Advances in Social Sciences Research Journal – Vol.1, No.7
Publication Date: November 27, 2014
DOI:10.14738/assrj.17.492
Maxwell, E. C., & Maxwell, E. M. (2014). Gender Differences in Digital Literacy among undergraduate Students of Faculty of Education, Kogi State University: Implications for E- Resources & Library use. *Advances in Social Sciences Research Journal, 1*(7), 96-108

Gender Differences in Digital Literacy Among Undergraduate Students of Faculty of Education, Kogi State University: Implications for E- Resources & Library Use

Maxwell, Ezinne Charity
Department of Library and Information Science,
Faculty of Education, Kogi State University, Anyigba

Maxwell, Eberechukwu Mercy
Department of Library and Information Science,
Faculty of Education, Kogi State University, Anyigba

ABSTRACT

This study investigates gender differences in the computer literacy levels among undergraduate students of Faculty of Education, Kogi State University, Anyigba. The study aimed at gender differences in digital literacy among undergraduates' students of a state university in North Central Zone of Nigeria considering digital literacy, years of computer experience, difference in number of hours of in use per week, gender difference in use of various software, relationship between computer use and experience, deviations among gender on application and problems encountered. The study employed descriptive survey to collect data. A total of 1300 students were enrolled in 1st and 2nd year, spread across the 12 programmes run in the 5 departments of the faculty. While, the demographic characteristics of the population revealed 720 (55.05%) male for both levels and 580 (44.05%) female undergraduate students for both levels. The sample size for male was 248 and 226 was for the female students using random and purposive techniques to select. Self-constructed, and structure questionnaires was used divided into 3 sections for data collection. Findings revealed that students with computer literacy were inclined to access and use of e-resources and e-library facilities better. Moreover, differences exist in digital/computer usage and software applications. Implications of these results on students' use of the e-resources and e-library were discussed. The study argues that although there is increased access to computers by way of the attainment of western education by more girls, there is still a noticeable gender difference in the use of computer among female students in the university. Recommendation was made to improve information literacy especially in computer literacy skills for undergraduate students.

Keywords*:* Digital literacy, gender difference, undergraduate students, faculty of education, Kogi State University, anyigba.

INTRODUCTION

Kogi State University, Anyigba came into being when the Bill establishing the institution was signed into Law by His Excellency, Prince Abubakar Audu, in 1999. The University commenced academic activities in April 2000 with pioneer students that spread across the six faculties: Agriculture, Arts& Humanities, Law, Management Science, Natural Science and Social Sciences. Faculty of Education came on board with faculty of Medicine bringing the total number of faculties in Kogi State University to eight. Kogi State is one of the states in the North Central Geo-Political zone of Nigeria.

Copyright © Society for Science and Education, United Kingdom

The issue of gender equity as far as access to and use of information and communication technologies (ICTs) continues to be a topical subject not only at the universities all over the world but also in universities in Africa and in Nigeria in particular. This has been given impetus by the Millennium Development Goals (MDGs) that espouse gender equality by the year 2015. The MDG Goal 3 emphasizes promoting gender equality and empowerment of women with specific targets to improve the education of women and girls (Development Gateway 2004). This declaration is made against the backdrop that access to and use of Information and Communication Technology (ICT) remains extremely uneven between female and male in tertiary institutions especially in developing countries. Association of Africa Universities (AAU) Conference held in Nairobi, Kenya from 5th–12th February 2001 noted among others poor quality of students, paucity of contemporary programmes and gender inequality as some of the problems that were preoccupying the minds of educators and policy makers. It has been a concern that universities were producing graduates who are ill equipped for labour and productivity and consequently employers often re-trained staff, which is time-consuming and expensive exercise (Aduda 2001).

One of the recurring themes in the under-utilization of ICTs is the lack of relevant competencies for the females which is often cited as more affected than males. Aduda (2001) noted that the myriad problems afflicting university education in sub Saharan - Africa, were among others, lack of competencies, knowledge and skills on the part of students and that if these keys to working in a rapidly changing technological environment were not being addressed a good working and productivity future cannot be guarantee. Similarly, Daly (2003) pointed out that university education in most developing countries especially those in Africa have the following problems: technophobia, lack of prerequisite skills to manipulate new technology, and reluctance to switch from traditional methods of teaching to technology oriented approaches. Anuobi (2004) pointed out that man has scientifically placed himself in an environment that is global and digital, which predisposes him to constant use of information, its location nothwithstanding.

