

# Impact of ICT on Senior Secondary Student's Academic Studies

## Abstract

This study was carried out in District Faridabad of Haryana to investigate the impact of ICTs on Non Government Senior Secondary Schools Students academic studies. The study adopted a survey research method. The research was made with the help of self prepared questionnaire of Use of ICT to complete their daily academic work. The questionnaire was administered on 200 Senior Secondary School students of District, Faridabad of Haryana State. The statistics used for the study includes Mean, Standard deviation and T-test to determine the significant difference among the students. The findings of the study reveal that ICT impacts on Academic studies are at very high extent on senior secondary boys rather than girls academic studies. The study also indicated that university students use ICTs to support and improve their academic studies at a very high extent.

**Keyword:** Information and Communication Technology, Senior Secondary Students and Academic Studies.

## Introduction

With the advent of new information-based technologies i.e. Internet and online databases, there has been access to enormous quantities of information. The probable future has become one of millions of small yet powerful computers, controlling virtually every machine and appliance. These are distributed in every home, on every desk, in every workshop; many of them connected in a maze of small and large networks, much like the present telephone network.

The rapid growth in Information and Communication Technologies (ICT) has brought remarkable Changes in our contemporary society. The use of ICT is already indispensable in the area of Education especially in tertiary and secondary schools. ICTs are the technologies used in conveying, Manipulating and storing of data by electronic means. They provide an array of powerful tools that may help in transforming the present isolated teacher-centered and text-bound classrooms into rich, student-focused, interactive knowledge environments.

The direct link between the uses of ICT in students' studies has been the focus of extensive literature during the last two decades. While some scholars believe that ICTs improve the students'

Study habit, others do not support this view. In line with the above, Valasidou and Bousiou (2005) stated that students frequently use ICT resources especially internet for their studies, and that internet has huge impact in improving students' study habits. Leuven et al. (2004) against this view, stated that there is no evidence for a relationship between increased educational uses of ICT and students' performance. In fact, they find a consistently negative and marginally significant relationship between ICT use and some student achievement measures. Still, in support of Valasidou and Bousiou (2005) Abdulla Y. Al-Hawaj, Wajeih Elali and E.H. Twizell (2008) stated that. ICT has the potential to transform the nature of education: where and how learning takes place and the roles of students and teaching takes place and the roles of students and teachers in the learning process. Karim and Hassan (2006) also noted the exponential growth in digital information has changed the way students perceive study and reading and in how printed materials are used to facilitate study.

Based on the extended use of ICTs in education, the need appeared to unravel the myth that surrounds the use of information and communication technology (ICT) as an aid to teaching and learning, and the impact it has on students' study habits and improvement to learning. Therefore, the present study aims to examine the impact of ICT on university students' academic studies. Computers have proliferated

**Anshu Radha Aggarwal**

Principal,  
Department of Education,  
KIIT college of Education,  
Sohna Road, Gurgaon

becoming increasingly fast, powerful, so that now there is scarcely a human activity in which they are not to be found. Now information cannot only be stored, retrieved and communicated in enormous quantities and at phenomenal speeds, but it can also be rearranged, selected and transformed.

This has been felt that with the growing age of knowledge and information, students have to keep pace with technology to be equipped with multi-dimensional aspects of Education. This will help them to understand different subjects with clarity and self-learning. Students must have sufficient access to digital technologies and the Internet in their classrooms and schools.

The new ICT enables self –paced learning through various tools such as assignments, tutorials, computers etc. with sensitivity to different learning styles and continuous assessment of students’ progress.

According to UNESCO, “ICT is a scientific technological and engineering discipline and management technique used in handling information, its application and association with social, economical and cultural matters.”

So for students using ICT in completing their academic work has become almost compulsory if they desire to have qualitative education encompassing various aspects of school subjects. This will lead to self paced learning and will motivate students to understand subjects in their own speed according to their capabilities.

**Objectives**

1. To compare the Impact of ICT on the Academic Studies of boys of Science and Arts Stream of Non–Government Senior Secondary Schools at District Faridabad, Haryana.
2. To compare the Impact of ICT on the Academic Studies of girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.
3. To compare the Impact of ICT on the Academic Studies of Boys and Girls of Science and Arts Stream of Non–Government Senior Secondary Schools at District Faridabad, Haryana.

