

# Attitude of High Secondary School Students towards Information and Communication Technology (ICT)

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**Abstract:** The aim of this paper is to find and study the attitude of high secondary school students towards Information and Communication Technology (ICT). A total number of 600 respondents were selected amongst the high school students in Kashmir Division. The Students were classified into three groups namely gender (boys and girls), Rural and Urban and government and private high secondary school students. The descriptive and inferential statistics was used to find and generalize the results.

**Key Words:** Attitude, Information and Communication Technology, Rural- Urban, High secondary school students.

## 1. INTRODUCTION:

Attitude has been the topic of interest among researchers since the beginning of the twentieth century. It has been defined in a variety of ways by various thinkers. According to Allport (1935), “Attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related”. It can be revealed that attitude is formed and organized through experience. People are not born with attitude and later is not passive, rather attitude exerts a dynamic or directive influence on behavior. As far as attitude is concerned, it consists of affective, cognitive and behavioral components. The cognitive component is the belief, perception and idea, the affective component is the feeling or emotion and the behavioral component is related to taking action (Ajzen & Fishbein, 1980). Attitudes have long been documented as significant predictors of individual differences in many educational endeavors. For example, Fishbein and Ajzen (1980) described attitude as a, “predisposition to act towards objects in a consistently favorable or unfavorable way” and it plays a significant role to influence subsequent behaviors. It is further believed that attitudes lead to behavioral intentions towards the object. Accordingly, it can be said how people think and feel about ICT has a great impact on how they behave, that is, attitude towards ICT is an antecedent to and a predictor of ICT usage (Al-Gahtani & King, 1999).

## 2. NEED AND IMPORTANCE OF THE PRESENT STUDY:

ICT is used as a tool for students to discover learning topics, solve problems, and provide solutions to the problems in the learning process. ICT makes knowledge acquisition more accessible, and concepts in learning areas are understood while engaging students in the application of ICT. Support student-centered and self-directed learning Students are now more frequently engaged in the meaningful use of computers (Castro Sanchez and Aleman 2011). They build new knowledge through accessing, selecting, organizing, and interpreting information and data. Based on learning through ICT, students are more capable of using information and data from various sources, and critically assessing the quality of the learning materials. Produce a creative learning environment ICT develops students’ new understanding in their areas of learning (Chai, Koh and Tsai 2010). ICT provides more creative solutions to different types of learning inquiries. For example, in a reading class, e-books are commonly used in reading aloud activities. Learners can access all types of texts from beginning to advanced levels with ease through computers, laptops, personal digital assistants (PDAs), or iPads. More specifically, these e-books may come with some reading applications, which offer a reading-aloud interface, relevant vocabulary-building activities, games related to reading skills and vocabulary acquisition, and more. Therefore, ICT involves purpose designed applications that provide innovative ways to meet a variety of learning needs to promote collaborative learning in a distance-learning environment Literacy must also comprise the use of ICT to access, manage, integrate, evaluate, create and communicate information in order to develop information and communication skills (21<sup>st</sup>Century Skills Partnership). Finally, the role of ICT in futuristic learning should also be seen in the light of its contribution to emancipation, empowerment and self-fulfillment. Learning objectives such as social competence, critical thinking, knowledge sharing and cooperation techniques will become more and more important as we move further into the knowledge society. As a result, it is clear that thinking about the future of learning cannot avoid asking the fundamental questions about the objectives of learning (Punie & Cabrera 2006). It is worth to be mentioned here that a number of benefits are expected in our mundane life in case ICT is used appropriately in the field of education. The important ones are

