

Gender differences in library use: the case of Eritrea Institute of Technology Library

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Introduction

Gender role as a culturally and socially construction of a personality has been a sensitive issue in every aspect of human endeavor. Gender differences have been an issue reported continuously in all aspects of life, such as in education, technology usage, jobs, societal roles, etc. According to Moser (2011), gender refers to a socially constructed relation between men and women and should be central in development programs. McGinty and Moore (2008) states that gender issues have been in the forefront of impassioned public discussion regarding higher education. A lot of efforts and researchers in various areas have undertaken various studies to overcome gender differences on different aspects of life. However, gender differences still remain an important issue in general and specifically in most developing countries, where women still get less education opportunities than men.

Libraries being part of the education system equipped with various information resources, should address the need a varied user population which include males and females with a purpose of acquiring information. Although, information resources usage and information seeking are a basic activity of any human being which is determined by a particular way of behavior; gender has been identified as one of the variables shaping the behavior of individuals towards the use of information resource and ways of seeking information as well. This study examines the interaction of students with the library and its resources by gender, taking the case study of Eritrea Institute of Technology Library (EIT Library). It comparatively measures how both male and female students utilize the available information resources of the library. The structured questionnaire method was used for data collection. The study aimed to determine the association between gender and library resources usage and the library use itself as a place. The study also examined the correlation among socio demographic variables and gender. Additionally, satisfaction with technology by gender was also examined. The results showed that there is no significant difference amongst the male and female users in the use of library, library resources usage, and activities that the students do during their presence in the library. However, there is a significant association among gender and the purpose why the students visit the library. The result of the study shows that females visit the library for conducting research more than men counterparts and more than expected. In contrary the research

study by Funmilayo (2013) on Gender differences in the use of academic resources shows that both genders visit the library with similar purposes in terms of reading, book loans, and research. Additionally, female respondents showed that they do research as one of their activity within the library more than their men counterparts and more than expected. The results of the test on gender differences in satisfaction with technological resources, such as, CD-ROM, computers, internet facilities, e- resources and databases, is not significant except for computers. The study shows that females are neutral more often than the expected regarding computers, CD-ROMs, and internet. Similarly, Manda and Mulkangara (2007) report that gender is associated with the use of electronic information resources, and that male students were more likely to use e-resources than female students. Additionally, a study by Amkpa (2007) revealed that male and female students differ significantly in attitudes towards computer applications. However, Goodson et al. (2001) and Odell et al. (2000) were of the opinion that the gender gap in internet use and information seeking has narrowed significantly in college age group.

Background of the Study

Eritrea Institute of Technology (EIT) is one of the seven coeducational higher education institutions in Eritrea. It was founded in 2003 among the many results of the educational reformation in Eritrea. The college also known as Mai Nefhi college is a technological institute situated about 12 km southwest of the capital city Asmara, Eritrea near the Mai Nefhi dam. The institute has three colleges: College of Engineering and Technology, College of Science, and College of Education. It is the main local institution of higher studies in science, engineering and education offering courses and programs leading to officially recognized higher education degrees in several areas of study with an annual enrollment range of 5,000-5,999 students.

EIT Library is a central academic library founded parallel with the establishment of EIT in 2004 with the aim of supporting and facilitating in the achievement of the overall mission of the institution. The library is on campus with its own building covering an area of 1200 m². EIT library's budget is about 10% Of the total budget of the institution. It is stated that in the last two academic years the library's budget is about 500,000 Eri Nakfa (Eritrean currency = 34,000 USD) and being flexible as per the request. It has a total working staff of 46 that includes 11 experts and 17 librarians. The library serves an active number of daily users/students varying from 200-1200 and about 25 faculty members visit the library daily. EIT library's total collection is about 60,000 and its acquisition process is mainly based on donations. Currently the operations of the EIT library are mostly run manually.