LITERATURE REVIEW

Computer literacy has been a subject of educational research presently and this concept is defined as the knowledge and ability to use computers and related technologies efficiently, with a range of skills covering all levels from primary use of word processing to programming and trouble shooting for problem solving Lynch (1998). Computer or digital literacy can also be refer to the comfort level that someone has with using computers. It deals with the understanding of what computer is and how it can be used as a resource. Digital literacy may be utilized as a measure of quality of users 'work in technological environments and it provide scholars with a more effective means of communication in designing better user- oriented environments. Digitally literate people are those who can communicate and work more efficiently, especially with those who possess the same knowledge and skills and a digital citizen is any person who has the digital skills to interact with society meaningfully. Idowu, Adagunodo, and Idowu (2004) define computer literacy as the ability to make use of computer system from word processing documents, data analyses, and development of small computer programmes, browse the internet and installing of software programmes to the use of all kinds of packages and devices. The Department for Education in the United State of America (1996) citing Hall (2005) observes that information literate individuals in addition to knowing how to use the computer for word processing, spreadsheets and internet access make use of increased learning opportunities provided by such technology. Mitra (1998) on the other hand perceives computer literacy as the amount of computer knowledge acquired in the past and the length of computer usage. Similarly, Loyd and Gessard (1984) conceive computer literacy based on the

amount of the time spent on the computer, ownership of computer and number of computer related courses taken, while

Idowu, Adagunodo, and Idowu (2004) revealed that knowledge, skills and confidence with computer technology are now an asset for those entering the competitive employment market. They pointed out that every aspect of life from education, leisure, and work environment to social interactions is being influenced by digital or computer technology. Moreover, with the increasing use of Information and Communication Technology (ICT) in education world over which is new demanding acquisition of new skills and competencies among students effective learning, studying and research. There are vast array of services that one can be currently find online. These services are constantly growing, some of which are of general nature, while others are specialized and are helpful to students such as reference information services on the Web, this include: blogging, social network, hobbies sites, shopping sites, current events and sites, e-books, e-mails, travels, databases (EBSO, AJOL, SSRN, ERIC), and search engines news, weather, sports, movies, encyclopedias, cartoons and games among others. As an educational and entertainment tool, ICT can enable students learn virtually about any topic, visit sites that can help them in learning. Moreover, for students to exploit ICT resources, effectively, there is need to be equipped with the requisite digital literacy competencies.

Tomas Rivera Policy Institute (2002) in the United States noted that students who did not have access to computers and the internet (among other technologies) were likely to get further behind their peers who did have such access. Such deprived students would miss the instant links to information, entertainment, and communication. In addition, they would potentially miss out on the 70 percent of job opportunities that require moderate or high amounts of computer knowledge and literacy, all of which pay well and probably would end up in the 10 percent of low-paying jobs that do not require technical expertise (Linn 1999). With the increased use of ICT in society in general and schools in particular, it becomes imperative that students should be equipped with digital literacy competencies in order to exploit the web world of information resources that the electronic age engenders. The importance of computer literacy especially in higher education does not need to be over emphasized. The New York Times Company (2006) observed that in most places of business, a computer is a standard tool. Similarly, in the bank over the world today, computers are used to trace up account information. Furthermore in the increasingly automated library environments, users cannot find books by looking in a card catalog any longer in most of the developed world but must use a computerized database.

The point today is that no matter where one finds employment, there is a good chance that a computer will be a basic tool one will have to use and to be computer literate has added value to individuals in the society. it is of paramount importance now for students in institutions of learning to acquire and possess digital or computer skills and literacy in this new age. It is therefore in the best interests of students in the Education Faculty of Kogi State University to be computer literate both for job employment, entrepreneurships and in enriching their studies in their departments within the university campuses and at work place. Within higher education, computer literacy is being recognized as an important component of the curriculum, even in Kogi State University which has in the last seven years strived to put in place mechanisms that would enhance information literacy in general and digital literacy in particular aimed at enhancing the quality of learning processes, research and teaching.

The issue of equipping students with adequate digital literacy skills to prepare them for the increasingly digital environment has long been a concerned at Kogi State University. The introduction computer based examinations, digital center, computer center, electronic library and partly automated university library were ways to address such cross-cutting issues as

employers' expectations, competence in communication skills, computer and information literacy. All these provide opportunities for the university to enhance flexible learning anytime anywhere and at student's own pace and provide customized individual learning preferences. Furthermore, this is to enable students explore learning materials with more ease (multiple modes and multi-media); provide an easy means of finding, handling, and publishing electronic materials. It was also expected that through e-learning, access to relevant national and international resources would be facilitated. It is on record that efforts are being made to enhance digital literacy especially in higher institutions of learning all over the world but no deliberate efforts have been made to address the imbalance that exist between females and males, in spite of increasing documented research on gender imbalances.

