INFLUENCE OF COMPUTER USE ON ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY SCHOOL STUDENTS

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Abstract

In recent years, the role of Computer uses as a tool to raise educational achievements has attracted growing attention from both policymakers and academic researchers. A teacher needs to stay up-to-date with the latest technology in use today. The direct link between computer uses and students' academic performance has been the focus of extensive research over the last two decades. Several studies have attempted to explain the role and added value of technology in the classroom as well as its impact on student performance. There is scientific evidence to support the notion that Computer use in the school and at home increases students' academic performance. For example, smartphones, iPads, laptops, etc, bring a computer that is not easily accessible in school libraries. In this context, the researcher tries to investigate whether Computer use influences the academic achievement of higher secondary school students. The researcher took 200 higher secondary school students as a sample for the study from Sankari Taluk, Salem District, and the Computer Users of Tamil Nadu to collect data. This tool, constructed by the researcher, was used to collect data from 200 higher secondary school students. The findings show there is a significant positive correlation between Computer use and academic achievement. There is a considerable difference between boys and girls in their academic achievement. Girls have higher academic achievement than boys. The study further reveals that students from rural and urban areas differ significantly in their academic achievement. Here, students from urban areas exhibit higher academic achievement than those from rural areas. There is no significant difference between students of the science and arts streams. This study may find some usefulness in educational research.

Keywords: *Computer Use, Academic Achievement, Higher Secondary School Students, Tamil Nadu.*

Introduction

We are living in a constantly evolving digital world. Computer use has an impact on nearly every aspect of our lives - from working to socializing, learning to playing. The digital age has transformed the way young people communicate, network, seek help, access computers, and learn. We must recognize that young people nowadays have access to online tools through different means, such as computers, TV, and mobile phones. In recent years, the role of computers as a tool to raise educational achievements has attracted growing attention from both policymakers and academic researchers. A teacher needs to stay up-to-date with the latest technology in use today. Students of the third millennium are very much influenced by scientific technology. Social media takes the upper hand in shaping them to

the right or wrong path. Technology and computers also play a vital role in educational aspects. Today, one cannot ignore the fact that computer use is one of the factors influencing good academic achievement. Develops higher-order skills such as collaborating across time and place and solving real-world problems. It improves the perceptions and understanding of the world of students.

Significance of the study

During the last two decades, higher education institutions have invested largely in computer-based methods. The direct link between Computer use and students' performance has been the focus of extensive literature during the last two decades. Several studies have attempted to explain the role and added value of technology in the classroom, as well as its impact on student performance. The negative effects of Computer use include sleep deprivation, distraction, and multitasking, all of which directly impact learning. There is scientific evidence to support the notion that Computer use in the classroom and at home increases students' academic performance. For example, smart phones, iPads, and laptops provide information that is not easily accessible in school libraries. In this context, the researcher tries to investigate whether Computer use influences the academic achievement of higher secondary school students.

Objectives of the study

This study has been undertaken with the following objectives in mind:

1. To find out the relationship between computer usage and Academic Achievement of higher secondary school students.
2. To find out the difference, if any, in the academic achievement of higher secondary school students between:
   a. Boys and Girls
   b. Students with rural and urban backgrounds
   c. Students with the Science and Arts stream

Hypotheses of the study

The following hypotheses have been formulated to investigate the above objectives.

1. There is no significant relationship between computer use and the academic achievement of higher secondary school students.
2. Boys and Girls do not differ significantly in their academic achievement.
3. Students with rural and urban backgrounds do not differ significantly in their academic achievement.
4. Students with science and arts backgrounds do not differ significantly in their academic achievement.

Research Methodology

To achieve the objectives of the present investigation, the survey method was used. The methodological details, like sample, tool, procedure of data collection, scoring procedure, and statistical techniques, are given below:

Sample

The sample of the present study consists of 200 higher secondary school students from Sankari Taluk, Salem District, Tamil Nadu. They were drawn through a simple random sampling technique.

