Differences in Time and Duration of Internet usage among Male and Female Research Students

Gagandeep Kaur, Dr. Rohan Sharma,
Research Scholar, Assistant Professor,
IKG Punjab Technical University, IH Group of Institutions,
Kapurthala, India. Jalandhar, India.

ABSTRACT

The use of the Internet plays a major role in helping researchers’ access to a large number of materials from different parts of the globe. Researchers from all corners of the earth are finding that their work thrives in a networked environment. Immediate access to the work of colleagues and a virtual library of millions of volumes and thousands of papers afford them the capability to incorporate a huge amount of knowledge. It not only provides a number of services like email, file transfer, video conferencing, etc., but also facilitates 24x7 access to information from the comfort of one’s home or workplace, saving both the time and effort of researcher. Keeping in view the importance of internet in students’ life, the present research paper has been planned with the objectives; to work out the frequency of internet usage by research students; and to study the differences in time and duration of internet usage among male and female respondents. For the purpose of collection of the primary data needed for the present study, a questionnaire was structured for students. The data from students were collected in the questionnaire through personal interview method. The collected data were analyzed by applying t-test, and Z-test. After analyzing the data, it was found that 73.48 percent of male respondents and 55.88 percent of female respondents used to surf internet daily. There were 64 (48.48%) male respondents and 14 (20.59%) female respondents who used to surf internet during night hours. The analysis revealed that very few female respondents used to access internet in late night hours. The average duration of surfing internet came out to be 2 hours in one go for both male as well as female respondents. The frequency score came out for surfing search engines in case of male respondents while it was for search engines in case of female respondents. The analysis indicated that the extent of time spent on different sites by male and female respondents was similar.

Keywords: Internet; Research Students; PAU (Ludhiana).

INTRODUCTION:

The Internet is revolutionizing our society, our economy and our technological systems. The Internet, as an integrating force, has melded the technology of communications and computing, providing immediate connectivity and universal information services to all its users at very low cost and all this is available just by a click. The Internet is the 21st century gateway of opening for the young people. The role of computer and internet as the means for socializing with others, education, access to information, entertainment, shopping and communication is growing spectacularly in the life of youth (Tewari 2007). The internet has completely revolutionized the way of accessing the information. Adolescents use it mainly for the purpose of communication through e-mail, Whatsapp, Facebook and also for the purpose of gaining general information through various websites. India has bypassed Japan to become the world’s third largest internet user after China and the United States, and its users, are significantly younger than those of other emerging economies. India now has nearly 74 million internet users, a 31% increase over March 2012. 75% of the internet users are under
the age of 35. According to Telecom Regulatory Authority of India (TRAI), seven out of eight subscribers access the internet from their mobile phones (ComScore report, The Hindu, August, 2013). The internet is there to help the students in their studies and research projects as it is the most recognized and important source of information and knowledge. The access to internet by both the genders is a matter of research, probably because both genders had high exposure to the technology through their educational experience. Therefore, keeping in view the importance of internet in students’ life, the present research paper has been planned with the following objectives:

1. To work out the frequency of internet usage by research students; and
2. To study the differences in time and duration of internet usage among male and female respondents.

**REVIEW OF LITERATURE**

Komathi, M., and Maimunah, I., (2009), in the study “Influence of Gender Role on Internet Usage Pattern at Home Among Academicians,” showed that gender role to certain extent did influence Internet usage pattern at home. Women were seen to have more limitations compared to men to access to the Internet at any time due to family commitment.

Tomar, N., and Gulati, J. K., (2011), in the study under the title, “Trends of internet use among adolescents: Impact on physical health,” found that different types of health problems were highly prevalent among females as compared to males. The association between internet use and physical health problems was found to be significantly positive for urinary problems and fatigability.

