

# Awareness Towards Information And Communication Technology (Ict) Among Higher Secondary School Teachers

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## ARTICLE INFO

## ABSTRACT

In the present study an attempt has been made to investigate whether awareness towards Information and Communication Technology (ICT) is imparted among Higher Secondary School teachers by conducting research on data collected from different higher secondary schools in Tamil Nadu. During Covid pandemic, every school teachers working in Private, Government, management schools in one way or other way are forced to use the ICTs and practice online mode of delivery for teaching learning process in spite of their locality, availability of interrupted Net facilities etc. That is the motivational factor for conducting this investigation. The sample included 300 teachers (inclusive of 181 male and 119 female) randomly selected from different higher secondary schools in Tamil Nadu. The investigator himself developed a customized scale to measure the awareness on ICTs such as ETV, CD-ROM, Multimedia, Internet, EDUSAT in Arts and Science Education. The results of the present study clearly indicate that both male and female teachers in higher secondary schools have the same level of awareness in ICTs. This study, aims to provide various possibilities to know the extent of the ICT facilities available in various educational institutions and to what extent they permit faculty members to utilize ICT for classroom Learning.

**Keywords:** Teaching learning process, ICT, Education, Higher secondary school, Teachers.

## INTRODUCTION

The root meaning of education is defined as bringing up or making manifest leading out the inherent potentialities in a pupil. Education refers to any act or practice that plays an influential effect on the personality of an individual.

In a technical sense, education refers to the method by which society, through its different instructions, deliberately spreads its cultural heritage to its young and transfer its accumulated values, knowledge and skills from one generation to another.

Education in broad terms means, “*The life-long process of acquiring new knowledge and skills through both formal and informal exposure to information, ideas and experiences*”. Education in narrow terms means, “*Systematic planned instruction that takes place in school*”. Education plays a vital role in the present set up of world. Investment in the education of its youth is treated as most vital by all modern countries. Such an investment task acquires top priority in developing countries. Along with the knowledge exposure that institute in developed nations, we could find another factor, namely population explosion, particularly in developing countries that is an attempt to change the pattern and style of life. Most countries in the world confronted the same in one form or another. With these problems, what is needed today is an “Information Explosion”. Curing the rate of illiteracy is the immediate problem in developing countries. To obliterate this problem, we need more teachers and yet, this cannot be a complete solution for the ever-increasing problem of illiteracy.

Gopal, Mirunalini & Anandan (2012) made a study on Gender and Parental Income towards the Effectiveness of Computer Assisted Instruction on Achievement in Science among Primary School Students. The aim of the present study is to measure the Gender and Parental Income towards the Effectiveness of Computer Assisted Instruction on Achievement in Science among Primary School Students. The Study belongs to Experimental

Research. Single group sampling design was followed in the study. The size of the sample is Forty-Two students studying in primary school were selected through Random Sampling Technique. The investigators themselves developed the tool 'Achievement in Science' which consists of forty items comprising three units in multiple choice patterns. Standardized CAI Software on selected science concepts were used as treatment. Mean, Standard deviation and 't' test techniques were used for analyzing the data. The findings revealed that the Gender and Parental Income towards the Effectiveness of Computer Assisted Instruction on Achievement in Science among Primary School Students. It also revealed that there is no significant difference on Gain Scores of the Mean Achievements in Science through the treatment of CAI software among Primary school students with respect to Gender and Parental Income.

### **RATIONALE FOR THE STUDY**

Higher Secondary School Teachers in the Higher Secondary Schools mostly utilize the ICT tools such as CD-ROM, Power-Point Presentation, Closed Circuit Television (CCTV), Educational Television (ETV), Video Assisted Instruction (VAI), Computer Assisted Instruction (CAI) and Net Based Instruction (NBI) to provide rich experience not only on the content but also in the nature of utilizing modern technologies in Classroom Instruction. If this kind of experience are not been provided to the teachers they will not get experience about modern technologies anywhere else. This experience will help them to integrate ICTs in Classroom Instruction when they are becoming Teachers in the schools.

It is the fact that level of utilization of ICTs differs from schools to Schools based on their type i.e. either Self-financing or Aided or Government Schools. Moreover, it depends on the interest and awareness of the Teachers working in different types of Higher Secondary Schools. As Teaching awareness and Anxiety are tends to enrich their latest knowledge and skills which is required to enhance the teaching-learning process. This factor is necessary for utilization of ICT's in classroom instruction. So if a teacher doesn't have a minimum level of the above aspects definitely one cannot shine as effective teacher in the day-to-day classroom instruction. Hence the investigator has chosen the topic as "Awareness towards Information and Communication Technology among Higher Secondary School Teachers".