Tool used

To study the influence of computer use, the investigator constructed a tool. The prepared questionnaire was given to some eminent professors for establishing content validity. They suggested some modifications to some of the items. The investigator, with the help of the guide, took into consideration all the information collected based on the suggestions offered. Thus, the content validity has been established. The test-retest reliability of the tool was found to be 0.727. To study the academic achievement of students, half-yearly examination marks of students from selected schools were collected and used for statistical analysis.

Data Collection

To assess the influence of computer use on the academic achievement of higher secondary school students, the questionnaire was distributed to them and administered faithfully in accordance with the directions for the testing procedure.

Statistical Techniques used

To analyze and interpret data, the following statistical techniques were used: correlation analysis and differential analysis.

Analysis and Interpretation of Data

Analysis and interpretation of the data presented in different tables are as follows.

To achieve the objectives of the present investigation, the survey method was used. The methodological details, like sample, tool, procedure of data collection, scoring procedure, and statistical techniques, are given below:

Table 1: Relationship between computer useand Academic Achievement

Categories	Df	'r'	Significant Level0.01
Computer Using	198	0.19	S
Academic Achievement			

S - Significant

From Table 1, it is found that there is a positive and significant relationship between computer use and academic achievement of higher secondary school students; hence, the null hypothesis that 'there is no significant relationship between computer use and academic achievement of higher secondary school students' is rejected.

Table 2: 't'-value for Academic Achievement of Boys and Girls

Categories	Number	Mean	S.D	't' value	Significant Level
Boys	90	67.04	6.34	8.19	S (0.01)
Girls	110	75.48	8.24		

S - Significant

It is evident from' value 8.19 in Table 2 that the difference between the means of scores obtained in academic achievement by boys and girls is significant at the 0.01 level. It may be concluded that there is a significant difference between the groups, disagreeing with the null hypothesis that boys and girls do not differ significantly in their academic achievement.

Table 3: 't' value for the Academic Achievement of students with a rural and urban background

Categories	Number	Mean	S.D	't' value	Significant Level
Rural	115	66.23	7.92	4.98	S (0.01)
Urban	85	71.76	7.59		

S - Significant

It is evident from' value 4.98 in table 3 that the difference between means of scores obtained in academic achievement by students of rural and urban backgrounds is significant at the 0.01 level. It may be concluded that there is a significant difference between the groups, disagreeing with the null hypothesis that students with rural and urban backgrounds do not differ significantly in their academic achievement.

Table 4: 't' value for the Academic Achievement of students with the Science and Arts stream

Categories	Number	Mean	S.D	't' value	Significant Level
Science	95	69.04	6.34	0.54	NS
Arts	105	68.48	8.28		

NS - Not Significant

It is evident from' value 0.54 in table 4 that the difference between means of scores obtained in academic achievement by students of science and arts streams is not significant

at the 0.05 level. In conclusion, it is found that there is no significant difference between the groups, agreeing with the null hypothesis that students with science and arts backgrounds do not differ significantly in their academic achievement.

Findings of the Study

- There is a significant and positive correlation between computer use and academic achievement.
- There is a significant difference between boys and girls in their academic achievement.
- Students from rural and urban areas differ significantly in their academic achievement.
- There is no significant difference between students of the science and arts streams

Discussion and Conclusion

The findings reveal there is a significant and positive correlation between computer use and academic achievement. There is a significant difference between boys and girls in their academic achievement. Girls score higher in their academic achievement than boys. The study further reveals that students from rural and urban areas differ significantly in their academic achievement. Here, students from urban areas score higher in academic achievement than those from rural. It is left to educationists, guidance counselors, and educational administrators to devise further ways and means to gainfully deploy the findings of the study for enhancing the academic achievement of higher secondary school students. In the process of education as preparation for 'complete living', we cannot ignore the impact of computer use today. This study may find some usefulness in educational research.

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