Ali, M. M., (2012), in his study under the title, “Internet usage among students and teachers: An Exploratory Study,” revealed that 965 students and 100 % teachers used internet. It was also found in the study that both the teachers and students used the internet at home followed by college and internet café. It was also noted that both the teachers and students accessed the internet on a daily basis. In addition, the majority of the teachers used to spend time between 2 to 4 hours while students used to spend time less than 2 hours. Teachers and students who were in the age groups of 30 to 39 years and 20 to 29 years respectively were experienced in using internet services.

Akhter, N., (2013), conducted a study titled, “Relationship between Internet Addiction and Academic Performance among University Undergraduates,” and concluded that internet addiction was significantly negatively correlated with academic performance of university undergraduates. The results also suggested gender difference in internet addiction. Male students had a higher internet addiction than female ones.

Thanuskodi, S., (2013), in his study under the title, “Gender differences in internet usage among college students: A Comparative Study,” suggested that the Internet was not predominantly used by any sex. Both genders had equal access to the Internet; however, the differences were noticed in terms of usage pattern. The access was similar for both genders, probably because both genders had high exposure to the technology through their educational experience. On the other hand, there was a slight variation in the usage pattern at home between men and women due to the influence of gender role.

Noor-ul-amin, S., and Matto, M. I., (2015), in the research paper titled, “Attitude towards research among internet users and nonusers,” suggested that Internet users and nonusers differ significantly on all the four dimensions and the composite score of attitude towards research. Internet users were found to have a favorable attitude towards research. Gender differences in attitude towards research among internet users were also found significantly different, but the difference between the internet nonuser group of the university students could not be established.

**RESEARCH METHODOLOGY:**

The sample of the study was based on two-stage purposive-cum-random sampling technique. The study was purposively conducted at Punjab Agricultural University (PAU), Ludhiana, which is worldwide known for its contribution to the agrarian economy of India. The students undergoing research work under M.Sc. and Ph.D. streams of Punjab Agricultural University, Ludhiana and were the population of the study. The sample size comprised 200 students. For the purpose of data collection, a questionnaire was specially structured for students. The data from students were collected in the questionnaire through personal interview method. The collected data were analyzed by applying t-test and Z-test.

**RESULTS AND DISCUSSION:**

The results arrived at by analyzing the collected primary data have been elaborated below.

**Time of Surfing Internet:**

The information given in Table 1 showed that the highest proportion i.e. 74.24 percent of the male respondents...
used to surf internet in the evening, followed by 48.48 percent during night hours. The lowest proportion i.e. 13.64 percent of male respondents used to surf internet in the morning, followed by 33.33 percent during day time. In case of female respondents, the highest proportion i.e. 79.41 percent of them used to surf internet in the evening, followed by 32.35 percent during day time. The lowest proportion i.e. 19.12 percent used to surf internet in the morning, followed by 20.59 percent during the night. A similar pattern of timings of surfing internet was observed among male and female respondents, except during the night, where as significantly higher proportion of male respondents used to surf internet as compared to the female respondents. This is also confirmed by the Z-value of 3.83.

### Table 1: Time of Surfing Internet by the Respondents (Multiple Response)

| Time of Surfing | Male          | Female        | Z-value |
|-----------------|---------------|---------------|---------|
| Morning         | 18 13.64      | 13 19.12      | 1.01    |
| Daytime         | 44 33.33      | 22 32.35      | 0.14    |
| Evening         | 98 74.24      | 54 79.41      | 1.25    |
| Night           | 64 48.48      | 14 20.59      | 3.83**  |

**Source:** Author’s Calculation

### Timings of Surfing Internet During Night:

### Table 2: Timings of Surfing Internet during Late Night (Multiple Response)

| Time of Surfing | Male (N=64) | Female (N=14) | Z-value |
|-----------------|-------------|---------------|---------|
| 9 pm - 10 pm    | 6 9.38      | 8 57.14       | 4.22**  |
| 10 pm - 11 pm   | 34 53.13    | 6 42.86       | 0.70    |
| 11 pm - 12 pm   | 30 46.88    | 2 14.29       | 2.25*   |