Objectives of the Study

This study was designed to determine gender differences in use of the library and its resources. It aims to examine gender differences in use of the library and its resources, taking the case of Eritrea Institute of Technology Library. More specifically the study attempts to determine the frequency of library use by gender, the reasons for using the library by the students in line with gender, the student's level of satisfaction with library resources by gender and understand the level of ICT interaction of the students by gender.

Methodology

1.1. Data collection

This study is a survey-based study analyzing the existence of gender difference in the use of library by the students at the college under study. Data was collected using a structured questionnaire consisting both closed and open-ended questions. The questionnaire was administered to the two hundred and fifty-one students of the sample population of the EIT library. Two hundred and fifty-one (251) copies of the questionnaire were successfully filled and returned and found useable/fit for the analysis, representing a response rate of 100%. Additionally, this study used information from non-systematic observation of the principal researcher on the behavior of students within the library. The non-systematic observation is a previous observation made by the researcher as being member of the Department of Library and Information Science, on the behavior of the students during their presence in the library by just watching what happens and try to learn the structure of their actions and activities with in the library.

1.2. Sample

The population of the study comprised an average daily active (720) users of EIT library in the academic year of 2017/18 resulting to a sample size of 251 with a confidence level of 95% and 5 degree of tolerance.

1.3. Data analysis

Descriptive statistics of percentages, and frequency counts were used for data analysis with the Software Package for Social Sciences (SPSS22). Then to examine the use of library resources by gender, a chi-square test was used. Chi – Square tests the existence of relationship between categorical variables. This statistical test is commonly used for testing relationships between categorical variables. They are used to determine whether significant associations exist between the variables.

Results and Discussion

The demographic distribution of the population; distribution by gender shows a higher percentage of students to be 143 male when compared to their 108 female counterparts (57% vs. 43% respectively). More than half of the study subjects covering 58.6% were in the younger age group (17-20) including 86 female and 61 men respectively falling to this group. Whereas the second highest group amounting to 36.7 % (21 female and 71 men) of the students fall in the age group (21-24). Lower percentages of 2.8 % (1 female and 6 men) and 2% (only 5 men) of the respondents were respectively at the age between 25-30 and above 30.

		Gender	
		Female	Male
Age	17-20	86	61
	21-24	21	71
	25-30	1	6
	30-	0	5
	Total	108	143
	Science	85	50
	Engineering	10	80
	Education	13	13
	Total	108	143

Table 1: socio demographic distribution of respondents by gender

The results of the correlation test among socio demographic variables and gender, shows the existence of significant association between faculty - gender, age – gender, and level of education – gender.

Variates	χ^2	df	P-value
Age	6.188	1	0.013*
Faculty	59.801	2	0.000*
Year of Study	32.068	4	0.000*
Average Grade Points	4.486	2	0.106

Table 2: comparisons of socio demographic variables by gender

As shown below in figure 1, as the year of education increases the number of female students drastically decreases. While almost 25% female students were at their first year of study, only 7.4% and 2.8 % of them were at their final (4th and 5th) year of studies

respectively. In contrary almost 34 % of men respondents were at their final year of studies. In a similar way the number of female students decline with the increase in age. While majority 79% of female students were at their young (17-20) as compared to 42% of men students, only 0.9% of female students were at the age above 25 in comprising to 8% men students. This might result from the fact that majority of the females in many countries that are under development get married at their early age and are not encouraged to continue education, after which they take up other responsibilities as home chores and catering for the welfare of their children. This might consume their time, thus reducing their preference for enduring education.

