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# Gender Differences in Use of Electronic Resources in University Libraries of Adamawa State, Nigeria

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## Introduction

Gender differences are being discussed in academia, economy, politics, science and technology, and even religious circles. According to McGinty and Moore (2008), gender issues have been in the forefront of impassioned public discussion regarding higher education. Similarly, according to Waldman (2003), gender is a relevant factor in use of electronic databases. A study by Sacks, Bellissimo, and Mergendoller (1994) of higher school students found that their attitudes to computer and use tended to vary by gender. Utulu (2006) observes that the issue of the gender gap in the digital divide and the impact of new technologies on gender in particular on the economic and political spheres of women lives are of major importance. This is because gender influences factors such as income, time constraints, literacy, education, language, and cultural context that affect access to facilities, training, and employment in information Technology. In order to facilitate access to information by all users within the university, Federal Ministry of Education in Nigeria (2000) introduced the virtual library project, which pulled together resources electronically, connecting all academic libraries in Nigeria with the hub at National University Commission. Consequently, university libraries in Adamawa state were not left behind in their efforts in providing electronic resources to their users. A survey by Bassi (2010) on attitudes of students towards use of e-resources shows that students form the major users of these libraries and they are heterogeneous in nature. This posed a point of concern to the researchers to investigate gender difference in attitudes among students in these libraries towards the use of electronic resources. This is important because electronic information resources open opportunities for both male and female students for their information needs in the pursuit of their educational career and future endeavors.

## Objectives of the Study

The objectives of this study seek to determine the:

- Types of electronic information resources available in the university libraries
- Use of electronic resources by gender
- The reasons students use electronic information resources by based on gender
- How students acquire their search skills to use electronic information resources based on gender

## Hypothesis

Ho<sub>1</sub> There is significant difference between male and female students attitudes towards the use of electronic information resources

## Literature Review

Many scholars have discussed the issue of gender difference among students towards the use of library resources. Manda and Mulkangara (2007) report that gender is associated with the use of electronic information resources, and that male postgraduate students were more likely to use e-resources than female students. They further report that even when there was controlled for attitude towards the use of e-resources or training in the use of e-resources the relationship between gender and e-resources was maintained. A study by Amkpa (2007) revealed that male and female students differ significantly in attitudes towards computer applications which later affect their job opportunities after graduation. A study by Tella and Mutula (2008) on gender difference in computer literacy reported that students with higher computer literacy were more inclined to access and make use of library facilities. They further reported that differences exist between female and male undergraduate students at the University of Botswana with regard to computer literacy. In the same vein, Ford and Miller (1996) report that gender is a predictor of internet use and attitudes, males seem to enjoy browsing on the internet for enjoyment, while females tend to only use it for work-related purposes. Ford, Miller, and Moss (2001) found that women tend to experience more difficulty in finding information online than men, and Steinerova and Susol (2007) revealed that statistically, there is high preference for the Internet as the first source of information among men. Men also put more stress on non-paid electronic resources as opposed to women's more frequent use of licensed resources. Ozoemelem (2009) reports a high frequency of use of electronic information resources by both male and female postgraduate students. The gender gap in electronic resources usage appears negligible.

Different studies have identified how students acquire their search skills for the use of e-resources. Klatt (2001) reports that a majority of students obtained their knowledge by trial and error or with the help of fellow students. Similarly, Adomi, Omodeko, and Otlo (2004), report that most students acquired Internet knowledge and skills through practical self-teaching.

Irrespective of gender, e-resources are used by students for different purposes. Aduwole (2003) and Obaje and Camble (2008) reported that e-resources are used for theses/dissertation/ project writing by postgraduate and final-year students. Reiner and Smith (2008) and Badu and Markwei (2005) all reported that students used e-resources mainly for research and assignments.

## Methodology

Survey research was used for this study. The target population of this study is

5,269 registered library users (students) of Federal University of Technology Yola, American University of Nigeria, Yola and Adamawa State University, Mubi. A proportionate stratified sampling technique was used to obtain representative sample from each stratum. Since the population of the study is not so large in each stratum 20% was used to determine the sample size in each stratum. Based on Nwana's (1981) formula, if a population is in many hundreds, one need a sample size of 20%, but if a population is a few thousands one needs a sample size of 10%, and for a population of several thousands, one needs a sample of 5% or less. Therefore, the

total sample size for the study is 1,053. as shown in Table.