In a study conducted by Enochsson (2005?) with an aim to investigate gender difference in computer literacy among undergraduate students of university of Botsswana and the implications for using the increased computerized library resources. The study show that females react somewhat differently to computers and also have to deal with different conditions in society regarding these issues compared to their male counterparts. This study is related to the present study on investigating gender differences in computer literacy of University undergraduate students and the implications for using the increasing e- resources and computerized resources in a digital environment.

The progressive users are those who are ready for whatever it takes them to have more knowledge of computer. They spend their time and money to learn more about the technology. The high users are those who are well verse in computer technology. They know how it works and how it can be manipulated. The dependent users on the other hand, are those who don't know anything about computer and not making an attempt to learn it. They depend on those who know much about computer to help them out in case they have something to do on computer. Kay (1993) developed a practical multicomponent computer ability measure (CAS) comprising all four areas of computer use or sub-scale involving software ability, awareness, perceived control and programming skills. By and large, the vast majority of undergraduate students in universities in general world recognize the importance of computer literacy as the key for success in their personal and professional lives (Sanders and Morrisson-Shetlar 2001).

Fisher (2000) in an investigation of computer skills of teacher education students found that 86% of them classified themselves as experienced computer users or as having some knowledge of computer software applications. These figures were likely to increase in line with computer usage in schools and at home. Similarly, Kay (1993) in a study of computer literacy level of pre-service teachers reported that respondents rated themselves as having low knowledge and very low programming skills. Hignite and Echternacht (1992) also in similar study found that subjects tended to have a low literacy level, even though their attitudes towards computers were positive. Furst-Bowe et al. (1995) in related studies noted that computer literacy among academics in higher education showed considerable variation, yet it is assumed that all students will have a similar level of related skills on entering university. Furthermore, Furst-Bowe's study of computer literacy of students entering university reported that levels of computer literacy varied greatly amongst the respondents. Sweaney et al. (2001) recognized the need to be cautious in assuming that all students have had similar exposure to computers prior to entry into university education. Geissler and Horridge (1993) observe that variables such as computer experience, computer familiarity, computer use and computer ownership influenced self-reported levels of computer literacy.

Adekunimise, Ajala and Iyoro (2013) carried out a study with an aim to determine the internet access and usage by students: a case study of Olabisi Onabanjo University, Nigeria. The study reviewed literature on ICT and its importance in education and research. A description of

Copyright © Society for Science and Education, United Kingdom

internet and its actual use by lecturers as well as the students were also reviewed. Data was obtained from two hundred students of the institution with the use of the questionnaire. Results showed that majority of the cybercafé around the university environment were privately owned and 32% of the respondents had skills in browsing the internet. Also the use of the internet has great benefits to the respondents in academic activities and research, doing assignments and preparing for examination. The study revealed problems and suggestions were made.

Bhatti and Hanif (2013) carried out a study to explore the growing effect of ICT on information usage pattern of the faculty members of social science at Bahauddin University Zakariya Multan. The findings revealed that internet has become a significant source for the faculty members and researchers as they use internet for education- purposes, research work and updating of knowledge. Google, Yahoo and MSN are widely used search engine and majority of the respondents do not use the Excite, Snake, Kapok and Alta Vista. Faculty members frequently use Science Direct to seek relevant information for their research. The problems include lack of internet facility, digitized materials and audio – visual materials are not provided in most departmental libraries of faculty of social sciences. The study suggests that information literacy programmes should be provided in every departmental library of faculty of social science. Professional staff should be recruited in the departmental libraries of social science. Internet service, information service, abstract and indexing service should be provided by the departmental libraries for maximum users' satisfaction.

Hazrati, H; Gavgani; and Ghornanian (2013) studied to determine information literacy competency of faculty members and postgraduate medical and para-medical students using medical information resources with an aim to recognize to what extent the medical and para medical postgraduate students and faculty members were able to use the variety of information resources. Descriptive analytical method was used with 80 faculty members and 80 para professional medical postgraduate students. Data collected using SPSS 116 and One Way ANOVA and independent t-test were applied. The result revealed that information literacy was classified into low, moderate and high. Majority of the faculty members had moderate literacy skills with 51% level, the para-professional medical students has a high level of 57% of literacy skills. The conclusion of the study was that literacy skills of faculty staff were low compared to that of the students.

