

INTERNET USAGE AND ACHIEVEMENT IN GEOGRAPHY OF THE SCHOOL STUDENTS FROM THE PERSPECTIVE OF GENDER & HABITAT

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ABSTRACT

This study examined the nature of internet use of school students and its relation to their learning achievement in geography subject only. This study was guided by three main questions: 1) Is there any significant difference in terms of internet usage and achievement in geography between rural and urban higher secondary students? 2) Is there any significant difference in terms of internet usage and achievement in geography between male and female higher secondary students? 3) Is there any significant relationship between internet usage and achievement in geography of higher secondary students? This was survey study with 300 Bengali medium higher secondary school students (Class - XI) who were selected randomly from Purba Medinipur District of West Bengal. A Self-made questionnaire was used to collect information regarding internet usage in daily life and an achievement test on geography subject also conducted by the researchers. Independent sample 't' test and Pearson correlation co-efficient were used to analyze the data. Study explored that male and female students were same in respect of their internet usage and achievement in geography subject. Similarly, no difference was found between rural and urban school students with respect to their internet usage ability and achievement in geography subject. Study also revealed the positive and significant relationship between internet usage and achievement in geography of the higher secondary students.

Keywords: Internet usage, Achievement in Geography, Gender, Habitat.

INTRODUCTION

We are living in an era where technological revolution is greatly influencing our lives. Even technology has left its immense footprints in the educational sectors also. The teaching-learning process gradually shifts from traditional to technology based approach. Jain & Getis (2003) explored that Geographers are using internet as an instructional means in college and university level. The effect of internet-based instruction on learning, however, is basically unknown at school level. Asdaque, Khan & Rizvi (2010) revealed that the use of internet is playing the significant role in the academic performance and social life of the university students of Pakistan. Online Media usage for Education also helps students in improving their academic performance in Malaysia (Shahibi & Rusli, 2017). Their findings exhibited that the internet can be a possible alternative instructional tool compared to traditional classroom methods.

West Bengal is improving day by day in terms of its school education system and ICT is playing a significant factor in this regard. We usually know that pupil feel much better when they learn through the use of ICT. Use of information and communication technology is now not confined only the by the teachers and within class room situation. Kiptalam & Rodrigues (2010) stated that the use of internet and its integration in the teaching and learning in secondary education is getting more widespread in Kenya and its use are extending among students and teachers as a means of communication and for information searching.

It is now also a wide spread practice by the learners at school level, specifically to the higher secondary student of West Bengal. Matlala (2015) revealed that the majority of the learners use internet via their cell phones. Most of the higher secondary students in Bengali medium could avail smart phone and they are very familiar with this device. They and their parents agree on the issue of using smart phone at school level because it is very helpful for communication. They spent their time in messages and information through Facebook, Twitter, WhatsApp, Telegram, Messenger, and Skype also. Parallel to these facilities there have a huge scope to extend learners' subject knowledge. Despite of having positive effect of internet, students' mental health is getting disturbed by the excessive use of internet. They are performing badly in their academic disciplines (Kakkar, et. al, 2015). But guardians have not understood the usefulness of internet since they think that this is a time killing device which deprived the students from their studies. They think that text book is the all clarification of their subjective quarries. According to the Tarimo & Kavishe (2017), the vehicle of clarifying discouragement by the parents from using and accessing internet is the challenge

for the students. Ahmad & Rafiq (2018) stated that male students are more experienced than female students in internet use.

After considering the existing situation of Bengali medium school students in West Bengal particularly in Purba Medinipur district, present researchers tried to explain these events of internet use in terms of usage of time, internet for social media, to learn & seek information, academic browsing, watch YouTube, to keep up with technology (Puspita & Rohedi, 2017). Basically researchers focused on the nature of Usage of internet in the daily life of higher secondary students and is there any relationship between internet use and academic achievement, basically in the subject of geography. Similarly, they were trying to study the internet use of the students and achievement in geography from the perspective of their gender and habitat. Most of the study about internet use and its relation to academic achievement done on the English medium schools, there was a gap realized by the present researchers and study conducted on Bengali medium schools of West Bengal.

OBJECTIVES

- To compare the internet usage in daily life of school students with respect to their gender and locale variations.
- To study the academic achievement of the students with respect to their gender and locale variations.
- To find out the relationship between internet usage and achievement of school students.

HYPOTHESES

To fulfil the above objectives researchers have frame the following hypotheses:

H₀1: There is no significant difference between male and female students with respect to their internet usage.

