Use of Electronic Resources by National Open University of Nigeria (NOUN) Undergraduate and Postgraduate Students

Utilisation Des Ressources Electroniques Par Les Etudiants De L'université Nationale De L'enseignement A Distance Du Nigeria (NOUN)

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Abstract

*The Purpose of this study is to investigate the level of use of library database(s) on one hand and other electronic resources in general by National Open University of Nigeria(NOUN) undergraduate and postgraduate students. The paper seeks to ascertain the perceived effect of electronic resources on NOUN student's academic achievement. Also, different challenges faced by the students while using these resources were discussed. Through simple random sampling five hundred (500) students were selected from Abuja Model Study Centre to participate in this study. The instrument for data collection was a well-structured and validated questionnaire with relevant items on students' use of electronic resources (**NSUOERQ**). Results were analyzed using simple frequencies and percentages. Results showed that on the average 329 (66%)of the students were not aware of the library database(s) and have never used them. Furthermore, results revealed that only 171 (34%)of NOUN students use the library database(s). Out of the 171 respondents that use the library database(s), 50 (10%)use it twice weekly,46 (9%)use it weekly, 25 (5%)use it monthly while 50 (10%)students indicated that they occasionally use it. Results also revealed the different purposes for*

which NOUN students use electronic resources/Internet. 369 (74%)students use electronic resources for study, 319 (64%)for News, 364 (73%)to check student's portals, 356 (71%)to do their assignments(TMAs), 312 (62%)for social network, 326 (65%)to send e-mails, 344 (69%)for the purpose of research, 346 (69%)students use the internet to access NOUN open courseware while 334 (67%)respondents use electronic resources/Internet for updating their subject knowledge. Also 166 (33%)students use I-learn to interact with their lecturers, 223 (45%)to have group discussions with other NOUN students from other study centres, 197 (39%)to have access to educational videos, 223 (45%)to have access to recommended textbooks/journals, 242 (48%)to access past question papers while 253 (51%) visit the site for information that can assist them to do other school assignments other than their TMAs. Results also revealed that 396 (79%)students face several challenges ranging from slow internet connectivity, to epileptic supply of electricity with 381 (76%)respondents, to lack of internet facilities with 355 (71%)respondents, to lack of adequate knowledge of search terms/strategies with 273 (55%)respondents, to oversupply of unnecessary information with 262 (52%) respondents and lack of skill on how to operate the computer with 250 (50%)respondents. Finally, results also showed that 320 (64%)Students find the various electronic resources useful in their academic achievement.

Résumé
Cette étude est une enquête sur le niveau d'utilisation des banques de données de la bibliothèque et d'autres ressources électroniques par les étudiants de premier et de troisième cycle de l'université nationale a Nationale de l'enseignement à distance du (NOUN), dont l'objectif principal est de déterminer les effets perçus des ressources électroniques sur les résultats scolaires des étudiants de la NOUN, ainsi que les différents défis rencontrés par les étudiants en utilisant ces ressources. Grâce à un simple échantillonnage aléatoire, cinq cents (500) étudiants du Centre d'études modèles d'Abuja ont été sélectionnés pour participer à cette étude. L'instrument de collecte des données était un questionnaire bien structuré et validé comportant des questions pertinentes sur l'utilisation des ressources électroniques par les étudiants. Les résultats ont été analysés à l'aide de fréquences et de

pourcentages simples. Les résultats montrent que la majorité des étudiants de NOUN ne sont pas au courant de la disponibilité des bases de données de la bibliothèque, ainsi, ils ne les utilisent jamais. De plus, les résultats révèlent que même les quelques élèves qui utilisent ces ressources ne les utilisent pas régulièrement. Ainsi, l'étude a suggéré plusieurs façons d'améliorer l'utilisation des ressources disponibles par les étudiants afin qu'ils puissent en tirer le maximum d'avantages.

Introduction

There is a new trend with the advent of the computer era. The gathering of information, its storage, its organization, accessing, retrieval and use has drastically changed in line with the new trend. This new trend is fast gaining ground because of its ability to overcome geographical limitations associated with the print media. It has also removed delay between when the information is generated and when it is made accessible to large population through the web. Electronic resources are particularly useful to open and distance learning students who have limited time to access the libraries. In most cases they may not have physical access to their tertiary institutions or have face to face contact with their lecturers. There have been tremendous changes in libraries in recent years both in their collection development and in their structures in line with this new trend. Libraries are now involved in online management of scholarly resources. Access to scholarly resources worldwide has been made easy through the use of ICT in libraries. According to Sharma (2009) print medium is gradually giving way to electronic resources. However, in Nigeria, electronic resources are complementing but have not replaced the print-based resources. This researcher believes that electronic resources cannot completely replace the print resources because of the challenges associated with the use of electronic resources.

