Assessment of the Utilization of Electronic Resources among Pre-Service Teachers in College of Education in Kwara State

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Abstract

Electronic resources are those data resources that can only be accessed through the internet with the use of computers and other ICT devices. The study was embarked upon to assess the level of utilization of e-resources by pre-service teachers in Colleges of Education in Kwara State. It employed descriptive survey research design. Using purposive sampling method, a total of 150 pre-service teachers from two colleges of education in Kwara state were selected. A researcher designed questionnaire, "e-resources utilization by pre-service teachers" (ERUPT) validated by educational technology experts was used to obtain relevant data. Analysis of data was done using descriptive statistics inform of mean and percentages. The study found that majority of the pre-service teachers were aware of the availability of electronic resources in the library. More than half of them did not make regular use of the resources. The major challenges include: poor network/internet connectivity, limited access to computer terminals, poor familiarity with the tools, too much information, lack of IT knowledge, inadequate power supply, among others. The study made some recommendations based on the findings of the study.

Keywords*: Electronic Resources, Pre-Service Teachers, Libraries, Information Technology.*

1. Introduction

The advent of information and communication technology (ICT) has introduced a radical change to the way knowledge and information is generated, developed and disseminated. It has transformed the world into a global village and replaced the use of manpower with automation. With the opportunities provided by the internet, scholarly communication and information delivery have been influenced. The geographical limitations associated with print media have been successfully overcame. The creation and distribution of documents by electronic format, otherwise known as electronic resources (e-resources), is now possible. With the proliferation of information in electronic form and the opportunities provided by the internet, the education college librarians are now doubtful about the use and application of books and printed journals.

Over the years, library collections have been dominated by traditional print media such as books, journals, encyclopaedias and Magazines. They are referred to as the oldest channels of communication. However, with a heavier demand for library materials and varied media sources, the need to move from text-based to resource-based learning has evolved (Kinengyere, 2007). Electronic information is gradually becoming a major resource in every university library in recent years (Shuling 2007). This is why (Liew, Foo, and Chennupati, 2000; Harper, 2006) predicted the extinction of the printed journal following the growth and diversity of electronic resources.

According to Ashikuzzaman (2014), electronic resources are those resources that require computer or any electronic product to deliver a collection of data or information. Ajayi, shorunke & Aboyade, (2014) opined that information on varieties of subjects accessed electronically are called electronic resources. The resources can take several formats: text, graphics, images, maps, sounds (music) etc; or appear in the form of programs or instructions; or a combination of all. It can also take the form of online public access catalogues (OPAC), electronic books (E-books), Compact Disc Read Only Memory (CD-ROM), electronic journals (E-journals) and electronic index (E-index). E-resources have helped greatly in the educational system. With the exponential increase in information around the world, and to satisfy the demand of the users, librarians are shifting towards this new media to develop their library collections. Access to information is easy by electronic

means through a network of computers from inside or a distance way to the library hall.

With the internet connectivity, the way people work, relate and deliberate with others has radically changed (Ekwelem, Okafor & Ukwoma 2009). Many researchers are making scientific information and a number of electronic journals available online. Thus, e-resources have become a substantial component of academic library collections over the last two decades. It supports high quality information service network and provides access to lots of learning and teaching materials in a number of formats (Mcharazo, 2006). Just as technology is supporting and influencing what students learn in schools and universities, so it supports the method of obtaining information (Oliver, 2002). The technology enhanced learning approach has encouraged students to take responsibility for their own learning.

