Impact of gender on information literacy skills of students of library and information science Department, University of Maiduguri

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Abstract

The skills to proficiently explore or navigate the world of information by male and female undergraduate students are very tremendously remarkable. Conversely, the determining factors of their art of navigating the world of information available to them are unclear. It is therefore, imperious to ascertain those essential determinants that influence the information literacy skills of the undergraduate students. The study used descriptive survey design, which aims at determining the influence of level of study on information literacy skills Possessed by undergraduate students in Library and Information Science Department, University of Maiduguri. One thousand students were sampled from the population for the study. One research question which was raised to guide the study was subsumed in a hypothesis. Questionnaire was used to collect the data which were analysed using mean and standard deviation while t-test statistic and ANOVA was used to test the hypothesis at 0.05 level of significance. The outcome of the findings revealed that gender does not influence the information literacy skills of undergraduate students in Library and Information Science Department, University of Maiduguri.

Keywords: Gender, Information, information Literacy, Information Literacy Skills, Literacy skills

Introduction

The roles played by information literacy skills in the academic achievement and lifelong learning of undergraduate students has become increasingly significant in the current setting of rapid technological change and flourishing information resources. Correspondingly, a high degree of essential information literacy skills and experience in information handling and in effective independent learning among students have become apparent. However, the determinants of their art of navigating the world of information available to them are unclear. It is therefore; imperative to identify those essential determinants that influence the information literacy skills of the undergraduate students in order to establish what affect their information literacy level and consequently, their academic performance and their abilities as informed citizens of the information society to participate intelligently and actively in the society. Accordingly, Rockman (2004) ascertains that it is in the best interest of the students, especially those in universities to identify the determinants of their art of exploring the globe of information accessible to them. Similarly, undergraduate students in Department of Library and Science, University of Maiduguri need to be aware of the factors that influence their high degree of information literacy skills which have successfully made them to meet the rigorous requirements of their academic programs and subsequently become competitive in the world market. They require knowing the variables that significantly influence their information literacy skills in order to use them to effectively find, organize, evaluate, effectively use and to communicate information to address specific problems.

Gender refers to social attributes and opportunities associated with being male and female, and the relationships between men and women and boys and girls. These attributes, opportunities and relationships according to Brown (2006) are socially constructed and are learned through the processes of socialization. Men are different from women, this may be self-evident. They are different in aptitude, skills and behaviour and so is every individual person. A study by Grassin (2004) supposed that female undergraduates lack information literacy skills compared to their male counterparts. How true or otherwise is this claim and what is the reason behind this view point is subject to serious empirical research. Given the truism that boys are better than girls, it's worthwhile to investigate whether gender has any influence on information literacy skills of undergraduate students. Against this backdrop, the paper seeks to investigate the extent of influence of gender on the information literacy of students of Library Science Department, University of Maiduguri.

Theoretical framework
Constructivist Theory of Information Literacy by Jean Piaget: The understanding of information literacy and the different theories about Information literacy have changed and developed over time. As with anything, there are many theories, but Piaget considers the constructivist theory as one of the main theories. This theory states that learning is the modification of a student's schemata. Schemata are the structures in the brain that are used to organize things; like filing cabinets. Schemata organize information by attaching it to prior knowledge. Due to how schemata work, it is important to connect learning experiences to other ones,

and draw upon any previous experiences of the person you are trying to teach something to. Children, according to the theory, there are active and motivated thinkers. They enjoy learning and thinking about new ideas.

The theory also focuses on interactive theory, which talks about what a person does while reading. According to the theory reading should be focused on comprehension. It believes that reading has no point if you do not understand and think about the material presented to you, be it research or a silly story. Meaning is constructed thought schemata as well as the information in the text. During reading, process take place at the same time; interacting with each other (hence the interactive theory). Children notice both the individual letters on the page while grouping them into the word, while making meaning in the brain. Children do not do one, then the other, neither then the next; nor do they use the background knowledge in the brain to examine the words then the letters. Word identification skills and comprehension strategies take place simultaneously. Constructivist theory of literacy is of paramount importance to this study because it helps to unveil the existing theories of literacy and thereby giving the study a sound theoretical base upon which it hopes to stand. In addition, its emphasis on the process of organization of information and reading with comprehension helps in-depth understanding of information literacy.

Conceptual Framework

Gender: Gender refers to social attributes and opportunities associated with being male and female, and the relationships between men and women and boys and girls. These attributes, opportunities and relationships according to Brown (2006) are socially constructed and are learned through the processes of socialization.

Information literacy: Attempts to define information literacy have been made for several years, mostly by librarians and professionals related to library science, therefore many definitions of information literacy abound, but all incorporated similar ideas. One classic and the most commonly cited and used information literacy definition is the one adopted by the American Library Association (ALA, 1998:8). According to the definition, "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how information is organized, how to find information and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning because they always find the information needed for any task or decision at hand (Bruce, 2006).