There are several advantages that the electronic resources have over the print-form. Some of them such as overcoming geographical limitations have been discussed. Electronic Journals have created high dependency value on research work as the need for current articles/references arises (Madhusudhan, 2008). They are also used by scholars to upgrade knowledge. Some researchers believe that e-resources could be a good substitute for conventional resources if access speed is fast, important Journals have open access and more computer terminals are installed (Kaur, 2006). There are other advantages such as reduced cost, access to more current information, provision of extensive links to additional resources related contents. For researchers, electronic resources help to speed up their publications (Navjoyi, 2007). However, lack of training has been a major de-motivating factor in the use of electronic resources (Kennedy, 2004).

Some researchers believe that the emergence and use of information technology is the most significant development in education (Egberongbe,2011). The application of computers to information processing has generated several products and services to the scene. This has brought tremendous changes in the academic community. Libraries have experienced technology driven changes in their technical services, readersø services, and collection development. Libraries through technology can now give scholars speedy access to information that are not locally available. The gradual shift from the print medium to electronic resources in the library, has brought about transformation in collection development policies and practices. Users on their part, now have new tools and applications for information seeking and retrieval. This of course will require new skills as well to be able to effectively use these new tools (Ani, 2008). Before now, libraries were battling to keep pace with the wealth of information being generated daily, today the new technologies have helped libraries to save cost by revolutionizing ways of accessing information.

It will be unimaginable for any student in this new era not to use electronic resources with all the manifold benefits that can be derived from their use. Such a student is likely to be limited in academic achievement. Researchers therefore want to know the challenges faced by students in the use of electronic resources and make

recommendations. It is in this light that this research investigates the level of use of library database(s) and other electronic resources; their perceived usefulness in student's academic achievement and the different challenges faced by NOUN students while using these resources.

The National Open University of Nigeria (NOUN) which was established in July 1983 by an Act of the National Assembly, was closed down a few months later in 1984 by the Federal Military Government. It was again resuscitated by the Federal Government in 2002.

National Open University of Nigeria(NOUN) is still Nigeria's only specialist-provider of open and distance learning at the tertiary level. It has a student population of about two hundred and twenty-eight thousand (228,000) thus qualifying as the country's largest tertiary institution.

National Open University of Nigeria Administrative Headquarters, which was formerly located in Lagos moved to Abuja in April 2016.

In Nigeria the adoption and development of Open and distance education delivery systems include: Provision of Education for all and promotion of the lifelong learning, cost effectiveness, flexibility of delivery system, poverty eradication, vocational and lifelong education, reaching the unreached. These helped to form the mission of NOUN which is to provide functional, cost effective, flexible learning which adds life-long value to quality education.

NOUN has the following schools: School of Arts and Social Sciences, School of Science and Technology, School of Health Sciences, School of Management Sciences, School of Education, School of Law, School of Agricultural Sciences, Centre for Lifelong Learning, CEMBA/CEMPA, and Access and General Studies. NOUN offers seven (7) programmes at certificate level, eight(8) programmes at diploma level, forty(40) programmes at undergraduate level, fifteen(15) programmes at post graduate diploma level, ten(10) programmes at masters level, and five(5) programmes at doctoral level.

The University has seventy-four (74) study centres across the federation. These centres are the õcampusesö of the University. They are the points of convergence for students, where they meet for facilitation/tutorials, obtain study materials, write examinations and generally socialize as university students. These centres are headed by centre directors with the complements of full staff. NOUN has an i-learn, which is an electronic platform designed for individualized and interactive learning.

The research design is a survey, using a case study approach. National Open University of Nigeria (NOUN), Abuja Model Centre, has a student population of thirty thousand (30,000). Through simple random sampling five hundred (500) students were selected to participate in this study. The instrument for data collection is a well-structured and validated questionnaire with relevant items on studentsø use of electronic resources (**NSUOERQ**). The questionnaire was given to two experts in the field for face and content validation. To test the reliability of the questionnaire, the split-half and the Spearman-Brown formula was used. The Pearson Product Moment Correlation was 0.67 and the final reliability coefficient was 0.77.

The first part of the questionnaire is demographic while the second part reflects the studentsø use of electronic resources. Simple frequencies and percentages were the statistical methods used for data analysis.

