

**A STUDY ON INTERNET AND E-MAIL USAGE BY THE HIGHER SECONDARY STUDENTS****Ishfaq Ahmad Bhat\*****R.Muthumanickam\*\*****ABSTRACT**

*Education today has been moving very fast from classroom to online education or web based delivery of education. New types of educational technologies such as internet and e-mail are emerging at an ever accelerating pace. In this regard, the investigators tried to find out the level of internet and e-mail usage among the higher secondary students. In the present study, 200 +2 students from 10 higher secondary schools in Anantnag district of Jammu and Kashmir state in India were taken as sample. The tools used in the study were constructed and validated by the investigators through pilot study. The answered tools were scored and Chi-square test was applied for each item. At 5% level of significance, the upper calculated  $\chi^2$  value items were selected for final study. After framing necessary objectives and hypotheses, appropriate analysis was carried out on the collected data. From this analysis, it was found that the level of internet and e-mail usage among the +2 students is average and irrespective of sub-samples taken by the investigators, they don't differ significantly in their level of internet and e-mail usage.*

**Key words:** Internet Usage, Education, Gender, Locality of Residence, Types of School, Subjects Taken.

**Introduction**

Change is the key element for the twenty first century that poses many challenges and enormous pressure on our daily life, work and society. The political, economical and technological environments are changing significantly and rapidly. Information and communication technologies transform all aspects of education, which is a rapid growing segment of teaching and learning. The advantage of internet as a means of information access and distribution and the explosive growth of the World Wide Web has transformed teaching from a passive mode to an integrative one. Faculty is at the crossroads and being pressured to increase their productivity and to change instructional strategies to accommodate changes and education reforms. There is a need for the new vision and the new roles of teachers within the changing educational environment. "Education is not the filling of a pail, but lighting of a fire" Yeats (1976). The early education systems relied primarily on printed materials for instruction. Oral and board have been the most common delivery method of teaching and course materials. The internet and the web, when combined with other net work tools, create a virtual classroom. It is bringing together a community of learners for interactive education to anywhere, any time and any pace. Internet is a "network of net works" that links computers around the world. Internet allows communication across networks i.e, one can communicate between one network and another network. It enables people to have access to information from different websites, locations or machines. Internet really puts a world of information and a potential world wide audience at one's finger tip. Electronic mail is the medium of communication that sends and receives messages through specially designed computer networks. With the revolution in information technology along with the rapid growth of the internet, e-mail has become the most popular communication medium. More and more people are spending time on the net sending e-mail messages. There is no-doubt that due to its high speed, low cost and efficiency, e-mail today is one of the most important channels of communication. E-mails are used for quick transmission of information and ideas.

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The standard of education has really gone up now. One of the important reasons for this is the application of internet. In future, an international library may be small room with internet facility and the classroom may be their monitor. This is possible, as the internet technology is growing with an unbelievable speed. The focus of the present study is to find out the level of internet and e-mail usage by the higher secondary students with respect to the certain selected demographic and organizational variables- gender, locality of residence, types of school and subjects taken. The present sample is restricted to +2 students.

#### **Objectives of the Study**

1. To find out the level of internet and e-mail usage among the higher secondary +2 students in Anantnag district of Jammu and Kashmir.
2. To find out whether there is any significant mean difference between the following sub samples with respect to the level of internet and e-mail usage among the +2 students in Anantnag district.
  - a. Gender (male/female)
  - b. Locality of residence (Urban/Rural)
  - c. Types of the school (Government/ Private)
  - d. Subjects taken (Computer Science/Science/Arts)

#### **Hypothesis**

The following hypotheses are formulated in relation to the objectives given above,

1. The level of internet usage among the +2 students is low.
2. The level of e-mail usage among the +2 students is low.
3. There is no significant mean difference between the following sub samples with respect to the level of internet and e-mail usage among the higher secondary +2 students
  - a. Gender (male/female)
  - b. Locality of residence (Urban/Rural)
  - c. Types of the school (Government/ Private)
  - d. Subjects taken (Computer Science/Science/Arts)

#### **Methodology**

In order to achieve the objectives of the study, the descriptive method of research was followed by using two separate constructed and validated research tools and by drawing the representative sample.

#### **Research Tools**

Following tools were used to conduct the study.

- a. Internet usage Scale.
- b. E-mail usage Scale.

Personal data sheet was also framed to seek information from +2 students on the following variables:

- a. Gender (male/female)
- b. Locality of residence (Urban/Rural)
- c. Type of the school (Government/ Private)
- d. Subjects taken (Computer Science/ Science/Arts)

#### **Sampling**

The sample of the study was 200 students taken from 10 higher secondary schools (5 government and 5 private schools) in Anantnag district of Jammu and Kashmir. Only the + 2 standard students were taken as sample.

