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AWARENESS AND UTILIZATION OF OPEN ACCESS RESOURCES IN ASOM BUR LEARNING RESOURCE CENTRE, UNIVERSITY OF MKAR BY UNDERGRADUATE STUDENTS

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ABSTRACT

This study examined the extent of awareness and utilization of open access resources in University of Mkar library (Asom Bur Learning Resource Centre). One hundred (100) undergraduate students out of a total of about One thousand and fifty (1,050) were randomly selected. Descriptive survey design was employed and questionnaire was the main instrument used for data collection; however observation was also applied where necessary. Data collected were analyzed using tables, percentage and frequency distribution. Results revealed that the undergraduate students of University of Mkar University are moderately aware of the existence of Open Access Resources (OARs), majority of the students who use open access resources do so to supplement the library's inadequate relevant information materials, erratic power supply disrupts the flow and stability of Internet service, and lack of Internet searching skills, all affected the maximal utilization of Open Access Resources. Some recommendations were made such as the training and retraining of librarians who will in turn assist these users explore OARs online, provision of power backup such as power inverters and solar power, organizing open access week/seminars or workshop as sensitization.

KEYWORD: Awareness, Utilization, Open, Access, Academic Library, University, Mkar.

INTRODUCTION

Open Access (OA) is especially important for research and academic libraries since all academic institutions are research-intensive and a library's main mandate is to support the teaching, learning and research activities of their parent's institutions. All three activities are research-based. However, due to yearly budget cuts, inflation and the high cost of journals and books, libraries failed to fully fulfill their parent organizations information needs and they keep on evolving to provide customer-focused services. OA is the most recent undertaking to support institutional research activities by providing information cost and time effectively at the right time in the right format. OA has numerous impacts on academic libraries: economic, technological, collection development and management, reference services, information literacy and peer evaluation. OA is a prerequisite to survive and thrive for academic libraries (Giarlo, 2005). OA emerged to address the problem of escalating cost of scholarly and scientific journals, which had made their access restrictive. Three groups took initiatives towards open access: the Budapest Open Access Initiative (BOAI), Bethesda statement and Berlin Declaration. Thus, the main motivations behind OA initiatives were: high subscriptions rates, which were difficult to afford, and the large price discrepancy between individual and institutional subscription rates. Consequently, libraries ended up paying huge subscriptions for journals and they were becoming more restrictive. OA provides free, immediate, permanent online access to the full text of research articles for anyone, web-wide. The OA movement gained momentum in 1994 when Stevan Harnad set fire in the academic and publishing world through The Subversive Proposal, which called authors to deposit their work on Internet Fire Transfer Protocol (FTP) servers (Cho, 2008,

Gideon,2008).

Suber (2010) describes Open Access (OA) materials as *digital, online, free of charge and free of most copyright and licensing restrictions*. Suber also stated that OA contents can be in any form, from text and data to software, audio, video and multi-media. Most importantly, OA materials are never in hard copies but rather soft copies or e-print. One of the most frequently cited definitions of open access has been that proffered by the Budapest Open Access Initiative (2002), which defined the concept of open access in relation to journal literature as thus:

free availability on the public internet, permitting any user to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.(Pg.1)

Hence, open access resources can be said to be scholarly publications that are available online to the readers without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Suber (2006), observed that some are subsidized, and some require payment on behalf of the author. Subsidized journals are financed by an academic institution or a government information center, while those requiring payment are typically financed by money made available to researchers for the purpose from a public or private funding agency, as part of a research grant. (Suber, 2006). Many studies have been carried out on awareness and use of open access journals. Bartle and Walton, (1996) argue that most researchers are still reluctant to the use of

Open Access Journals; one of the major reasons for this is that they are not aware of what is available to them and what the services is capable of doing. In a similar fashion, the results of the user survey, at the University of Hong Kong library (Woo, 2005; cited by Korobili, Tilikidou&Delistarou 2005) shows that 68.8 percent of the respondents prefer to use open access journals compared to 31.2 percent who prefer to use printed journals. In Nigeria, studies such as those of Ureighe, Oroke and Ekruyota (2006) and Ajuwa (2003) found that access to and use open access resources is still low, the factors that may be accountable for the low use may be awareness and attitude of researchers (Ivwichghweta&Onoriode, 2012).