### **SCOPE OF THE STUDY**

Out of this study, it will help others to know the possibilities to know what extent the educational institutions are having ICT facilities and to what extent they allow faculty members to utilize ICT in classroom instruction. The study may also highlight the extent of using ICT in Classroom Instruction by the Higher Secondary School Teachers. The Teaching may also identify the level of influence of Teaching Attitude and Anxiety towards utilization of ICT which are very essential for Classroom Instruction. The study may lead to aware the significance of ICT in the Teaching Learning process and inculcate the skills in ICT. The study might give clear idea to the government regarding the priority to be given to develop the Information Communication technology in the Teaching-learning process.

### **STATEMENT OF THE PROBLEM**

The title of the present study is the "Awareness towards Information and Communication Technology among Higher Secondary School Teachers".

### **OBJECTIVES OF THE STUDY**

The major objective of the study is to find out the awareness of the higher secondary school teachers. The other specific objectives are,

- i) To find out the awareness of male and female distance learners towards ICTs.
- ii) To find the awareness of distance learners selected from various School Teachers Rural, Urban, subject towards ICTs.

### **HYPOTHESES**

1. There is no significant difference between the Awareness of male and female Higher Secondary School Teachers towards ICT's.
2. There is no significant difference between the awareness of Higher Secondary School Teachers selected from Various school Rural, Urban, subject towards ICTs.

### **METHODOLOGY**

In orders to realize aforesaid objectives, the Normative Survey of Research Method was employed. Normative survey method study describes and interprets what exists at present. They are concerned with existing conditions or relations, prevailing practices, beliefs and attitudes etc. Such investigations are termed in research literature as descriptive survey or normative survey.

### **SAMPLE**

A sample is a small proportion of a population selected for observation and analysis. "A good sample of population is the one which will produce the characteristics of the population with great accuracy" Corewell

(1960). By considering here the research which proposes to ascertain that is the normal or typical condition or practice at the present time”. It is the only means through which we could collect user preferences, opinions, attitudes and suggestions for improvement and such other data can be obtained. Such Survey studies and data collection contributes a lot for similar kind of investigations and cover a large number of traits and characteristics of the group.

A sample of 300 Higher Secondary School teachers was selected and collected from different School Teachers.

**TOOLS**

As the standardized tool was not available to measure the awareness on ICTs in Arts and Science education such as ETV, CD-ROM, Multimedia and INTERNET / WEB, EDUSAT the investigator himself developed an awareness scale for the same.

**STATISTICAL TECHNIQUE USED**

In the study, the following Statistical techniques were used: Mean, standard deviation, ‘t’ test and correlation analysis.

**ANALYSIS OF DATA:**

**Hypothesis 1**

**Table:1 SIGNIFICANT DIFFERENCE IN THE MEAN SCORES OF AWARENESS ON THE TOTAL ICT DEVICES AMONG THE HIGHER SECONDARY SCHOOL TEACHERS WITH RESPECT TO SEX**

S. No	Category		N	Mean	SD	‘t’ value		Remarks
						Cal	Tab	
1.	Total ICT’s	T Male	181	51.60	7.46	1.23	1.96	NSD
		T Female	119	50.55	7.10			

From Table 1, it is clearly proven that the ‘t’ value 1.23 of the mean scores of Awareness on the total ICT’s among the Higher Secondary School Teachers with respect to Sex is Not Significantly Different at 0.05 level. On observing the mean scores it is seen that the Male and Female trainees are equally aware on the total ICT devices. Hence the framed Null hypothesis that there is no difference in the Awareness on the total ICT devices among the Higher Secondary School Teachers is accepted.

**Hypothesis 2**

**Table:2 SIGNIFICANT DIFFERENCE IN THE MEAN SCORES OF AWARENESS ON THE COMPONENTS OF ICT’S BETWEEN THE TOTAL MALE AND FEMALE HIGHER SECONDARY SCHOOL TEACHERS**

S. No	Category		N	Mean	SD	‘t’ value		Remark
						Cal	Tab	
1.	Internet	T-Male	181	49.17	9.89	0.69	1.96	NSD
		T-Female	119	48.37	9.81			
2.	Multimedia	T-Male	181	53.93	10.16	2.41	1.96	SD
		T-Female	119	51.32	8.48			
3.	CD ROM	T-Male	181	52.45	8.62	1.21	1.96	NSD
		T-Female	119	51.22	8.69			
4.	EDUSAT	T-Male	181	50.92	11.50	0.28	1.96	NSD
		T-Female	119	51.29	10.92			