Information Literacy Skills: On the other hand, Information literacy skills according to Miller (2005) are closely related terms to information literacy, which has been interchangeably used to mean information literacy. Information literacy skills though interwoven with information literacy are distinct. According to the American Library Association: Presidential Committee on Information Literacy (2002:10) "information literacy skills are an umbrella term incorporating library skills, media skills, research skills, ethical skills, learning skills, study skills, communication skills, ICT skills and critical thinking skills that an informed citizen of the information society ought to possess in order to participate intelligently and actively in the society". According to this concept, information literacy skills are goals that can be attained through a process that relies on the continuous learning of specific and evolving behaviors. One needs to be able to locate and access information in all its forms to solve information problems through enlisting a set of behaviors that develop competencies in the techniques and skills necessary to survive in the information Age. Accordingly, Bruce (2006) maintains that information literacy skills, as an educational goal is a cluster of abilities that an individual can employ to cope with, and to take advantage of the unprecedented amount of information, which surrounds us in our daily lives and work. Information literacy skills are therefore, sets of competencies that an informed citizen of the information society ought to possess in order to participate intelligently and actively in the society.

The diagram below gives detail explanation of the concept of information literacy skills.
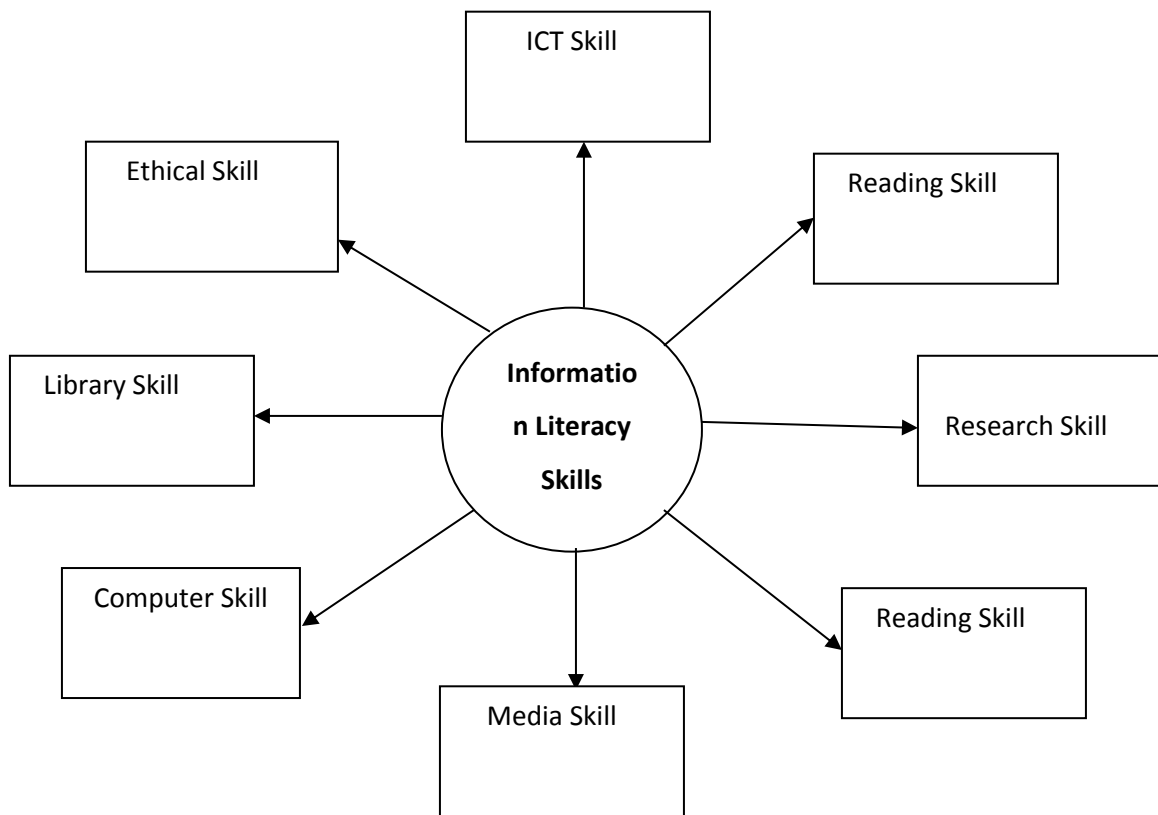
Similarly, the diagram above gives the true description of the most common phrase 'information literacy skills' concept. Information literacy skills as shown above are an umbrella term incorporating media skills, literacy skills, ethical skills, computer skills, reading skills, library skills, study skills, research skills, ICT skills, critical thinking skills etc. that an informed citizen of the information society ought to possess in order to participate intelligently and actively in a society. The diagram further indicates that the concept, 'information literacy skills' are goals that can be attained through a process that relies on the continuous learning of specific and evolving behaviors.

