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# A STUDY ON INTERRELATION OF ICT AND INTRINSIC MOTIVATION OF HIGHER SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR ACHIEVEMENT IN POST PANDEMIC SESSION

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### Abstract

Today's world is very much affected by technology. In an era where the digital learning is playing great role in changing education system rapidly, bringing new realities and challenges to develop education process through emerging technologies, has important implication. Recently the pandemic of Covid-19 has affected the educational systems globally, leading to the almost total closures of schools, colleges and universities. The majority of governments around the World have temporarily closed educational institutions in an attempt to contain the spread of Covid-19. Now a day's Information and Communication Technologies (ICT) have become common place entities in all aspects of life. Early research helped us to understand that Information and Communication Technologies (ICT) as an expression of the will to achieve and improve in the domain of learning. It can be understood as the student's will to identify and set goals for the future. The study attempts to find out the relation among Information and Communication Technologies (ICT), intrinsic motivation and academic achievement. Student academic achievement is dependent variable and independent variables are ICT and intrinsic motivation. It is a survey based study and 't' tests have been used to analysis the data. It was found that intrinsic motivation, sex; Information and communication technologies (ICT), sex; academic achievement, sex have no significant difference. The study concludes that Information and communication technologies (ICT) and intrinsic motivation improves high level of academic achievement of the students and individuals' attaining goal.

**Key Words:** Academic achievement, , higher secondary school student, information and communication technologies (ICT), intrinsic motivation, post pandemic.

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## **INTRODUCTION**

In the 21<sup>st</sup> century, education is a backbone of a nation. It is the most powerful weapon which you can use to change the World and also plays an instructional role in shaping the density of the individual and future of mankind. The quality in education determines how well the learning opportunities are available to learner to meet their needs. Learners are valuable assets in our country. The learners play a vital role in every society. It has always been recognized as a great force. The influence of Globalization is seen into education system. The covid – 19 pandemic is set to change the world sooner than we know. Among many economic sectors, the higher education sector is undergoing a tectonic shift right now. As a result, education has changed dramatically, with the distinctive rise of technology. Various technological innovations are rapidly taking place in education systems due to its demand.

Information and Communications are closely linked to power and the ability to affect change. It has always been recognized that social media has great impact on human's life. Technological tool in the field of education indicate a shift in pedagogical perspective and theoretical frameworks with student's interaction at the heart of learner-centric constructive environments. Information and Communication Technologies (ICT) have become commonplace entities in all aspects of life. Across the past twenty years, the use of ICT has fundamentally changed the practices and procedures of nearly all forms. It is diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. The effects of ICT on youngsters can also be seen to vary as a function of the motivation.

Motivation is a significantly important factor for academic learning and achievement across childhood through adolescence (Eillot & Dweck, 2005). It is an important contributor to student achievement and also related to various outcomes such as curiosity, persistence, learning and performance. Intrinsic motivation refers to being in an activity for itself, and the pleasure and satisfaction derived from participation. Academic intrinsic motivation plays significant role in achievement, competency and academic learning. Deci and Ryan (1985) posit that intrinsic motivation stems from the innate psychological needs of competence and self-determination.

However, in this time the ICT has dark side also; therefore intrinsic motivation is also important strong predictor of achievement while using ICT in education. Today's digital generation can achieve high in their academic life always influenced by intrinsic motivation and with the help of ICT as an educational tool. In today's competitive world, intrinsic motivation and ICT can bring foremost change in their academic life. In this way, there arises a need to study the ICT and its relation between intrinsic motivation and academic achievement among higher secondary school students to study the expected outcomes in education system.

## **STATEMENT OF THE PROBLEM**

From the above literatures and findings the present researcher has not found any study in this area. Hence, it becomes necessary to understand the impact of ICT on their academic life. That why the present researcher wanted to know about the relationship. Therefore, this study titled: *"A Study on Interrelation of ICT and Intrinsic Motivation of Higher Secondary School Students In Relation To Their Achieve-*

ment In Post Pandemic Session”

### OBJECTIVES OF THE STUDY

The main objectives of this study are as follow:-

1. To measure the ICT, intrinsic motivation and academic achievement among higher secondary school students.
2. To find out the relationship between ICT and intrinsic motivation.
3. To find out the relationship between ICT and academic achievement.
4. To find out the relationship among ICT, intrinsic motivation and academic achievement.

### RESEARCH QUESTIONS

The research questions are:

- What are the measure ICT, intrinsic motivation and academic achievement among higher secondary school students?
- What is the relationship between ICT and intrinsic motivation?
- What is the relationship between ICT and academic achievement?
- What is the relationship among ICT, intrinsic motivation and academic achievement?

### HYPOTHESIS OF THE STUDY

To fulfill the above objectives the following hypothesis are formulated:

**Ho1:** There is no significant difference of ICT with respect to sex.

**Ho2:** There is no significant difference of intrinsic motivation with respect to sex.

**Ho3:** There is no significant difference of academic achievement with respect to sex.

**Ho4:** There is no significant difference relationship between ICT and intrinsic motivation.

**Ho5:** There is no significant difference relationship between ICT and academic achievement.

### DELIMITATION OF THE STUDY

The following are the delimitations of the study:

- The study is delimited to only three variables namely ICT, intrinsic motivation and academic achievement.
- The study is delimited within Howrah and Hooghly districts.
- The study is delimited only Higher Secondary School students.
- The study is delimited to the sample size of 50 only.
- Only +2 students are selected as samples.