reported as: ICT assists students in accessing digital information efficiently and effectively. It works as a tool for the students to discover learning topics and solutions to the problems in the learning process. Besides, ICT makes knowledge acquisition of consumers more accessible with the learning concepts as understandable. ICT supports student-centered and self-directed learning. It frequently engages them in the meaningful use of computers (Castro Sánchez and Alemán 2011). It helps in the accumulation of new knowledge through accessing, selecting, organizing and interpreting of information. ICT helps in generating a creative learning environment and develops among students' new understanding in their areas of learning (Chai, Koh and Tsai 2010). It provides more creative solutions to different types of learning inquiries and learners can access all types of texts from beginning to advanced levels with ease through computers based gadgets (laptops, personal digital assistants or iPads). Promotion of collaborative learning in distance-based environment through ICT has been seen to be significant. Koc (2005) observed that using ICT enables students to communicate, share, and work collaboratively anywhere and anytime. e) ICT improves teaching and learning quality. In this regard, Lowther et al. (2008) have stated three important characteristics required to develop good quality teaching and learning with ICT.

### 3. STATEMENT OF THE PROBLEM:

Attitude of High Secondary School Students towards Information and Communication Technology (ICT).

### 4. OBJECTIVES OF THE STUDY:

Following objectives have been formulated for the present investigation:

- To find and compare the Attitude towards Information & Communication Technology (ICT) of male and female secondary school students.
- To find and compare the Attitude towards Information and Communication Technology (ICT) of rural and urban secondary school students.
- To find and compare the Attitude towards Information and Communication Technology (ICT) of Government and private secondary school students.

### 5. HYPOTHESES:

Following Hypothesis have been formulated for the present investigation:

- There will be significant difference between the mean scores of male and female secondary school students in their Attitude towards Information and Communication Technology (ICT).
- There will be significant difference between the mean scores of rural and urban secondary school students in their Attitude towards Information and Communication Technology (ICT).
- There will be significant difference between the mean scores of Government and private secondary school students in their Attitude towards Information and Communication Technology (ICT).

### Operational Definitions of the Variables:

In the present investigation, Attitude of High Secondary School Students towards Information and Communication Technology (ICT) has been considered to the dominant set of scores as measured by Attitude towards Information and Communication Technology Scale developed by the investigator.

### 6. METHODOLOGY AND PROCEDURE:

#### SAMPLE

The sample for the present investigation comprised of 600 students (300 boys and 300 girls). It was drawn from different Secondary Schools of Kashmir Valley maintained by the Government and Private trusts. A stratified random sampling technique was adopted to draw the sample. The age of the subjects was between 16 to 17 years. The breakup is shown as:

Showing the break-up of the sample

Rural (N=300)				Urban (N= 300)			
Private		Government		Private		Government	
Male	Female	Male	Female	Male	Female	Male	Female
75	75	75	75	75	75	75	75

#### Tools

The investigator, after screening a number of available tests, selected the following tool to collect the required information.

**Attitude Towards Information and Communication Technology (ICT)** (developed by the Investigator)

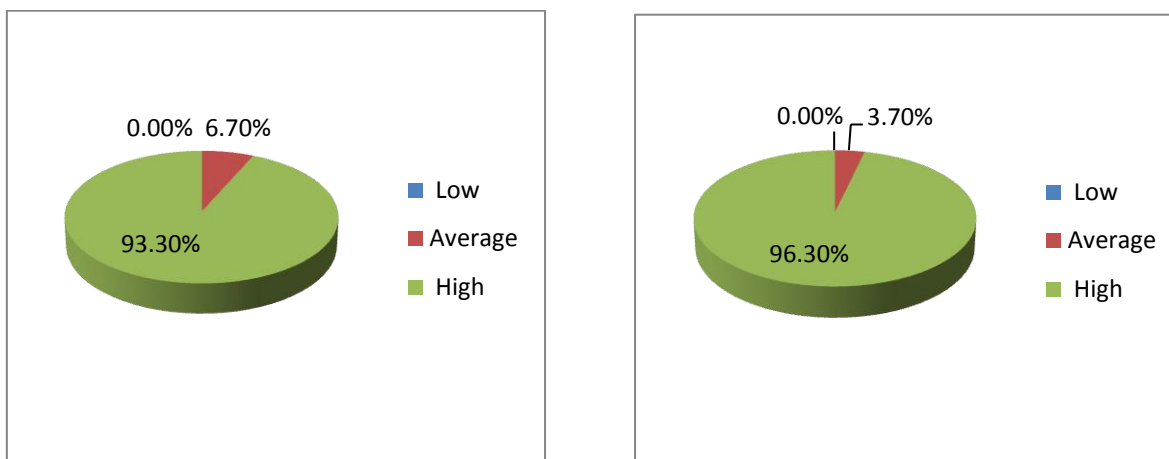
## 7. ANALYSIS AND INTREPRETATION:

In order to achieve the objectives formulated for the presented study the data collected was statistically analyzed by employing Mean, S.D, and T-Test.

### 7.1 Descriptive Analysis:

**Table No. 1.00: Showing the Score Distribution of Male and Female Secondary School Students on Attitude towards Information and Communication Technology ICT.**

Score Distribution	Male		Female	
	N	Percentage	N	Percentage
Low	Nil	Nil	Nil	Nil
Average	11	3.7%	20	6.7%
High	289	96.3%	280	93.3%



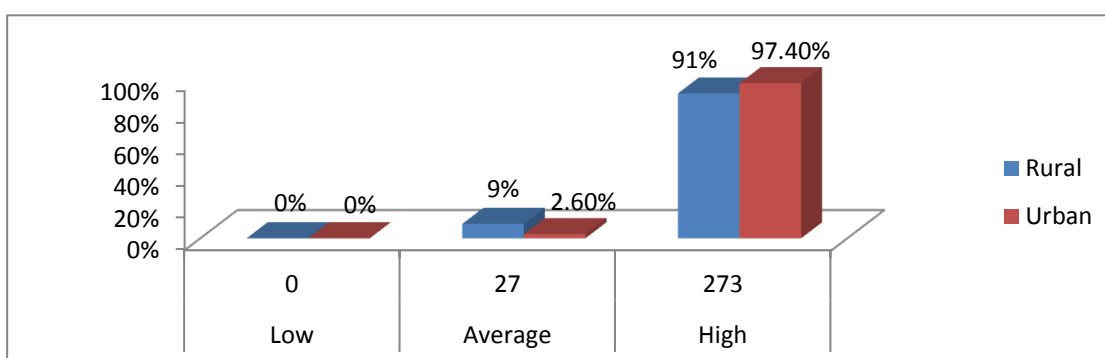
**Fig. 1: Percent-wise Comparison of Male and Female Secondary School Students on Attitude towards Information and Communication Technology**

**NOTE: Male Female Index**

A perusal of this table 1.00 and fig.1 reveals that 96.3% subjects (male category) were found highly inclined towards information and communication technology, 3.7% subjects averagely inclined and none of the subjects in the low level of category on attitude towards information and communication technology. The table further reveals that 93.3% female subjects were reported to be high on the attitude towards information and communication technology. Only 7.7% were found *averagely inclined towards ICT*. The overall results revealed a highest percentage of subjects (from both genders) inclined towards information and communication technology.

**Table No. 1.01: Showing the Score Distribution of Rural and Urban Secondary School Students on Attitude towards Information and Communication Technology (ICT)**

Score Distribution	Rural		Urban	
	N	Percentage	N	Percentage
Low	0	0%	0	0%
Average	27	9%	8	2.6%
High	273	91%	282	97.4%