Research Questions
1.   What is the frequency of use of the library database(s) and other electronic resources by NOUN students?
2.   What are the purpose(s) for which NOUN students use the library database(s) and other electronic resources?
3.   What are the challenges faced by NOUN students in the use of the library database(s) and other electronic resources?
4.   How helpful are the library database(s) and other electronic resources to NOUN studentsø academic work?

Literature Review
The importance and wide ranging scope of electronic resources for general communication, information retrieval and instructional

delivery to support teaching and research activities in tertiary educational institutions is acknowledged worldwide. Literature also shows that relevant studies have been carried out on the use of e-resources by lecturers, research scholars, and students worldwide. Igbeka and Okpala (2004) investigated the usage pattern of CD-ROM databases in Kenneth Dike Library, University of Ibadan, Nigeria and how this facility meets the information needs of users. Results showed that users were not very knowledgeable on how to conduct a good successful CD-ROM literature search. This research corroborates the need to train library users who are faced with the challenge of using new tools as a result of advent of new technologies.

A follow up of this research, Okpala and Igbeka (2005) investigated the behaviour of searchers of CD-ROM databases in Kenneth Dike Library of the University of Ibadan in order to identify the behaviour of end-users with different amounts of overall experience in searching electronic databases with the aim of identifying the knowledge of their search systems and syntax, and its effect on their search results. The results revealed that the more sophisticated the search strategy, the greater the result in terms of number and relevance obtained by the searchers. This result further emphasized on the importance of training of users of electronics databases.

Okiy (2005) investigated the current state of information communication technologies (ICT) application for information provision in Nigeria university libraries. Results showed that inadequate funding, inadequate electricity supply, shortage of competent manpower for operation and maintenance of ICT facilities, lukewarm attitude of the Nigerian government towards the provision of ICT facilities and low level of computer literacy among Nigerians are factors militating against effective application of ICT in University libraries.

Sharma (2009) investigated the various e-resources databases in Guru Gobind Singh Indraprastha University Library in India. The result revealed that majority of teachers and research scholars prefer to use e-resources to printed ones. The result also showed that most of the users have not received any training.

Ozoemelem (2009) investigated the use of electronic resources by postgraduate students of library school in Delta State University, Abraka, Nigeria. Results showed that the frequency of use of electronic resources by students in Abraka was very high, however, there was a low skillfulness in the use of ICT. The result also revealed that the use of electronic resources was not gender sensitive.

Egberongbe (2011) investigated the awareness level of use of electronic resources, the perceived impact of use of electronic resources on the academic productivity of teachers and problems faced by researchers while using electronic resources in the University of Lagos (Unilag) Library. Results revealed that majority of lecturers and research scholars prefer to use e-Journals, e-mail and the web. It was also revealed that IT skills among lecturers, scholars and also library staff were variable and low. The result of this work is in line with the finding of Thanuskodi (2012). Thanuskodi studied the use of e-resources by the postgraduate students and research scholars of Faculty of Arts in the Annamalai University, India. Results revealed that majority of users are aware of the available e- resources. More users want to access only electronic version and only very few want to access both electronic and printed version. It was also revealed in this study that practical uses of e-resources were not up to the worth in comparison to investments made in acquiring these resources. It was evident from Thanuskodiøs study that the availability of e-resources on campus was almost sufficient for all the existing disciplines but the infrastructure to use the resources was not adequate and was actually hindering the ability to meet the requirements of the users.

Ekennal and Mabawonku (2013) studied the information retrieval skills and the use of library electronic resources by university undergraduates in Nigeria. The result of this study showed that undergraduates lack required skills for the use of e-resources. They therefore opined that it is important to educate users of e- resources on the best resources, search strategies and the evaluation of web resources.

The review of literature revealed the importance of training of both library staff and students on how to manage and search through

electronic resources. The result of this present work will reveal the extent to which National Open University of Nigeria (NOUN) students use electronic resources, the challenges and its helpfulness to studentsø academic work.