When talking about use or utilization of Open Access Resources, one question that readily comes to mind is can anyone utilise what he/she does not have knowledge of its existence? Research is replete on awareness and use of information resources. Awareness precedes use. Though, a fundamental factor in OARs utilization is the "perceive" information need, although awareness of the existence of an information resources is a major determinant of use. According to Sonnenwald (1999), an individual's knowledge of possible resources like OARs may help determine his information horizon. Awareness of availability of OARs is therefore an important variable that has been found to have a positive association with its use (John-Okeke, 2006; Kiyengere, 2007; Manda & Mukangera, 2007). This can also imply that though a user may identify his/her area of information need, without proper awareness of how and when to get resources that will provide the information needed, such need may not be met. The utilization of information resources, most especially Open Access resources is a function of how proper the resources are organised and made available for use. According

to BBC English Dictionary (1992), utilization means the usefulness of something or making proper use of something in order to achieve a desired result. The primary aim and objective of a library or any information centre is to select, acquire, process, store and make available for users essential and relevant information resources for easy retrieval. These information resources are meant for the judicious use (utilization) of library clientele. Various reasons can be attributed to why individuals utilize information resources, ranging from academic to health, business, wealth creation, competition, public support necessary for sustainable development, and even survival. Whichever it is, what is pertinent is that information resources are invaluable and so cannot be handled carelessly, especially in this age of information explosion. Specifically, in the educational system, information resources utilization is not only a means of self-expression but also a medium for displaying authority and subject mastery by a teacher. What this implies therefore is that information requirements and utilization vary with the level and goals of the user; and because information resources utilization varies based on the purpose and need of the user, resources are also divergent. For instance, reviewed literature has established that social scientists in general rely on text books, journals, abstracts and indexes, theses and dissertation, conference proceedings, technical reports, government documents, statistical publications, newspapers and magazines, monographs, mass media, official records, personal documents, interview, and experimental data for their job performance (Salsali, 2005; Popoola&Haliso,2009). Utilization of information resources and services is usually determined by the library statistics which shows the number of materials consulted and those actually borrowed for home reading. But in the case of Open Access Resources

(OAR), the utilization of OAR can only be ascertained by viewing *history* on the various computer systems, and all websites visited will be shown.

One of the objectives of setting up a university is to encourage and promote scholarship and conduct research in all field of learning and human endeavor. The three major infrastructures are teachers/classrooms, laboratories and libraries that contain a rich and balanced collection and equipment that can support the teaching and learning process as well as research (Ajibero, 2004). An academic library is a library that is attached to academic institution above the secondary level, serving the teaching and research needs of students and staff. These libraries serve two complementary purposes: to support the school's curriculum, and to support the research of the University faculty and students (Hoare, 1997). The importance of the library resources and services to users of libraries cannot be underestimated. Libraries according to Akinpelu (1994), are regarded as one of the institutions that have a role in advance literacy and education in the society. Library is essential to any formal educational system, the facilities/resources offered by the library are required by the students to improve their education, whether at the remedial or higher educational level (Ogunsheye, 1981). The library enables individuals to obtain spiritual, inspirational, and recreational activity through reading, and therefore the opportunity of interacting with the society's wealth and accumulated knowledge (Omojuwa, 1993). According to Edem, Ani and Ocheibi (2009), the main purpose of a University library is to support the University in areas of learning, teaching and research. The library is regarded as the "heart" of any academic institution, particularly the University. Hence, to a large extent, the quality of a University is measured by the services provided

by the library because of its unique contributions in the over-all goals of the University. According to Oyegadeet all (2003), libraries play a major role in the life of the users: This include:

- Helping the users literacy to become permanent;
- Bring about improvement of knowledge and skills for positive productivity;
- Assisting students/users to adjust to existing social, political, spiritual and economic activities of the community;
- Giving personal awareness to students of their right in the, society and to appreciate the social values and be able to change for easy adaptation into the expected roles within the society;
- Enabling the users to develop its full potentials and widening the range of its perception, interest and skills.