GENDER AND COMPUTER LITERACY

The term gender refers to the difference roles men and women play in society or community. These roles are determined by cultural, social and economic factors and difference within and between cultures and countries. Gender roles are different from sex difference in that sex differences are biological and for the most part unchangeable. Gender issue has become a widely discussed phenomena in higher education sector, how gender affect the use of electronic resources among researchers and students it is amazing how technology has offered opportunities for innovation for all, however it has been observed that not all e- learners have same approach to the use of ICT or digital resources. The level of ICT knowledge and use varies from one leaner to other.

Vygotsky (1986) noted from a socio-cultural perspective that knowledge is constructed and developed through communication with the environment. Similarly, James and Prout (1997) citing Enochsson (2005) noted that gender together with childhood are seen as cultural constructions and participating children are treated as participating subjects and co-constructors of data Consequently, the word gender does not necessarily mean that there are inherent differences between female and male in terms of preferences for technology. If there are any differences, they are based on hierarchical structures within the culture of what is

suitable for boys and girls respectively (Johansson 2000; Walkerdine 1997). Kembler (1996) notes that Science and Technology is in no way separated from the cultural structures that treat women and girls unfairly compared to male counterparts. Evans (1994) observes that gender is a fundamental category for ordering and classifying social relations in the world.

Research has over the years shown that males dominate in the use of computer compared to women, Geissler and Horidge (1993). Similarly, even in situations where male and female are given equal access, men are more likely to be main computer user than women (Becker and Sterling 1987; Idowu, Adagunodo, and Idowu 2004). Traditionally, girls tend to be interested in computers, use them less often in their spare time and have more negative attitude towards computers (Barnert and Arbinger 1996; Brosnan 1998; Metz-Goeckel et al. 1991; Okebukola 1993; Shashaani 1994).

Consequently, the girls are often less computer literate than boys (Schaumburg 2001). Similarly, computer inexperience for female users has been cited as an important factor in determining their attitude and anxieties towards computers (Jenson 1999). As a result of the fact that men have a greater tendency to dominate available computer resources which is not being corrected, female have significantly lower experience levels than their male counterparts (Comber,1997). The literature on the imbalance of computer literacy of female compared to male (in favour of male) advance some ways of addressing the problem based on how each of the genders view the computer. Research indicates that male students are very interested in how technology works while female students tend to focus on how the technology is used (Silver 2001).

Teachers are reported to notice that boys seem happy to sit for hours with computers but end up playing computer games or messing around with the computer just to see what it can do. Girls, on the other hand, tend to want the computer to do something useful for them. This finding may suggest that girls will find the computer more attractive if it is presented as providing an easier or better way to do something they want or need to do (Silver 2001). To stimulate the interest of all students, Silver, suggested that, the context in which the computer is used should be relevant to their needs and interests. Its long-term usefulness in a variety of areas should be emphasized and connections to real world application made. Research has revealed the dominance of males in computer use and ownership (Miura 1997 cited in Idowu, Adagunodo, and Idowu 2004). Furthermore, studies that have examined the relationship between gender and computer attitude have reported that males tend to have more positive attitudes towards computers (Comber, 1997). Similarly, results of a computer competency test which included both theoretical and practical knowledge (Bain et al. 1991) showed that girls were slightly less competent than boys.

Jackson et al. (2001) in a comparison of female and male computer literacy competencies found that females reported more computer anxiety, less computer self-efficacy, and less favourable and less stereotypical computer attitude. A similar study by Francis and Katz (1998) further revealed that gender stereotyping of computer use as a domain did not affect female students' attitude towards computer. This finding seemed to be corroborated by Smith and Necessary (1996) who in a related study found that males had a higher level of computer literacy than females. The present study is set out to find out the situation in Kogi state University, Faculty of Education, Nigeria, the gender difference among undergraduate students on digital literacy and its implications for e- resources and library use.

Objectives

The objectives of this study are to:

- Establish gender differences in digital literacy and years of experience.

- Determine gender difference in digital literacy and hours of computer use per week.
- Find out if there are gender differences in computer literacy in the use of various software
  application use of computer system.
- Relationship between digital literacy and experience
- Investigate the level of computer literacy affects use of library

RESEARCH METHOD

The study employed a descriptive survey method which affords the researcher an opportunity to describe the differences in computer literacy of the undergraduate students based on gender. The population of the study comprised of all 1st year and 2nd year undergraduate students spread across the 12 programmes run in the 5 departments in education faculty, Kogi State University, aniygba. A total of 1300 respondents and the demographic characteristics of the population revealed 720(55.05%) male in 1st and 2nd year and 580(44.05%) female undergraduate students in 1st and 2nd year levels. The sample size for the study was 248 male and 226 female students from the target levels. Data were collected using a self-constructed, structure questionnaires that was divided into 3 sections. Section 1 was to gather the bio-data of students, section 2 obtained data on digital literacy skills of the students while, section 3 focused on the software application use. A total of 248 copies for male and 226 for female were returned. Descriptive statistics using frequency, percentages mean, and standard deviation were used in analyzing data.

