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INFORMATION LITERACY SKILLS AS PREDICTOR OF USE OF ELECTRONIC INFORMATION RESOURCES BY

UNDERGRADUATE STUDENTS OF BAYERO UNIVERSITY KANO, NIGERIA

BY

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Abstract

The study evaluated the information literacy skills as predictors of use of electronic information resources by undergraduate students in Bayero University Library, Kano. The study adopted a survey design with a population of 823 undergraduate students who registered with the university library between 2017-2019 academic session, from which a sample of 165 respondents were selected using Wimmer and Dominick's (1987) formula. Data were analysed using the statistical package for social science (SPSS) software, frequency distribution and percentages. The findings revealed that most of the undergraduate student in Bayero University Library, Kano considered their level of information literacy skills to be high. Electronic Information Resources (EIRs) have indeed become very important to undergraduate students of Nigerian university libraries especially in accessing up-to-date information as they give access to quality information irrespective of place, time and space. However, the study recommended that the management of Bayero University Kano (BUK) library should ensure that the teaching of information literacy skills to undergraduates in BUK is promoted. This is to ensure that the high level of usage of EIRs by undergraduate students is sustained.

Keywords: Electronic information resources, information literacy skills, undergraduate, use electronic information resources

Introduction

Electronic information resources (EIR) means sources of information which are available in electronic form. EIR are needed for undergraduate students especially because they make information available, easier and provide faster access to information than information accessible via printed media (Ukachi, 2011). They serve as motivators for learners, as they give them the opportunity to deliver, obtain, transfer and circulate information resources on any topic of interest. EIRs help to develop access, increase usability and efficiency, and create new ways for students to use the available information in the university library. EIRs give users reliable and right information for the right users. In addition, the use of EIRs helps students to be well-informed and up-to-date in their respective thematic areas (Fabunmi, Paris & Fabunmi, 2016). EIRs materials can be accessed anytime, anywhere and they do not occupy much space. As Varghese (2008) asserted, the availability of information in electronic media has created opportunities for global access to information, enhanced the speed of service, increased the number of users served, increased the quality of information provided, and offered new opportunities for undergraduate students to find relevant information. It is therefore important that university students be equipped with the research tools necessary to access EIRs. Moreover, Yalman, Basaran and Gonen (2016) averred that knowledge of EIRs and related skills plays an important role in the 21ST century. Therefore, every undergraduate students should possess these

skills in order to be able to participate effectively and successfully as make use of EIRs for better performance.

Uses of EIRs afford undergraduate students the opportunity to have access to global information resources, especially the Internet for their scholarly work. Undergraduate students in university libraries make use of EIRs for many purposes mostly for academic purposes that is, retrieving current literature for studies and preparing for examinations, doing class assignments, carrying out research projects, and communicating and collaborating with peers and teachers via the Internet on e-mail or by following blog discussions (Adeniran, 2013). Undergraduate students use e-books and e-journal articles to acquire knowledge and carry out research work (Ajayi, Shorunke & Aboyade, 2014). Course materials are provided on CD-ROM for students' use which helps them to use EIR at their convenient time. With the emergence of ICT, EIRs have become widely used and accepted among scholars and have increased tremendously in volume around the globe (Oyedapo & Ojo, 2013). All these resources have really improved the quality of education as this is evident in the literature. However, literature has revealed low usage of EIRs by undergraduate students in Nigeria (Omoike, 2013).

The use of EIRs requires information literacy skills. To use the available electronic information resources, students must acquire and use the skills to explore them; this will help undergraduate students to effectively search and have access to needed information. The American Library Association (2013), stated that information literacy skills are a set of capabilities enabling users to identify at what time information is needed and have the skill to evaluate, locate and use efficiently the necessary information. Ottong (2005) stated that information literacy is an understanding of and set of abilities allowing individuals to identify when information is needed, and have the ability to evaluate, locate and use efficiently the needed information. However, information literacy skill is progressively more important in the present environment of rapid technological change and increasing information resources. On the other hand, this is challenging for users as they are faced with diverse, abundant information selections in their academic studies, in the place of work and in their personal lives.

In general, information literacy skill programmes that take place in university libraries vary from users education to library orientation. Information literacy skills entail obtaining the skills needed to find, interpret, select, evaluate, organize and use information for a specific purpose (Kuhlthau, 2012). Information literacy skills refers to knowledge of individual concerning information needs, and the ability to identify, evaluate, locate, organize and create, use and communicate information to solve problems or immediate issues at hand (Bowler, 2010).

This is a prerequisite for effective participation in the information society. Lau (2006) identified information literacy skills as the ability to determine when information is needed, efficiency and the ability to locate, evaluate and use information efficiently. He equally added said that information skills are key factors in lifetime education. Information literacy skills are highly appropriate skills that allow students to effectively and efficiently use available information resources in the university libraries.

