INFORMATION SEARCH SKILLS AS PREDICTORS OF LIBRARY AND INFORMATION SCIENCE STUDENTS' USE OF ONLINE INFORMATION RESOURCES IN UNIVERSITY OF BENIN, EDO STATE, NIGERIA

Nelson O. **NWABUEZE**[1], Blessing N. **EMUCHAY**[2] and Damian N. **OGARAKU**[3]

Information and Documentation Department,Rubber Research Institute of Nigeria,Benin City, Edo State[1], Library Division, Federal Polytechnic Nekede, Imo State[2] and The Library, Federal University of Technology, Owerri[3]

nwabuezenelsono@gmail.com[1],blessingemuchay76@gmail.com[2],damiannd144@gmail.com[3]

Abstract

Purpose: *The study focused on information search skills as predictors of Library and Information Science students' use of online information resources in University of Benin, Edo State, Nigeria. The study examined the influence of students' information retrieval skills on their use of online information resources. The study was guided by two research questions and two null hypotheses.*

Design/Methodology/Approach: *A correlation research design was adopted for the study. A census study technique was adopted to cover the entire population of 273 Library and Information Science undergraduate students of University of Benin, Edo State, while rating was used as data collection instrument. The data collected were analyzed using mean and standard deviation to answer research question one, while Pearson (r) statistics was used to answer the remaining research questions. Hypothesis one was tested using t-test statistics while hypothesis two was tested using t-test statistics of simple linear correlation at 0.05 level of significance.*

Findings: *Findings of the study showed that the extent to which the undergraduate students use online information resources is significant. It was found that as the information search skills of LIS undergraduates increased so did their use of online information resources increase.*

Implications: *The researchers recommended that training programmes should be organized for the students regularly to enable them acquire this skill. The implication here is that, the students' high level of information search skills would, to a very high degree, influence their use of online information resources in the university library.*

Originality/Value: *This work has not been published before. It has been proven that the possession of information search skill is required for effective use of online information resources by students.*

Keywords: *Search, Skills, Online Information Resources, Utilization, Undergraduates*

Paper Type: *Empirical paper*

Introduction

Libraries play the primary function of education and research life by imparting knowledge through learning, teaching and research. Knowledge and information are so vital for all round development. Hence, libraries that handle and manage knowledge and information are considered valuable. Knowledge and information which are stored in the library can come in printed or in electronic format. Electronic information resources also known as online information resources can be defined as those information materials that are digitalized and can only be accessed online. These electronic information resources include online bibliographic database, electronic reference books, e-journals, e-books etc. which are made accessible through internet connected devices such as computers, tablets, smart phones. Electronic information resources according to Akanwa and Udo-Anyanwu (2017) are information materials that are stored electronically and can be accessed and retrieved through electronic system and networks.

There are growing range of online resource both in the library and the internet. Okello-Obura (2010) supports this assertion by stating that for students to utilize the growing range

of electronic resources, they must acquire and practice the skills necessary to exploit them. These skills are referred to as information literacy skills. Information search skill is an aspect of information literacy skill. Information skill or search skill is the ability to plan and source for information without any barrier. Information search skill is the knowledge of information sources, the possession of evaluation criteria, navigation methods, manipulation techniques and presentation of issues (Ogba, 2013). Information skill is one of the service based skills library students need to familiarize themselves with for the fact that it serves duo purposes of helping library students personally to search for information materials needed for academic purpose and as a requisite skill necessary of an emerging librarian today. According to Sasikala and Dhanraju (2018), having information search skills will be helpful to everybody, especially for students to succeed academically.

It is based on this premise that this study on information search skills as predictors of Library and Information Science students' use of online information resources in University of Benin, Edo State, Nigeria was carried out.

Statement of the Problem

There are a wide range of online information resources and it has been established that undergraduates need these resources to excel in their academics. Effective utilization of these online information resources depends highly on the possession of search skills. It seems that undergraduates do not explore online information resources to the fullest and the researcher therefore wonders if it can be attributed to their lack of possession of information search skills. This is the essence of this study to identify the extent of utilization of information resources by undergraduates of University of Benin and to establish the relationship between their information search skill and use of online information resources.