Purpose of the Study: The general aim of this research study is to determine the extent of influence of gender on the information literacy skills possessed by the undergraduate students in Department of Library and Science, University of Maiduguri.

Research Question: What is the extent of influence of gender on the information literacy skills possessed by the undergraduate students in Department of Library and Information Science, University of Maiduguri?

Significance of the Study: This study which is concerned with finding out the extent of influence of level of study on information literacy skills of undergraduate students in Nasarawa State University, is bound to be of immense benefits to students and staff in the university system, university authorities, media and information technologists, educational stakeholders, especially the Federal and State Ministries of Education, as well as the National Universities' Commission (NUC). Specifically, the study will be of immense benefit because it will: Provide the undergraduate students with a framework for gaining control over the complexity of information and how they interact with information in their environment, and sensitize them on the need to develop information literacy skills thereby making them conscious of the explicit actions required for gathering, analyzing, and using information. The study will be useful to a range of students to become information literate and thus be able to find, evaluate, and use information effectively for lifelong learning and problem solving. Create awareness on the need to include information literacy as a core learning ability in the curricula of the universities and impress upon the FME and NUC as policy makers in the universities to provide explicit strategy for information literacy development in Nigerian universities. The findings will further help to reveal and create awareness among the university authorities of the importance or otherwise of development of information literacy skills by undergraduate students in the universities in Nigeria. This is because the findings from this study may require a decision by the university authorities whether to develop and sustain information literacy programme in universities' learning curriculum or to modify, expunge or discontinue with the existing information literacy programme.

Findings from the study will help to sensitize media and information technologists/professionals, librarians and academic staff in universities of their

important roles in promoting students' information literacy skills. This is because it will provide a basis for them to understand the need for their complimentary roles in encouraging and supporting the development of information literacy by the undergraduate students.

This study will add to the existing literature in library and information science because the findings of the study will provide theoretical and empirical evidences on the information literacy skills of undergraduate students in Library and Information Science thereby laying a foundation for further research in library and information science.

Table 1: Mean and standard deviation of the response on the extent of influence of gender on information literacy skills

S /N	Items	Sex of responden	N	Mean(X)	Std. Deviation(SD)
1	One's sex can determine his/her information literacy skills	Male	584	1.89	.95644
		Female	416	1.82	.90976
2	Male students are more skilful in information literacy than their female counterparts	Male	584	1.63	.69131
		Female	416	1.54	.68276
3	Female students acquire more information literacy skills than their male counterparts	Male	584	1.55	.70132
		Female	416	1.49	.65485
4	Male students can withstand stress during information seeking process than females	Male	584	1.54	.59589
		Female	416	1.50	.54662
5	Female students are more curious during information seeking process than their male counterparts	Male	584	1.67	.60758
		Female	416	1.67	.61288
6	Overall effect of gender on information literacy skills	Male	584	1.65	.44474
		Female	416	1.60	.38450

N= Number of respondents
X= Mean
SD= Standard Deviation

From the above Table it can be seen that all the items relating to information literacy skills based on gender have their mean scores below 2.5. This means that responses on these items are unacceptable. The overall description on effect of gender on information literacy skills which, 584 male were captured have their mean scores of 1.65 with standard deviation of 0.44, while 416 female have their mean scores of 1.60 with the standard deviation of 0.38. This has answered the research question that gender has no significant influence on information literacy skills possessed by undergraduate students in Library Science Department, university of Maiduguri.

To investigate further the influence of gender on information literacy skills of undergraduate students in Library Science Department, university of Maiduguri, hypothesis one is tested below:

Hypothesis One: There is no significant mean difference between male and female undergraduate students in their information literacy skills.

To test the hypothesis, the items in the instrument relating to influence of gender on information literacy skills were analysed using t-test. The analysed result is presented below:

Table 2: T-test analysis on hypothesis one: There is no significant mean difference between male and female in their information literacy skills

S/N	Sex	N	Mean	Std. Deviation	T	f	Sig (2-tailed)	
One's sex can determine his/her information literacy skills	Male	584	1.89	.95644	1.090	998	0.276	**NS**
	Female	416	1.82	.90976				
Male students are more skilful in information literacy than their female counterparts	Male	584	1.63	.69131	2.054	998	0.040	S
	Female	416	1.54	.68276				
Female students acquire more	Male	584	1.55	.70132	1.279	998	0.202	NS

information literacy skills than their male counterparts	Female	416	1.49	.65485				
Male students can withstand stress during information seeking process than females	Male	584	1.54	.59589	1.047 88	998	0.295	NS
	Female	416	1.50	.54662				
Female students are more curious during information seeking process than their male counterparts	Male	584	1.67	.60758	0.029	998	0.977	NS
	Female	416	1.67	.61288				
Overall effect of gender on	Male	584	1.65	.44474	1.849	998	0.065	NS
Information literacy skills	Female	6	1.60	.38450				