Table 1: Population and sample size per stratum for each university library and by gender

Name of Library	Group of users (strata)	Population	Sample size
Federal. University of Technology Yola	Postgraduate students	242	48
	(a) male	88	18
	(b) female	1419	284
	Undergraduate students	720	144
	(a) male		
	(b) female		
American University of Nigeria Yola	Undergraduate students	551	110
	(a) male	377	75
	(b) female		
Adamawa State University Mubi	Postgraduate Students	38	8
	(a) male	27	5
	(b) female	1346	269
	Undergraduate Students	461	92
	(a) male		
	(b) female		
Total		5,269	1,053

Source: Library registration statistics of the three Libraries

## Data Analysis

Data were collected using questionnaire which were analyzed using frequency counts and percentages and t-test to test the null hypothesis.

## Findings and Discussion of the Results

Out of the 1,053 sample questionnaire administered to the students in the three university libraries only 724 were satisfactory filled, retrieved and used for this

study, which gives response rate of 68.8%. The breakdown by university is thus: 332 (31.5%) were from Federal University Technology, Yola, 126 (12.0%) from American University of Nigeria, Yola and 266 (25.3%) from Adamawa State University, Mubi. Out of this number 496 (47.1%) were males and 228 (21.7%) were females as presented in table 2.

Table 2: Distribution of Respondents to Questionnaire by Gender

Option	Frequency	Percentage
Male	496	47.1
Female	228	21.7
Total	724	68.8

Table 2 shows that only 496(47.1%) male students from the three universities responded and filled the questionnaire properly while, only 228(21.7%) female students from these universities which were used for the analysis for the study.

Table 3: Types of Electronic Information Resources Available in the University Libraries

Options	Frequency	Percentage
Databases	116	12.15
e-journals	125	13.09
e-books	165	17.28
CD-Rom	69	7.23
e-Theses and Dissertation	18	1.88
OPAC	70	7.33
Internet	392	41.05
Total	955	100

Table 3 shows that the Internet stand out to be the most highly used e-resource which serves as a gateway to other e-resources in the three libraries representing 392(41.5%), while e-books and e-journals follows with 165(17.23%) and 125(13.09%) respectively. The least responses is e-theses and dissertations which has a frequency of 18(1.88%), this might be attributed to small number of postgraduate students in this study. A total number of 955 frequencies from the table was a result of multiple responses from the respondents.

Table 4: Use of Electronic Resources by Gender

Sex	Frequency	Percentage (%)
Male	496	68.51
Female	228	31.49

Total	724	100
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Table 4 shows that a total of 496 (68.51%) male students use e-resources in the three libraries, while only 228 (31.49%) female students use the e-resources provided by the libraries based on the number of respondents who had satisfactory filled the questionnaire administered.

Table 5: Purpose of Using Electronics Information Resources by Gender

Option	Gender	Frequency	Percentage
Research	Male	280	43.5
	Female	102	38.1
Writing Thesis/Dissertation	Male	17	2.7
	Female	3	1.1
Writing Project	Male	57	8.8
	Female	27	10.1
Assignments	Male	227	35.3
	Female	96	35.8
Leisure	Male	62	9.7
	Female	40	14.9
Total	Male	643	100
	Female	268	100
		911	

Table 5 shows a total of 911 of responses due to multiple choice from both male and female students on reasons why they use e-resources. A total of 280(43.5%) and 102(38.1) males and females students respectively indicated that they used the e-resources for research. In the same vein, 227 (35.3%) and 96(35.8%) of males and females students respectively responded that they use the e-resources for assignments. Looking at the reasons based on gender difference and the percentages it can be concluded that male students use e-resources more for research purposes while female students used the resources more for assignments and leisure.