Results and Discussion
Table 1 Response rate table

Schools	Number of respondents	Percentage of respondents
School of science and Technology	76	15%
School of Arts and Social Sciences	115	23%
School of Law	47	9%
School of Education	50	10%
School of Management Sciences	140	28%
School of Health Sciences	36	7%
School of Agriculture	30	6%

From the demographic data, as can be seen from table 1, 76 (15%)students participated from the School of Science and Technology, 115 (23%)students participated from the School of Arts and Social Sciences, 47 (9%)students participated from the School of Law, 50 (10%) students participated from the School of Education, 140 (28%)students participated from the School of Management Science, 36 (7%)students participated from the School of Health Sciences and 30 (6%)students participated from the School of Agricultural Science. 6 (1%) students did not indicate their school. Furthermore, 273 (55%)were male while 227 (45%) were female. Participants were split into four age range(s): 20-29yrs, 30-39yrs, 40-49yrs, 50yrs and above. Out of the 500 participants, 185 (37%)fell within the age range of 20-29yrs; 165 (33%)students, within 30-39yrs, 87(17%) participants, within 40-49yrs while 63 (13%) participants were within 50yrs and above. The number of undergraduates respondents were 267

(53%)while postgraduate respondents were 233 (47%). Analysis of their marital status revealed that 241 (48%)were married while 259 (52%)were single.

The university library subscribes to thirteen library databases. Table 2 shows databases subscribed to by NOUN Library and Frequency of use by students.

Table 2   databases subscribed to by NOUN Library and Frequency of usage

DATABASE(S)	OFTEN	SOMETIMES	NEVER	NOT AWARE
1.AGORA	88(18%)	153(30%)	116(23%)	143(29%)
2.EBSCO	63(13%)	104(21%)	140(28%)	193(38%)
3.National Virtual Library	72(14%)	145(29%)	140(28%)	143(29%)
4.Online Access to Research in the Environment(OARE)	94(19%)	139(28%)	116(23%)	151(30%)
5.JSTOR	58(12%)	87(17%)	132(26%)	223(45%)
6.HINARI	56(11%)	80(16%)	133(27%)	231(46%)
7.QUESTIA	62(12%)	90(18%)	135(27%)	213(43%)
8.LEXISNEXIS	54(11%)	84(17%)	126(25%)	236(47%)
9.LEXIS ACADEMICS	641(3%)	96(19%)	137(27%)	203(41%)
10.World Bank e-library	65(13%)	114(23%)	145(29%)	176(35%)
11.Multi-science Journal	58(12%)	109(22%)	150(30%)	183(37%)
12.Armed Conflict Database	57(11%)	82(16%)	153(31%)	209(42%)
13.Synthesis Digital Library	60(12%)	91(18%)	152(30%)	197(39%)

Results from the frequency of use of the library database(s) revealed that in general the databases have not been frequently used as indicated in table 2. Online Access to Research in the Environment (OARE) was the most frequently used with just 94 (19%)student indicating that they often use it. This was closely followed by AGORA with 88 (18%)students indicating that they often use AGORA database. AGORA, National Virtual Library and Online Access to Research in the Environment were sometimes used with 153 (30%), 145 (29%)and

139 (28%)respondents respectively. Most students were either not aware of the availability of most of the databases or they were aware but had never used them. For instance, 153 (31%) students had never used Armed Conflict Database while 209 (42%)students were not even aware of its availability. Same goes for Multi-Science Journal with 150 (30%)students indicating that they had never used it while 183 (37%)students were not aware that the database was available in the library. Also 152 (30%)students indicated that they had never used Synthesis Digital Library database while 197 (39%)indicated that they were not aware of its availability in the library.

Furthermore, it was revealed interestingly that, 209 (42% respondents preferred to use both electronic and printed text rather than using just electronic resources with 193 (39%) respondents or using just printed text with 98 (20%)respondents. 259 (52%)respondents opined that electronic resources diminished the importance of traditional(print) resources while 241 (48%)respondents felt that it does not diminish the importance of traditional (print) resources.

Also from the results obtained in this research, only 171 (34% respondents use electronic library's electronic database, 50 (10%)respondents, twice weekly, 46 (9%)respondents, weekly, 25 (5%)respondents, monthly while 50 (10%)respondents indicated that they rarely use it. Only 107 (21%)respondents visit the NOUN ilearn platform on a daily basis, 68 (14%) respondents visit it twice weekly, 122 (25%)respondents, weekly, 62 (12%)respondents visit it monthly while 141 (28%)respondents indicated that they rarely visit it.

NOUN students indicated the purposes for which they use the internet.