**Hypotheses**

1. There is no significant difference in the Impact of ICT on the Academic Studies of boys of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana
2. There is no significant difference in the Impact of ICT on the Academic Studies of boys of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana
3. There is no significant difference in the Impact of ICT on the Academic Studies of Boys and Girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.

**Method**

The study was based on survey research design. The present study was undertaken to study the The Impact of ICT on Secondary School Student’s Academic Studies. The methodology of the study was designed after going through the available literature. In order to realize the objectives stated earlier and to test the corresponding hypotheses, a sample of 200

students studying in XI class in 4 different schools of Faridabad District of Haryana was taken.

**Sample**

The sample consists of 200 students (100 boys& 100 girls) of Non-Government Senior Secondary Schools, studying in class XI at 4 different schools of District Faridabad, Haryana State

**Tools**

A Self Prepared Questionnaire was used to collect the data by the investigators.

**Statistics**

The data was subjected to Mean, S.D and T-test.

**Analysis and Interpretation:**

Phase 1: In this phase, the researcher tried to find out the significant difference of the Impact of ICT on the Academic Studies of boys of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.

**Table: 1.1**

**Significance of difference in the Mean value of the Impact of ICT on the Academic Studies of boys of Science and Arts Stream (N=100).**

Sample	N	Mean	S.D	T-Score	Significant / Not Significant
Boys of Science stream	50	170.8	12.98	-0.11	Not significant
Boys of Arts stream	50	171.1	12.63		

\*significant at 0.05 level.

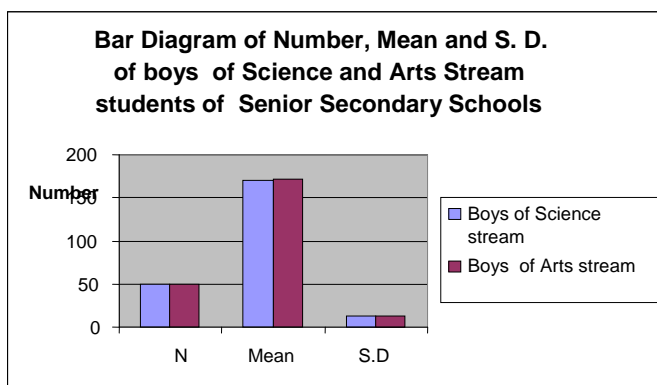


Figure 1

It is evident from the above table 1.1 that the obtained't' value for the difference between the means of Interest of boys of Science and Arts Stream students of Senior Secondary Schools towards ICT in completion of their Academic work is - 0.11 which is much lesser than the tabled value at 0.01 & 0.05 level of significance. It means two groups do not differ significantly in their Interest level. Hence the Null Hypotheses is accepted. This shows that the Interest of boys towards ICT in completing their Academic work is not affected by their Streams.

Therefore, there is no significant difference in the Impact of ICT on the Academic Studies of boys of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana

**Phase 2**

In this phase, the researcher tried to find out the significant difference of the Impact of ICT on the

Academic Studies of Girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.

**Table: 1.2**  
**Significance of Difference in the Mean Value of the Impact of ICT on the Academic Studies of Girls of Science and Arts Stream (N=100).**

Sample	N	Mean	S.D	T-Score	Significant/ not significant
Girls of Science stream	50	151.9	11.09	2.19	*0.05 level
Girls of Arts stream	50	146.2	7.9		

\*significant at 0.05 level.