In this way the traditional library services characterised by print-based resources is radically giving way to technologically enhanced services. According to Shuling (2007), e-resource is gradually becoming the popular source of information in most university libraries in recent years. It provides access to information that might be limited to the user because of geographical location or finances (Dadzie, 2007; and Sabouri, Shamsaii, Sinaki & Aboueye 2010). It offers great opportunity to users of university libraries. They can manipulate, search and provide access to information at a cheaper and faster rate. It is more useful to distant learners (Sharma, 2009). As such, institutional libraries are now mindful of the way they collect, organise and convey information (Haroon & Ata, 2010). The availability of e-resources in the libraries has changed what is usually read and used. Users now tend to use what is only accessible. The accessibility of resources electronically is controlled by three major factors: availability of computer sets and other personal digital assistants (PDAs); infrastructure; and the capacity to work with the tools. Pre-service teacher's visit to the libraries has greatly reduced especially in developed nations due to free access to e-resources in classrooms, and hostels (Sharmin, 2005).

With the opportunities provided by the internet and the ease of information viewing and retrieval, pre-service teachers are no longer limited to information provided by textbooks and printed materials in libraries. They can have access to discussion bulletin boards on specialized topics, conference abstracts and proceedings, or topical compilations of materials for research or teaching. With appropriate search engines they are allowed to locate information or sites on topical issues. Thus, new opportunities are offered to them than the previous generations. The speed, ease of use, ability to search multiple files at the same time, ability to save, print and repeat searches, more frequent updating, and

the ability to access documents from outside the library stand e-resource far above the print media.

However, to take advantage of this opportunity, a pre-service teacher needs knowledge of computer and retrieval techniques (Okello-Obura & Magara, 2008). This vital requirement is not only necessary to explore the digital environment but is a requirement for academic success today. Tella (2007) noted that the ability of students to find and retrieve information effectively is a transferable skill that can be used in the future. Gardner (2012) identified three themes that permeate the education literature at the moment. One is the need for 21st century skills such as access content knowledge, and acquisition of inquiry/problem solving skills that are meaningful, adaptable, and integrative. The second one entails the development of a creative, collaborative, communicative, and innovative learner who is culturally sensitive, globally aware, and who behaves in ethically responsible ways. The third on is the need to develop digital literacy to keep pace with the exponential increase in information in the digital world.

Information-handling and management in Nigerian academic environments and university libraries has been transformed by the emergence of e-resources (Ani & Ahiauzu 2008). It has not only organised the educational environment of tertiary institutions, but has brought new ideas into the teaching method and re-casted the role played by the participants in education process. Mcharazo (2006) highlighted the advantages of e-resources over traditional print based sources. E-resources are often faster to consult especially when searching retrospectively, they are straight forward when wishing to use combination of keywords, can search multiple files at a time, resources can be printed, searched and saved to be repeated or consulted at a future date; can be updated; and have the potential for enhancing pre-service teachers' learning, as the resources provide teachers and pre-service teachers with vast quantities of information in an easily accessiblenon-sequential format. Thus, the role of E-resources in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education policy.

Ani & Ahiauzu (2008), Tsakonas & Papatheodorou (2006), stated that "the transition from print to electronic medium apart from resulting in a growth of electronic information has provided users with new tools and applications for information seeking and retrieval". Electronic tools can make classes more efficient; lectures more compelling, informative, and varied; reading assignments more extensive, interesting, and accessible; discussions more free ranging and challenging; and students' papers more original and well researched. Norris (2004) asserted that e-resources reduce pressure on academic libraries for physical space for storage of books and journals, gives the librarian the

assurance that the electronic books and journals are complete, unanalyzed and in the right place and provides unlimited access to users. E-resources hold huge volumes of information which allow students to retrieve quality information to meet their needs.

Despite the huge benefits provided by e-resources, harnessing the full potential of this opportunity is almost impossible especially in developing nations like Nigeria. A good number of the students cannot afford to purchase computers not to talk of subscribing to expensive internet services. The institutional libraries are their only hope for e-resources. The issue at stake here is whether this category of libraries have adequate e-resources to cater for the information need of students within and outsides the campus. This is on the backdrop that power, human, and material resources may be in short supply. At the federal university of Ilorin, kwara state, Nigeria, for example, the major equipments available in the e-library include desktop computers, Atiz book drives digital equipment, projectors, scanners, printers, photocopier, multiple CD-ROM duplicator. This is a far cry from the expectation of a standard e-resource/information centre.