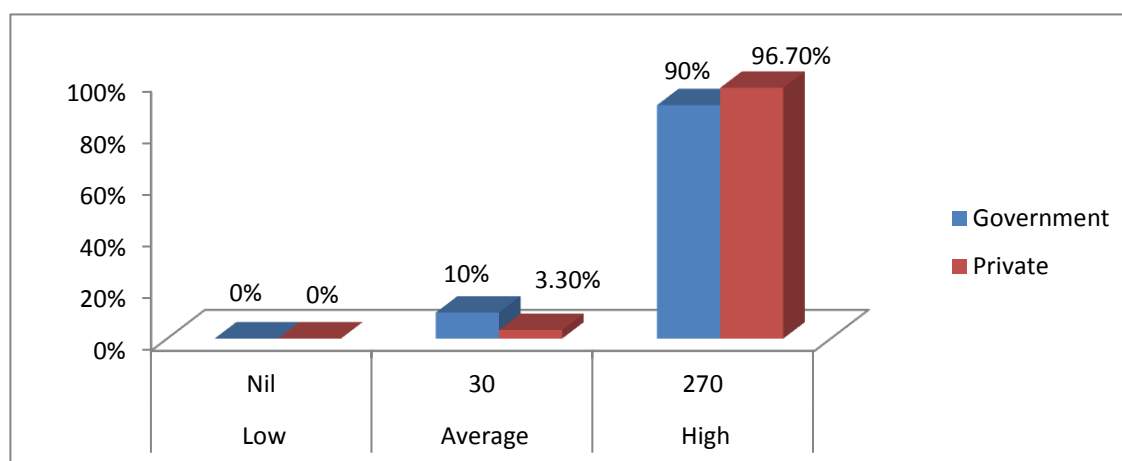


**Fig. 2: Percent-wise Comparison of Rural and Urban Secondary School Students on ICT.**

A perusal of this table 1.01 and fig. 2 depicts that 91 % subjects from rural background are reported highly inclined towards ICT. 9% are found in the average category and none of the subjects was found to have the placement on low level. The table further reveals that 97.4% subjects from urban group are reported to have a high level of attitude towards ICT and 2.6% subjects are found *averagely inclined towards ICT*. The overall results reveal a highest percentage of subjects inclined towards information and communication technology from both the locales.

**Table No. 1.02: Showing the Score Distribution of Government and Private Secondary School Students on Attitude towards Information and Communication Technology (ICT).**

Score Distribution	Government		Private	
	N	Percentage	N	Percentage
Low	Nil	Nil	Nil	Nil
Average	30	10%	10	3.3%
High	270	90%	290	96.7%



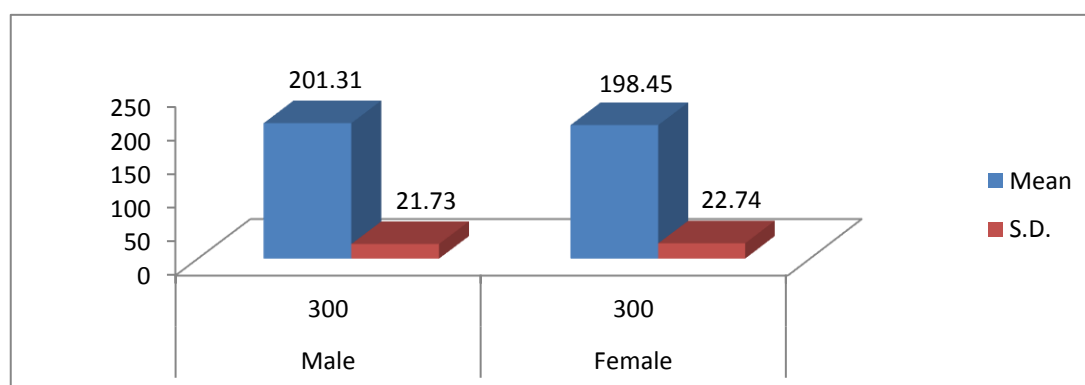
**Fig. 3: Percent-wise Comparison of Government and Private Secondary School Students on ICT.**

A perusal of this table 1.02 and fig. 3 depicts that 90 % subjects from Government schools are re highly inclined towards ICT, 10% subjects were found inclined in the average category and none of the subjects could be placed on low level. The table further reveals that 96.6 % subjects from private schools were reported to have high level of attitude towards ICT. However, none of the subjects was reported on the low level placement on attitude towards information and communication technology. The overall results reveal a highest percentage of subjects inclined towards information and communication technology from both the types of managements.