### Analysis and Interpretation of data

The purpose of the present study is to find out the level of internet and e-mail usage of the +2 standard students and also to find out the significant mean difference with respect to their level of internet and e-mail usage on the basis of selected sub-samples. The investigators used the statistical techniques as Mean, SD, t-test and F-ratio to accept or reject the hypotheses.

### Descriptive analysis on the level of internet usage

One of the important objectives of the present investigation is to find out the level of internet usage of higher secondary students. For this purpose, the investigators used research tool to measure the level of internet usage. The maximum score for this tool is 40 and the minimum score is 0. Hence, in order to find out the level of internet usage among +2 students the investigators adopted the normal curve technique that is the mean value above  $M+1\sigma$  (above 27) denotes high level, the mean values between  $M-1\sigma$  to  $M+1\sigma$  (15 - 27) denotes average level and the mean value below  $M-1\sigma$  (below 15) denotes low level. The computed values of the entire sample and its sub-samples are given in Table: 1.

**Table 01: Showing the Mean and S.D of the +2 students in the level of internet usage**

S. No.	Variable	Sample	N	Mean	S.D	Level of Internet Usage
01.	Gender	Male	117	21.54	6.61	Average
		Female	83	20.41	5.00	Average
02.	Locality	Urban	75	20.92	6.05	Average
		Rural	125	21.16	6.00	Average
03.	Type of School	Government	116	21.03	6.46	Average
		Private	84	21.13	5.35	Average
04.	Subjects Taken	Computer science	11	22.18	5.05	Average
		Science	126	20.74	5.75	Average
		Arts	63	21.54	6.63	Average
		Entire Sample	200	21.18	5.87	Average

In order to find out the level of internet usage of +2 students, the investigators calculated mean and S.D which are given in the table 1. The mean value of the entire sample is 21.18 and S.D is 5.87. The calculated mean value is higher than the  $M-1\sigma$  (15) but less than the  $M+1\sigma$  (27). Hence, it is inferred that the level of internet usage by the +2 students is average. The mean value of the different sub samples of students used in the present study are ranging from 20.14 to 22.12. These mean values are higher than the  $M-1\sigma$  (15) but less than the  $M+1\sigma$  (27). Hence, it is also inferred that irrespective of sub-samples the level of internet usage of the +2 students is average.

### Descriptive Analysis on the Level of E-mail Usage

Another important objective of the present study is to find out the level of E-mail usage of +2 students. For this purpose, the investigators used a research tool based on 20 items to measure the level of E-mail usage. The maximum score for this tool is 40 and the minimum score is 0. Hence, in order to find out the level of E-mail usage among +2 students, the investigators adopted the normal curve technique that is the mean value above  $M+1\sigma$  (above 23) denotes high level, the mean values between  $M-1\sigma$  to  $M+1\sigma$  (9 -

23) denotes average level and the mean value below  $M-1\sigma$  (below 9) denotes low level. The computed values of the entire sample and its sub-samples are given in Table: 2.

**Table 02: Showing the mean and S.D values in the level of e-mail usage by +2 students**

S. No.	Variable	Sample	N	Mean	S.D	Level of Email Usage
01.	Gender	Male	117	17.79	7.60	Average
		Female	83	15.37	6.13	Average
02.	Locality	Urban	75	15.76	7.28	Average
		Rural	125	17.41	6.97	Average
03.	Types of School	Government	116	17.47	7.15	Average
		Private	84	15.26	6.99	Average
04.	Subjects Taken	Computer science	11	17.27	4.22	Average
		Science	126	15.98	6.86	Average
		Arts	63	18.32	7.80	Average
		<b>Entire Sample</b>	<b>200</b>	<b>16.80</b>	<b>6.77</b>	Average

In order to find out the level of E-mail usage of +2 students, the investigators calculated mean and S.D. which are given in the table 2, the mean of the entire sample is 16.80 and S.D is 6.77. The calculated mean value is higher than  $M-1\sigma$  (9) but less than the  $M+1\sigma$  (23). Hence it is inferred that the level of E-mail usage of +2 students is average. The mean value of the different sub-samples of students used in the present study is ranging from 15.26 to 18.32. These mean values are higher than the  $M-1\sigma$  (9) but less than the  $M+1\sigma$  (23). Hence, it is inferred that irrespective of sub-samples the level of internet usage of the +2 students is average.

**Differential analysis on the level of internet usage**

This part deals with the differential analysis of data collected on internet usage. One among the important objectives stated earlier was to study whether there is any significant mean difference between selected sub samples of the present study with respect to the level of internet usage. For this purpose, the investigators used the test of significance (t-test and F-ratio). The investigators also framed null hypothesis for testing. The calculated values are given in the following table 3.