Library users including students who effectively utilize the resources at the library will have better performance in their studies. With the availability of adequate and enough resources in the library, students' achievement will not increase when they do not effectively utilize the resources available. In some cases, students are willing to utilize library resources but sometimes these resources are not available, at times they could be available but the students may not be aware of their existence. This study therefore, is aimed at investigating the extent of awareness and utilization of library resources, particularly the open access resources in Asom Bur Learning Resource Centre of University of Mkar by its undergraduate students.

The University of Mkar was licensed by the Federal Government of Nigeria in June, 2005 to operate as a private University in Nigeria, providing education to all Nigerians and beyond without discrimination to race, tribe,

political or religious affiliation. It however, took-off on 4th October, 2005. The University is owned by the NKST Church, an offshoot of the Dutch Reformed Church/Sudan United Mission of South Africa and North America respectively. The Dutch Reformed Missionaries of South Africa came to Tivland in 1911 to evangelize, establishing many churches and schools. Later, they transferred the work to their partners, the Sudan United Mission (SUM) of North America who eventually handed the work over to the indigenes under the name "*Nongu u Kristu u Sudan hen Tiv*" (NKST) or the Church of Sudan among the Tiv. The NKST has carefully followed the footsteps of her founders. Thus, in June 2005 the church was licensed to operate a private Christian University in Nigeria.

Objective

The general objective of the study is to determine extent of awareness and utilization of open access resources in Asom Bur Learning Resource Centre by its undergraduate students. Specific objectives are:

1. Extent of awareness of open access resources;
2. Means of creating awareness of open access resources;
3. Purpose for utilization of open access resources;
4. Impact of awareness on the utilization of open access resources;
5. Challenges associated with the utilization of open access resources.

Methodology

The target population for this study was undergraduate students of mission-based private universities in Nigeria, using University of Mkaras a case study. Some variables like gender, age, level and department were ignored so long as the students were undergraduates. The total number of undergraduate students are about

1,050 and 100 were randomly selected. Sequel to the fact that the population is too large to be covered for this study, the researcher randomly selected 10% from the total students' population (1,050), thus forming a total sample size of 100. Consequently the total number of questionnaires distributed was 100, and the total number returned were 90 representing 100% of the total respondent. Observation was further employed to assess the facilities and infrastructural activities in the library such as provision of adequate and functional computer systems, network connectivity, power supply, and activities of librarians as par assisting users meet their open access needs.

Results and Discussion

The data collected were analyzed using percentage frequencies based on a number of variables. These variables include demographic information about the respondents, awareness of open access resources, means of creating awareness of open access resources, purpose for utilization of open access resources, impact of awareness on the utilization of open access resources, Challenges associated with the utilization of open access resources.

Extent of awareness of open access resources

Table1: To what extent are you aware of the following open access resources?

Item	Response (Great Extent)	Response (Low Extent)
Free Online Books	72(80%)	18(20%)
Free Online Journals	84(93.3%)	6(6.6%)
Free Online Articles	81(90%)	9(10%)
Free Online Magazines	78(86.7%)	12(13.3%)
Free Online Newspaper	72(80%)	18(20%)
Free Online Photographs	75(83.3%)	15(16.6%)
Free Online Thesis/Dissertation/Project	39(43.3%)	51(56.6%)
Free Online Conference Papers	63(70%)	27(30%)
Free Online Pamphlets	51(56.6%)	39(43.3%)
Free Online Government Publication	63(70%)	27(30%)
Free Online Archives	66(73.3%)	24(26.6%)
Free Online Annual Reports	69(76.6%)	21(23.3%)
Free Online Bulletins	54(60%)	36(40%)
Free Online Video files	66(73.3%)	24(26.6%)
Free Online Audio files	60(66.6%)	30(33.3%)
Free Online Reference Materials e.g. dictionaries, encyclopedias, almanacs, yearbooks, britannica, directories, maps, atlases, manuals, indexes, abstracts, bibliographies, etc.	75(83.3%)	15(16.6%)