2. Method

Descriptive survey research design was used to collect information about pre-service teachers awareness and utilization of electronic resources. A sample of one hundred and fifty (150) pre-service teachers of two colleges of education at different levels in Kwara State was purposively selected.

A questionnaire developed by the researcher and tagged "e-resources utilization by pre-service teachers" (ERUPT) was used collect relevant data. The validation of the instrument was done by three senior lecturers in the department of Educational Technology, University of Ilorin. The questionnaires were administered by the researcher and 100% return was recorded. Data collected were analysed using descriptive statistics such as mean and percentages.

3. Discussion

The data are presented based on the research questions that guided the study as follows:

Research Question 1: Are pre-service teachers aware of the various electronic resources?

Table 2. The summary of response of pre-service teachers' opinion on the level of awareness of e-resources.

	E-journal	E-mail	E-books	OPAC	Internet Services	CD-ROM	Average %
Aware (%)	60.7	86.7	58.7	58.0	92.0	77.3	72.2
Not Aware (%)	39.3	13.3	41.3	42.0	8.0	22.7	27.8

Table 2 indicated that 72.2% of the pre-service teachers were aware of the existence of the various e-resources listed in the table. Only 27.8% of them indicated that they were not aware of the existence of the resources. This shows that a majority of them were aware of the availability of electronic resources in the library.

Research Question 2: What is the frequency of use of electronic resources by pre-service teachers?

Table 3. The summary of response of pre-service teachers' frequency of use of e-resources

	E-journal	E-mail	E-books	OPAC	Internet Services	CD-ROM	Average %
Regularly (%)	40.7	52.7	34.0	42.7	71.3	43.3	47.45
Occasionally (%)	34.0	31.3	26.7	24.0	15.3	29.3	26.8
Rarely (%)	8.7	8.7	20.0	11.3	6.7	10.7	11.0
Never (%)	16.1	7.3	19.3	22.0	6.7	16.7	14.7

From the table, 47.45% of the pre-service teachers made use of the e-resources regularly. 26.8% of them used them occasionally, 11.0% rarely used them, while 14.7% never used them at all. It can be inferred that more than half of the pre-service teachers did not make regular use of the electronic resources.

Research Question 3: What factors hinder the effective utilization of electronic resources by pre-service teachers?

Table 4. The summary of response of challenges faced by pre-service teachers when using e-resources

No	Items	Total Mean	Average Mean	Decision
1	I am not sufficiently familiar with e-resources	10	2.5	Accept
2	There is too much information retrieved	10	2.5	Accept
3	Time consuming and wastes a lot of time	8.9	2.2	Reject
4	Limited access to computer terminal	14.3	3.8	Accept
5	Poor network/internet connectivity	16.3	4.1	Accept
6	Lack of IT knowledge to effectively utilize the services	10	2.5	Accept
7	Using e-resources often distracts me from doing other work	10	2.5	Accept
8	Inadequate power supply	9.9	2.5	Accept
9	The use of e-resources does not present any particular problem	9.9	2.5	Accept
10	It is difficult to read from screen	10	2.5	Accept

From the table, the major factor which hindered the pre-service teachers from using the e-resources was poor network/internet connectivity (av. mean 4.1) and Limited access to computer terminal (av. mean 3.8). Other factors which posed serious challenge to the effective utilization of e-resource by pre-service teachers include poor familiarity (av. Mean 2.5), too much information retrieval (av. Mean 2.5), lack of IT knowledge (av. Mean 2.5), distraction caused by using the resources (av. Mean 2.5), inadequate power supply (av. Mean 2.5), among others. However, Time consuming was not accepted as a major factor hindering the use of e-resources by this category of teachers.