**Table 03: Showing the t-values and F-values among different sub samples on the level of Internet Usage**

S. No.	Variable	Sub-Samples	N	Mean	S.D	't' value/F ratio
01.	Gender	Male	117	21.54	6.61	1.37 <sup>NS</sup>
		Female	83	20.41	5.00	
02.	Locality of Residence	Urban	75	20.92	6.05	0.27 <sup>NS</sup>
		Rural	125	21.16	6.00	
03.	Types of School	Government	116	21.03	6.46	0.13 <sup>NS</sup>
		Private	84	21.13	5.35	
04.	Subjects taken	Computer Science	11	22.18	5.05	0.57 <sup>NS</sup>
		Science	126	20.74	5.75	
		Arts	63	21.54	6.63	

Level of Sig-0.05

S-Significant

NS-Not Significant

The above table reveals that the calculated 't'-values and F-value are lesser than the table value of t and F at 5% level of significance. Hence the null hypotheses are accepted and it is found that there is no significant mean difference between the male and female, urban and rural, government and private and the computer science, science and arts +2 students for the level of internet usage.

#### Differential analysis – E-mail usage

This part deals with the differential analysis of data collected on E-mail usage. One among the important objectives stated earlier was to study whether there is any significant mean difference between selected sub samples of the present study with respect to level of E-mail usage. For this purpose, the investigators used the test of significance (t-test and F-ratio). The investigators also framed null hypotheses for testing. The calculated values are given in the following table 4.

**Table 04: Showing the t-values and F-value among different sub samples on the level of E-mail Usage**

S. No.	Variable	Sub-Samples	N	Mean	S.D	't' valve/F ratio
01.	Gender	Male	117	17.79	7.60	2.48 <sup>S</sup>
		Female	83	15.37	6.13	
02.	Locality of Residence	Urban	75	15.76	7.28	1.57 <sup>NS</sup>
		Rural	125	17.41	6.97	
03.	Type of School	Government	116	17.47	7.15	1.59 <sup>NS</sup>
		Private	84	15.26	6.99	
04.	Subjects taken	Computer Science	11	17.27	4.22	2.31 <sup>NS</sup>
		Science	126	15.98	6.86	
		Arts	63	18.32	7.80	

Level of Sig-0.05

S-Significant

NS-Not Significant

The table: 4 reveals that the calculated 't'-value 2.48 for male and female is greater than the table value of 't' (1.97) at 5% level of significance. Hence the Null hypothesis is rejected and it is found that there is a significant mean difference between the male and female +2 students for the level of E-mail usage. Table: 4 also reveals that the calculated 't' values and F-value 1.57, 1.59 and 2.31 respectively are lesser than table value of 't'(1.97) and F- value (3.04) at 5% level of significance. Hence the null hypotheses are accepted and it is found that there is no significant mean difference between the urban & rural, government & private and the computer science, science & arts +2 students on the level of E-mail usage.

#### Major findings

1. The level of internet usage among the +2 students is average.
2. The level of E- mail usage among the +2 students is also average
3. There is no significant mean difference between the male and female +2 students on the level of internet usage.
4. There is no significant mean difference between the urban and rural +2 students on the level of internet usage.
5. There is no significant mean difference between the Government and Private +2 students on the level of internet usage.
6. There is no significant mean difference among the computer science, science and arts +2 students on the level of internet usage.
7. There is a significant mean difference between the male and female +2 students on the level of E-mail usage.

8. There is no significant mean difference between the urban and rural +2 students on the level of E-mail usage.
9. There is no significant mean difference between the Government and Private +2 students on the level of E-mail usage.
10. There is no significant mean difference among the +2 students on the level of E-mail usage on the basis of subjects taken.

### **Recommendations**

The present study gives a clear cut view about the internet and E-mail usage by the higher secondary students. Based on the important findings stated earlier the following recommendations were made.

1. Higher secondary students are having the average level of internet and E-mail usage for academic and other purposes. It may be due to the lack of internet facility and connectivity at schools or at home. The state Government should make it mandatory for the Government and private schools to establish at least one computer lab consisting of minimum 100 computers with internet connectivity to increase the internet and E-mail usage among the higher secondary students so that they may face the challenges of globalization and modernization.
2. +2 higher secondary students are having the average level of internet and E-mail usage. It may be due to the unawareness of internet and E-mail usage. Teachers should encourage them to utilize the internet and E-mail for academic studies.

### **Suggestions for further research**

The following are some of the suggested research problems for future researcher and for healthy research outcomes on this present theme.

1. Replica of the present study could be undertaken at various levels of education.
2. The present study could be undertaken at various districts of Jammu and Kashmir to generalize the result.
3. A study could be conducted on the development of internet using skills among the high school or secondary school students
4. A study could be undertaken for the impact of internet usage on the curricular and co-curricular activities of the higher teachers and students.
5. A similar study could be conducted at + 1 level of the higher secondary students with large sample.

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