Research Questions

The following research questions are posed for this study:

1. To what extent do students of Library and Information Science use online information resources?

2. What is the coefficient of relationship between the students' information search skills and the extent of use of online information resources?

Research Hypotheses

The following null hypotheses were formulated for the study and tested at 0.05 level of significance.

Ho_1: The extent to which students of Library and Information Science use online information resources is not significantly greater than the expected mean of 37.50

Ho_2: There is no significant relationship between LIS students' information search skills and the extent of use of online information resources

Literature Review

Information resources are not only domiciled in the library but abound everywhere via internet connectivity. Such information bearing materials which are made available online via the use of internet are called online information resources. Online information resources refer to the information materials in digital formats and made available online through Information and Communication Technologies. These include resources hosted on a server domiciled in the libraries, database, web etc. Application of Information and Communication Technology in library encompasses information handling such as generation, processing, storage, retrieval and dissemination. Students leverage on the use of technology to access online information resources (Nwabueze, 2021). In a research conducted by Lee, Paik and Joo (2012) on information resources selection of undergraduate students, the findings reaffirmed recent information usage trends that online sources are preferred by university students in their academic searches.

Library and information students however need the search skills most because, not only that search skill is beneficial to them but also it is a key requirement for librarianship profession in this era of technology. It is however sad to note

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that noticeable number of students lack the requisite skills and knowledge to search for online information resources most especially in South-Western Nigeria. Hence, the proliferation of private searchers and business centers in higher institutions, who help students browse for money (Okon, Etuk&Akpan, 2014).

Information skill is defined as the ability to plan and source for information without any barrier. Information skill is the knowledge of information sources, the possession of evaluation criteria, navigation methods, manipulation techniques and presentation of issues (Ogba, 2013). This definition does not include computer skills as part of information skill. Information skill is the ability to define, locate, select and summarize the information need and evaluate the most appropriate resources to meet the need base on the authority of the author, source, and the authority cited in the work.

Information search skill is necessary for students so as to equip them with knowledge to cope with information. Kari (2014) posits that students require adequate knowledge of information search skills. Adomi (2017) observed that several search strategies are employed by users in the bid to locate information sources. One thing that is obvious is that having a fair knowledge of search strategies will enhance effective utilization of information sources needed for research.Nachmias and Gilad (2016) indicated that finding information in the internet requires certain skills such as the ability to use search engines, ability to use online public access catalogue to locate and retrieve online information, knowledge of search techniques, browsing through the internet for information, a cognitive capacity to organize searches, the ability to execute a search, an understanding of how information is organized, critical thinking skills and a working knowledge of internet notations.

Library students with informational retrieval skills should be able to recognize information need for learning and research, distinguish ways of addressing gap and locating information stored in electronic resources (Ekenna & Mabawonku, 2013). They should be able to perform literature search, organize and communicate the information retrieved satisfactorily in their research work. One of the reasons for plagiarism is lack of information skill. Many students who successfully retrieved information resources online lack the ability to organize, use, communicate and cite such materials effectively, which makes students just write out or copy and paste as if the ideas are theirs. Even some who browse for money (business) centres were not different as they do that often to meet up with time for their clients. Supporting this, Quadri (2013) lamented that acquiring information search skills for online information resources can be challenging for students. This according to the author may explain why there is probably low usage of online information resources for academic purposes by undergraduates in Nigeria despite the increase in provision of online resources in Nigerian and across the world.

Consequently, there is plenty of scope to improve library students' skills critically analyzing their information needs and information sources. As schools and institutions move to integrate technology into classroom curricula, library students need to develop the new literacy required to prepare for a future in an increasingly digital society. To become fully literate in today's world, students must become proficient in the new ICT literacy (International Reading Association, 2012).Afebende (2019) discovered that there is a significant positive relationship between knowledge of information search strategies and utilizations of library resources.

Theoretical Framework

Information Skills Theory

The information skills Theory was developed by Eisenberg and Berkowitz in 1990. This theory posits that people solve problems or make decisions using available information. This theory has six steps. The first step on task definition which requires students to identify the exact information problem presented to them. They must also identify the types of information needed in order to solve the problem. They must have a clear hypothesis, a specific question, and a clear understanding of what is needed in order to answer that question. The information seeking strategies

stage requires students first to identify all the possible sources of information, and then to evaluate each source to determine which are best for them to use.

