | Standard Error ( $\sigma d$ ) | t-value | Level of Significance<br>0.01 |
|------------------|------------|-----------------|----------|-------------------------------|---------|-------------------------------|
| High Achievers   | Experiment | 10              | 34.2     | 1.20                          | 2.5     | Not Significant               |
|                  | Control    | 10              | 31.2     |                               |         |                               |
| Middle Achievers | Experiment | 10              | 30.4     | 0.81                          | 3.70    | Significant                   |
|                  | Control    | 10              | 27.2     |                               |         |                               |
| Low Achievers    | Experiment | 10              | 26.6     | 1.28                          | 4.38    | Significant                   |
|                  | Control    | 10              | 21       |                               |         |                               |

Interpretation of above table shows that computer assisted teaching significantly enhanced the achievement of middle and low achievers. When the post-test score of high achiever group was interpreted the mean of the score 34.2 was for the experimental group and 31.2, for the control group. Analysis of t-value, which was calculated as 2.5 which supported the null hypothesis at 0.01 level of significance .Hence it could be concluded that the mean of experimental group was higher than that of control group but it accepted null hypothesis at 0.01 significance level. Further, the mean of post-test score of middle achiever students was interpreted and analyzed statistically it was found that the mean of experimental group (30.4) was higher than that of the control group (27.2). The t-value when computed was found to be 3.70 which does not support the null hypothesis at .01 levels of significance..

Within the group of low achiever students mean of score experimental group (26.6) was higher than that of control group(21.0). The t-value 4.38 did not support the hypothesis and was rejected and is concluded that mean of experimental group was significantly higher than that of control group.

**Conclusion:**

In this study it was found that teaching through computer assisted teaching did not show significant difference in the achievement of the students of high achiever students when compares to the achievement of the control group, which was taught traditional method of teaching. Significant difference in achievement was observed in the middle and low achievers, when the scores of the students taught through computer assisted teaching and those taught through traditional method were compared. It can be concluded that computer

assisted teaching improves the understanding and enhances the achievement of the students significantly in the low achievers and middle achievers and to some extent in the high achievers.

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