USABILITY OF E-RESOURCES FOR ACADEMIC PURPOSES AMONG THE COLLEGE STUDENTS OF UDALGURI DISTRICT, ASSAM: A DESCRIPTIVE – CUM – SURVEY STUDY

*Devita Boro
Rajiv Gandhi University, Department of Education
Rono Hills, Doimukh
791112

ABSTRACT

Internet Technology has become one of the most popular/common information searching tools in every field with no exception in the education field. It has become a learning tool among the higher learners and as such, its use in the higher education sector for academic purposes is an emerging factor. Therefore, the present study is an attempt to know the accessibility status of e-resources or online learning resources for academic purposes among the college students of udalguri district, Assam. The nature of the study is descriptive-cum-survey and for collection of the data, the investigator had used a self-developed questionnaire.

Keywords: Usability, Internet Technology, E-Resources, Academic

Introduction

Information searching/retrieval system has met with a sea change in the present century due to the invention of Internet Technology. It provides the fastest exchange of information in any field with no exception of the educational field. The emergence of Information Technology has drastically changed the role of libraries and it is continuously changing. It has grown immensely over the years. The demand for the use of e-resources or the internet is rapidly increasing as it provides any information, anywhere and at any time. The Internet has become one of the most important sources of information in the present day making students self-reliant, self-dependent, etc. With its advent, students can search and retrieve any information related to their academic issues and others. ***Dr. Vinay Jagga (2008)*** said that there are manifold changes undergone in the teaching-learning process with the advent of modern sophisticated technologies such as – multimedia, telecommunication, and the internet. Recent technological developments in

computers and telecommunication particularly in the use of the internet and World Wide Web (www), especially in access to the storage and transfer of vast quantities of information have included many possibilities for direct application to the classroom teaching-learning situation. The internet has emerged as a powerful educational tool for instant access to information. It has become the biggest global digital information library and made a tremendous impact on the academic activities of the teachers and students. A significant transition has been seen in the academic communities' approaches and way of seeking information and the methods employed in the teaching and learning activities. This has become possible as the internet provides a wealth of current information and delivers text, graphics, images, audio, and videos at the same time. It acts as a powerful supplement to the traditional ways of studying and learning ***(Sujatha, 2011)***. Therefore, the use of internet technology/e-resources for academic purposes by the students is an important area of study.

1.1. E-Resources

In the present study, e-resources refer to any resources/materials that can be accessed with the help of Internet connection from different electronic gadgets/devices like computers, smartphones, tablets, laptops with a web browser.

1.2. Objectives -

1. To find out the accessibility status and use of e-resources for academic purposes by the college students of udalguri district, Assam.
2. To find out the differences in the accessibility status and use of e-resources for academic purposes by the male and female college students of udalguri district, Assam.

1.3. Hypothesis –

1. There is no significant difference in the accessibility status and use of e-resources for academic purposes by the male and female college students of udalguri district, Assam.

1.4. Methodology –

The investigator had used/employed the descriptive – cum – survey method for this study. The constituted populations of this study were the third-semester college students from two colleges of Udalguri district of Assam. The sample of this study comprised of 120 [80 (66.7%) male and 40 (33.3%) female] students coming under the population of this study and the selection of the sample had done randomly. A self-developed questionnaire has administered on the sample for the collection of data and the analysis and interpretation of the data has done by the use of a simple percentage (%) and x^2 – square test.

1.5. Analysis and Interpretation

The analyses of the study had made as per the objective wise as given below:

The finding of the objective- 1 is as follows:

Objective – 1. To find out the accessibility status and use of e-resources for academic purposes by the college students of udalguri district, Assam.

Table – 1: Showing the percentage analysis of the **Use of e-resources** for Academic Purposes

Use of e-resources

	Frequency	**Percentage**
Always	10	8.3%
Sometimes	107	89.2%
Never	3	2.5%
Total	120	100%

Interpretation – In table 1 it is seen that a very high percentage i.e. 89.2% of students indicated that they 'Sometimes' make use of e-resources for their academic purposes while 8.3% of students indicated that they 'Always' use e-resources and only 2.5% indicated that they 'Never' make use of e-resources for their academic purposes.

Table – 2: Showing the percentage analysis of **Device Used to access e-resources** for Academic Purposes

Device Used to access e-resources

	Frequency	**Percentage**
Smartphone	100	83.3%
Tablet	10	8.4%
Laptop	4	3.3%
Desktop	3	2.5%
Don't Use	3	2.5%
Total	120	100%

Interpretation – In table 2, it has been seen that 83.3% of students indicated the use of 'Smartphone' for accessing e-resources. While 8.4% indicated the use of 'Tablet', and similarly 3.3%, 2.5% indicated the use of 'Laptop' and 'Desktop'. It had also found that 2.5% of students do not use any device for accessing e-resources.