The next two steps, location and access and use of information, are comprised of traditional bibliographic skills. Students must not only find individual resources such as books, magazines, reference materials, and Web sites; but also find the information within each source through the use of tables of contents, indexes, and other resource-specific tools. Next, they must engage each source (read, view or listen) and extract specific information from it through the application of note-taking, highlighting, and summarizing. Synthesis requires students to make a decision, create a product, or formulate an answer. Synthesis is linked to task definition in that students are expected to answer the specific question they created when initially engaging in the problem-solving process. Finally, evaluation requires students to evaluate not only their final product but also to evaluate how well they perform the information solving tasks.

A critical look at various models of information literacy proves that information literacy is crucial when it comes to usage of library resources. Therefore, as an important independent variable in e-resources utilization, the Big 6 Information Skills Model will serve as one of the pillars this research work will anchor on. The reason being that, the Big 6 Information Skills Model of Eisenberg and Berkowitz is more encompassing in terms of information access and utilization.

This theory is relevant to this research work because it is concerned with the use of information. The model connects information search and use skills with technology tools in a systematic manner to find, use, apply, and evaluate information for specific needs and tasks. Consequently, the use of online information resources by undergraduates and the extent to which they use them will depend on their ability to define information need, locate information, evaluate and apply it appropriately to meet the academic purposes such as: writing research and term papers, doing assignments, augmenting class works and sourcing for information in subject areas.

Research Methodology

The study adopted linear correlation research design in order to explain the relationship that exists between the independent variable (computer skills) and the dependent variable, (utilization). The population of this study was 273 which consisted of all 100 to 400 level undergraduates of Library and Information Science, University of Benin, Nigeria. A census study technique was adopted to cover all two hundred and seventy three (273) library and information science undergraduates. The instrument adopted for data collection in this research is rating scale designed by the researchers. The data collected were analyzed using mean and standard deviation to answer research question one, while Pearson (r) statistics was used to answer the second research question. The hypotheses were tested using t-test statistics of simple linear correlation at 0.05 level of significance.

Data Analyses and Presentation

Research Question One: To what extent do students of Library and Information Science use online information resources?

Table 1: Extent Undergraduate Students Use Online Information Resources

n	X	S	μ
273	45.180	6.846	37.50

Table 1 shows that the observed and expected mean rating score on the extent Library and Information Science students use online information resources are 45.180 and 37.50 respectively. In comparison the observed mean, which was rated by 273 Library and Information Science students in the University under study, is greater than the expected mean. On the other hand, the standard deviation is 6.840, which is large, indicating that the undergraduates use online information resources to a high extent.

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Research Question Two: What is the coefficient of relationship between the students' information search skills and the extent of use of online information resources?

Table 2: Coefficients of Correlation and Determination between Students' Information Search Skills and the Extent of Use of Online Information Resources

n	r	r^2
273	0.874	0.7639

Table 2 shows that the coefficient of correlation between the students' information skills and their extent of use of online information resources is 0.874. That the coefficient is positive indicates that as students' information skills increase, their extent of use of online information resources also increases. The coefficient of correlation is also within the range $0.81 \leq r \leq 1.00$ for very high extent of relationship. This shows that there is a positively very high extent of relationship between students' information skills and their extent of use of online information resources. The coefficient of determination between students' information skills and their extent of use of online information resources is 0.7639. This indicates that 76.39% of variations in the extent of students' use of online information resources are explained by the variations in the students' information skills. This left 23.61% of the variations in the extent of students' use of online information resources unexplained.

Testing of Hypotheses

Hypothesis One: The mean rating score on the extent to which students of Library and Information Science use online information resources is not significantly greater than the expected mean of 37.5

Table 3: Calculated and Critical t-Values for Testing the Significance or Otherwise of the Extent of Students' Use of Information Resources

t_{cal}	df	α	t_{crit}	Decision
17.234	271	0.05	1.645	H_{01} is rejected

It is evident from Table 4 that the observed mean is significantly greater than the expected mean. From the Table 2 the calculated t-value of 17.234 is greater than the critical or tabulated t-value of 1.645 at 5% confidence level and 271 degree of freedom, hence, the rejection of the null hypothesis and the acceptance of the alternative hypothesis that the mean rating score on the extent to which students of Library and Information Science use online information resources is significantly greater than the expected mean. Therefore, the mean rating score on the extent to which students of Library and Information Science use online information resources is significantly greater than the expected mean of 37.5. This indicates that the extent to which the undergraduate students use online information resources is significant.

