# EFFECT OF INFORMATION LITERACY SKILLS ON USE OF ELECTRONIC INFORMATION RESOURCES IN THE 21ST CENTURY AMONG ACADEMIC STAFF OF FEDERAL COLLEGE OF EDUCATION KANO

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Abstract

*This paper investigated the effect of information literacy skills on use of electronic information resources in the 21st century among academic staff of Federal College of Education, Kano, Nigeria. The population of the study is the 403 academic staff and a sample of 200 respondents was selected. Objectives of the study includes; to identify the types of electronic information resources available, to ascertain the level of use of electronic information resources by the academic staff and determine the challenges academic staff faced in using electronic information resources in federal college of education Kano library. Survey research method was used for the study. Questionnaire and check list was used to collect data. Out of 200 copies of the questionnaire administered, 182 were completed, returned and found usable. The data collected were analysed using frequency counts and percentages. The study revealed that majority of the academic staff used electronic information resources. While the challenges faced by the academic staff of Federal College of Education Kano on the use of electronic resources were lack of internet connectivity, lack of awareness of the availability of electronic resources, lack technical or search skills (information literacy skills) among others. The study recommended that Internet subscription should be maintain, existing electronic resources be publicized and training and re-training be organized for users.*

**Keywords:** Academic staff, College of education, Electronic information resources, Information literacy skills

## Introduction

Information literacy has been defined severally. The most generally accepted definition of information literacy is the one put forward by the American Library Association (2013). Thus, information literacy skills refer to the ability to recognise when information is needed and have the ability to locate, evaluate and use the needed information effectively. Though the definition emanates from North America, it is not substantially different from those being applied in other countries such as the United Kingdom, South Africa and Australia, Asia and African countries.

Information literacy in 21st century is a concept that is largely discussed in the context of higher education. The practice of information literacy instruction is largely restricted to academic libraries, with some recent activities in public libraries around computer literacy and minimal activities in special libraries.

In 21$^{st}$ century the practice of librarians undertaking the teaching of information skills has two sources: one philosophical and one practical. At the philosophical level, most librarians believe that information literacy is a part of a user's well-rounded skill set that will help him or her to be more efficient and effective in the future. At the practical level, information literacy instruction is a self-defense mechanism. Librarian to user ratios are so low in most post-secondary institutions that librarians must teach users to be information self-sufficient and do so mostly in classroom settings. As the environments of academic libraries have changed, the terminology and definition have also changed and broadened. What started as library orientation, grew to be library instruction and bibliographic instruction and finally became information literacy (Quadri, Adetimirin and Idowu, 2014).

In view of the volume of information resources which is now produced and disseminated every day, information seekers and users need to be equipped with the skills to locate, access, evaluate, and act on information received. This is the reason why information literacy skills have become increasingly important to users. CILIP's (2012) defined information literacy as a set of abilities that allow users of library and information resources to be acquainted with when information is needed and have the ability to locate, evaluate, and use effectively the required information".

The 21$^{st}$ century has been exposed to information explosion and data smog in which many users of information face many difficulties to locate, evaluate, use, and communicate the information. This is because there is expansion of internet services which received a lot of information that is not evaluated, unlike printed sources. Hence, the authenticity, validity, and reliability of such information is in doubt. These are the major reasons why information users need information literacy programme.

### Statement of the problem

The search for information is increasingly becoming important, particularly for academic and research purposes. At the same time, the ability to sift through the quite number of information available in libraries and online to find reliable and accurate data is becoming more important every day. The researchers observed that many academic staff have no or little information literacy skills that deprived them the ability to exploit the benefits of electronic resources in their academic work. The need for this study was prompted after discovering that most academic staff were unable to find relevant and current materials for their studies, teaching and seminar papers despite the fact that Federal College of Education Kano Library provides large quantity of electronic resources. Secondly, it was assumed that academic staff in colleges of education should be knowledgeable and comfortable with electronic resource usage. But unfortunately many of the academic staff in these institutions lack adequate skills for utilising electronic resources.