Table – 3: Showing the percentage analysis of **Place for Internet connection for accessing e-resources** for Academic Purposes

The place for Internet connection for accessing e-resources

	Frequency	**Percentage**
Library	0	0%
Cyber Cafes	14	11.6%
At Home	80	66.6%
Others	23	19.1%
Don't Access	3	2.5%
Total	120	100%

Interpretation – The majority of the students i.e. 66.6% reported that they access e-resources in their 'Home'. While 19.1% access e-resources in 'Other place', 11.6%

access in 'Cyber Cafes', 2.5% indicated that they don't access e-resources and it had also found that no students access the internet from the library.

Table – 4: Showing the percentage analysis of **Frequency of Access of e-resources** for Academic Purposes

Frequency of Access to e-resources

	Frequency	**Percentage**
Daily	22	18.3%
Weekly	85	70.9%
Monthly	6	5%
Occasionally	4	3.3%
Never Access	3	2.5%
Total	100	100%

Interpretation – The majority of the students i.e. 70.9% reported that they access e-resources 'Weekly'. While 18.3% access e-resources 'Daily', 5% access 'Monthly', 3.3% access 'Occasionally' and it had found that 2.5% of students 'Never Access' e-resources.

Table – 5: Showing the percentage analysis of **Time/Hours spent on the access of e-resources** for Academic Purposes

Time/Hours spent on the access of e-resources

	Frequency	**Percentage**
0-2 hours in a day	40	33.3%
2-4 hours in a day	60	50%
4-6 hours in a day	10	8.3%
More than 6 hours in a day	7	5.9%
Don't Spent	3	2.5%
Total	100	100%

Interpretation – Large proportion of the students i.e. 50% reported that they spent '2 – 4 hours' in a day accessing e-resources. While 33.3% access e-resources '0 – 2 hours' in a day, 8.3% access '4 – 6 hours', 5.9% access 'more than 6 hours' in a day and it had found that 2.5% of students 'Don't Spend' time for accessing e-resources.

Objective 2 –

To find out the differences in the accessibility status and use of e-resources for academic purposes by the male and female college students of udalguri district, Assam.

Hypothesis –

There is no significant difference in the accessibility status and use of e-resources for academic purposes by the male and female college students of udalguri district, Assam.

Table – 6: Observed Frequency on the use of e-resources for the academic purpose of male and female students

Use of e-resources/gender	Always	Sometimes	Never	Total
Male	8	71	1	80
Female	2	36	2	40
Total	10	107	3	120

Table – 7: Expected Frequency on the use of e-resources for the academic purpose of male and female students

Use of e-resources/gender	Always	Sometimes	Never
Male	6.66	71.33	2
Female	3.33	35.66	1

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e}\right]$$

$$= \frac{(8-6.66)^2}{6.66} + \frac{(2-3.33)^2}{3.33} + \frac{(71-71.33)^2}{71.33} + \frac{(36-35.66)^2}{35.66} + \frac{(1-2)^2}{2} + \frac{(2-1)^2}{1}$$

= 2.294

Here, df = (2 - 1) (3 - 1) = 2

Critical value of X^2 **at 0.05 level = 5.991**

Table – 8: Observed Frequency on the device used to access e-resources for academic purpose by male and female students

Device/Gender	Smartphone	Tablet	Laptop	Desktop	Don't Use	Total
Male	66	7	4	2	1	80
Female	34	2	1	1	2	40
Total	100	9	5	3	3	120

Table – 9: Expected Frequency on the device used to access e-resources for academic purpose by male and female students

Device/Gender	Smartphone	Tablet	Laptop	Desktop	Don't Use
Male	66.66	6	3.33	2	2
Female	33.33	3	1.66	1	1

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e}\right]$$

$$= \frac{(66-66.66)^2}{66.66} + \frac{(34-33.33)^2}{33.33} + \frac{(7-6)^2}{6} + \frac{(2-3)^2}{3} + \frac{(4-3.33)^2}{3.33} + \frac{(1-1.66)^2}{1.66} + \frac{(2-2)^2}{2} + \frac{(1-1)^2}{1} + \frac{(1-2)^2}{2} + \frac{(2-1)^2}{1}$$