Hypothesis Two: The relationship between LIS students' information search skills and the extent of use of online information resources is not significant.

Table 4: Calculated and Critical t-Values for Testing the Significance or Otherwise of the Coefficient of Correlation

t_{cal}	df	p	α	t_{crit}	Decision
27.572	271	0.000	0.05	1.960	H_{02} is rejected

Results of data analysis presented in Table 4 shows that the coefficient of correlation between students' information skills and their extent of use of online information resources is significant, so the null hypothesis three is rejected. This is because; the calculated t-value of 27.572 is greater than the critical or tabulated t-value of 1.960 $(that\ is\ t_{Cal} > t_{Crit})$. Also, the p-value of 0.000 is less than the significant or probability value of 0.05.

Therefore, the researcher concludes that there is significant relationship between Library and Information Science students' information skills and their extent of use of online information resources.

Discussion of Findings

Extent of Use of Online Information Resources by Students

The first objective of this study was to establish the extent of utilization of online information resources by students. The finding of the study showed that the observed and expected mean rating scores on the extent Library and Information Science students use online information resources are 45.180 and 37.50 respectively indicating that the observed mean is greater than the expected mean. Therefore, the mean rating score on the extent to which students of Library and Information Science use online information resources is significantly greater than the expected mean of 37.5. In other words, there is significantly high level of utilization of online information resources by Library and Information Science students in the University of Benin, Edo State, hence the rejection of the null hypothesis.

The finding of this study however, does not agree with the assertions by Okon, Etuk and Akpan (2014) that noticeable numbers of students lack the requisite skills and knowledge to search for online information resources most especially in Nigeria. Hence, the proliferation of private searchers and business centers in higher institutions, who help students browse for money. Supporting this, Quadri (2013) lamented that acquiring information search skills for online information resources can be challenging for students. This according to the author may explain why there is probably low usage of online information resources for academic purposes by undergraduates in Nigeria despite the increase in provision of online resources in Nigerian and across the world. This finding however, has shown that there is a growing interest among Library and Information Sciencestudents to use online information resources.

Information Search Skills and the Students' Use of Online Information Resources

The second objective of the study was to ascertain if any relationship existed between students' information search skills and their use of online information resources. The result of data analysis in this direction showed that there was a significant positive relationship between the two hypothesized variables. This implies that as the students' information skills increase so does their use of online information resources increase, and this was the case in this study. Invariably the students' high level of information skills influenced their use of online information resources. This explains that there is significant relationship between information skills and students' use of online information resources in the University of Benin, Edo State, Nigeria.

This finding agrees with that of Afebende (2019) who discovered that there is a significant positive relationship between knowledge of information search strategies and utilizations of library resources. The finding is also in line with the statements by Ekenna and Mabawonku (2013) that library students with informational retrieval skills should be able to recognize information need for learning and research, distinguish ways of addressing gap and locating information stored in electronic resources. According to the authors, they should be able to perform literature search, organize and communicate the information retrieved satisfactorily in their research work.

Conclusion

In this era of Information and Communication Technology and its inherent facilities, products and services, users of the library are expected to possess information search skills to be able to get relevant information from the gamut of information contained online. Hence, universities libraries in particular and universities in general need to make every effort to ensure that users of the library possess information search skills which will enable them make effective use of the online information resources.

Recommendations

Based on the findings, the following suggestions are made to improve the situation:

1. Although the extent of use of online information resources among LIS undergraduate students is significantly high, there is need for the university library management to create awareness of some available online information resources that are not being utilized by the students. Also the availability of new websites and search engines in university library should be brought to the knowledge of LIS undergraduate students to enhance the utilization library's online information resources.

2. As universities are now integrating new technologies into their curricular, there is need for LIS undergraduate students to acquire new literacies required to effectively search, select and evaluate the information in an increasingly digital society.

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