



## Impact of Computer Technology on the Academic Achievement of Senior Secondary Students

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**Abstract:** Computers have been an integral part of our life. The world to day is going under numerous transformation due to rapid development and diffusion of information and communication technologies out walks of life . Computer operations and networking have almost revolutionized the field of teaching and learning .Instead of total dependency on the instructions imported by the teacher and subject matter available in the books, the learners are now able to utilize the computer's data base and networking facilities not only for seeking information but also interacting through them in real classroom encounters. Therefore we can say that future of education and classroom instruction lie to a great extent in the contest in the concept of and practice of E- learning.

Present era is the era of new computer technology. In this new and modern concept of Education , knowledge of computer is must for everybody. In the school ,computer education would be launched from the primary to higher education, to enhance literary programmed, real life situation would easily education programmed is installed it is intended to fully exploit the educational potential of the computer. The computer will be used to improve the teaching of other subjects such as Physics, Mathematics, Biology , and Environment . The computer will also be used for gaining information and for motivating learning through the use of animation, graphics, complex concept and stimulation.

**Key Words-**Computer technology, academic achievement, students, senior secondary

### Introduction

Computer education can be conceived as science of technology and method by which educational goal can be realized in a simple way, it is a science

On the basis of which various strategies and tactics should be design for the realization of specific goals. It could be helpful in education innovation by consideration new system and material along with investing instrument, finding procedure and then thinking proper solution to overcome educational challenges. Present era is the era of new computer technology. In this new and modern concept of Education , knowledge of computer is must for everybody. In the school ,computer education would be launched from the primary to higher education, to enhance literary programmed, real life situation would easily education programmed is installed it is intended to fully exploit the educational potential of the computer. The

computer will be used to improve the teaching of other subjects such as Physics, Mathematics, Biology, and Environment.

As we know that education is a continuous and dynamic process, it is a flexible in nature. As the time changes the goals and objectives of the education changes according to the needs and demand of the progress of technology. Project has shown impact of computer technology in the academic achievement of the senior secondary students. Students have also shown interest giving positive result.

### **Statement of Problem**

Impact of Computer Technology on the Academic Achievement of Senior Secondary Students.

### **Review of Related Literature**

**1. Jeyamani (1991)** Has selected the topic “ **The effect of stimulation mode of teaching through computer Assisted Instructions.**” in his studies he found there is same effect of simulation through Computer Assisted Instruction on both language medium. His objective was to find the effectiveness of simulation model of teaching as compare to traditional method. The sample for this consisted of 300 student of x standard of 2 schools. He used post and pre-test method as a tool technique and found that there is no difference in learning level between the language medium and traditional method.

**2. Singh R. D. (1991)** has selected the topic “ **To Study the effectiveness of computer assisted instruction.**” (Computer assisted instruction) in teaching in science and math's, his objective was to find academic achievements of the students using computer assisted instruction or non computer assisted instruction in studying science and maths. The sample was containing 200 studying students in class IX and X elementary schools of Orissa.

**3. Jaiswal V.(2012)** had selected the topic “ **To study of higher education computer programmed in item of their content presentation, student reaction and effectiveness.**”

### **Objectives of The Study**

The following objectives have been made for the present research work

1. To study the impact of computer technology on the academic achievement of boys, girls and students.
2. To study the impact of computer technology on the academic achievement of boys, girls and students of private schools.
3. To study the academic achievement of students of high group of computer technology belonging to government and private schools.

4. To study the academic achievement of students of low group of computer technology belonging to government and private schools.
5. To study the academic achievement of boys and girls of high group of computer technology belonging to government and private schools.
6. To study the academic achievement of boys and girls of low group of computer technology belonging to government and private schools.

### Hypothesis

1. There is no significant difference on impact of computer technology on the academic achievement of boys, girls and students.
2. There is no significant difference on impact of computer technology on the academic achievement of boys, girls and students of private schools.
3. There is no significant difference in the academic achievement of students of high group of computer technology belonging to government and private schools.
4. There is no significant difference in the academic achievement of students of low group of computer technology belonging to government and private schools.
5. There is no significant difference in the academic achievement of boys and girls of high group of computer technology belonging to government and private schools.
6. There is no significant difference in the academic achievement of boys and girls of low group of computer technology belonging to government and private schools.

### Methodology

Descriptive survey method has been adopted in the study because we can find the exact information about the present circumstances of an area.

### Research Design

For the purpose of this research, data was subjected to mean and standard deviation i.e. descriptive statistics and three-way ANOVA , T- Test used in this research.

### Sample Design

In the present research the sample consist of 200 students both boys and girls of 12<sup>th</sup> class of different schools of Meerut

S.No.	Type of school	Boys	Girls	Total
1.	Government	50	50	100
2.	Private	50	50	100
Total				200

## **Tools**

A researcher requires many data gathering tools or technique for data collection . Each tool is appropriate for collection of certain types of evidence and information . The researcher has to select a tool from the available tools, which provide data and require for testing of hypothesis. The major data gathering tools of research may be classified in two major categories.