Information literacy skills help in promoting access to increasing amount of electronic information resources by undergraduate students (Gross & Latham, 2012). Therefore, information literacy skills have been considered as basic requirements to increasing undergraduate students learning quality (Emwata & Nwalo, 2013). Additionally, the library encourages lifetime learning and information literacy forms the foundation for lifelong learning as it allows learners at all levels to be up-to-date, make decisions, and have control over their learning and interactions with the university community. However, literature has revealed low level of information literacy by undergraduate students in Nigerian universities (Omoike, 2013; Oyedun, 2010) which may possibly affect their ability to utilise required electronic information resources for academic endeavour.

Importance of information literacy skills for undergraduate students cannot be overstated, as it enables the efficient use of electronic information resources. These skills help the user to formulate searches, find appropriate sources of information, select appropriate search tools, use appropriate search strategies, and enable them to evaluate desired results (Ilogho & Nkiko, 2016). In this way, educated people become aware of how to collect, use, manage and synthesize information in an ethical way and have the information they need and use it effectively and efficiently (SCONUL Working Group on Information Literacy, 2011). Lack of Information literacy skills prevents students from using electronic resources, which reduces the quality of their academic programmes and performance in the age of technology (Ivana, 2016; Kodani, 2012).

Statement of the Problem

The use of electronic information resources (EIRs) in learning and research by students has become indispensable in this digital age where globalization of education is made possible through Information and Communication Technology (ICT). EIRs are information documents that can only be accessed electronically using ICT facilities. Electronic information resources are of great importance to the academic and research needs of undergraduate students in university libraries. Use of Electronic information resources (EIRs) has become inevitable for

undergraduates in the digital age, given the volume of academic materials that are available in EIRs. Effective use of these EIRs depends on information literacy skills. Even though university libraries seem to be conducting workshops and seminars to sensitize undergraduates on the use of electronic information resources that are available in Bayero University Kano (BUK) library, the utilizations appears to be below expectations. Studies have shown that in spite of their value, EIRs are underutilized by undergraduates in Nigeria (Ajayi, Shorunke & Aboyade, 2014). Little attention has been given to the nexus between information literacy skills and use of EIRs in literature. Rather, scholars have focused on awareness, accessibility and utilization of EIRs.

The study conducted by Daniel and Kacholom (2017) showed a low level of use of the electronic information resources by students of Nigerian universities. In addition, Ekenna and Ukpebor (2016) reported that EIRs were very well accepted in other countries of the world as against the situation in Nigeria. One is curious to find out why the situation should be different in Nigeria. A possible reason that readily comes to mind for the low use of EIRs in the study area arising from the literature includes the information literacy level of students, since successful use of EIRs demands some level of information literacy skills. In the light of this, the present study investigated the influence of information literacy skills on the use of electronic information resources in university library in Bayero University Kano (BUK), Nigeria.

Objective of the Study

The main objective of this study is to investigate the influence of information literacy skills on the use of electronic information resources by undergraduates in BUK library, Nigeria. The only specific objective is to:

1. Find out the level of Information Literacy Skills (ILS) on the use of EIR among undergraduates of BUK, Nigeria.

Research Question

One research question guided the study:

1. What is the level of ILS on the use EIR among undergraduates of BUK, Nigeria?

Methodology

Survey research design was adopted for this study primarily because it was a suitable and efficient way of studying large population. It allows only a sample population to be used to represent the entire population. The target population for this study were the undergraduate students of Bayero University Kano. The population consisted of mainly 300 and 400 level students, total population was 823 from which a sample of 165 respondents were selected using

Wimmer and Dominick's (1987) formula. Multistage sampling technique was adopted for this research. Multistage sampling technique is a probability sampling technique. The multistage sampling involves multiple stages so that the sample size will be reduced at each stage. For this study, the researcher concentrated on three-stage sampling and is shown here. At first stage, the researcher adopted purposive sampling to select three and four (3 and 4) level student's that registered with the university libraries between 2017-2019 academic session. This is simply because they tend to understand and use the library more because of their projects for the final year. Purposive sampling may also be used with both qualitative and quantitative research techniques. The inherent bias of the method contributes to its efficiency, and the method stays robust even when tested against random probability sampling. Choosing the purposive sample is fundamental to the quality of data gathered; thus, reliability and competence of the informant must be ensured (Brown, 2006). At the second stage, proportionate stratified sampling technique using 20% fraction was used to select the registered undergraduate library users from the study area. The 20% fraction is considered adequate for this study based on Wimmer and Dominick's (1987) recommendation that a minimum sample size of 5% could be suitable for use for populations that are up to 10,000 while a minimum sample size of 20% could be used for populations that are up to 1,000. Thus, based on the foregoing recommendation of Wimmer and Dominick's the researcher considered 20% of the study population appropriate for the large population of the present study. At the final stage, simple random sampling technique was used to randomly select respondents from the BUK library. Questionnaire was used as an instrument for data collection. Questionnaire was the only instrument used for the collection of data for this study because it is capable of reaching a large number of respondents and provides privacy and confidentiality. The questionnaire was prepared on the basis of the objective of the study and was distributed randomly among the target population under the study. A total of 165 copies of questionnaires were distributed and 155 copies were returned after filling by the student. The descriptive statistical techniques made up of tables and percentages ware used in analyzing the data collected.