**Source:** Author’s Calculation

There were 64 (48.48%) male respondents and 14 (20.59%) female respondents who used to surf internet during night hours. The information given in Table 17 showed that 53.13 percent of male respondents used to surf internet between 10 pm to 11 pm, followed by 46.88 percent of them used to surf between 11 pm to 12 pm. Only 9.38 percent of male respondents used to surf internet between 9 pm to 10 pm. As much as 57.14 percent of female respondents used to surf internet between 9 pm to 10 pm, followed by 42.86 percent of them used to surf between 10 pm to 11 pm. Only 14.29 percent of female respondents used to surf internet between 11 pm to 12 pm.

The analysis indicated that significantly higher proportion of female respondents used to surf internet between 9 pm to 10 pm as compared to that of male respondents. On the other hand, significantly higher proportion of male respondents used to surf internet between 11 pm to 12 pm as compared to that of female respondents. These findings were confirmed by Z-values.

### Frequency of Surfing Internet:

The respondents were asked the frequency of surfing internet in terms of ‘daily’, ‘2-3 times a week’, ‘once a week’, ‘once a fortnight’ and ‘once a month’. These frequencies were given score in the order of 5, 4, 3, 2 and 1 to know the overall frequency in a group. Then the mean scores were compared between male and female respondents with the help of t-test. The results have been presented in Table 3.

### Table 3: Frequency of Surfing Internet by the Respondents

| Frequency of Surfing | Male          | Female        |
|----------------------|---------------|---------------|
| No.                  | %age          | No.           | %age          |
| Daily                | 97 73.48      | 38 55.88      |
| 2-3 times a week     | 32 24.24      | 27 39.71      |
| Once a week          | 3 2.27        | 3 4.41        |
| Once a fortnight     | 0 0.00        | 0 0.00        |
| Once a month         | 0 0.00        | 0 0.00        |
| Mean                 | 4.71          | 4.51          |
| Overall              | Daily         | Daily         |
| t-value              | 1.37          |               |

**Source:** Author’s Calculation
Table 3 clearly showed that majority, i.e. 73.48 percent of male respondents used to surf the internet daily, followed by 24.24 percent surfing 2-3 times a week. The lowest proportion i.e. 2.27 percent used to surf the internet once a week. None of the male respondents surfed the internet for less than once a week. The highest proportion i.e. 55.88 percent of female respondents used to surf internet daily, followed by 39.71 percent surfing 2-3 times a week. The lowest proportion i.e. 4.41 percent used to surf the internet once a week. None of the female respondents surfed the internet for less than once a week.

The average score of 4.71 and 4.51 indicated that both male and female respondents used to surf internet almost daily. Hence the difference in the frequency of surfing the internet was non-significant as indicated by the t-value of 1.37.

Duration of Surfing Internet:
The respondents were asked the time of surfing internet in one surfing time. Their responses are shown in Table 4. The table clearly showed that the highest proportion i.e. 46.97 percent of male respondents used to surf internet for 2 hours in one go, followed by 45.45 percent for one hour. The lowest proportion i.e. 7.58 percent of them used to surf internet for 3 hours in one surfing time. None of the male respondents was reported to surf internet for more than 3 hours. Similarly, the highest proportion i.e. 55.88 percent of male respondents used to surf internet for 2 hours in one go, followed by 41.18 percent for one hour.