= 2.396

Here, df = (2 - 1) (5 - 1) = 4

Critical value of X^2 **at 0.05 level = 9.488**

Table – 10: Observed Frequency on the preferred place for accessing e-resources for academic purpose by male and female students

Place/Gender	Library	Cyber Cafes	At Home	Others	Don't Access	Total
Male	0	10	51	18	1	80
Female	0	4	29	5	2	40
Total	0	14	80	23	3	120

Table – 11: Expected Frequency on the preferred place for accessing e-resources for academic purpose by male and female students

Device/Gender	Library	Cyber Cafes	At Home	Others	Don't Access
Male	0	9.33	53.33	15.33	2
Female	0	4.66	26.66	7.66	1

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e}\right]$$

$$= \frac{(0-0)^2}{0} + \frac{(0-0)^2}{0} + \frac{(10-9.33)^2}{9.33} + \frac{(4-4.66)^2}{4.66} + \frac{(51-53.33)^2}{53.33} + \frac{(29-26.66)^2}{26.66} + \frac{(18-15.33)^2}{15.33} + \frac{(5-7.66)^2}{7.66} + \frac{(1-2)^2}{2} + \frac{(2-1)^2}{1}$$

= 3.31

Here, df = (2 - 1) (5 - 1) = 4

Critical value of X^2 **at 0.05 level = 9.488**

Table – 12: Observed Frequency on the frequency of access of e-resources for academic purpose by male and female students

Frequency/Gender	Daily	Weekly	Monthly	Occasionally	Never Access	Total
Male	14	62	2	1	1	80
Female	10	20	4	4	2	40
Total	24	82	6	5	3	120

Table – 13: Expected Frequency on the frequency of access to e-resources for academic purpose by male and female students

Device/Gender	Smartphone	Tablet	Laptop	Desktop	Don't Use
Male	16	54.66	4	3.33	2
Female	8	27.33	2	1.66	1

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e}\right]$$

$$= \frac{(14-16)^2}{16} + \frac{(10-8)^2}{8} + \frac{(62-54.66)^2}{54.66} + \frac{(20-27.33)^2}{27.33} + \frac{(2-4)^2}{4} + \frac{(4-2)^2}{2} + \frac{(1-3.33)^2}{3.33} + \frac{(4-1.66)^2}{1.66} + \frac{(1-2)^2}{2} + \frac{(2-1)^2}{1}$$

= 13.11

Here, df = (2 - 1) (5 - 1) = 4

Critical value of X^2 **at 0.05 level = 9.488**

Table – 14: Observed Frequency on the time/hours spent on the access of e-resources for academic purpose by male and female students

Time/Gender	0-2 hours	2-4 hours	4-6 hours	> 6 hours	Don't Spent	Total

Male	**25**	**45**	**6**	**3**	**1**	**80**
Female	**20**	**10**	**4**	**4**	**2**	**40**
Total	**45**	**55**	**10**	**7**	**3**	**120**

Table – 15: Expected Frequency on the time/hours spent on the access of e-resources for academic purpose by male and female students

Time/Gender	0-2 hours	2-4 hours	4-6 hours	>6 hours	Don't Spend
Male	**30**	**36.66**	**6.66**	**4.66**	**2**
Female	**15**	**18.33**	**3.33**	**2.33**	**1**

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{f_e}\right]$$

$$= \frac{(25-30)^2}{30} + \frac{(20-15)^2}{15} + \frac{(45-36.66)^2}{36.66} + \frac{(10-18.33)^2}{18.33} + \frac{(6.66)^2}{6.66} + \frac{(4-3.33)^2}{3.33} + \frac{(3-4.66)^2}{4.66} + \frac{(4-2.33)^2}{2.33} + \frac{(1-2)^2}{2} + \frac{(2-1)^2}{1}$$

= 11.63

Here, df = (2 - 1) (5 - 1) = 4

Critical value of X^2 **at 0.05 level = 9.488**

Table – 16: Showing the overall value of chi-square, df and P-value of male and female students

Categories/Items	X^2	df	P-Value (0.05)	Remark
Use of e-resources	2.294	2	5.991	Not Significant
Device Used to access e-resources	2.396	4	9.488	Not Significant
Preference Place for accessing e-resources	3.31	4	9.488	Not Significant

Frequency of access to e-resources	13.11	4	9.488	Significant
Time/Hours spent on the access of e-resources	11.63	4	9.488	Significant

Interpretation -

a) It is clear from the table that there is no significant difference between male and female students on the Use of e-resources for their academic purposes.

b) Results of the chi-square test also revealed that there is no significant difference between male and female students on the use of devices/gadgets to access e-resources for academic purposes.

c) Similarly, it has also revealed that there is no significant difference between male and female students on the preferred place for accessing e-resources

d) However, the table depicts that there exists a significant difference between male and female students on the frequency of access to e-resources.

e) It had also found to have a significant difference between male and female students on the time/hours spent on the access of e-resources.