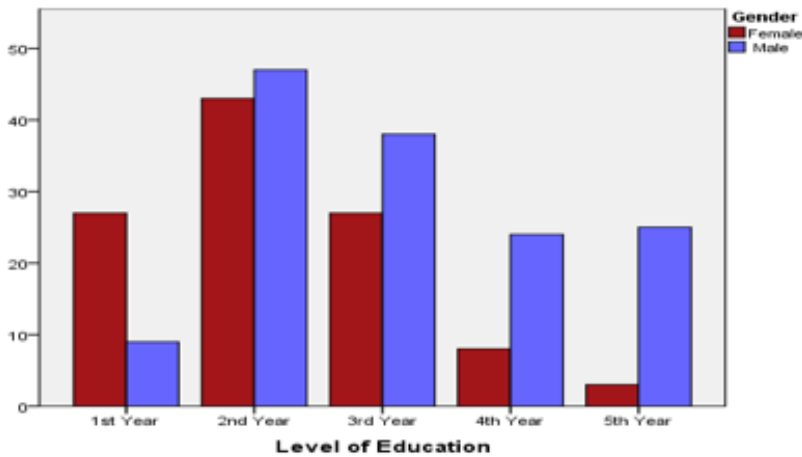


Figure 1: Gender * Level of Education Crosstabulation

Although there is no significant association between gender and average grade points of the students; as revealed in the below given figure 2, female students tend to have a lower grade points than men respondents. 66. 7% of men students have a higher average grade points (3.01-4.00) as compared to 33. 3% of the female students. whilst 48.1% of men students average grade points fall to the lower group (1.80-2.25) almost more than half 52% of the female students grade points fall to this lower group.

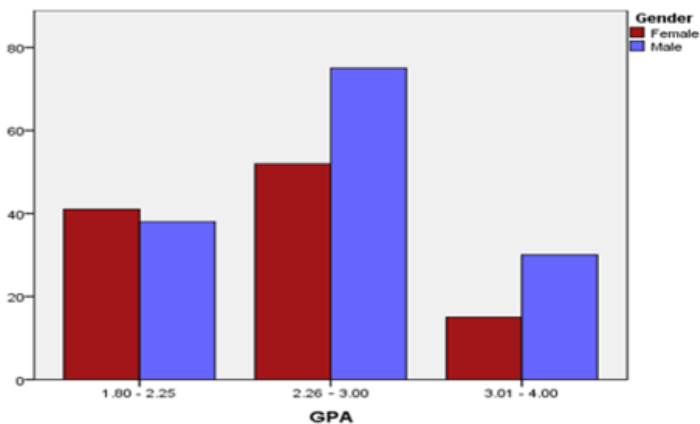


Figure 2: Gender * Average Grade Points (GPA) Crosstabulation

User Library Interaction by Gender

The results showed that there is no significant association amongst the male and female users in the use of library, library resources usage, and activities that the students do during their presence in the library. A similar study by Danbabale (2015) reported the non-existence of significant gender difference in use of library and in accessing information materials in the library. However, the findings of this study show a significant association among gender and the purpose why the students visit the library, at $X^2(2) = 11.260, p=0.04$.

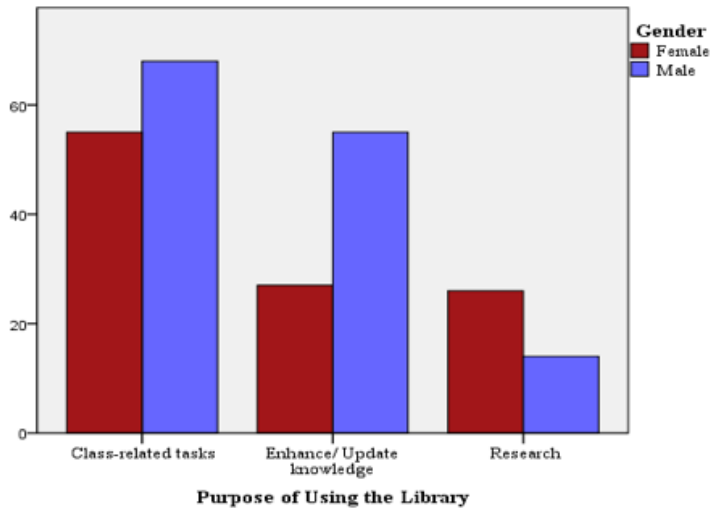


Figure 3: Purpose of Library Use by Gender

As for the reasons why, the students visit the library as shown in the above figure 3: females respondents visit the library for conducting research more than men counterparts and more than expected. The results show that 24% female students visit the library for conducting research as compared to 10% of men students. Majority 49% of the male students visit the library for conducting class related tasks that includes examination and assignments. Additionally, female respondents showed that they do research as one of their activity within the library more than their men counterparts and more than expected as shown in figure 4 below. Despite this female students have lower average grade points than men students as shown in figure 2. This might result from the fact that most females take up other responsibilities as home makers that might result difficulty in combining academic work with home chores.