RESULTS

Research Question: **What is the level of undergraduate students' information literacy skills in BUK library?**

Table:
Level of undergraduate students' information literacy skills (N=155)

Statement	Very Low (%)	Low (%)	High (%)	Very High (%)	Mean	SD	Percentage contributions
Ability to identify a need for information (Mean=3.33)							
I can identify a topic using simple language	25(3.9)	43(6.8)	251(39.5)	316(49.8)	3.35	0.78	21.1%
I can recognize a need for information to achieve a specific purpose	12(1.9)	40(6.3)	305(48.1)	277(43.7)	3.34	0.68	
I can identify information need through e-resources	18(2.8)	55(8.7)	274(43.1)	288(45.4)	3.31	0.75	
Ability to evaluate information (Mean=3.21)							
I can draw conclusions based upon information I got on the Internet	30(4.7)	66(10.3)	258(40.3)	286(44.7)	3.25	0.82	20.3%
I can assess the accuracy of EIRs found on the Internet	31(4.9)	58(9.1)	284(44.7)	262(41.3)	3.22	0.81	
I am able to save EIRs obtained from the Internet	22(3.5)	73(11.6)	314(50.0)	219(34.9)	3.16	0.76	
Ability to use information (Mean=3.19)							
I can use the information I got to do my assignments	29(4.6)	32(5.1)	196(31.1)	374(59.3)	3.45	0.79	20.2%
I can use any information I got for the specific purpose for which it is sought for	18(2.8)	78(12.3)	284(44.9)	253(40.0)	3.22	0.77	
I can effectively use Boolean search techniques to get what I want	49(7.8)	160(25.5)	226(36.0)	192(30.6)	2.89	0.93	
Ability to synthesize information (Mean=3.13)							
I can apply information resources to the problem at hand	37(6.0)	86(13.8)	287(46.2)	211(34.0)	3.45	0.79	19.8%
I can use EIRs and/or mobile technologies to create a multimedia presentation	30(4.7)	103(16.1)	220(34.4)	286(44.8)	3.22	0.77	
I can cite bibliographic references in research reports using appropriate style (e.g. APA, Chicago)	45(7.0)	97(15.2)	220(34.4)	277(43.3)	2.89	0.93	
Ability to locate and access information (Mean=2.94)							
I can select appropriate information search tools to	16(2.5)	52(8.2)	280(44.1)	287(45.2)	3.32	0.73	

access the needed information							18.6%
I can construct using keywords or related terms to carry out information search strategies	40(6.3)	111(17.6)	255(40.3)	226(35.8)	3.06	0.89	
I can select the most appropriate electronic resources	119(18.9)	216(34.2)	197(31.2)	99(15.7)	2.44	0.97	
Grand Mean = 3.23							

Field survey, 2019

The decision rule states that: 1-1.4 = Very Low; 1.5-2.49 = Low; 2.5-3.49 = High; 3.5-4.0 = Very High. The cut-off mean is 2.5. This means that any score below 2.5 is considered "Very Low Information Literacy", or "Low Information Literacy" whiles those above 2.5 are considered "Very High Information Literacy" or "High Information Literacy".

Respondents were asked to indicate their level of information literacy skills in Table 1. It can be deduced that undergraduate students in Bayero University Kano, Nigeria considered their level of information literacy skills to be high (mean=3.23). Among the measures of information literacy skills, ability to identify a need for information was considered highest with average mean score of 3.33. More so, ability to evaluate information (mean=3.21), ability to use information (mean=3.19), ability to synthesise information (mean=3.13) and ability to locate and access information (mean=2.94) were also on a high level of undergraduate students' information literacy skills. The percentage contribution of the five constructs to information literacy skills is captured in the last column of the table. Ability to identify a need for information (21.1%) contributed highest to information literacy skills while ability to locate and access information (18.6%) offered the least contribution. This may suggest that undergraduate students possess high level of information literacy especially in the aspect of recognizing a need for information. For instance, 89.3% of undergraduate students both on a very high and high level scale, claimed that they can identify a topic using simple language, 91.8% of undergraduate students asserted that they can recognize a need for information to achieve a specific purpose.