## 7.2 Comparative Analysis:

**Table No 1.03: Showing the Significance of Difference Between the Mean Scores of Male and Female Students on Attitude towards Information and Communication Technology (ICT).**

Gender	N	Mean	S.D.	t value	Result
Male	300	201.31	21.73	1.89	Not Significant
Female	300	198.45	22.74		

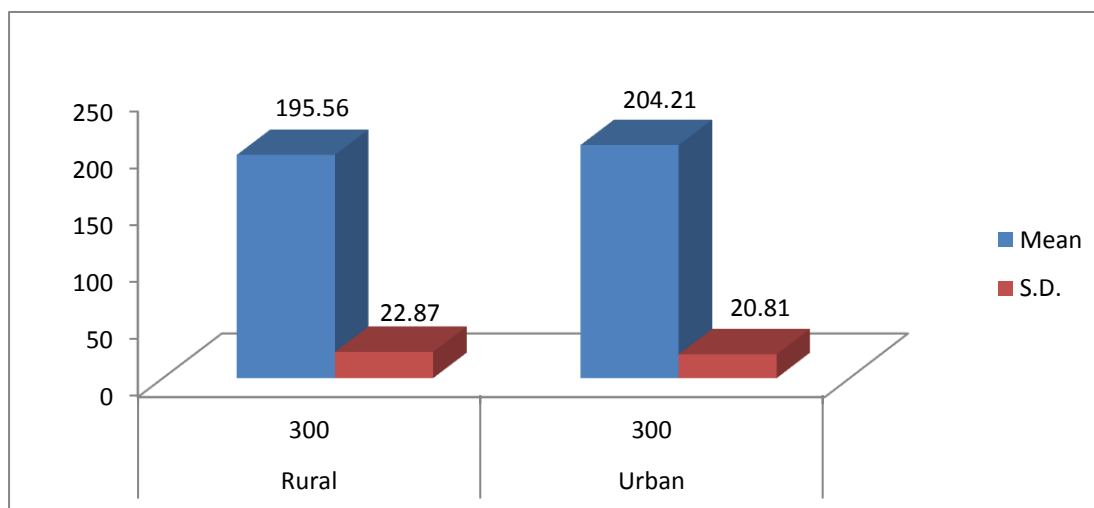


**Fig. 4: Comparison of Male and Female Secondary School Students on ICT**

From the table 1.03 and fig. 4 it has been interpreted that the mean value of male secondary school students on attitude towards information and communication technology, i.e., 201.31 is higher than the mean value of female secondary school students on attitude towards information and communication technology i.e., 198.45 and the t value is 1.89 that is insignificant at any level of significance. Thus, it can be interpreted that male secondary school students are and female secondary school students have equally attitude towards information and communication technology.

**Table No. 1.04: Showing the Significance of Difference Between the Mean Scores of Rural and Urban Students on Attitude towards Information and Communication Technology (ICT).**

Group	No.	Mean	S.D.	t value	Result
Rural	300	195.56	22.87	4.89	Significant at 0.01 level
Urban	300	204.21	20.81		

