Extent of Utilization of Databases among Undergraduate Students of Umaru Musa Yar'adua University, Katsina

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ABSTRACT

Previous researches on the Accessibility of Databases by Undergraduate Students of Umaru Musa Yar'adua University (UMYU) have found out that there was low level of accessibility of library databases. This paper investigates the further factors of the accessibility of Databases among Undergraduate Students of Umaru Musa Yar'adua University. This study was carried out among two hundred (200) Undergraduate Students of Umaru Musa Yar'adua University. Questionnaire was the instrument used for data collection, while data was analyzed by frequency and Pearson Product Moment Correlation (PPMC) was used to test the hypothesis, one of the findings of the study was that information awareness on the accessibility of databases among Undergraduate Students was inadequate and this affects the accessibility of databases. The study further discusses the need to increase awareness on databases subscribed to by Umaru Musa Yar'adua University Library. There is need to increase the internet facilities on the Faculties library in order to facilitate the accessibility of databases. It is believed that awareness on accessibility will increase the use of databases subscribed to by the library. The study recommends regular training of Academic staff on updating their knowledge of the available sources, and access to databases subscribed by the University library. The University also needs to improve on the provision of internet facilities on faculty's library to meet up the challenges.

Keywords : Accessibility, Databases, Undergraduate Students

INTRODUCTION

Libraries play a vital role in development of individuals in our society. The quality of library resources determines quality of graduates produced and research development in universities. Libraries are agents of educational, social and economic development. The purpose of setting up libraries is to acquire, process, store, preserve and make available current and relevant print and electronic resources that will meet the needs of its users at appropriate time. Pertti and Sanna (2006) cited in Angello (2010) have reported that, the availability and accessibility of information has increased remarkably due to the digitization of information. The growing supply of literature in libraries that is

available in digital format facilitates effective searching for the material needed by students. This development has rapidly increased the students' exposure to a wider range of literature that would otherwise be available. There are some indications that students' patterns of accessing literature for their work has changed in the electronic information environment (Tenopir 2005). There are larger volumes of information than ever before, new ways of collecting information, new information containers and new tools for handling information (Large et al., 1999). Researchers can access electronic information through a variety of technologies. These includes: Compact Disk Read Only Memory (CD-ROM), Online Public Access Catalogue (OPAC), e-journals, while the internet provides a broad range of information via search engines, Boolean operators and other web-based resources. Databases facilitate research and play a complimentary role to print resources. Based on this important contribution to academic world, the University under study subscribed to number of databases. Some of them are free while others are being subscribed for by the university. If the University has invested much money on e-resources, it is expected that those resources are fully utilized. It was on this note that the researcher investigates if undergraduate students of Umaru Musa Yar'adua University are aware of these databases and if they are accessible and to what extents are these resources being used.

LITERATURE REVIEW

Accessibility of databases is an important recurring theme in the literature. According to Aguolu and Aguolu (2002), resources may be available in the library and even identified bibliographically as relevant to one's subject of interest, but the user may not be able to lay hands on them. One may identify citations in indexes, but may not have access to the sources containing the relevant articles. The more accessible information sources are, the more likely they are to be used. Readers tend to use information sources that require the least effort to access. These observations have been validated by empirical study by Adewale (2007) the user may encounter five possible types of inaccessibility. The types are conceptual, linguistic, critical, bibliographic, and physical inaccessibility. Aguolu and Aguolu (2002), note that, availability of database do not necessarily imply it's accessibility, because the source may be available but access to it is prevented for one reason or the other. Osundina (2004) studies the relationship between accessibility and library use by undergraduates in Nigeria and notes that the problem of Nigerian students is not the question of wanting to use the college library, but whether or not the university library can provide for their needs, and whether there is access to what is provided. Aina (2004) writes on access to scientific and technological information in Nigeria, revealing that of the 7,014 scientific papers published between 1900 and 1975, 5,607 (79%) are journal articles and 1,116 or (20%) of these journal articles were not indexed or abstracted, making them inaccessible. Further analysis shows that 77% of the papers not covered by any indexing or abstracting services were published in Nigeria. He recommends the establishment of a National Science Information Center to acquire, organize, and disseminate scientific information sources in Nigeria and other places. Olowu (2004) identifies natural and artificial barriers to free access to information. The library's poor reputation was attributed to lack of accessibility of information sources. Iyoro (2004) examines the impact of serial publications in the promotion of educational excellence among information professionals receiving further training at the University of Ibadan. The study looks at the perception of how Serials accessibility has contributed to students' learning process. Serials were found to play a significant role in the acquisition of knowledge, because the Serial collection was easily and conveniently accessible. In a similar study by Oyediran-Tidings (2004) at Yaba College of Technology, Lagos, low use of the library by students was observed. This was attributed to expressed accessibility problems. Neelamegham (2001) has identified accessibility as one of the prerequisites of information use while Kuhlthau (2002) argues that the action of information seeking depends on the needs, the perceived accessibility, sources, and information seeking habits. Aguolu and Aguolu (2002) reveal that efforts are being made worldwide to promote access to information in all