H₀2: There is no significant difference between rural and urban students with respect to their internet usage.

H₀3: There is no significant difference between male and female students with respect to their achievement in Geography.

H₀4: There is no significant difference between rural and urban students with respect to their achievement in Geography.

H₀5: There is no significant correlation ship between internet usage and achievement in Geography.

METHODOLOGY

Descriptive survey approach is adopted by the researchers in this study. Randomly three hundred Bengali medium school students (Rural-127, Urban-173, & Male-184, Female- 116) were selected from the Purba Medinipur districts of West Bengal. Information has been collected by the use of two separate tools. First tool comprises of 23 items, having five point likert type response areas which describe the use of internet. Secondly, an achievement test was developed and administered on the students (Grade-XI). Both the tools were developed by the researchers and also checked by the experts of the related fields. Data were analyzed through descriptive statistics, inferential statistics t-test and correlation co-efficient also measured.

OBJECTIVE-WISE RESULTS

O₁: To compare the internet usage in daily life of school students with respect to their gender and locale variations.

Testing H₀ 1: There is no significant difference between male and female students with respect to their internet usage.

Table 1. Descriptive & Inferential Statistics of Gender wise Students' Internet Use

Gender	N	Mean	Std. Deviation	df	t	P
Male	184	37.45	3.84	298	0.19*	0.85
Female	116	37.53	4.18			

* Not Significant at 0.05 level

From the Table 1, it is clear that there is a little difference in the mean score of internet usage of male students (N=184, M=37.45, SD=3.84) and female students (N=116, M=37.53, SD=4.18). Table also shows that in case of comparing the mean score of internet usage between male and female students with df= 298, the calculated t value is 0.19 and the obtained p value is 0.85 ($p > 0.05$). Hence this not significant at 0.05 level. Therefore, H₀ 1 is not rejected and it can be inferred that the mean score of male students is not significantly different from the mean score of female students regarding their internet usage. Researchers also obtained very small effect size ($d = 0.02$) between male and female higher secondary students in respect of their internet usage through Cohen's standard (McLeod, 2019).

Testing H_02 : There is no significant difference between rural and urban students with respect to their internet usage.

Table 2. Descriptive & Inferential Statistics of Location wise Students' Internet Use

Location	N	Mean	Std. Deviation	df	t	P
Rural	127	37.67	4.25	298	0.71*	0.48
Urban	173	37.34	3.75			

* Not Significant at 0.05 level

Analysis in the table 2 shows that there is a difference in the mean score in internet usage of rural students ($N=127$, $M=37.67$, $SD=4.25$) and urban student ($N=173$, $M=37.34$, $SD=3.75$). Analysis in table 2, also shows that in case of comparing the mean score of internet usage between rural and urban students with $df=298$, the calculated t-value is 0.71 and the calculated p-value is 0.48 ($p > 0.05$, the level of significance). Hence 't' value is not significant at 0.05 levels. So H_02 is not rejected and it can be inferred that the mean score of rural students is not significantly different from the mean score of urban students regarding their internet usage. Researchers also obtained very small effect size ($d=0.08$) between rural and urban higher secondary students in respect of their internet usage through Cohen's standard (McLeod, 2019).

O_2 : To study the academic achievement of the students with respect to their gender and locale variations.

Testing H_03 : There is no significant difference between male and female students with respect to their achievement in Geography.

Table 3. Descriptive & Inferential Statistics of Gender wise Students' Achievement in Geography

Gender	N	Mean	Std. Deviation	df	t	P
Male	184	24.18	2.36	298	0.87*	0.39
Female	116	23.94	2.27			

* Not Significant at 0.05 level

In the Table 3, there is a difference in the mean scores in achievement in geography of male students ($N=184$, $M=24.18$, $SD=2.36$) and female students ($N=116$, $M=23.94$, $SD=2.27$). In case of comparing the mean score of achievement in geography between male and female students, with

df = 298, the calculated t -value is 0.87 and the calculated p -value is 0.39 ($p > 0.05$). Hence, t is not significant at 0.05 levels. Therefore, H_{03} is not rejected and it can be inferred that the mean score of male students is not significantly different from the mean score of female students regarding achievement in geography. Researchers also obtained small effect size ($d = 0.10$) between male and female higher secondary students with respect to their achievement in geography through Cohen's standard (McLeod, 2019).

Testing H_{04} : There is no significant difference between rural and urban students with respect to their achievement in Geography.