Observation

Questionnaire

Rating scale

Psychological test

Interviews

Schedules

## **Test Description**

The test which are constructed to measure cognitive, co-native and affective changes occurring as a result of teaching are called achievement tests. A general achievement test is designed to measure the score of the group of students. The test are of two types.

1. Teacher made
2. Standardized

The characteristics of used achievement test are :

1. The test is based on topic “ Computer Technology”
2. The test is objective type.
3. The test contains 50 questions .
4. Duration of test is 30 minutes .
5. Each questions is of 1 mark.
6. The maximum marks are 50.
7. No negative marks are counted.

## **Procedure**

The research work has been completed in various steps. These steps are selection of sample , selection of topic preparation of self made questionnaire, administration of achievement test, scoring of test and collection of data, preparation of master sheet,

statistical analysis and finally conclusion and suggestion and description of procedure is :

Two hundred students of class 12<sup>th</sup> of four schools were selected for research. Out of 50 boys of private school, and girls and 50 boys of Government school taken, self made questionnaire is distributed among children, previous percentage of each student is also taken for comparing the scores minutes are given to complete the test. Test paper contains questions, from which 30 questions are based on basic knowledge of computer, 10 questions are based on use of computer in life .

**Table-1**

**Analysis of academic achievement of the boys of low group of computer technology belonging to government and private schools.**

Nature of school	N	Mean	S.D.	't' value	Significance
Government	27	68.44	7.78	4.38	Significant
Private	24	53.04	16.02		

Degree of freedom –49                      Table value at 0.05 level = 2.01

Table value at 0.01 level = 2.68

As shown in the above table the means of academic achievement of boys of low group of computer technology belonging to government and private schools are 68.44 and 53.04 respectively. Their difference is 15.4 which is significant because the obtained 't' value 2.68 at 0.01 level of confidence.

**Table-2**

**Analysis of academic achievement of the girls of low group of computer technology belonging to government and private schools.**

Nature of school	N	Mean	S.D.	't' value	Significance
Government	30	68.23	14.74	3.71	Significant
Private	26	54.69	11.60		

Degree of freedom –54                      Table value at 0.05 level = 2.01

Table value at 0.01 level = 2.68

As shown in the above table the means of academic achievement of girl of low group of computer technology belonging to government and private schools are 63.23 and 54.69 respectively. Their difference is 13.54 which is significant because the obtained 't' value 3.71 at 0.01 level of confidence.

From the values of standard deviation shown in the above table it is clear that the variability in the marks of academic achievement of government school girls is more than private school girls. It can be conclude there is significant difference in the

academic achievement of government school girls and private school girls of low group of computer technology and academic achievement of government school girls of low group of computer technology is more than the private school girls .

**Table-3**

**Analysis of academic achievement of the boys and girls of high group of computer technology belonging to government schools.**

Group	N	Mean	S.D.	't' value	Significance
Boys	23	69.60	6.88	0.02	Not Significant
Girls	24	67.95	13.51		

Degree of freedom –41                      Table value at 0.05 level = 2.02

Table value at 0.01 level = 2.71

As shown in the above table the means of academic achievement of boys and girl of high group of computer technology belonging to government schools are 69.60 and 67.95 respectively. Their difference is 1.65 which is not significant because the obtained 't' value 0.02 is less than the table value 2.02 at 0.05 level of confidence.

It is clear from 't' values of standard deviation as shown in the table in the both group variability in the marks of academic achievement of government school girls of high group is more than the government school boys of high group.

It can be concluded that there is no effect of computer technology on the academic achievement of girls and boys of government school.

**Table-4**

**Analysis of academic achievement of the boys and girls of high group of computer technology belonging to private schools.**

Group	N	Mean	S.D.	't' value	Significance
Boys	26	53.42	11.50	3.15	Significant
Girls	24	64.87	13.63		

Degree of freedom –48                      Table value at 0.05 level = 2.01

Table value at 0.01 level = 2.68

As shown in the above table the means of academic achievement of private boys and girl of high group of computer technology are 53.42 and 64.87 respectively. Their difference is 11.45 which is not significant because the obtained 't' value 3.15 is greater than the table value 2.68 at 0.01 level of confidence.

It is clear from 't' values of standard deviation as shown in the table in the both group variability in the marks of academic achievement of private school girls of high group is more than the private school boys of high group.

It can be concluded that there is no effect of computer technology on the academic achievement of girls and boys private school.

### **Conclusion**

The following suggestions are given to be verified by further investigation :-

1. Similar studies can be conducted in deference cities in India.
2. The study should be replicated on a large sample on different grades and age groups in order to generalize the result.
3. The number of variables should be increased to cover some other area

Of computer literacy.

4. Similar study as the present one should conducted on a simple talking government and private school in rural area and urban area.
5. A comparative study should also be conducted on computer literacy between rural and urban children.

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