Table 4: Duration of Surfing Internet in One Surfing Time

| Duration of Surfing Internet | Male |  | Female |  |
|-----------------------------|------|---|--------|---|
|                            | No.  | %age | No.    | %age |
| 1 hour                     | 60   | 45.45 | 28     | 41.18 |
| 2 hour                     | 62   | 46.97 | 38     | 55.88 |
| 3 hours                    | 10   | 7.58  | 2      | 2.94  |
| >3 hours                   | 0    | 0.00  | 0      | 0.00  |
| Mean                       | 1.62 |       | 1.62   |       |
| SD                         | 0.62 |       | 0.55   |       |
| t-value                    | NA   |       |        |       |

Source: Author’s Calculation

Frequency of Various Features of Internet Use:
The respondents were asked the frequency of surfing various features of internet in terms of ‘daily’, ‘2-3 times a week’ and ‘once a week’ and these frequencies were assigned score in the order of 3, 2 and 1. The mean frequency scores were worked out to know the overall frequency level and compared between male and female respondents by using t-test. The results have been presented in Table 5.

In case of male respondents, the highest frequency score came to be 2.42 (2-3 t/wk) for visiting social networking sites, followed by 2.39 (2-3 t/wk) for e-mailing and chatting with friends, 2.22 (2-3 t/wk) for search engine, 2.15 (2-3 t/wk) for visiting educational sites, 1.97 (2-3 t/wk) for visiting entertainment sites and 1.9 (2-3 t/wk) for visiting information sites. The lowest frequency score was 1.32 (1 t/wk) for visiting religious sites, followed by 1.44 (1 t/wk) for visiting pornographic websites and 1.82 (2-3 t/wk) for visiting magazine sites. Other sites (not mentioned above) were also visited by male respondents for 2-3 times a week.

In case of female respondents, the highest frequency score came to be 2.38 (2-3 t/wk) for visiting search engine, followed by 2.26 (2-3 t/wk) for chatting, 2.24 (2-3 t/wk) for both e-mailing as well as for visiting social networking sites, 2.21 (2-3 t/wk) for visiting educational sites, 2.00 (2-3 t/wk) for visiting information sites and 1.85 (2-3 t/wk) for visiting magazine sites. The lowest frequency score was 1.38 (1 t/wk) for both visiting pornographic websites as well as religious sites. Other sites (not mentioned above) were also visited by female respondents for 2-3 times a week.

Table 5: Frequency of Using Various Features of Internet by the Respondents

| Features of Internet | Male |  | Female |  | t-value |
|---------------------|------|---|--------|---|---------|
|                     | Mean | Overall | Mean | Overall |         |
| e-mail              | 2.39 | 2-3 t/w | 2.24 | 2-3 t/w | 1.52    |
| Chatting            | 2.39 | 2-3 t/w | 2.26 | 2-3 t/w | 1.17    |
| Search Engine       | 2.22 | 2-3 t/w | 2.38 | 2-3 t/w | 1.80    |
Features of Internet | Male | Female | t-value
--- | --- | --- | ---
Educational Sites | 2.15 | 2 | 1 | 2.21 | 2 | 1 | 0.68
Pornographic websites | 1.44 | 1 | 1.38 | 1 | 0.71
Entertainment Sites | 1.97 | 2 | 1.79 | 2 | 1.69
Social Networking Sites | 2.42 | 2 | 2.24 | 2 | 1.81
Magazine Sites | 1.82 | 2 | 1.85 | 2 | 0.33
Religious Sites | 1.32 | 1 | 1.38 | 1 | 0.75
Information Sites | 1.91 | 2 | 2.00 | 2 | 0.97
Others | 2.01 | 2 | 1.82 | 2 | 2.06*
Source: Author’s Calculation

Time Spent for Surfing Internet on Various Sites:
The time spent for surfing internet on various sites was observed in hours per week. The average hours spent per week on various sites are shown in Table 6. The highest time spent was 3.53 hours per week by male respondents on educational sites, followed by 3.50 hours on social networking sites, 2.47 hours on chatting sites, 2.35 hours on entertainment sites and 2.15 hours per week on search engine. The lowest time spent was 0.59 hours per week on religious sites, followed by 1.22 hours on pornographic sites, 1.52 hours on information sites, 1.56 hours on magazine sites and 1.87 hours on e-mail sites. The highest time spent was 3.68 hours per week by female respondents on educational sites, followed by 3.59 hours on social networking sites, 2.43 hours on chatting sites, 2.21 hours on search engine and 2.03 hours on entertainment sites. The lowest time spent was 0.76 hours per week on religious sites, followed by 1.19 hours on pornographic sites, 1.34 hours on magazine sites, 1.54 hours on information sites and 1.74 hours on e-mail sites.