An academic library will be achieving its set objectives if the available electronic resources are effectively utilised by the target users. The use of electronic resources will be more effective if the users are adequately and technologically skilled. Information literacy skill is a good determinant of effective use of electronic information resources. Though many studies have been carried out on information literacy skills in relation to the use of information resources in libraries. It was discovered that no research have been carried out on Federal College of Education Kano with respect to information literacy. Thus, this study plans to investigate the information literacy skills and use of electronic information resources among academic staff in federal college of education, Kano State, Nigeria.

### Objectives of the study

The main objective of the study is to examine the level of electronic information resources use among academic staff of Federal College of Education Library, Kano, Nigeria. The specific objectives are to:

1. Identify the types of electronic information resources available in Federal College of Education, Kano Library.
2. Ascertain the level of use of electronic information resources by the academic staff in Federal College of Education, Kano, Nigeria.
3. Determine the challenges academic staff faced in using electronic information resources in Federal College of Education Kano, Library

## Review of Related Literature

Academic libraries are those that are established in tertiary institutions such as universities, polytechnics and colleges of education etcetera. Their major function is to provide information resources and services that support the attainment of the broad objectives of teaching, learning and research activities of the parent institution. Okiy (2011) supported this view when the author argued that the roles of academic libraries in Nigeria are to effectively support the institutions to attain the key functions of teaching, research and community service. It could, therefore, be argued further that the position of academic libraries in institutions of higher learning cannot be overemphasised. This is because Bitagi and Garba (2008) observed that academic institutions and libraries are like identical twins who share everything together possibly on equal basis.

Digital Library (2009) noted that there are different types of electronic resource for the diverse information needs of the targeted group of users. Some are developed by groups or organisations, higher education institutions, research centres, national libraries, as well as public libraries. They include contents that are born digital and those that have been digitised (Virtual library, 2007). An electronic resource generally contains books, journals, opacs, webliographies (equivalent to a printed bibliography), still and moving images, sound recordings, indexes, conference/seminar proceedings, theses/dissertations, abstracts and reviews, and handbooks and electronic resource require very little physical space, which reduces the cost of maintaining an e-library.

The use of electronic information resources is very crucial for academic to enhance teaching, learning and research activities. College of education libraries improve electronic resources and database use and accessibility by uploading and placing links on their libraries' home pages to shorten the connection path to each electronic resource and database. Swain and Panda (2009) in their study found that, respondents who were aware and use each electronic resource and database are in the higher ranking. Singh (2009), found out that users of electronic resources regularly used all the sources available to them such as CD-ROMs, web resources, on-line databases and audio video to satisfy the information needs for their academic and other purposes. According to Lyndon & Hale (2014), the development and availability of internet services has increased the impact that information has on people by placing vast information resources at peoples' doorsteps.

American Library Association (2013) examined a variety of efforts to make information literacy and digital literacy instruction available and explored the prospective instruction before making recommendations for public policy.

Information literacy skills affect users on the following:

❖ Acquisition of variety skills and techniques required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats;
❖ Ability to use diverse technologies appropriately and effectively to search for and retrieve information, interpret search results, and judge the quality of the information retrieved;
❖ Understand the relationships among technology, lifelong learning, personal privacy, and appropriate stewardship of information;
❖ Ability to use these skills and the appropriate technologies to communicate and collaborate with peers, colleagues, family, and on occasion the general public;
❖ Ability to uses these skills to participate actively in civic society and contribute to a vibrant, informed, and engaged community." (Lyndon & Hale, 2014):

Quadri, Adetimirin and Idowu (2014), conducted a research in some selected university libraries, were the findings show that the challenges faced by information users in using library and e-library information is poor internet connectivity and inability to access the available electronic databases. Singh (2009) stressed that the level of education has the greatest influence on the capability to use library and e-library information resources effectively.

Users of information deserves to be taken into cognizance the type of information they access, according to Dorner & Gorman (2011)many users are in a hurry to get information and would access and use information, not minding the source or the authenticity of the information itself such ielectronic information may lead in disseminating wrong information. Zaid (2008) believed that "the magnitude of materials passed on the web each day presents an unprecedented challenge to the profession in terms of traditional responsibility to organize, provide access to and preserve information".This also became a serious challenge to the information users.