formats. They lament the attendant features of underdevelopment such as power failure, machine breakdowns, and lack of spare parts and technicians, which intermittently stall the performance of the modern gadgets of information storage and transfer in developing countries. The quality of library services has vastly improved with the introduction of communication technology. (Kim 2006)

Study was conducted by Sani (2006) on the use of online resources to determine the availability and utilization of online databases among undergraduate students in Umaru Musa Yar'adua University. The research identify that 7% utilized the databases in the library This research is related to present study but differs in scope, because it does not include both online and offline databases in Umaru Musa Yar'adua University library. Therefore, the researcher observed that no literature determine the level of utilization of both online and offline databases in Umaru Musa Yar'adua university library. Similar study was also conducted by Mudansur (2013), on the availability and accessibility of e-library resources in Umaru Musa Yar'adua University library. The list of e resources identified in this study includes only online databases. This research is related to present study but differs in scope, because it does not include offline databases (E-GRANARY) subscribed by Umaru Musa Yar'adua University library. Therefore, the researcher observed that no literature determine the availability and accessibility of databases in Umaru Musa Yar'adua university library Therefore, the present study is set out to identify the types of databases, available, accessible and extent of utilization and also the challenges associated in accessing and utilization of the databases in the university library.

RESEARCH QUESTIONS

1. What are the Databases Subscribed by Umaru Musa Yar'adua University Library?

2. What is the level of Accessibility of Databases among Undergraduate Students of Umaru Musa Yar'adua University?

3. What is the Extent to which Databases are been Used by Undergraduate Students in the University?

4. What are the Challenges of Effective Use of Databases in Umaru Musa Yar'adua University?

OBJECTIVE OF THE STUDY

The broad objectives of this study are to:

1. Identify the databases Subscribed by Umaru Musa Yar'adua University Library

2. Ascertain level of Accessibility of Databases among Undergraduate Students of Umaru Musa Yar'adua University

3. Examine the Extent to which Databases are been Used by Undergraduate Students in the University

4. Identify the Challenges of Effective Use of Databases in Umaru Musa Yar'adua University.

RESEARCH HYPOTHESIS

To accomplish this purpose, the following null hypothesis was formulated in this study

Hypothesis : There is no significant relationship between Information Literacy Skills and the Accessibility of Databases

METHODOLOGY

The study was conducted among undergraduate students of Umaru Musa Yar'adua University, Katsina State Nigeria. Cross-sectional survey design was used. The entire population of study is 7840. Stratified random technique was adopted. Questionnaire was the instrument used for data collection. Two hundred (200) copies of Questionnaire were administered among undergraduate students with 99% return rate. The data collected were

analyzed by using frequency, table and chart, Pearson Product Moment Correlation (PPMC) was used to analyzed hypothesis

RESULTS AND DISCUSSION OF FINDINGS

Types of Databases Subscribed in Umaru Musa Yar'adua University Library

Respondents were asked to indicate the types of databases available in the University

Table 1: **Types of Databases Subscribed**

S/N	Databases	Subscribed		Not subscribed	
		F	**%**	**F**	**%**
1	AGORA	09	4.5.	189	95.5
2	BIOLINE	07	3.5	191	96.5
3	OARE	07	3.5	191	96.5
4	HINDAWI	11	5.6	187	94.4
5	HINARI	11	5.6	187	94.4
6	PLOS	09	4.5	189	95.5
7	REPEE	10	5.1	188	94.9
8	HEINONLINE	10	5.1	188	94.9
9	LIBDEX	11	5.6	187	94.4
10	E-GRANARY	06	3.0	192	97.0

Figure 1 Types of Databases

From the table 1 above, the data showed that majority of respondents were of the views that databases were not available such as E-GRANARY192 (97.0%), HINARI 187 (94.4%), followed by BIOLINE 191 (96.5%), as well as PLOS 189 (95.5) HINDAWI with187 (94.4%) and OARE 191 (96.5%) respectively. The table also revealed that majority of respondents was not aware of the availability of the following databases such as REPEE with 188(94.9%), HEINONLINE 188 (94.9%). This implies that the literacy programme is not exposing databases in the library subscribed to due to ineffectiveness of the programmes