FINDINGS AND DISCUSSIONS

Table 1: Gender difference in computer literacy and computer experience

Computer Experience/Year	Male	Female
0—1 year	100 (40.00%)	90 (39.08%)
2—3 years	53 (21.03%)	49 (22.0%)
4—5 years	47 (19.0%)	45 (20.0%)
6 years & above	48 (19.04%)	42 (18.06%)
Total	**248**	**226**

The study surveyed respondents generally between the ages of 18-24 years with a mean age of 21 years. Respondents were asked to state the lengths of their computer/digital experience. Table 1 reveal that male students in education faculty at Kogi State University are more computer literate and had more computer experience than their female counterpart and this suggest that gender difference exists in the computer literacy of Kogi State University undergraduates students in faculty of education as confirmed by the result of the mean and standard deviation analysis (eg X for male = 62; SD for male = 22.1 compared with female mean X= 56.5 and SD =19.5. This result corroborates with the findings by Idowu, Adagunodo, and Idowu (2004) in a study of Nigerian students at Obafemi Awolowo University IIe Ife, where male and female were given equal access, the study revealed that male students are more computer literate and were main computer users than the female. Jenson (1999) similarly pointed out that the computer inexperience of female is an important factor in determining their attitude and anxiety towards computer use.

Table 2: Numbers of hours of computer use per week

Computer Use/No of Hrs/Wk	Male	Female
1—4 hours	10 (04.0%)	110 (49.00%)
5—9 hours	45 (18.01%)	59 (26.01%)
10—14 hours	81 (32.07%)	40 (17.07%)
15 hours & above	112 (45.02%)	17 (7.05%)
Total	**248**	**226**

Respondents were asked to state the number of hours that they used computers in a week. The results generally show there are differences in the male and female number of hours spent using computer per week with male spending more hours than the female. While a considerable number of male students are spending more hours using the computer per week from 4 -15 and above hours as detailed in table 2, more female students are spending lesser hour between 1-2 hours per week.

The findings on the number of hours both male and female students spent using computers per week suggest a significant gender differences exist in the computer literacy among the respondents. The results indicate that male respondents spent more hours per week on computer compared to their female counterparts. The fact that results from similar studies have shown that male students tend to be very interested in how technology works, while female students focus is on how the technology is used perhaps can explain the reason for this finding. Additionally, it has been found that boys seem happy to sit for hours using computers though they largely end up playing computer games or messing around with a computer just to see what it can do. Comber (1997) noted that male students have more positive attitudes towards computers while Jackson et al. (2001) found that female reported more computer anxiety, less computer self-efficacy, less favorable and less stereotypical computer attitude. All these may prevent them from spending hours with the computers as men do.

Table 3: Gender difference in computer applications usage

Computer usage/ software application.	Male	Female
Word Processing	28 (11.03%)	40 (7.07%)
Internet Browsing	55 (22.02%)	46 (20.04%)
E-Mail	68 (27.04%)	49 (21.07%)
Games	29 (11.07%)	34 (15.04%)
Chat	22 (8.09%)	45 (20.00%)
Data Analysis	19 (7.07%)	2 (0.09%)
Programming	17 (6.09%)	2 (0.09%)
CorelDraw	11 (4.04%)	8 (3.05%)

Tables 3 indicate that there is marked significant gender difference in application use of computer by male and female subjects. Respondents were asked to indicate what computer applications they used and the overall results on the types of applications reveal that male student engage in applications like e-mail 68(27.04%) internet browsing 55(22.2%), computer games 29(11.07%), word processing 28(11.01%) more than the female while data analysis, programming, and CorelDraw had low indications. The female do engage in chat and games more than their male counterparts. This result as well can be linked to the issue of fear and anxiety attributed with computer by the female subjects, and may be responsible for their lower engagement in using computer software and applications.