S= significant
Ns =Not significant
N= Number of respondents
X= Mean
SD= Standard Deviation
Df=Degree of frequency

From the table above, the number of responses of male and female respondents on each item is depicted with their mean and standard deviation calculated. It could be observed that their sig. values for taking decision are above 0.05 except item 9. This means that the respondents' opinions are similar in all aspects of information literacy skills on gender except on the aspect that 'Male students are more skillful in information literacy than their female counterparts' with males having significant difference statistically. On the overall effect of gender on information literacy skills for 584 male respondents, the mean score is 1.65 with standard deviation of 0.44, while that of 416 female respondents' mean score is 1.60 with standard deviation of 0.38. The t-Cal is 1.85 with df= 998 and sig = 0.65. Since sig value is greater than 0.05 in the overall effect of gender the difference between male and female is not significant and so the hypothesis is accepted with the conclusion that there is no significant mean difference between male and female respondents in their information literacy skills.

Discussion

The data analyzed and presented on research question one revealed that one's sex does not influence his/ her information literacy skills. It is therefore, unreasonable to think that male undergraduate students possess more information literacy skills than their female counterparts. It was further revealed that the notion that female undergraduate students acquire more information literacy skills and could withstand more stress during information seeking process than their male counterparts is untrue. This stand point is in agreement with the research study by Moore & Yin (2009) on effects of gender on information skills which reported that gender did not influence the development of information literacy skills of students. Equally, Schafer (1996) and Omoluabi (1986) similarly reported that it is hard to invoke differential vulnerability hypothesis to explain stress between male female students. This implies that facing information seeking process is perceived as equally stressful to both female and male undergraduate students. By and large, it revealed that sex does not have a significant influence on the information literacy skills possessed by the undergraduate students. This finding is related to Volman (2006) research work on gender differences in computer and information literacy education, which revealed among other things that there was no significant difference in the performance of male and female students in computer and information literacy. He however, acknowledged the fact that at a biological level, male and female are typically distinguished by the presence of a Y chromosome in male cells and its absence in female, but this difference never affect their performance. According to this concept, the attributes, opportunities and relationships available to boys and girls are socially constructed and learned through the process of socialization. In related studies on gender differences in text anxiety conducted by Mwamwenda (1993), Gierl and Bisanz (1995) and Obiora (2004), the results revealed in agreement that there were no gender differences in test anxiety among African university students, In addition the hypothesis one that there is no significant difference in male and female students in their information literacy skills, which was upheld bear credence to the finding of the research question one that gender does not influence information literacy skills of undergraduate students.

Conclusion/Recommendations

Considering the importance of information literacy skills in the academic achievement and over all development of the undergraduate students, the following recommendations are imperative.

- Awareness of importance of information literacy is required at all levels but especially at the university level as the undergraduate students in the Department of Library Science, University of Maiduguri need to achieve a high degree of information literacy skills to successfully meet the rigorous requirements of their degree programs and subsequently become competitive in the world market.

- An explicit strategy for information literacy development is required so that all staff (academic and non- academic) is aware of what should be done and who should do it.

- Academics acceptance of their role in promoting students' information literacy skills is important. Students follow the recommendations of their lecturers regarding information sources. .Many academics do recommend resources, both printed and electronic to their students. However, they can only recommend resources if they know about them and some of them do not.

- Academic knowledge and skills are significant factors. Research shows that students rely to a great extent upon their lecturers. If the academic staff does not use electronic resources in their teaching, then students tend to ignore them. If the lecturers consider that students' information literacy is not their responsibility then they will not try to ensure that student learn and consolidate the information literacy skills they need. If student perceive the academic staff place little value on information literacy skills development then they will not value it either.

- Collaboration between library staff and academic staff is important in ensuring that students receive support and guidance they need. While library staff provides resources and support for individuals and groups who visit the library, many students make little use of this support and some are not aware of what libraries and library resource centers provide. The discipline based faculty academic staff should partnership with libraries and information centers to provide support and assistance

- Integration of information literacy skills training as a core learning ability and competency into the curriculum programme will raise its value in the eyes of students. Students tend to be pragmatic; many of them will do only what they think they need to complete their course. They have to see the relevance of information literacy skills training or they will simply dismiss it, they are not interested in 'extras'. If the information literacy skills training are just another optional extra then many of them will ignore it.

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