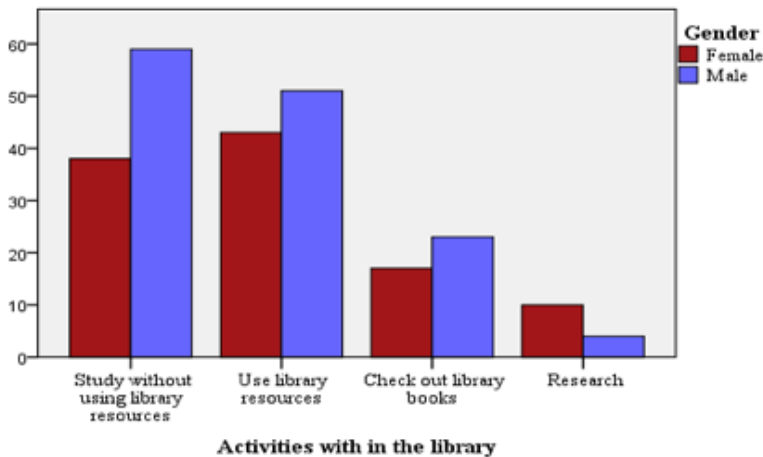


Figure 4: Activities within the Library by Gender

User ICT Resources Interaction by Gender

The results of the test on gender differences in satisfaction with technological resources, such as, CD-ROM, computers, internet facilities, e- resources and databases, is not significant except for computers. The study shows that females are neutral more often than the expected regarding computers, CD-ROMs, and internet. As the results shows female respondents seem to mind less about technology than man respondents. The results agree with the findings of the study by Yong-Mi Kim (2010) that reported significant gender differences in the use of technology; showing that male and female users' computer self-efficacy is very different where Female users have lower levels of computer self-efficacy than men users. However, an earlier study by Shaw & Gant (2002) contradicts these findings. They conducted a similar study and reported that gender had no significant effect on any of the dimensions of computer attitude studied.

*significant at $p \leq 0.05$

Variates	χ^2	df	P-value
CD-ROM	2.878	2	0.237
Computers/ Printers	6.058	2	0.048*
Internet Facilities	0.585	2	0.746
E- Resources	2.262	2	0.323
Databases	0.406	2	0.816

Table 3: satisfaction with ICT resources by gender

Conclusions and Recommendations

The study concludes the existence of a significant gender difference in the purpose of use of library and ICT resources. The findings of this study have important implications given that the number of female students tend to decrease with the increase in the level of education and age as well as that a higher group of female respondents fall to the faculty of sciences. As the findings of this study revealed, female students tend to visit the library to do research more often than expected and than their male counterparts, despite this female students have lower average grade points than expected. Such findings might be resulted from the notion that females in many countries that are under development are not encouraged to continue education. Furthermore, possible societal influences shape the behavioral structure of ones gender. Female students tend to be hesitant to try unfamiliar technology; subsequently they are not likely to form intention to use. So, not utilizing the advantage of technology may adversely affect the female users. Besides, the difference in academic achievements between the two genders maybe also partially affected from the non-use of ICT resources, in that regard the benefits of such resources maybe inadvertently distributed unequally between the two genders.

Taking the above points in to consideration the study suggests user education program that will accommodate all the gender, and particularly that encourage female students to develop positive attitudes towards use of e-resources in order to maximize the usefulness of the resources which can enhance their academic career should be considered. The results show that gender difference in most case is not significant, however it successfully demonstrated gender differences in the purpose for using the library and ICT resources. However, future studies should be considered to answer the reasons for the existence of such differences and to understand in-depth the existences of gender differences and to come with possible solutions to bridge the gap.

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