### METHODOLOGY

The investigator used descriptive survey method for this study. A Sample of 50 respondents (students) of class xii have been selected randomly from higher secondary school of Howrah and Hooghly districts, West Bengal.

#### **Variables:**

In this study following variables have been involved:

- ICT and Intrinsic motivation (Independent variable).
- Student Academic achievement (Dependent variable).

- Classificatory Variable (Gender).

**Sample for the study:**

The sample consisted of 100 students of class xii (50 boys and 50 girls) taken from schools of Howrah and Hooghly districts. The medium of instruction of these schools is Bengali.

**Tools used:**

The following tools are used to collect data for the study:

- ICT effect usage 4 point rating scale (Self made questionnaire).
- Intrinsic motivation questionnaire by Elliot & Church (1997).
- Academic achievement (Record of Annual Examination of class xi).

**Collection of the data:**

Collection of data has done by the investigator by survey link (in goggle form) distributing the questionnaire by giving important directions.

**Statistical technique used:**

In the study investigator considered the following statistical technique for analysis the data:

- t-test.

**ANALYSIS AND INTERPRETATION OF THE DATA**

**Ho1:** There is no significant difference of ICT with respect to sex.

TestIn-ternet usage	N	M	SD	SED	df	t	Level of Significance
Boys	50	66.8774	6.6882	0.94586	98	1.795	NS
Girls	50	69.1936	6.2095	0.87816			

**Table 1: showing the distribution of 't' of ICT with respect to sex of class- xii student.**

From the above table the 't' value 1.795, is not significant at 0.01 level and 0.05 level.

Hence **H1** accepted. So, we conclude that there is no significant difference of ICT between boys and girls.

Analysis of data for **H1 (Ho1:** There is no significant difference of ICT between boys and girls).

**Ho2:** There is no significant difference of intrinsic motivation with respect to sex.

Intrinsic Motivation	N	M	SD	SED	df	t	Level of Significance
Boys	50	99.16	16.7884	2.3742	98	1.12	NS
Girls	50	102.94	16.8939	2.3891			

**Table 2: showing the distribution of 't' of intrinsic motivation with respect to sex of class-xii student.**

From the above table the 't' value 1.12, is not significant at 0.01 level and 0.05 level.

Hence **H2** accepted. So, we conclude that there is no significant difference of intrinsic motivation between boys and girls.

Analysis of data for **H2 (Ho2:** There is no significant difference of intrinsic motivation between boys and girls).

Academic Achievement	N	M	SD	SED	df	t	Level of Significance
Boys	50	117.96	12.005	1.698	98	0.035	NS
Girls	50	118.04	10.736	1.518			

**Ho3:** There is no significant difference of academic achievement with respect to sex.

**Table 3: showing the distribution of 't' of academic achievement with respect to sex of class- xii student.**

From the above table the 't' value 0.035 is not significant at 0.01 level and 0.05 level.

Hence **H3** accepted, so, we conclude that there is no significant difference of academic achievement between boys and girls.

Analysis of data for **H3** (**Ho3:** There is no significant difference of academic achievement between boys and girls).

Intrinsic Motivation	N	M	SD	SDM	df	t	Level of Significance
High	25	137.066	20.564	5.865	28	6.787	S
Low	25	97.266	9.637				

**Ho4:** There is no significant difference relationship between ICT and intrinsic motivation.

**Table 4: showing the distribution of 't' of ICT effect score of high and low Intrinsic motivation group of class- xii students.**

It is seen from the above table that value of 't' is 6.787 is significant at 0.05 level and 0.01 level. Hence, the **H4** is significant. So, we conclude that the ICT effect of high intrinsic motivation group is better than that of low intrinsic motivation group.

Academic Achievement	N	M	SD	SED	df	t	Level of Significance
High	28	128.786	21.180	6.203	28	5.504	S
Low	34	94.647	10.459				

**Ho5:** There is no significant difference relationship between ICT and academic achievement.

**Table 5: showing the distribution of 't' of ICT effect score of high and low Academic Achievement group of class- xii students.**

It is seen from the above table that value of 't' is 5.504 is significant at 0.05 level and 0.01 level. Hence the **H5** is significant. So, we conclude that the ICT effect of low academic achievement group is better than that of high academic achievement group.

## FINDINGS

- The above study findings that
- There is no significant difference of ICT effect between boys and girls.
- There is no significant difference of intrinsic motivation between boys and girls.
- There is no significant difference of academic achievement between boys and girls.
- The ICT effect of high intrinsic motivation group is better than that of low intrinsic motivation group.
- The ICT effect of low academic achievement group is better than that of high academic achievement group.

## **CONCLUSION**

From this above mentioned we can conclude that learners are influenced by this Globalization. In this post pandemic era, the outcomes of education depend upon the learning process. ICT enhances the learning capabilities of a learner and encourage a learner to become acquainted with inquiry based learning and it also makes educational system more effective, attractive and accessible to the learners. So,

we must say that ICT (Information and communication Technology) effects ensure psychological competence and development of students behavioral and decision making abilities. In this way, there by students can improve on their life skills, be independent, sustained themselves and have a future to look upon and for others to share. We hope that empowering by this paper to move forward that the ICT increase of high intrinsic motivation and academic achievement is better than low group.

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