Table 3 Purpose for which NOUN students use electronic resources/Internet

Purpose(s)	No of respondents	Percentages of respondents
1.Study	369	74%
2.News	319	64%
3.check studentsøportal	364	73%
4.Assignment	356	71%
5.Social network	312	62%
6.Send e-mail	326	65%
7.Research	344	69%
8.Access NOUN open courseware	346	69%
9.Updating subject knowledge	334	67%

From table 3 above, 369 (74%)respondents indicated that they use electronic resources/Internet for study while 319 (64%)respondents use it for News, 364 (73%) respondents, to check students portals, 356 (71%)respondents, to do their assignments(TMAs), 312 (62%)respondents, for social network, 326 (65%)respondents, to send e-mails, 344 (69%)respondents use it for the purpose of research, 346 (69%) respondents, to access NOUN open courseware while 334 (67%)respondents use electronic resources/Internet for the purpose of updating their subject knowledge.

The following are the purposes for which NOUN students use I-learn

Table 4   purpose(s) for which NOUN students use I-learn

Purpose(s)	No of respondents	Percentages of respondents
1.interact with lecturers	166	33%
2.group discussions	223	45%
3.access to educational videos	197	39%
4.access to recommended textbooks/journals	223	45%
5.access to past questions	242	48%
6 access to assignments	253	51%

From table 4, 166 (33%)respondents visited the i-learn to interact with their lecturers, 223 (45%)respondents, to have group discussions with other NOUN students from other study centres, 197 (39%)respondents have access to educational videos, 223 (45%)respondents have access to recommended textbooks/journals, 242 (48%)respondents have access to past question papers while 253 (51%)respondents visited the site to have access to their assignments. 213 (42%)respondents indicated that they were very satisfied and that electronic resources/Internet was serving its purpose, 128 (26%)respondents were satisfied, 73 (15%) respondents were occasionally satisfied while 44 (9%)respondents were never satisfied, 42 (8%) respondents were undecided on this matter.

Results revealed that NOUN students faced several challenges while trying to use electronic resources/Internet. Almost all respondents 396 (79%)indicated that slow internet connectivity was a challenge, this was closely followed by epileptic supply of electricity with 381 (76%) respondents, then lack of internet facilities with 355 (71%)respondents, and inadequate knowledge of search terms and strategies with 273 (55%)respondents, then over supply of unnecessary information with 262 (52%)respondents, and lack of skill on how to operate the computer with 250 (50%)respondents. However, respondents indicated that the websites were user friendly. 445 (89%)respondents indicated that NOUN website was user friendly, in particular, 475 (95%)respondents indicated that ilearn platform was also user friendly while 457 (91%)respondents indicated that NOUN library website was user friendly. The ICT infrastructure in the library and NOUN in general were barely adequate with 352 (70%) respondents and 342 (68%)respondents respectively, indicating that the infrastructure in the library and NOUN in general were inadequate.

Majority of the students, about 306 (61%)acquired their skills in the search and use of electronic resources through self-study and instruction while 287 (57%)students learnt their skill through formal training, 210 (42%)of the students indicated that they learnt their skill from friends. It is interesting to note that NOUN 376 (75%)students are

computer literate and about 357 (71%)have hands-on experience on computer.

NOUN students use the following electronic resources: e-books 299 (60%) respondents, e-journals 240 (48%) respondents, e-Newspapers/magazines with 274 (55%) respondents; e-Thesis with 200 (40%)respondents; e-courseware had 332 (66%)respondents; library database had 171 (34%)students. Also 320 (64%)Students find the various electronic resources useful in their academic achievement and prefer to use electronic resources to print resources for several reasons. The first is that electronic resources were easy to use 335 (67%); They were available and time saving with 336 (67%)respondents, were more informative with 348 (70%)respondents and more relevant with 281 (70%)students; Again they are more current with 306 (61%)respondents, because they can be easily updated. Finally, 263 (53%)respondents prefer to use electronic resources to print version because they are less expensive.

Conclusion

Results of this research showed that NOUN students in Abuja are generally not aware of the available library database(s). Majority of them concentrate on reading just their course materials. The students are quite advanced in the use of ICT facilities. What they lack is the interest in the use of library database. If they know the importance and get trained on how to retrieve relevant materials within a short time, their interest may be aroused. Library staff also need training on how to search within individual database in order to assist students who need help.

Factors militating against effective use of electronic resources are inadequate funding, inadequate terminals, inadequate electricity supply, bad network These challenges can be addressed by the school management.

The university has invested so much on these electronic databases. It will be a colossal waste of money if students and staff are not using them. This research revealed that practical use of library database(s)

are not up to the worth compared to investments made in acquiring them.

The management of NOUN should improve on the available ICT facilities on ground. All the study centre libraries should be made to function properly having a section for electronic library. Efforts should be made towards creating more awareness to: available library database(s); functions of ilearn platform and other available electronic resources and technologies.

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