Before anyone can talk of utilizing any resource material, the knowledge or awareness of the existence of the resource material must have been achieved. Awareness is a pre-requisite to subsequent usage. Thus, without doubt Table1 reveals that for each open access resources mentioned, over 50% of the respondents agreed that they are aware to a great extent of the existence of these resources; with journals and articles having the highest response 93.3% and 90% respectively. However, the response to awareness of Free Online Thesis/Dissertation/Project was the least, recording 43.3% level of awareness.

Means of creating awareness of open access resources

Table2: Indicate your level of agreement with each of the following statements of means by which you got the awareness of Open Access Resources?

Item	Response (Agree)	Response (Disagree)
I got the awareness of the existence of open access resources via resource materials in the library e.g. books, journals, thesis, etc.	84(93.3%)	6(6.6%)
I got the awareness of the existence of open access resources via the Internet in the course of browsing	84(93.3%)	6(6.6%)
I got the awareness of the existence of open access resources via the mass media e.g. television, radio, newspaper and magazine	75(83.3%)	15(16.6%)
I got the awareness of the existence of open access resources via interaction with my friends and colleagues	78(86.7%)	12(13.3%)
I got the awareness of the existence of open access resources via interaction with my lecturers and supervisor	78(86.7%)	12(13.3%)
I got the awareness of the existence of open access resources via displays on campus e.g. noticeboards / billboards	75(83.3%)	15(16.6%)
I got the awareness of the existence of open access resources via student orientation during my first year registration	87(96.6%)	3(3.3%)

Table2 revealed that majority (96.6%) of the students got the awareness of the existence of open access resources via student orientation during their first year registration at school. However, awareness via the mass media such as television, radio, newspaper and magazine and also via displays on campus e.g. noticeboards / billboards recorded the least (83.3%) each, which is still far above average.

Purpose for utilization of open access resources

Table3: What are your reasons for using open access resources?

Item	Response (Agree)	Response (Disagree)
To boost the citations in my academic assignments and research work	87(96.6%)	3(3.3%)
To boost the references in my academic assignments and research work	87(96.6%)	3(3.3%)
To broaden my academic knowledge which will in-turn boost my academic performance	87(96.6%)	3(3.3%)
To provide me with relevant literature for my academic assignments and project work	90(100%)	0(0%)
To provide me with current literature for my academic assignments and project work	87(96.6%)	3(3.3%)

The study sought to find out the reason for using open access resources and the respondents were allowed to pick as many as were applicable. The result revealed that open access resources were basically used by the majority (100%) to provide themselves with relevant literature for their academic assignments and project work. However, it also revealed that open access resources are used by respondents to boost citations in their academic assignments and research work, boost the references in their academic assignments and research work, broaden their academic knowledge which will in-turn boost their academic performance, and also to provide them with current literature for their academic assignments and project work; all these recorded a response of 96.6% each, which is far above average.

Impact of awareness on the utilization of open access resources

Table4: Indicate your level of agreement with each of the following statements on the impact of your awareness of Open Access Resources on its utilization.

Item	Response (Agree)	Response (Disagree)
my awareness of open access resources has improved my use of them hence, increases the quality of my academic assignments and research work	84(93.3%)	6(6.6%)
my awareness of open access resources has improved my use of them hence, boosts the citations in my academic assignments and research work	84(93.3%)	6(6.6%)
my awareness of open access resources has improved my use of them hence, improves the references in my academic assignments and research work	84(93.3%)	6(6.6%)
my awareness of open access resources has improved my use of them hence, broadens my academic knowledge which will in-turn has boosted my academic performance	84(93.3%)	6(6.6%)
my awareness of open access resources has improved my use of them hence, provides me with relevant literatures for my academic assignments and project work	87(96.6%)	3(3.3%)
my awareness of open access resources has improved my use of them hence, provides me with current literatures for my academic assignments and project work	87(96.6%)	3(3.3%)
my awareness of open access resources has improved my use of them hence, saves me cost in getting essential literatures for my academic assignments and research work	90(100%)	0(0%)
my awareness of open access resources has improved my use of them hence, supplements the limited information resources available in the university library	90(100%)	0(0%)
my awareness of open access resources has improved my use of them hence, increased my academic performance	87(96.6%)	3(3.3%)