Table 4: Descriptive statistics and correlation on computer use/experience

Computer Experience	Male	Female
Mean	62	56.5
Standard Deviation	22.1	19.5
Computer usage/Hours spent	**Male**	**Female**
Mean	62	56.5
Standard Deviation	38.03	34.08

The results from the study were further analyzed using mean and standard deviation on computer experience, the mean for male revealed 62 while the female was 56.5. On the other hand, on computer experience, the standard deviation for male was 22.1 while the female was 19.5. As far as computer usage and hours spent per week were concerned, mean for male was

62 and for female 56.5. Similarly on computer usage and hours spent per week, the standard deviation for male was 38.03 while for female it was 34.08. The overall results depicted in table 4 shows generally a correlation and that gender difference exists in the computer literacy of the subjects based on their computer experience with the mean of male (X= 62; SD=22.1) compared to the female with (X=62; SD 19.5) and computer usage/ number of hours spent with males having (X= 62; SD= .38-03) compared with the female (X= 56-5 and SD = 34.08).

Table 5: Mean/Standard Deviation for Application Use (Male/Female)

Software &Applications Use	Male		Female	
	Mean	Std. Dev.	Mean	Std. Dev.
Word Processing	3.5	6.4	5.00	5.08
Internet Browsing	6.8	0.9	6.00*	3.07
E-Mail	8.5	0.7	6.01*	2.07
Games	3.6	6.1	4.03	8.06
Chat	2.8	6.3	5.06	4.07
Data Analysis	2.4	9.9	0.04	-19.27
Programming	2.1	11.0	0.04	-19.27
Corel Draw	1.3	15.4	1.00	-17.01

*significant

The means and standard deviations on software and applications between male and female were also computed. The results in Table 5 generally show that male significantly use applications like Internet browsing, data analysis, programming and CorelDraw than the female while the female on the other hand use game and chat than the male. However, no gender difference exists in the use of word processing and e-mail.

The findings in Table 4 and 5 further confirmed the difference in computer experience and computer usage of the respondents as earlier revealed in Table 1 and 2. The confirmation reflects in the mean and the standard deviation computed. Table 4 shows that the mean and standard deviation of male is greater than that of the female on both computer experience and computer usage. This lends a good credence to the report by Bain et al. (1999) that girls were slightly less competent than boys in computer competency test. The lesser software or application use of computer as revealed in this study therefore can be attributed to the female subjects' lesser competency level.

Table 6: Gender comparison on computer experience and hours use on computer

Variables	No	Mean	SD
Male Computer experience	248	62	22.01
Female Computer Experience	226	56.5	19.05
Male's hour spent on Computer	248	62	38.03
Female's hour spent on computer	226	56.5	34.08

Having derived the mean and the standard deviation the results reveal that significant difference exists between students computer experience based on gender with the male students having more experience than the female (Male: Mean = 62, SD =22.01; Female: Mean 56.5, SD = 19.5). Furthermore, Table 6 indicates that significant difference exists in the hours spent on computer with the male again spending a considerable numbers of hours than their female counterpart (Male: Mean =62, SD =38.03; Female: Mean= 56.5, SD = 34.08.

Table 7: Digital literacy and e-library use

Item	Male		Female	
	Yes	No	Yes	No
Does your computer literacy enhance use of digital resources **and e-Library?**	**180 (72.05%)**	**68(27.04%)**	**95(42.03%)**	**131 (58.00%)**
With your present computer literacy level, were you able to use for example the e- library **digital center & the Internet facilities**	**169(68.01%)**	**79 (31.09%)**	**88 (39.0%)**	**138 (61.06%)**

Respondents were also asked to indicate whether their level of computer literacy enhanced their digital resources and e-library use. Similarly, they were asked whether their computer literacy was sufficient for them to use the e- resources and Internet. The results show that 180 (72.05%) males felt that their literacy level affected their use of the library as compared 95 (42.03%) females who felt their computer literacy enhanced their library use. Similarly, 169 (68.01%) males as opposed to 88 (35.05%) females were able to use the Internet and the digital resources with their current level of computer literacy (Table 7). The result revealed clearly that the gender difference in the computer literacy level of the subjects really affect the female subjects as they find it difficult to use or access some- library facilities like the online databases and e-journal etc. This is because a considerable number of female subjects indicated that they were unable to use the e-library in recent time due to their deficiency in the use of computer. It should be noted at this point that e-library and digital resources nowadays has gone beyond the level of mere depository of books. It has been pointed out in the literature review that information technology has revolutionaries all library activities and operations. This means that any user who wants to make effective use of the e-library need to be equipped with the knowledge of computer and ICT skills.

IMPLICATIONS

Technologies including ICTs are gender –neutral, rather the use of ICTs and other technologies by female and males reflects to a large wider socio-cultural and economic context within which the technologies are produced and used. Gender and technology should be viewed as evolving and changeable.