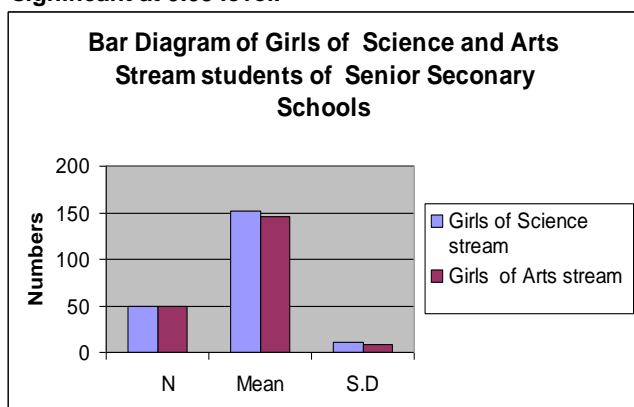


Figure 2

It is evident from the above table 1.2 that the obtained 't' value for the difference between the means of Interest of Girls of Science and Arts Stream students of Senior Secondary Schools towards ICT in completion of their Academic work is 2.19 which is lesser than the tabled value at 0.01 and greater than tabled value at 0.05 level of significance.

It means two groups differ significantly in their ICT impact level. Hence the Null Hypotheses is rejected. This shows that the There is significant difference in the Impact of ICT on the Academic Studies of Girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana This shows that Science stream girls are more using ICT for Academic studies then Art stream girls.

### Phase 3

In this phase, the researcher tried to find out the significant difference of the Impact of ICT on the Academic Studies of Boys and Girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.

**Table: 1.3**  
**Significance of Difference in the Mean Value of the Impact of ICT on the Academic Studies of Boys and Girls of Science and Arts Stream (N=200)**

Sample	N	Mean	S.D	T-Score	Significant/ not significant
Boys of Science and Arts stream	100	170.95	12.8	10.3	Not significant
Girls of Science and Arts stream	100	149.05	16.9		

\*significant at 0.05 level.

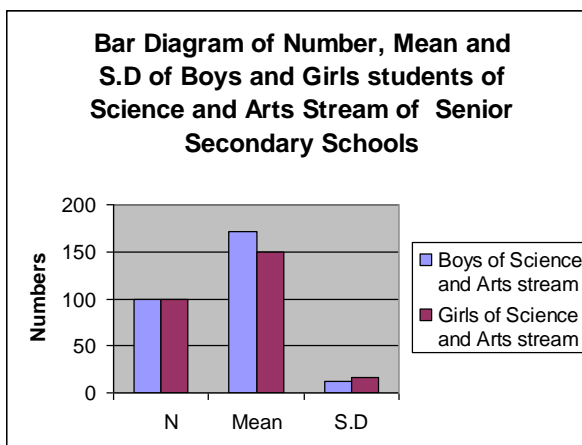


Figure 3

It is evident from the above table 1.3 that the obtained 't' value for the difference between the means of Interest of Boys and Girls of Science and Arts Stream students of Senior Secondary Schools towards ICT in completion of their Academic work is 10.3 which is greater than the tabled value at 0.01 & 0.05 level of significance . It means two groups differ very significantly in their Impact level of ICT on academic studies level. Hence the Null Hypotheses is rejected.

This shows that There is significant difference in the Impact of ICT on the Academic Studies of Boys and Girls of Science and Arts Stream of Non – Government Senior Secondary Schools at District Faridabad, Haryana.

### Main Findings

On the basis of analysis and interpretation, the main findings and conclusion may be summarized here in accordance with the objectives:

1. There is no significant difference between the mean ICT Impact scores of boys of Science and Arts Streams
2. There is significant difference between the mean ICT Impact scores of girls of Science and Arts Streams
3. There is significant difference between the mean ICT Impact scores of boys and girls students of Science and Arts Streams.

### Educational Implications

The present study has various Educational Implications. ICT is useful for students and teachers, as a lot of information can be gathered and the teaching-learning process can become more interesting and attractive. Moreover it has made an increasing impact on every area including in the field of Education

The findings of the study may be helpful for Education Policy makers and Administrators The teachers and students also should be motivated to get proper practice in the use of ICT so that they can be benefited from it and contribute enormously in the field of Education.

Moreover, the students can be benefited from ICT with the information from Internet, preparing PowerPoint presentations, compiling of files and folders. Therefore more workshops and seminars should be arranged for the learners so that they can know the utility of ICT in education.

In this way, ICT has become part and parcel of everyone's life. We came out with the findings that girl students' interest towards ICT is affected by Government and Non-Government schooling.

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