This table4 revealed the impact the awareness of open access resources has on its utilization by respondents. Majority (representing 100%) agreed that awareness of open access resources has improved their use of them hence, saves them cost in getting essential literatures for their academic assignments and research work and that, their awareness of open access resources has improved their use of them hence, supplements the limited information resources available in the university library. While other respondents representing a fraction within 93.3% to 96.6% tend to agree to other options provided.

Challenges associated with the utilization of open access resources

Table5: Indicate your level of agreement with each challenge associated with the awareness and utilization of open access resources.

Item	Response (Agree)	Response (Disagree)
Lack of knowledge of the existence of Open Access Resources hinders its use by students	87(96.6%)	3(3.3%)
Lack of Internet searching skills limits the students from accessing open access resources on the net	84(93.3%)	6(6.6%)
Inability of library staff in assisting students in searching and using Open Access Resources	78(86.7%)	12(13.3%)
Unavailability of Internet facilities to browse and access open access resources on the net	78(86.7%)	12(13.3%)
Slow Internet connectivity hence, delay in opening and downloading open access resources on the net	81(90%)	9(10%)
Inadequate/shortage of computer systems and terminals thus, limiting student's access to OA resources on net	78(86.7%)	12(13.3%)
Erratic power supply hence, disrupting the flow and stability of the Internet service	84(93.3%)	6(6.6%)

In Table5, a higher percentage of the respondents (96.6%) identified lack of knowledge of the existence of open access resources as a major challenge militating against its use by students. 93.3% of the respondents further identified lack of Internet skills and erratic power supply as a barrier to the effective utilization of open access resources.

Conclusion and Recommendation

The study revealed that undergraduate students in University of Mkar are moderately aware of the existence of open access resources (OARs). The study further revealed that most of the students got the awareness of OARs via student orientation during their first year registration. Although, quite a number agreed to have gotten the

awareness of OARs via notices, friends and their lecturers, yet you find the percentage of such representation relatively small when compared to the percentage that represents those who said they got the awareness via student orientation during their first year registration". It is thus recommended that the university management should take advantage of the Annual International Open

Access Week held in every October of every year which is in form of a seminar, meant for all students and academic staff. It is types, benefits, challenges, etc. It serves as a refresher and also sensitizes those who either by chance or purpose missed the Furthermore, from the analysis and discussion of the findings, this study can be said to have also revealed that OARs is used by majority of the students to supplement the library's inadequate relevant information resources for their academic assignments and project work. Therefore, the university management through the library management should ensure that there is provision of power inverters or solar power to arrest the issue of erratic power supply which disrupts the flow and stability of Internet service as identified by these undergraduate students as one of the challenges associated with the utilization of OARs. By so doing, Open Access Initiative would have been fulfilled by it augmenting the limited current or irrelevant information materials available in the library's collection.

Finally, training and retraining of librarians or better still library staff should be encouraged. These people are expected to be resource persons who should put users through on how to explore open access resources anytime they are beckoned on by these users. This will eradicate the challenge of lack of Internet searching skills which limits the students from accessing open access resources on the net.

usually a 5day sensitization week on open access resources which should entail open access

student orientation during their first year registration at school.