1.6. Results and Discussion

In this study, it has found that a large proportion of students i.e.89.3% reported that they make use of e-resources **'Sometimes'** while only 8.3% use e-resources 'Always' and 2.5% 'Never' use e-resources for their academic purpose. A large group of students i.e. 83.3% reported using **'Smartphone'** for accessing e-resources as followed by 'tablet' (8.4%), 'Laptop' (3.3%), 'Desktop' (2.5%) respectively. The majority of the students (66.6%) reported accessing the internet or e-resources at **'Home'** while 19.1% access from 'Other place' 11.6% access from 'Cyber Cafes'. A high percentage (70.9%) of respondent indicated to access e-resources **'Weekly'** followed by 18.3% (Daily), 5% (Monthly), 3.3% (Occasionally). 50% of the respondents had found to spent **2-4 hours** in a day accessing e-resources and 33.3% (0-2 hrs), 8.3% (4-6 hrs), and 5.9% (<6 hrs.). Besides this, it has also been found that gender (male and female students) do not differ on the use of e-resources, on the use of device/gadget to access e-resources as well as on the preferred place for accessing e-resources. However, a gender divide (difference) has been found in the frequency of access to e-resources and time/hours spent on access to e-resources.

1.7. Conclusion

The recent evolution of the Internet and e-resources has become one of the most powerful educational information tools in the present century. Learning through the Internet and e-resources via electronic devices has become one of the emerging concerns among the higher learner. There has been a contemporary change in the students' way of learning or study habits have begun to transform / shift from manual to digital, thus they are now called as "digital – age – learners". These digital-age-students have access to resources and knowledge beyond traditional institutional structures and practices. Technological advancement has urged and signaled for changes in every field with no exception in the education system. However, the results of the present study revealed that the students of the udalguri region are in the way of progress (starting point) towards the use of the Internet and e-resources for academic purposes. Since the majority of the students are found to use e-resources 'Sometimes', it indicates that they have started towards the Use of Internet and e-resources for their academic purposes.

Reference

Devi and Roy (2012), Internet Use among the Assam University Students. Published in Journal of Humanities and Social Science. Volume – 1 issue – 2, 2012. Retrieved from - https://www.thecho.in/files/Internet-Use-Among-University-Students--A-Case-Study-of-Assam-University-Silchar.pdf on 9 March 2015 at 10:50 AM.

Garrett, H.E. (1986), Statistics in Psychology and Education. Allied Practice Private Limited, Bombay

Jagga, V (2008), A Study of Internet Usage behavior of students to gender, grade, and sites. Journal of Educational Research and Extension. Vol-45 April-June 2008, Published by Sri Rama Krishna Mission Vidyalaya College of Education, Coimbatore- 641020.

Maniar (2002), A study on Internet Usage for Educational Purposes by female post-graduate students of the Maharaja Sayajirao University. Journal of Educational Research and Extension. Vol-39 (4), October-December 2002.

Mostofa (2011), Internet access and use among business students of the private university of Bangladesh. Published in Annals of Library and Information Studies. Vol-58, march 2011, pp 78-86.

Sujatha (2011), Internet Use in Undergraduate Colleges of Mangalore. Journal of Library and Information Technology. Vol-31, No.1, pp- 35-40.

Sharma and et.al. (2011), Internet Usage by the Faculty Members and the Students in Professional Colleges at Mathura Region. Published in International Journal of Information Dissemination and Technology. April-June 2011, Vol-1 Issue -2.

Selvi M and D.S. (2012), A Study on Utilization of Internet Resources Tools by Basic Medical Science Professionals. Published in Journal of Engineering Trends in Computing and Information Sciences, vol-3 no.-12, December 2012.

Tanuskodi and Amsan (2013), Effectiveness Use of e-resources materials among students of JJ College of Engineering and Technology. International journal of digital library services, vol-3 issue 2, 2013.

Wu and Chen (2011), Graduate Students Usage of and Attitude towards e-books: experience from Taiwan. Program: electronic library and information systems Vol. 45 No. 3, 2011, pp. 294-307. Retrieved from - DOI 10.1108/00330331111151601