Table 4. Descriptive & Inferential Statistics of Location wise Students' Achievement in Geography

Location	N	Mean	Std. Deviation	df	t	P
Rural	127	24.41	2.11	298	2.07*	0.04
Urban	173	23.85	2.45			

* Significant at 0.05 level

The table shows that there is a difference in the mean scores in achievement of geography of rural students ($N = 127$, $M = 24.41$, $SD = 2.11$) and urban students ($N = 173$, $M = 23.85$, $SD = 2.45$). Analysis of the Table 4, also shows that, in case of comparing the mean score of achievement in geography between rural students and urban students, with $df = 298$, the calculated t -value is 2.07 and the obtained p -value is 0.04 ($p < 0.05$). Hence, t -is significant at 0.05 levels. So, H_{04} is rejected and it can be inferred that the mean score of rural students is significantly different from the mean score of urban students in respect of achievement in geography at higher secondary level. Researchers also obtained small effect size ($d = 0.24$) between rural and urban higher secondary students with respect to their achievement in geography through Cohen's standard (McLeod, 2019).

O_3 : To find out the relationship between internet usage and achievement of school students.

Testing H_{05} : There is no significant correlation between internet usage and achievement in Geography.

Table 5. Correlation between Students' Internet Usage & Achievement in Geography

		Achievement in geography
Internet usage	Pearson correlation coefficient	0.168*
	Significance (2 level)	.000
	N	300

* Significant (2- tailed) at 0.05 level

Table 5 shows that the correlation of coefficient (r) between internet use and achievement in geography is 0.168. This indicates a positive correlation existed between these variables. The p value is .000 ($p < 0.05$) which is significant at 0.05 level. Hence H_0 is rejected. Therefore, it can be said that, there exists positive and significant co-relationship between score of internet usage and score of achievement in geography at higher secondary level. Researchers also obtained very small effect size ($r^2 = 0.03$) between internet usage and achievement in geography of the Higher secondary students (McLeod, 2019).

FINDINGS & DISCUSSION

The study revealed that the frequency of internet usage of the higher secondary student male and female were same. The result is similar to the findings of Dufour et. al. (2016) where they found Gender is not a significant factor in determining the internet addiction problem comparing the intensity of the time spent on internet activities. On the other hand, according to the study of Noor-Ul-Amin (2016) male and female senior secondary school students were differed in internet use for academic purpose in Kashmir. Male students are better than female students with respect to internet usage in Pakistan stated by Ahmad & Rafiq (2018). Students of rural and urban schools were not different with respect to their internet usage. But, Wang (2013) found difference in technology availability between rural and urban schools in Taiwan.

In the perspective of achievement in Geography subject, higher secondary male students were not different from female students. But difference was found between rural and urban students with respect to academic achievement of geography in Bengali medium student of Purba Medinipur. Therefore, the location of the school students is a determinant factor for achievement in geography subject at higher secondary level. This is much unexpected from the angle of contemporary situations of our modern society.

The study also found that a positive and significant correlation between internet usage and achievement in geography among the higher secondary students of Bengali medium schools in Purba Medinipur. In the earlier study conducted by Suphaswat et. al. (2016) proved that academic purposes internet usage was found negatively correlated to math achievement in Bangkok. The result also supported by the earlier study conducted by Jehopio, Wesonga & Candia (2017). They found strong co-relationship between those variables at University level in Uganda. People, who perform interactive activities with peers and teachers or use a balanced way by using different internet tools,

tend to have more academic success at University level explored by the previous study conducted by Torres-Diaz et. al. (2016). Internet illiteracy is another area of concern among high school learners (Matlala, 2015).

CONCLUSION

Government needs to establish computer labs in schools with internet connectivity because the lack of access to the internet is a major problem opposing internet usage amongst the learners and the internet is the most essential educational tool for learners at all schools. From the above study researchers concluded that internet usage of the students (class-XI) is not changeable with respect to their location, and gender of students. In case of achievement in geography subject, gender variation has no influence but location has an effect on their achievement in geography. Use of internet and achievement in geography subject of the students has a strong and positive correlation in Bengali medium schools, affiliated by WBCHSE. Here, it is suggested that, subject teacher have to take such initiatives or approaches to increase in internet usage for the understanding of content materials of several subjects. As a result, achievement of the students will be higher. Finally, researchers concluded that this study will play a role in developing new understandings about the modern technologies and its application.

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