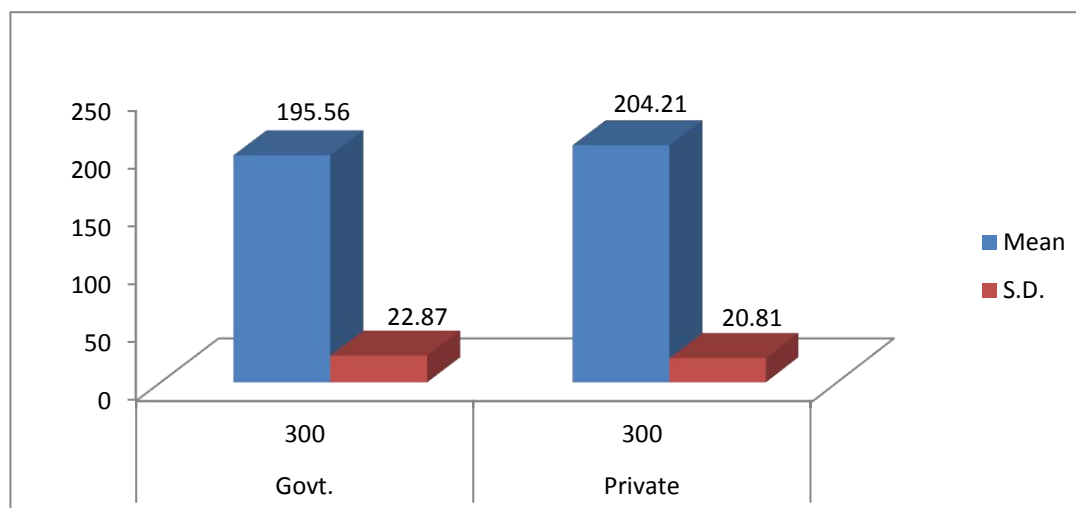


**Fig. 5: Comparison of Rural and Urban Secondary School Students on ICT**

From the table 1.04 and fig. 5 it has been interpreted that the mean value of rural secondary school students on attitude towards information and communication technology, i.e., 195.56 is lesser higher than the mean value of urban secondary school students on attitude towards information and communication technology i.e., 204.21 and the t value is 4.89 that is significant at any level of significance. Thus, it can be interpreted that urban secondary school students have more attitude towards information and communication technology than that of rural secondary school students.

**Table No. 1.05: Showing the Significance of Difference Between the Mean Scores of Govt. and Private Students on Attitude towards Information and Communication Technology (ICT).**

Group	N	Mean	S.D.	t value	Results
Govt.	300	195.56	22.87	4.89	Significant at 0.01 level
Private	300	204.21	20.81		



**Fig. 6 : Comparison of Government and Private Secondary School Students on Attitude towards Information and Communication Technology (ICT).**

From the table 1.05 and fig. 6 it has been interpreted that the mean value of government secondary school students on attitude towards information and communication technology, i.e., 195.56 that is lesser higher than the mean value of private secondary school students on attitude towards information and communication technology i.e., 204.21 and the t value is 4.89 that is significant at any level of significance. Thus, it can be interpreted that the private secondary school students have more attitude towards information and communication technology than that of and government secondary school students.

## 8. EDUCATIONAL IMPLICATION:

Information and Communication Technology (ICT) into teaching and learning is a growing area and has attracted the attention of many educators in recent years. Although the use of information and communications technology (ICT) in education is a relatively a new phenomenon yet the educators, researchers and thinkers have taken up the challenges of using ICT since the 1980s with varied success. The introduction of internet and the World Wide Web has pressured new productivity as well as expectations on such endeavors. Communication through e-mail, text messaging, blogs, podcasts, discussion groups and the like can lead to wider dialogues. Innovative equipments and services go on changing the way we interact: the convergence of technologies now found in mobile phones; the ubiquitous nature of digital cameras; and the opening up of the Internet through personal web space. Most powerfully, ICT has integrated all of these resources and services into a single box sitting on the user's desktop. Today's learner has the potential to exploit them all, through an interface that is mostly intuitive.

Keeping in view these observations and in the light of the findings of the present investigation it is felt that our policy planners need to orient our teeming millions towards ICT based education. This is possible if teaching personnel initiate the process to orient the youth with the blessings of ICT. To achieve this, we must develop and design the curricula for such orientation.

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