# **REVIEW OF RESEARCH**





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# ATTITUDE TOWARDS COMPUTER TECHNOLOGY APPLICATIONS AND ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY STUDENTS: A CORRELATIVE STUDY

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# **ABSTRACT:**

The present study was explored to find out the relationship between attitude towards computer technology applications and academic achievement of higher secondary students. For this purpose, an experimental method of research was conducted on a sample of 30 XI standard computer science group students from N.K.T. Higher

Secondary School, Triplicane, Chennai. Computer Technology Applications Scale was developed by the investigator and academic marks obtained by the students in the half-yearly examination were taken. The data was analyzed using r-value. The result indicated that there is a negative relationship between computer technology applications and academic achievement of higher secondary students.

**KEYWORDS**: Attitude towards Computer Technology Applications, Academic Achievement, Higher Secondary Students.

#### **INTRODUCTION**

Technology is a term that is habitually utilized ] in the business world. It is a term routinely identified with science. Be that as it may, there significant difference is a between the two. Science comprises of outcomes of basic academic studies though technology surmises to the relevant application of science. This difference is critical when it is to be comprehended about the manner in which business accomplish new technologies.

The importance of technology to an organization is situated in the reality that having of technology can give a competitive advantage. Therefore technology can be considered as a benefit of vital significance. Furthermore it tends to be said that an organization's ability to deal with and exploit technology can symbolize a core competence.

# NEED AND SIGNIFICANCE OF THE STUDY

Blending is a combination of oncampus and off-campus activity, where traditional teaching approaches are utilized more extensively with students who are physically present, and virtual learning is utilized different times to connect the

between separation student, tutor and other students. The success of endeavours to integrate technology with design education is great extent influenced by the attitudes of students toward technology. The purpose of this study is to determine the attitude towards computer (computer attitudes) of higher secondary school students. E-learning has become one of the most progressive tools of the educational system, which has been found to supplant the traditional paper-pen approach, making the educational exploration a commendable and energetic experience. One of the most impressive highlights of Elearning is that it offers remote learning and a better graphic

detail on differentiation to traditional diagrams. E-learning empowers students who are physically handicapped or are situated at remote places to a quality education rarely in a while at the span for them. The internet has become the best aid to teachers recently, as it gives an organized detail of the information required. Confidence and hard work have consistently been the stepping stones for excellence. In spite of the fact that science is a required and basic subject at different levels of education, a majority of the students have no special enthusiasm towards it, and preferably trudge to score a mark over investigating new things. This attitude has crashed the motive of making the science subject mandatory. To fuel it, science teachers have bolstered a real-time approach where students build scientific knowledge by solving real-life issues scientifically, supplanting micro-computer approach. It is realistic to perceive that the opportunities for off-campus students to connect with the course network are often necessarily limited, so their motivation to use technology is likely to be more grounded.

## **LITERATURE REVIEW**

**Mir and Paray (2018)** investigated internet usage and academic performance: an empirical study of secondary school students in Kashmir. A sample of 240 secondary school students was selected from Anantnag and Kupwara districts of Kashmir (J&K), India. For the present study, Information Blank was constructed by the investigator to locate the Internet user and academic marks obtained by secondary school students in their previous final examination conducted by JKBOSE. The data was analyzed using t-test. Results found that there is a significant difference on academic performance of internet users in terms of gender and type of school.

**Bikram Maiti (2017)** studied internet usage and academic achievement of adolescents of West Bengal: an exploratory study. Survey method was conducted on a purposive sample of 138 XI standard students from different schools under WBCHSE. For the present study, a paper and pencil type questionnaire developed by the investigator was used to collect the data to know the internet usage habit of the adolescents and for academic achievement, percentage of marks secured by the students in their previous Madhyamik Examination (Class X) conducted by West Bengal Board of Secondary Education (WBBSE). The data was subjected to statistical analysis by applying r-value and t-test. Results found that educational usage and communicational usage of internet had no effect on their academic achievement, but there was negative effect of recreational internet usage on their academic achievement. Finding also indicated that boys and girls differed significantly with respect to their different internet usage.

**Suresan Kokkot and Tamilselvi (2016)** conducted a study on access of ICT among secondary school students in relation to their academic achievement. The stratified random sample consisted of 500 secondary school students from 6 districts viz., Trivandrum, Trissur, Malappuram, Calicut, Kannur and Kasargod Revenue Districts of Kerala. A check list for ICT Access of Secondary School Students was developed and standardised by the investigator. Descriptive Analysis (Mean, Median, Mode, SD, Skewness, and Kurtosis), Differential Analysis (Independent Sample t-test, One-way ANOVA, Two-way ANOVA with 3x3 Factorial design), Correction Analysis (r-value), and Regression Analysis were used for data analysis. Major finding showed that the ICT Access of secondary school students is found to be positively related with their academic achievement.