Other challenges as observed by Lyndon and Hale(2014) are that users often have difficulty navigating result pages and accessing full text due to the use of e-library specific terminology and icons (as compared to the more recognizable language and icons used on free Web search engines) and on occasion may miss certain essential features completely due the unfamiliar jargon.

## Methodology

The study employed descriptive survey research design. The target population of the study was the entire academic staff (Lecturers) of Federal College of Education, Kano which stands as 403. A sample size of 200 was selected using stratified random sampling technique. Check list and questionnaire was the instrument used to collect data. The questionnaire was administered personally by the researchers after it was validated. 182copies of the questionnaire were duly completed, returned and found fit for analysis. The analysis was based on the copies of questionnaires returned only. The data collected were analysed using frequency counts and percentages.

## Findings and Discussion

Types of Electronic Information Resources Available in Federal College of Education Kano Library.

**Table 1: Information Resources available.**

| S/N | Information Resources | Available | N/Available |
|-----|----------------------|-----------|-------------|
| 1. | e-books | ✓ | |
| 2. | e-Journals | ✓ | |
| 3. | Encyclopedia | ✓ | |
| 4. | e-Newspapers | ✓ | |
| 5. | e-Magazine | ✓ | |
| 6 | e-Theses | | ✓ |
| 7. | CD-Rom | ✓ | |
| 8. | Internet | ✓ | |
| 9. | Off-line/e-resources | ✓ | |
| 10. | OPAC | | ✓ |
| 11. | Microforms | | ✓ |
| 12. | Databases | | ✓ |
| 13 | egranary | ✓ | |
| 14 | Digital electronic information library (DEIL) | ✓ | |

As indicated in Table 1 and based on the observation check list, 75 % of electronic information resources were available in Federal College of Education library, Kano. Only e-theses, OPAC, Microforms and Databases were not available in the colleg library.

Digital Library (2009) collaborated with the findings where different types of electronic resource for the diverse information needs of the targeted group of users are identify such as e-books, e-journals, e-newspapers, e-magazingsetc. Some are developed by groups or organisations, higher education institutions, research centres, national libraries, as well as public libraries. They include contents that are born digital and those that have been digitised

2. The types of electronic information resources used.
Respondents were asked to indicate the type of electronic information resources they use in Federal college of education Kano library.

**Table 2: Information Resources used**

| S/N | Information Resources used | respondents | % |
|-----|---------------------------|-------------|---|
| 1. | e-books | 152 | 84 |
| 2. | e-Journals | 171 | 94 |
| 3. | Encyclopedia | 65 | 36 |
| 4. | e-Newspapers | 23 | 13 |
| 5. | e-Magazine | 23 | 13 |
| 6 | e-Theses | Nil | 0 |
| 7. | CD-Rom | 32 | 18 |
| 8. | Internet | 172 | 95 |
| 9. | Off-line/e-resources | 72 | 40 |
| 10. | OPAC | Nil | 0 |
| 11. | Microforms | Nil | 0 |
| 12. | Databases | Nil | 0 |
| 13 | egranary | Nil | 0 |
| 14 | Digital electronic information library (DEIL) | 98 | 54 |

From the Table 2 above, the data showed that majority of the respondents used electronic resources which includes e-books, e-journals, internet and digital electronic information library (DEIL) with higher number of 152 (84%), 171(94%), 172(95%) and 98 (54%) respondents respectively. These were followed by those who uses encyclopedia, e-newspapers, e-Magazines, off-line resoures and CD-ROM with the following numbers of respondents65 (36%), 23 (13%), 23 (13%), 72 (37%) and 32 (18%) respectively. It was indicated by the respondents that e-theses, OPAC, Microforms, Databases and eGranary were not being used due to the fact that, they are not available in library or not functioning.

Swain and Panda (2009) in their study found that, respondents who were aware and use each electronic resource and database are in the higher ranking. While Singh (2009), found out that users of electronic resources regularly used all the sources available to them such as CD-ROMs, web resources, on-line databases and audio video to satisfy the information needs for their academic and other purposes. The results of the above authors is similar to the findings of this research on the use of electronic resources.