The findings indicated that there were gender differences in computer literacy among undergraduate students of faculty of education in Kogi State University, anyigba. Data found that 40% of the male students had computer experience than their female counterpart and this suggest a gender difference. On the hours spent per week on the use of computers by male and female students the study reveal that the male students spend more hours per week while on software applications male students had 27% for e-mail, 22% for internet and wording as against the female students whose use is low. It can be described from the study on faculty of education, undergraduate students use of computers that male students are better users of ICT than the female students and this findings is supported by Shaw (1999) who revealed that male students felt more at ease with the new technology than the females and the implication is that if nothing is done to encourage female use of computers in areas of more experience, hour of use per week and increase in software application for female students in institutions of learning, more responsibilities in nation and economic development that will need more hands will be gender bias. Students are expected to be proficiency in their computer literacy in order to make effective use of these digital facilities and e- resources provided. The outcome of this study should provide a framework for designing computer literacy interventions that the resources are exploited to the full.

Copyright © Society for Science and Education, United Kingdom

CONCLUSION

The purpose of the study was to determine the gender differences among undergraduate students in Faculty of Education, Kogi State University, Anyigba, Nigeria with regard to their computer literacy. The major finding in the study is a wakeup call on the need to acknowledge the fact that male and females learn in different ways and the need to match computer training to females cognitive structures The findings demonstrate the need for all students in Kogi State University, Anyigba to be adequately equipped with computer literacy competencies for their effective use of the largely computerized facilities on campus. Moreover, the introduction of information literacy courses (GST & CSC) as they are called in 2012/2013 academic year is an effort considered to improve the information literacy of the Kogi State University, Anyigba. This is an effort in the right direction. It is hereby suggested that this should be more focused and enhanced and the university management and all the ICT centers and authorities in charge in training should ensure that all the necessary support is given to further enhance the teaching of the GST & CSC courses and others to enhance and drive home the digital culture slogan among students.

References

Aduda, D., 2001. Merit key in private colleges. Daily Nation 19 February.

Bain, A., Hess; P.T., Jone, G. and Berelowitz, C. 1999. Gender difference and computer competency: The effects of a high access computer programme on the computer competence of young women. International Journal of Educational Technology, Vol. 1, no.1: Available: http://www.ao.uiuc.edu/ijet/v1n1/bain/index.html

Bernet, M. and Arbinger, P.R. 1996. Gender-related differences in exposure to and use of computers: Results of a survey of secondary school students. European Journal of Psychology of Education, Vol. 11: 269-282.

Becker, H. and Sterling, C. 1987. Equity in school and computer use: National data and neglected considerations. Journal of Educational Computing Research, Vol. 3, no.3: 289-311.

Brosnan, M.J. 1998. The role of psychological gender in the computer-related attitudes and attainment of primary school children (aged 6-11). Computers and Education, Vol. 30, no. 3-4: 203-208.

Comber, C. 1997. The effects of age, gender and computer experience upon computer attitudes. Educational Research, Vol. 3, no. 2: 123-133.

Daly, P. 2003. The case study method and business english language teaching in impact of culture and education on learning practices. 10th Annual EDiNEB Conference, June 18–20

Enochsson, A. 2001. Meningen and webben. {The use of the web- fourth graders' experience of doing Internet search}. Karlstad, Sweden: Karlstad University, Department of Educational Science. Doctoral dissertation in Pedagogy Karlstad University Studies.

Enochsson, A. 2005. A gender perspective on Internet use-consequences for information seeking on the net. Information Research, Vol. 10, no.4. Development Gateway. 2004. Gender equality: Fighting poverty by empowering women. Available at:
http://topics.developmentgateway.org/ict/highlights/viewHighlight.do?activeHighlightId=9408

Evans, M. 1994. The woman question. London: Sage Fisher, M. 2000. Computer skills of initial teacher education students. Journal of Information Technology for teacher Education, Vol. 9, no.1: 109-123.

Francis, L. and Katz, Y. 1998. The gender stereotyping of computer use among female undergraduate students in Israel and the relationship with computer related attitude. Journal of Educational Media, Vol. 22, no.2: 79-86.

Furst-Bowe, J., Boger, C., Franklin, T., Mcintyre, B., Polansky, J. and Sclough, S. 1995. An analysis of required computer competencies for university students. Journal of Research on Computing in Education, Vol. 28, no. 2: 175-189.

Geissler, J. and Horridge, P. 1993. University students' computer knowledge and commitment to learning. Journal of Research on Computing in Education, Vol.25, no.3: 347-365.