Ability to evaluate information contributed to information literacy skills of undergraduate students in Bayero University Kano, Nigeria and was considered to be of high quality (mean=3.21). Specifically, undergraduate students claimed on a high level that they can draw conclusions based upon information gotten on the Internet (mean=3.25) while they also possess high ability to save EIRs obtained from the Internet (mean=3.16), though this was considered to be the lowest under ability to evaluate information construct. This may suggest that undergraduate students possess high level of skill in judging the value of information obtained from the internet.

Under ability to use information, undergraduate students possessed high ability in using the information for assignments (mean=3.45) while the ability to effectively use Boolean search techniques was high (mean=2.89), notwithstanding this was considered to be the lowest under ability to use information construct. This may suggest that the ability to use information is an important factor of academic success for undergraduate students in Bayero University Kano, Nigeria.

In addition, under ability to synthesize information, undergraduates perceived highly their ability to apply information resources to problems (mean=3.45) whereas the ability to cite bibliographic references in research reports using appropriate style was also high (mean=2.89), even though this was considered to be the lowest under ability to synthesize information construct. This may imply that undergraduates are becoming more creative in using information to address issues, a situation which can impart their academic endeavours positively. This may also suggest that information literacy skills play an important role in research reports of undergraduate students of Bayero University Kano, Nigeria.

Furthermore, under ability to locate and access information, though it has the lowest contribution to information literacy skills, its mean score of 2.94 was high. Specifically, the ability of undergraduate students in selecting appropriate information search tools to access the needed information was high (mean=3.32) while undergraduate students ability to select the most appropriate electronic resources was low (mean=2.44). This may imply that locating and accessing information is a skill that must be developed by undergraduate students if they want to succeed in their academic endeavours.

Discussion of Findings

One research question was formulated to investigate the level of undergraduate students' information literacy skills in Bayero University Kano, Nigeria. Table 1 reveals high level of undergraduate students' information literacy skills in Bayero University Kano. The question arose from the assumption that undergraduate students information literacy skills are needed to enhance their use of electronic information resources. Undergraduate students expressed high level of skills in the five constructs of information literacy namely: ability to identify a need for information, ability to evaluate information, ability to use information, ability to synthesize information, ability to locate and access information. The finding agreed with Toyo (2017) who revealed high level of information literacy skills of the undergraduates. It is also in agreement with the findings of Adeleke and Emeahara (2016) who found that for over two-third of the students of the University of Ibadan, their information literacy skills level is high; Ukachi (2013) who affirmed that library resources in print, non-print and electronic forms are the major

components of any library; Agyekummer and Filson (2012) also stated that most of the students use library resources and services to supplement their class notes, assignment and helped them in examination preparation; Kinengyere (2017) who reported that effectiveness and efficiency in the research process in the digital age rely on the level of information literacy of individual academic staff and on the nature of information accessible to them; Oakleaf and Owen (2010) who stated that information literacy skills are essential components of a successful academic career and Emwata and Nwalo (2013) who submitted that information literacy has been considered as a basic capability to increase undergraduate students learning quality.

However, the finding is at variance with those of Oyedun (2010) and Omoike (2013) who both revealed low level of information literacy by undergraduate students in Nigerian university; University of Idaho for Information Initiation (2011) who disagreed that, not all the same information is being extended using a reliable and fast and reliable, but some are biased, old/out of date, deceptive, false and increase the size of the information available and the type of technology to access and process information and created. Similarly, Bundy (2004), disagreed that the wealth of information and technology itself would not create conscious citizens without effective use of information to complement each other. The finding was also inconsistent with the findings of Olajide and Adio (2017) who found that library resources like abstracts, indexes, yearbooks, atlas ware neither satisfactory nor readily available for use. The finding was not in agreement with that of Daniel and Kacholom (2017) who in their study on relationship of user education, computer literacy and information and communication technology accessibility and use of e-resources by students in Nigerian university libraries, reported a low level of use of the e-resources by students of Nigerian universities. The difference in the findings could be that this particular study only investigated the level of undergraduate students' information literacy skills in university libraries.

Conclusion

Electronic information resources have indeed become very important to undergraduates in Nigerian university libraries especially in accessing up-to-date information as they give access to quality information irrespective of place, time and space. However, Information Literacy Skills help in promoting access to the utilisation of information resources and increasing amount of EIR use by undergraduate students, students cannot effectively use electronic information resources without adequate information literacy skills. The result revealed high level of undergraduates' information literacy skills in the studied area.

Recommendation

Based on the finding of this study, one recommendation is hereby made:

1. The management of BUK library should ensure that the teaching of information literacy skills to undergraduate students in BUK is promoted. This is to ensure that the high level of usage of EIRs by undergraduate students is sustained.

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