Table 6: Time spent for Surfing Internet on Various Sites

| Time Spent (Hours/Week) | Male | | Female | | t-value |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | |
| e-mail | 1.87 | 0.92 | 1.74 | 0.75 | 1.04 |
| Chatting | 2.47 | 1.35 | 2.43 | 1.45 | 0.19 |
| Search Engine | 2.15 | 0.94 | 2.21 | 1.09 | 0.41 |
| Educational Sites | 3.53 | 1.37 | 3.68 | 1.44 | 0.68 |
| Pornographic websites | 1.22 | 0.80 | 1.19 | 1.34 | 0.20 |
| Entertainment Sites | 2.35 | 1.29 | 2.03 | 1.10 | 1.75 |
| Social Networking Sites | 3.50 | 1.86 | 3.59 | 1.86 | 0.33 |
| Magazine Sites | 1.56 | 1.27 | 1.34 | 0.53 | 1.41 |
| Religious Sites | 0.59 | 0.52 | 0.76 | 0.87 | 1.79 |
| Information Sites | 1.52 | 0.81 | 1.54 | 0.77 | 0.21 |
| Others | 1.23 | 0.63 | 1.18 | 0.80 | 0.46 |
Source: Author’s Calculation

The analysis indicated that the extent of time spent on different sites by male and female respondents was similar. The male and female respondents spent higher time on educational sites, social networking sites and chatting sites as compared to that on religious sites, pornographic sites and magazine sites. Religious sites and pornographic sites were their least preference while educational sites and social networking sites were their most preferred sites.

SUMMARY:
- The highest proportion i.e. 74.24 percent of the male respondents and 79.41 percent of female respondents used to surf internet in the evening. A similar pattern of timings of surfing internet was observed among male and female respondents, except during night, where significantly higher proportion of male respondents used to surf internet as compared to the female respondents.
- There were 64 (48.48%) male respondents and 14 (20.59%) female respondents who used to surf internet during night hours.
The analysis indicated that significantly higher proportion of female respondents used to surf internet between 9 pm to 10 pm as compared to that of male respondents. On the other hand, significantly higher proportion of male respondents used to surf internet between 11 pm to 12 pm as compared to that of female respondents.

- Majority i.e. 73.48 percent of male respondents used to surf internet daily. None of the male and female respondents surfed internet for less than once a week. The average score of 4.71 and 4.51 indicated that both male and female respondents used to surf internet almost daily.

- The highest proportion i.e. 46.97 percent of male respondents used to surf internet for 2 hours in one go. Similarly, the highest proportion i.e. 55.88 percent of female respondents used to surf internet for 2 hours in one go. The average time of surfing internet in one surfing time came to be 1.62 hours both for male as well as female respondents.

- In case of male respondents, the highest frequency score came to be 2.42 (2-3 t/wk) for visiting social networking sites, followed by 2.39 (2-3 t/wk) for e-mailing and chatting with friends. In case of female respondents, the highest frequency score came to be 2.38 (2-3 t/wk) for visiting search engine, followed by 2.26 (2-3 t/wk) for chatting. Though the priorities of male and female respondents were different but the frequency of surfing various internet features was similar.

- The highest time spent was 3.53 hours per week by male respondents on educational sites, followed by 3.50 hours on social networking sites. The highest time spent was 3.68 hours per week by female respondents on educational sites, followed by 3.59 hours on social networking sites. The analysis indicated that the extent of time spent on different sites by male and female respondents was similar.

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