3. The respondents were also asked whether information literacy has effect on them on use of e-information resources on the following ways

**Table 3: Effect of information literacy skills**

| S/N | Effect of information literacy skills | Respondents | Percentages % |
|---|---|---|---|
| 1 | Enhance academic achievement as well as future job market access | 182 | 100 |
| 2 | Awareness of new information environment for academic achievement | 182 | 100 |
| 3 | Clear understand of the network resources of information and representations of knowledge embodied in the network library and information environment | 152 | 84 |

As shown in Table 3 above, the respondents indicated that, information literacy skills have effect especially by enhancing academic achievement as well as future job market access and awareness of new information environment for academic achievement with 182 (100%)respondents each. 152 (84%) respondents indicated that the information literacy skills have effect on Clear understand of the network resources of information and representations of knowledge embodied in the network library and information environment.

4. As an academician who has undergone an information literacy course, does the information literacy affect/benefits you on the use of electronic information resources in the following ways?

**Table 4: effect/benefits of information literacy skills**

| S/no | Statement | Respondents | Percentage % |
|---|---|---|---|
| 1 | Ability to recognise a need for information | 170 | 94 |
| 2 | Ability to determine the extent of information needed for a task at hand | 170 | 94 |
| 3 | Ability to access information efficiently and critically evaluate the information and its sources | 162 | 89 |
| 4 | Ability to classify, store, manipulate and redraft the information collected or generated | 98 | 54 |
| 5 | Ability to use the information effectively to learn and create new knowledge | 141 | 78 |
| 6 | Ability to incorporate selected information in your knowledge base | 129 | 71 |
| 7 | Ability to solve problems and make decisions | 170 | 94 |
| 8 | Ability to use information and knowledge for the participative citizenship and social responsibility | 123 | 68 |
| 9 | Ability to become an independent learner and lifelong learning | 170 | 94 |

As shown in Table 4, it is obvious that the benefits derived from information literacy course by the respondents includes ability to recognise a need for information, ability to determine the extent of information needed for a task at hand, ability to solve problems and make decisions and ability to become an independent learner and lifelong learning has equal number of respondents of 170 (94%) each. Respondents also indicated that ability to access information efficiently and critically evaluate the information and it sources are 162 (89%), ability to use the information effectively to learn and create new knowledge are 141 (78%), ability to incorporate selected information in their knowledge base are 129 (71%), ability to use information and knowledge for the participative citizenship and social responsibility are 123 (68%) and the lowest respondents are those that indicated the ability to classify, store, manipulate and redraft the information collected or generated with 98 (54%)respondents.

## Table 5: Challenges in teaching information literacy

| S/N | Challenges in teaching information literacy | Respondents | Percentages% |
|-----|---------------------------------------------|-------------|--------------|
| 1. | Lack of technical knowhow on search strategies (information literacy skills) | 87 | 48 |
| 2. | Network failure | 182 | 100 |
| 3. | Unclear terminology | 101 | 56 |
| 4. | Insufficient internet subscription | 182 | 100 |
| 5. | Limited databases subscription | 182 | 100 |
| 6 | Lack of training on how to search | 99 | 54 |
| 7 | Lack of awareness | 167 | 92 |
| 8 | Insufficient electronic resources | 56 | 31 |

In table 5, the major challenge faced by academic staff of Federal College of Education Kano, library on the use of electronic information resources are network failure 182 respondents (100%), Insufficient Internet subscription 182 (100%) andlimited databases subscription 182 (100%). 167 respondents indicated that lack of awareness of available electronic resources in the library is another challenge with (92%), followed by Unclear terminology with 101 (56%), Lack of training on how to search with 99 (54%), lack of technical knowhow on search strategies (information literacy skills) with 87 (48%) and lastly Insufficient electronic resources with 56 (31%).

### Conclusion

It is concluded that 21$^{st}$ century has created a need for information literacy programme that goes beyond academic curriculum because of the nature of information generated or provided in an electronic format. The level of information literacy and the use of electronic information resources among academic staff affect academic performance/ excellence. Therefore techniques for information handling such as: incorporating selected information into knowledge base, access of information, classify of information, store and manipulation of information and redraft the information collected or generated in the use of electronic information is considered necessary.