It is obvious from the Table 2 that the ‘t’ value 2.41 of the mean scores of Awareness on the Multimedia devices between the total Male and Female Higher Secondary School Teachers is Significantly Different and 0.69, 1.21 and 0.28 for Internet, CDROM and EDUSAT is Not Significant at 0.05 level. Hence the framed Null hypothesis that there is no difference in the Awareness on the components of ICT’s between the total Male and Female Higher Secondary School Teachers is rejected for Multimedia and accepted for Internet, CDROM and EDUSAT.

## Hypothesis 1

**Table 3: SIGNIFICANT DIFFERENCE IN THE MEAN SCORES OF AWARENESS ON THE TOTAL ICT's AMONG DISTANCE EDUCATION RURAL AND HIGHER SECONDARY SCHOOL TEACHERS**

S. No	Category		N	Mean	SD	t' value		Remark
						Cal	Tab	
1.	Total ICT's	Rural	43	47.56	6.91	2.90	2.00	SD
		Urban	57	51.89	7.98			

It is understood from the above Table 3 that the 't' value 2.90 of the mean scores of Awareness on the total ICT devices among the rural and urban teachers of Higher Secondary School Teachers is Significantly Different at 0.05 level. On observing the mean scores of the urban learners 51.89, it is understood that they are more aware on the total ICT devices than the rural learners. Hence the framed Null hypothesis that there is no difference in the Awareness on the total ICT devices among the Rural and Urban teachers of Higher Secondary School Teachers of is rejected.

## Hypothesis 1

**Table 4: SIGNIFICANT DIFFERENCE IN THE MEAN SCORES OF AWARENESS ON THE COMPONENTS OF ICT's AMONG THE DISTANCE EDUCATION RURAL AND URBAN HIGHER SECONDARY SCHOOL TEACHERS**

S. No	Category		N	Mean	SD	t' value		Remark
						Cal	Tab	
1.	Internet	Rural	43	43.91	6.92	3.46	2.00	SD
		Urban	57	49.95	10.50			
2.	Multimedia	Rural	43	50.86	9.58	1.47	2.00	NSD
		Urban	57	53.51	8.39			
3.	CD ROM	Rural	43	50.56	7.39	0.75	2.00	NSD
		Urban	57	51.89	10.33			
4.	EDUSAT	Rural	43	44.93	11.13	3.13	2.00	SD
		Urban	57	52.21	11.98			

On observing the Table 4, it clearly understood that the 't' values 3.46 and 3.13 of the mean scores of Awareness on the components Internet and EDUSAT of ICT's between the Rural and Urban teachers of Higher Secondary School Teachers is Significantly Different and 1.47 and 0.75 for Multimedia and CDROM is Not Significant at 0.05 level. On observing the mean scores of the urban teachers 49.95 and 52.21 it is understood that they are more aware on the Internet and EDUSAT than the rural trainees. Hence the framed Null hypothesis that there is no difference in the Awareness on the components of ICT's between the Rural and Urban Teachers of Higher Secondary School Teachers is rejected.

## FINDING OF THE STUDY

The salient findings of the study are given below.

- The Male and Female Higher Secondary School Teachers are similar awareness on ICTs in Higher secondary schools.
- The Government Institutions' Teachers are having higher awareness on ICTs HigherSecondary Schools.

## EDUCATIONAL IMPLICATIONS

The study results shows that the positive awareness among the Higher Secondary school Teachers is in higher scale, hence the Educational Administrators must make use of this positive trend to exploit by the way of introducing Modern computer aided Technologies in the Class room Teaching and learning process. The Younger generations must be focused with higher priority in the appointment in the field of Teaching Profession. It is a welcome sign that all the Government Schools are equipped with computers inclusive of all accessories needed for modern ICT. This reveals the positive attitude towards utilizing modern Technologies in future. Steps must be taken to offer a greater number of in-service trainings, orientation programs and demonstration to the teachers on how the technologies can be operated and used effectively in schools. Further, efficient tools and software's may be provided to the schools to use the available Modern Technologies with security. Government's plan to introduce Activity Based Learning Method (ABL Method) in Primary and Secondary Level schools makes the teachers to get more knowledge in the Modern Technologies such as ETV, EDUSAT, INTERNET / WEB.

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