Table 6: Ways through Which Students Acquire Search Skills by Gender

Option	Gender	Agree	Neutral	Disagree
	Male-496 Female-228	Freq %	Freq %	Freq %
Library Instruction	Male	253 51.0	93 18.8	150 30.2
	Female	120 52.6	43 18.9	65 28.5

Training/workshop	Male	177 35.7	72 14.5	247 49.8
	Female	102 44.7	39 17.1	91 38.2
Through Trial and Error	Male	238 48.0	93 18.8	165 33.2
	Female	109 47.8	48 21.1	75 32.9
Through Friends and Colleagues	Male	321 64.7	87 17.5	88 17.7
	Female	138 60.5	36 15.8	54 23.7
Through Courses offered at the university	Male	250 50.4	90 18.1	156 31.5
	Female	107 41.9	46 20.2	75 32.9

Table 6 shows the most common ways through which students acquire their search skills. A total of 321(64.7%) and 138(60.5%) males and females students agreed that they acquire the skills through friends and colleagues respectively, 253(51.0%) and 120(52.7%) males and females students obtained their search skills through library instructions and 250(50.4%) males students agreed that they obtained their search skill through courses they offer in the university. On the other hand 109 (47.8%) females responded that they acquire the search skills through trial and error. Results in table 6, imply that the margin between how males and females acquire their search skills is negligible, because basically both male and female students obtained their search skills and knowledge in same ways

Hypothesis testing: The null hypothesis is stated thus:

Ho<sub>1</sub>: There is no significant difference between male and female students' attitudes towards the use of electronic information resources. The result of tested hypothesis is presented in table 6

Table 6: Summary of Independent t-test on Attitudes Difference of Male and Female Students towards the Use of Electronic Information Resources

Sex	N	Mean	Std deviation	t-value	Df	p-value
Attitudes male	496	23.5302	6.70196	-3.682	722	.000
Female	228	21.4693	7.59689			

Significant at 0.05 level of significance

Table 5 shows that the mean and standard deviation ( $23.5302 \pm 6.70196$ ) of male students was higher than that of female students ( $21.4693 \pm 7.59689$ ). These revealed a t-value of -3.682 at df 722 which is less than p- value of .000 at 0.05 level of significance. By this result, it shows that statistical significant differences exist on attitudes of male and female students towards the use of electronic information resources since the mean value of male students is greater than that of female students. This means that male students use electronic resources more than female students Therefore, the null hypothesis which states there is no significant difference between male and female attitudes towards the use of electronic information resources is rejected.

## Discussion

The findings of the study shed more light on the types of e-resources available in the university libraries under study as identified by both male and female students. In particular, Internet connectivity has allowed access to many electronic resources on a range of subjects. With this connectivity, both male and female students can access e-resources the libraries provide within and outside the library. This effort facilitates more use of the libraries. This justifies the primary goal of any library as identified by Nwalo (2003), who stated that the primary goal of any library is to acquire, organize, store, and make accessible to users within the quickest possible time all forms of information materials which they require.

The study revealed that male and females students use e-resources for different purposes. The most common reasons are for research, assignments, and writing of project/thesis/dissertation. Every user needs particular resources for his or her information needs. As Rangathan(1931) stated in one of the laws of library science, "every reader his book".

The study also shows that both male and female students acquire their search skills mainly through friends and colleagues and library instruction. Gender is not a factor in determining how students acquire their skills, because students interact and exchange ideas with friends and colleagues. This corroborates Klatt (2001) who stated that students acquire their search skills through friends and courses taught in the university.

This study further revealed a statistical difference between male and female students' attitudes towards the use of e-resources. This finding agrees with the studies by Manda and Mulkangara (2007) and Ford, Miller, and Moss (2001) who reported that male students use e-resources more than female students and that female students find more difficulty in finding information online than males. The implication of this is that male students are more likely to excel in their academic pursuits more especially in the technological age, due to the fact that current and fast information is more accessible electronically. The low use on the part of female students could be attributed to their social status, time they spent, and exposure in using computer related resources.

## Conclusion

The study determined the types of e-resources available in the university libraries under study. Research, assignments and writing of projects/ thesis/ dissertation were among reasons both male and female student use e-resources. The major ways through which male and female students acquire their search skills was through friends and colleagues and library instructions. It also determined that that there exists statistical difference between male and female students. The mean value of male students is greater than that of female students.

## Recommendations

1. The management of these university libraries need to sustain the acquisition/subscription of e-resources to have continuity, particularly in this technology age.
2. The management of these university libraries should create training programmes for students.
3. Female students must develop positive attitudes towards use of e-resources in order to maximize the usefulness of the resources which can enhance their academic career.

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