This is a confirmation of Gwazah (2011) assertion. He noted that the introduction of e-resources and services to the information profession is a welcome development. However, their patronage does not go without some challenges. Accessibility according to Constanble, (2007) is a critical factor in the use of library resources. It entails the capacity to work with the computer, networks, and other infrastructure. Lawson, (2005) maintained that the acquisition and practice of relevant skills are essential in any technology-driven and innovative learning strategy. Egberongbe (2011) noted that the low usage of e-resources by pre-service teachers could be attributed to lack of information retrieval skills. The finding of the study is in line with that of Ashcroft & Watts (2005), Isah (2010), and Damilola (2013). They posited that slow internet access, lack of constant power supply, and excessive academic workload were the major factors inhibiting the use of e-resources.

4. Summary

The study concluded that majority of the pre-service teachers were aware of the availability of electronic resources in the library. More than half of them did not make regular use of the resources. The major challenges militating against the effective use of the resources according to the study include: poor network/internet connectivity, limited access to computer terminals, poor familiarity with the tools, too much information, lack of IT knowledge, distraction caused by using the resources, inadequate power supply, among others.

References

Ajayi, S. A., Shoronke, O. A., & Aboyade, M. A. (2014). *The influence of electronic resources use on students' reading culture in Nigerian universities: a case study of Adeleke University Ede, Osun state.* University of Nebraska Lincoln digital commons.

Ani , E. O., & Ahiauzu, B. (2008). *Towards effective development of electronic information resources in Nigerian University librarie. Library management.*

Ashcroft, L., & Watts, C. (2005). *ICT skills for information professionals in developing countries: perspectives from a study of the electronic information environment in Nigeria. IFLA Journal* 31(1):6–12.

Ashikuzzaman. (2014, January 7). Definition and types of e-resources. Retrieved from Multimedia Resources and Library: www.lisbdnet.com/definition-and-types-of-e-resources/

Constanble, F. T. (2007). *Training needs for electronic information use in the college of Law at the University of South Africa .* Master of

information science thesis, University of South Africa, 105.

Dadzie, P. (2007). *Information Literacy: assessing the readiness of Ghanaian universities* . Retrieved from Information Development, 23,.4, 265-277.

Damilola, O. A. (2013). *Use of electronic resources by distance students in Nigeria: the case of the National Open University, Lagos and Ibadan study centers . Library philosophy and practice (ejournal).*

Egberongbe, H. S. (2011). *The Use and Impact of Electronic Resources at the University of Lagos. Library Philosophy and Practice* 2011: http://www.webpages.uidaho.edu/

Ekwelem, V. O., Okafor, V. N., & Ukwoma , S. C. (2009). *Students use of electronic information sources at the University of Nigeria, Nsukka. Afr. J. Lib. Arch. Information Sci.* 19(1):89-97.

Gwazah, Y. T. (2011). *An assessment of availbility, awareness and use of electronic resources and services in the libraries of the Kaduna state tertiary institutions. Zaria: Ahmadu Bello Univeristy.*

Isah, A. (2010). *Electronic library use by academic staff at the University of Ilorin, Nigeria. 7, 1 & 2. Journal of library and information science (JOLIS).* A Publication of the University Library, O. O. U. ISSN: 1597-5843 Ago-Iwoye, Nigeria.

Norris, L. (2004). World library and information congress: 70th IFLA general conference and council. Buenos Aires, Argentina, 22-27 August. 2008-11-03 available at http://www.ifla.org/ir/ifla70/prig04.html

Tella, A. (2007, January 11). *Self-Efficacy and Use of Electronic Information as Predictors of Academic Performance. Electronic Journal of Academic and Special Librarianship 8.2* (Summer) 11 Jan. 2009 : http://southernlibrarianship.icaap.org/content/v08 n02/tella_a01.html

Shamin R.. (2005, January). *Knowledge and use of electronic information resources by medical sciences faculty at The University of the West Indies.* Retrieved from *Journal of the Medical Library Association:* *https://www.ncbi.nlm.nih.gov/*

Tsakonas, G. & Papatheodorou, C. (2006) Analysing and evaluating usefulness and Usability in electronic services. *Journal of information sciences* 32.5:400-419.