REFERENCES

- Ajibero, M.I. (2004). Donor support and sustainability: the experience of university libraries. In Proceedings of SCAULWA 2003 conference, Erata Hotel, Accra, Ghana, p.11.
- Akinpelu, J.A. (1994). "Education for special groups" In: O.O. Akinkugbe, ed. *Nigeria and Education: The challenges ahead*, Ibadan: Spectrum Books Ltd; pp158-190.
- Bartle & Walton, A. (1996). Awareness of electronic journals. Retrieved from <http://san.undo.org/gpgn/topics.php> March 4, 2010.
- BBC English Dictionary (1992). London: HarperCollins Publishers.
- Budapest Open Access Initiative (2002). Retrieved from <http://www.soros.org/openaccess/read.shtml> or <http://www.earlham.edu/~peters/fos/boa/ifaq.htm#openaccess> February 17, 2012.
- Edem, N., Anil, O. and Ocheibi, J.A. (2009). Students' perceived effectiveness in the use of library resources in Nigerian universities. *Educational Research Review*, 4(3): 322-326.

- Giarlo, M. J. (2005). The impact of open access on academic libraries. Retrieved from <http://lackof.talent.org/Michael/papers/532.pdf> on September 25, 2013.
- Hoare, P. (1997). *Academic Libraries in International Encyclopedia of Information and Library Science*, Ed. John Feather and Paul Sturges. New York: Routledge. pp.2.
- Ivrihgheweta, O. and Onoriode, O.K. (2012), "Awareness and use of open access journals by LIS students at the university of Ibadan, Nigeria". *Library Philosophy and Practice (e-journal) Paper 719*. Retrieved from <http://www.webpages.uidaho.edu/~mbol/in/ivrihgheweta-onoriode.htm> or <http://digitalcommons.unl.edu/libphilprac/719> on October 12, 2013.
- John-Okeke, R. (2006). Interface model for information utilization in research institutions. *Lagos journal of library and information science* 3(2):147-157. Press Ltd, pp.232-253.
- Omojuwa, R.A. (1993). "Directions in adult literacy programming in Nigeria, literacy and reading in Nigeria". *Reading Association of Nigeria*, (7): 207-214.
- Oyegade, E., Nasarawa A. and Mokogwu, W. (2003). "Forty years of public library service to Nigeria: Past, present and future". Lagos: Nigerian Library Association, pp.1-5.
- Popoola, S. O. and Haliso, Y. (2009). Use of library information resources and Kiyengyere, A.A (2007). The effort of information literacy on the utilization of electronic information resources in selected academic and research institutions in Uganda. *Electronic library* 25(3):328-341. Retrieved from <http://www.emeraldinsight.com/journals.htm?articleid=1610818&show=abstract> on June 9, 2013.
- Korobili, S., Tilkidu, I., & Delistavrou, A. (2005). Factors that influence the use of library resources by faculty members. *Library Review*, 55(2), 91-105.
- Manda, A. and Mukangara, F. (2007). Gender analysis of electronic information resources use: the case of university of Dar Es salaam, Tanzania. *University of Dar Es Salaam Library Journal* 9 (1):31-52. Retrieved from <http://www.ajol.info/index.php/udslj/article/view/26660> On October, 2012.
- Ogunsheye, F.A. (1981). "Library services and adult education". In L. Brown and J.T. Okedara Eds: *An introduction to the study of education: a multi-disciplinary and cross-cultural approach for developing countries*. Ibadan: University services as predictor of teaching effectiveness of social scientists in Nigerian Universities. *African Journal of Library Archival & Information Science* 19(1): 65-77.
- Salsali, M. (2005). Evaluating teaching effectiveness in nursing education: An Iranian perspective. Retrieved from <http://link.springer.com/article/10.1186/1472-6920-5-29> on February 03, 2011.

Suber, P. (2006). An introduction to open access. Retrieved from <http://www.blurtit.com/q72848.html> on October 12, 2013.

Suber, P. (2010). Open Access overview. Focusing on open access to peer-reviewed research articles and their preprints. Retrieved from <http://www.earlham.edu/~peters/fos/overview.htm> on October 14, 2013.

Sonnewald, D. H. (1999). Evolving perspectives of human information behavior: Contexts, situation, social networks and information horizons. In T. Wilson and D. Allen (Ed.), *Exploring the contents of information behavior*. (pp 176-190).