Hall, B. 2005. E-learning: IT competencies, computer literacy and student attitudes to e-learning. Available at Http://www.findarticles.com.

Hignite, M and Echternacth, L. 1992. Computer attitude and literacy assessment: are tomorrow's business teachers prepared? Journal of Education for Business, Vol. 67, no. 4: 249-254.

Idowu, B., Adagunodo, R.,and Idowu, B. 2004. Gender difference in computer literacy among Nigeria undergraduates' students. A case study of Obafemi Awolowo University student, Nigeria. The African Symposium. An On-line Educational Research Journal, Vol. 4, no.3

Israel, G.D.2003. Determining sample size. Available at: http://edis.ifas.edu

Jackson, L.A., Ervin, R.S., Gardner, P.D. and Schmitt. 2001.Gender and the Internet : women communication and men search. Sex Roles: A Journal of Research, Vol. 44, no. 5-6: 362-379.

James, A. and Prout, A. (Eds) 1997. Constructing and reconstructing childhood: contemporary issues in the sociological study of childhood. London: Falmer.

Johansson, B. 2000. Kom och at! Jag ska bara do forst… {Time to act' okay! I'll just die first...The computer in children's everyday life}. Unpublished doctoral dissertation, Gothenburg University, Gothenburg Sweden.

Jenson, J. 1999. Girls ex-machine: A School-based study of gender culture and technology. A PhD thesis, Simon Fraser University.

Kay, R.H. 1993. A practical research tool for assessing ability to use computers: The computer ability survey (CAS). Journal of Research on Computer in Education, Vol. 26, no. 1: 16-28.

Kembler, S. 1996. Feminism, technology and Social representations. In J Curran, D. Morley, and V.Walkerdine (Eds) Cultural Studies and Communications. London: Arnold.

Loyd, B. and Gressard, C. 1984.The effect of sex, age, and computer experience on computer attitudes. AEDS Journal, Vol.18, no.2: 67-76.

Metz _Goeckel, S., Frachnert, S., Hahn-Mausbach, G., and Kaurmann-Walter, J. 1991. Girls, boys and computers. Gender specific social and learning behavior in dealing with computers series: Sozialvertragliche Technikgestaltung, Vol.24. Opladen: Westdeutscher Verlag.

Mitra, A. 1998. Categories of computer use and their relationship with attitude towards computers. Journal of Research on Computer in Education, Vol. 30, no.30: 281-292.

Miura, I.T. 1987.Gender and socio-economic status differences in middle –school computer interest and use. Journal of Early Adolescence, Vol 7, no. 2 : 243- 254.

Miura, K.T. 1997.Unit Quaternion Integral Curve. Transactions of Information Processing Society of Japan, Vol.38, no.11: 2227-2236,

Okebukola, L. 1993. The gender factor in computer anxiety and interest among some Australian high school students. Education Research ,Vol 35, no.2: 181- 189.

The New York Times Company. 2006. Computer literacy. Available at: http://careerplanning.about.com/od/importantskills/a/comp_literacy.htm

Sanders, D.W. and Morrison-Shetlar, A.I. 2001. Students' attitudes towards webenhance instruction in an introductory Biology Course. Journal of Research on Computing In Education, Vol. 33, no.3: 251-262.

Schaumburg, H. 2001. Fostering girls' computer literacy level out the gender difference? Paper presented at the NECC conference, June 25-27, Chicago, IL.

Silver, M.M. 2001. Gender equity and the development of computer literacy. Available at: http://www.tomorrows girls .com/wattworks.htm.

Smith, B.N. and Necessary, J.K. 1996. Assessing the computer literacy of undergraduate college students. Journal of Educational Computing Research, Vol. 117, no 2: 188-194.

Sweaney, A.L., Manley, K.S., Meeks, C.B and Valente, J.S. 2001. Computer experience and skills of family and consumer sciences undergraduates and professionals. Education, Vol. 121, no. 4: 773-780.

Thomas Rivera Policy Institute. 2002. Latinos and Information Technology: The Promise and the Challenge, Prepared for the IBM Hispanic Digital Divide Task Force

U.S. Department of Education. 1996. Getting America's students ready for the twenty-first century: Meeting the technology literacy challenge. A report to the nation on technology and education. Washington D.C: Government Printing Office.

Vygotsky, L.S. 1986. Thought and Language. London: MIT Press.

Walkerdine, V. 1997. Daddy's girl-young girls and popular culture. Macmillan. Women's Action Alliance. 2001. Do your female students say no thanks to the computer? Available at: http://www.enc/topic/equity/articles/document.shtm?input=ACQ-112976-1297