**Juan-Carlos Torres-Díaz et al. (2016)** studied internet use and academic success in university students. A random sample of 4,697 (48.5% men & 51.5% women) students attending 5 Universities in Ecuador between February and May 2015 people was got up and categorized in two groups: the use of Internet in academic activities and entertainment, using factor analysis and cluster analysis; the resulting categories were used as independent variables in multinomial logistic regression model which are seeking to determine if the use of Internet has impacted on academic success. The results indicated that people who perform interactive activities with peers and teachers or use in a balanced way the different internet tools tend to have more academic success than those who only seeks information.

#### **OBJECTIVES OF THE STUDY**

- To examine the relationship between basic operating features of computer technology applications and academic achievement of higher secondary students.
- To study the relationship between technical resources of computer technology applications and academic achievement of higher secondary students.
- To find out the relationship between MsOffice of computer technology applications and academic achievement of higher secondary students.
- To assess the relationship between internet of computer technology applications and academic achievement of higher secondary students.
- To study the relationship between overall computer technology applications and academic achievement of higher secondary students.

## **HYPOTHESES**

- 1. There would be no significant relationship between basic operating features of computer technology applications and academic achievement of higher secondary students.
- 2. There would be no significant relationship between technical resources of computer technology applications and academic achievement of higher secondary students.
- 3. There would be no significant relationship between MsOffice of computer technology applications and academic achievement of higher secondary students.
- 4. There would be no significant relationship between internet of computer technology applications and academic achievement of higher secondary students.
- **5.** There would be no significant relationship between overall computer technology applications and academic achievement of higher secondary students.

# **RESEARCH METHODOLOGY**

Experimental method was used in the study. A sample of 30 X standard students studying in N.K.T. Higher Secondary School, Triplicane, Chennai from computer science group was drawn for the present study. Computer Technology Applications Scale was constructed by the researcher which consists of 35 items with 4 dimensions viz., Basic Operating Features, Technical Resources, MsOffice, and Internet. The reliability of the scale was found to be 0.26. For Academic Achievement, marks obtained in the half yearly examination were taken. 'r' value was used for data analysis.

### **RESULTS AND DISCUSSIONS**

# Table 1: Relationship between Attitude towards Computer Technology Applications and Academic Achievement of Higher Secondary Students

Variables	Basics of Features	Technical Resources	MsOffice	Internet	Overall Computer Technology Applications	Academic Achievement
Basics of Features	1	0.655	0.526	0.791	0.868	-0.154
Technical Resources	-	1	0.743	0.759	0.860	-0.082
MsOffice	-	-	1	0.743	0.672	-0.035
Internet	-	-		1	0.894	-0.197
Overall Computer Technology Applications	-	-	-	-	1	-0.125

From Table-1, it is infers that

The calculated r-value -0.154 is significant at 0.05 level. This indicates that basic operating features and academic achievement are negatively correlated. Hence, the hypothesis-1 is rejected.

The calculated r-value -0.082 is significant at 0.05 level. This shows that technical resources and academic achievement are negatively correlated. Hence, the hypothesis-2 is rejected.

The calculated r-value -0.035 is significant at 0.05 level. This indicates that MsOffice and academic achievement are negatively correlated. Hence, the hypothesis-3 is rejected.

The calculated r-value -0.197 is significant at 0.05 level. This shows that internet and academic achievement are negatively correlated. Hence, the hypothesis-4 is rejected.

The calculated r-value -0.125 is significant at 0.05 level. It can be concluded that there is a negative relationship between computer technology applications and academic achievement of higher secondary students. Hence, the hypothesis-5 is rejected.

### **MAJOR FINDING OF THE STUDY**

 Computer technology applications and academic achievement of higher secondary students are negatively correlated at 0.05 level (r=-0.125).

### **EDUCATIONAL IMPLICATIONS**

Effective technology programs offer students the opportunity to experience technology incorporated within their curriculum and the change to observe and collaborate with infield educators that use technology students at the schools and colleges are being exposed to a variety of technology tools and applications in their content courses and field experiences. The main sources of technology integration in content courses are word processing, multimedia presentation, the Internet and the World Wide Web. The future of virtual learning has many innovative and exciting possibilities. Simultaneously adventures in learning call for inventive and strong environments where individuals share meaningful knowledge and experiences in developing new information and thoughts. These adventures foster mutual collaboration that allows learners to apply newly acquired learning in the design if insightful. A prudent blend of each traditional and virtual learning environment with special attention needs and satisfaction will build productive and creative students, teaching and learned society.

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