Accessibility of Databases among Undergraduate Students of Umaru Musa Yar'adua University Library

Accessibility to the Databases

Respondents were asked to indicate the level at which they have access to the databases subscribed by the university

Table 2: Accessibility of the Databases by Undergraduate Students

S/N	Databases	Easily		Very easily		No comment		Not easily	
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
1	AGORA	5	2.5	5	2.5	11	5.6	177	89.4
2	BIOLINE	5	2.5	6	3.0	10	5.1	177	89.4
3	OARE	5	2.5	4	2.0	15	7.6	174	87.9
4	HINDAWI	7	3.5	5	2.5	14	7.1	172	86.9
5	HINARI	6	3.0	8	4.0	10	5.1	174	87.9
6	PLOS	8	4.0	5	2.5	12	6.1	173	87.4
7	REPEE	7	3.5	7	3.5	12	6.1	172	86.9
8	HEINONLINE	6	3.0	9	4.5	13	6.6	170	85.9

| 9 | LIBDEX | 11 | 5.6 | 5 | 2.5 | 12 | 6.1 | 170 | 85.9 |
| 10 | E-GRANARY | 4 | 2.0 | 6 | 3.0 | 17 | 8.6 | 171 | 86.4 |

Figure 2 Accessibility of the Databases

As shown in table 2, majority 170(85.9%) up to 177(89.4)of the respondents indicated that the databases were not easily accessible to them. This shows that nearly 90% of the respondents were not accessing the databases provided by the university. This could be attributed to ineffectiveness of the literacy programme provided by the university on the use databases.

Challenges Associated with the Databases Use

Respondents were asked to indicate the challenges associated with the use of databases

Table 3 Challenges associated with the use of databases

S/N	Challenges associated with the use of data bases	F	%
1	I don't know how to use them	154	77.8
2	Nobody attends to me	156	78.8
3	Frequent power failure	156	78.8
4	Network failure	151	76.3
5	Low bandwidth/ Slow saver	155	78.3
6	Improper orientation programme	152	76.8
7	Lack of awareness	152	76.8
8	Insufficient databases	153	77.3
9	Lack of training on how to search	161	81.3
10	Lack of time to spend on searching	151	76.3
11	Unclear terminology	157	79.3

Figure 3 Challenges Associated with the Use of Databases

As shown in table 3, 154 (77.8%) have the view that they don't know how to access them while bandwidth problem, has 155 (78.3%) mentioned in sufficient databases are, 153 (77.3%) lack of orientation and awareness have, 152 (76.8%) lack of time to spend on searching have 151(76.3%), unclear terminology with 157 (79.3), lack of training on how to search was the major reason for non-use of the databases, with 161 (81.3) This shows that nearly 80% of the respondents were not utilizing the databases provided by the university. This could be attributed to lack of awareness or training on how to search the databases provided by the university

Ways of Tackling the Challenges

Table 4 below contains multiple choice responses. It shows the solution the challenges associated with the use of databases in the university library under study

Table 4: Ways of Tackling the Challenges

S/N	Tackling the Problems	F	%
1	Alternative to power supply	156	78.8
2	Constant Network	151	76.3
3	High bandwidth	155	78.3
4	Proper orientation programme	152	76.8

5	User awareness	152	76.8
6	Availability of databases	153	77.3
7	Train students on how to search databases	161	81.3
8	Allocating time for searching	151	76.3
9	Clear terminology	157	79.3

Figure 4 Ways of Tackling the Challenges

As shown in table 4 it can be seen that training on how to search databases is rated high with frequency of 161(81.3%). It was followed by alternative power supply 156 (78.8%), clear terminology with 157(79.3%), High bandwidth 155(78.3%), Proper orientation programme rated with 152 (76.8%), User awareness with 153(76.8%), and the least are Constant Network and Allocating time for searching with frequency of 151(76.3%) each. This result indicated that Train students on how to search and Clear terminology on the use of databases are the major factors affecting undergraduate students from taking advantage and maximizing their full potentials to utilize the information resources in the databases

Inferential Statistical Analysis

This section deals with the outcome of the inferential analysis employed to test the null hypotheses generated for the study. One null hypothesis was raised and tested using Pearson Product Moment Correlation Co-efficient. (PPMCC).the following are specific research hypothesis for the study:

Hypothesis 1: There is no significant relationship between information literacy skills and Accessibility of databases. To test this hypothesis, 0.05 level of significant was used. The result obtained is presented in the table 5

Table 5 The Relationship between Information Literacy Skills & Accessibility of Databases