Users of information deserves to be taken into cognizance the type of information they access, according to Dorner & Gorman (2011) many users are in a hurry to get information and would access and use information, not minding the source or the authenticity of the information itself such ielectronic information may lead in disseminating wrong information. Zaid (2008) believed that "the magnitude of materials passed on the web each day presents an unprecedented challenge to the profession in terms of traditional responsibility to organize, provide access to and preserve information". This also became a serious challenge to the information users.One common challenge of using electronic resources that is power, in this it not with the Federal College of Education Kano library. The library is provided with alternative power supply using inverter and generating machine.

### Recommendations

Based on the findings of the study, the following recommendations are made in respect of the Federal College of Education library, Kano.
1. The management of Federal College of Education Kano should employ and provide all necessary facilities that will stop network failure problems in order to make users enjoy the benefits of using electronic information resources.
2. Internet subscription should be maintained because is key player that make e-library function very effectively. There is need for fund to be allocated for annualInternet subscription to avoid Internet interruption.
3. The management of Federal College of Education, Kano should subscribe to many databases. The databases should readily be available and accessible to academic staff because they would be up to date and more responsive to any challenge of their academic activities.

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4.  The library management of Federal College of Education Kano should provide any medium through which the users would be aware of existing electronic information resources available as well as the new arrival. This is because it is only when they are aware that the electronic information resources can be used effectively. This can be done through public relation officer.

5.  The library management of the college should organised training and re-training of the academic staff for them to acquire skills and technical knowhow on the use of electronic information resources. Also, there is need to assign qualified staff who are really willing to provide effective services and attend to the users' request whenever the need arises.

6.  The library management of Federal College of Education Kano should try as much as possible to provide sufficient and up to date electronic resources for maximum use. This will no doubt increase academic performance in the college as a whole.

## References

America Library Association, (2013) American Library Association. Office for Information Technology Policy. Digital Literacy Task Force. Retrieved from http://www.districtdispatch.org/wp-content/uploads/2013/01/2012_OITP_diginformation_Literacyitreport_1_22_13.pdf

CILIP (2012) Ethical Principles and Code of Professional Practice for Library and Information Professionals

Digital Library (2009).In *wikipeadia, The Free Encyclopeadia*. Retrieved from http://en.wikipedia.org/w/index.php? Title=Digital_library&oldid=272431571.

Dorner, D. G., & Gorman, G. E. (2011). Contextual factors affecting learning in Laos and the implications for information literacy education. Information Research: An International Electronic Journal, 16(2), n2. Retrieved April 20, 2012 fromhttp://informationr.net/ir/16-2/paper479.html

Lyndon, S., & Hale, B. (2014). Evaluation of how the blended use of a virtual learning environment can impact on learning and teaching in a specific module. *Higher Education Academy*, 6(1), 56-65.

Okiy, R.B. (2011). Towards accelerated development of academic library services in the 21 st century Nigeria: Is the vision 20-2020 project a stagnating or driving force? Delta library journal. 5 (1&2):25-32.

Olatokun, W. M. (2009). Analyzing socio-demographic differences in access and use of ICTs in Nigeria using the capability approach.*Issues in Information Science* 1(1) 65-75.

Quadric, G. O., Adetimirin, A. E. And Idowu, O. A., (2014). A study of availability and utilisation of electronic resources by undergraduate students in private universities in Ogun State, Nigeria: *International Journal of Library and Information Science 6(3), 28 – 34.*

Singh, N. (2009) Influence of Information Technology in Growth and Publication of Indian Literature "Libri" 59(1), 55-67

Swain,D. & Panda, K. (2009) Use of electronic resources in business school libraries of an India state study of librarians' opinions" *The Electronic library*, 27 (1), 74-85

Virtual Library (2007).In The *Free Dictionary*. Retrieved From: http://encyclopedia2.thefreedictionary.com/Virtual+library

Zaid, Y. A. (2008). Cataloguing and classification of library materials: The internet as a tool. *A paper presented at the Cataloguing, Classification and Indexing Section of Nigerian Library Association (Ilorin, October 2008), 39-45.*