Variables	Mean	SD	SE	R	Df	P	r-crt	REMARK
INFORMATION ITERACY SKILLS	8.25	1.368	0.097	.145	197	.041	0.139	
ACCESSIBILITY OF DATABASES	20.29	1.423	0.101					

In order to test this hypothesis, the data was subjected to Pearson Product Moment Correlation (PPMC). The calculated value of 0.145 at the degree of freedom (Df) of 197 and σ0.05 was obtained. The calculated t-value of 0.145 is greater than the table value of 0.139 at the same Df and confidence level Therefore, the null hypothesis is rejected. It is therefore concluded that there is significant relationship between Information literacy skills and Accessibility. Since there is a significant mean relationship between Information literacy skills and accessibility of the undergraduate students and the accessibility of databases in Umaru Musa Yar'adua University, Katsina

The implication is that the more the undergraduate students have the searching skills, the more they access to databases. This is possible through orientation, and information literacy programmes

This finding has been validated by empirical studies such as Slater (1963), Allen (1968), Rusch-fega (2007), and Neelameghan (2004). They further note that in seeking information, the user is usually confronted with five possible types of inaccessibility which could prevent the information sources from being useful, even if available. This inevitably leads to low use of library services. Neelameghan identified accessibility as one of the prerequisites for use of information sources. Kuhlthau (1991) argues that the choice to seek information depends on its perceived accessibility. Osudina (2004) investigated the relationship between accessibility and the use of the library. Iyoro

(2004) examined the contribution of accessibility to learning processes and reported that respondents made use of the library when information was easily and conveniently accessible to them.

The study finds that information sources were not easily accessible in the university library. The findings also reveal significant relationships between the information literacy skill and accessibility of databases and the use of databases, and that these variables to a large extent influence the use of databases. It is concluded from these results that databases are not being fully used because of the perceived shortcomings in information literacy programmes on database accessibility.

CONCLUSION AND RECOMMENDATIONS

The movement towards more open and democratic societies has created a need for learning that goes beyond the academic curriculum and factual knowledge to emphasize problem solving and open-ended enquiry. This will in turn improve the information literacy level of university students. From the analysis and summary of findings, it could be concluded that Undergraduate students in Umaru Musa Yar'adua University, Katsina do not make adequate use of the available databases in the library, however, many of the Undergraduate students lack ICT skills and this may limit their ability to access and utilize the available databases in the library. They have deficiencies in search engines. Indeed there is no substitute for good judgment when it comes to navigation of information in the databases. Because good judgment is a product of both critical thinking and extensive knowledge of the subject matter being researched and it was believed that information literacy programmes are uniquely positioned to develop information searching skills. Low productivity of Undergraduate students could therefore, be attributed to lack of fluency with ICT skills. However, many of the undergraduate students do not employ to a larger extent the opportunities and advantages of utilizing the available databases for their academic pursuit.

The low level of information literacy and use of databases affect academic excellence among undergraduate students. Therefore information handling techniques such as search engines, Meta search engines, web navigation and Boolean operators in the use of databases is considered necessity for optimum utilization of the databases available in the library towards sufficient, efficient and effective use to improved research output and exploring the frontiers of knowledge. To achieve this little success the University Library had to employ a number of strategies and as findings show that most of the undergraduate students are not aware of the available databases neither have the skills to access nor utilize them.

Therefore, the researcher established that undergraduate students of Umaru Musa Yar'adua University do not have request information literacy skills on the use of database
In the light of the research findings, the following recommendations were made.
1. The university as matter of urgency the problems highlighted should be address, and the curriculum on the use of library and information science schools in Nigerian universities should be reviewed to incorporate the teaching of information literacy skills and ICTs, including providing practical lessons which will be adequate for the undergraduate students to access and utilize database effectively. The relatively low level of the use of database the researcher has the view that there is need to review or overhaul the curricula of the Nigerian universities in order to equip the graduate students with the required skills to perform and to be able to compete with their colleagues globally
2. The databases should be made more readily available and accessible to undergraduate students in the university library. The students would be up to date and more responsive to the challenges of their academic pursuit in this digital age

3. Information literacy is needs to be imparted to the undergraduate students' on the use of databases, particularly those that are available at no cost so that undergraduate students become aware and make use of them.

4. There is the need for training undergraduate students' searching skills during orientation programmes and GSP class lecture.

5. The Management should provide adequate power supply to the library by using standby generators, solar energy, wind energy and inverters. Also Qualified and user-friendly staff who is assigned to take care of the e-library, who is always ready to attend user's request at all the times

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