Extent of the Usage of Electronic Library Facilities in Colleges of Education in South-West Nigeria

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Abstract

The place of libraries in any academic environment cannot be over-emphasized. However with the advent of social media provided by computer and its associated resources, students are now found of hardly visiting and consequently using convetional libraries . Instead students are now commonly found of being adapted to the use of electronic social media. Since students are now commonly found of using social media resources such as facebook, twitter, e-mail, etc, it then become imperative to see the possiblity of adapting these media to library practice. The study investigates the extent of utilization of electronic library facilities by students in colleges of education. The study was guided by two research questions and two research hypotheses. The population of the study was made up of students in all public colleges of education in south – west Nigeria. A sample of nine (4 federal and 5 state-owned) out of the thirteen public colleges of education in south – west Nigeria was taken using simple random sampling technique. A total of twenty – five students from each of the sampled college was taken to make a total of two hundred and twenty-five respondents using stratified random sampling technique. Data was collected using a questionnaire titled Extent of Usage of E-Library Resources Questionnaire (EUELIRQ) with reliability co-efficient of 0.87. Responses to items in the questionnaire were analysed using percentages, frequency counts and t-test methods. Findings revealed that male students have more favourable attitudes towards the use of e-library resources than their female counterparts and that the use of e-library resources was not affected by students' course(s) of study. It was recommended, among others, that government should provide more enabling environment for the favourable of e-library resources in our colleges of education in Nigeria.

Keywords: Electronic library, colleges of education, computers, e – library resources

Introduction

In modern societies, education has become one of the most important instruments for the attainment of rapid socio-economic, political, scientific and technological development (Samuel, 2006). It is no doubt that the development of any nation is premised on her quality of educational system. However, it is pertinent to note that no educational system can function effectively and optimally without a good library system which will serve both students and relevant school staff effectively. In order to equip students with the necessary skills and knowledge to foster the growth of independence and creativity, most educational institutions provide school libraries to serve both students and teachers alike. It is important to note that today's libraries are shifting their role from the custodian of traditional information resources to the provider of service-oriented digital information resources. Widespread use of computers, increased reliance on computer networks, rapid growth of the internet and explosion in the quality and quantity of information compelled libraries to adopt new means and methods for the storage, retrieval and dissemination of information (Quadri, 2012).

The modernization of libraries and information centres will enhance information transfer, access and retrieval. This will help in resource development, sharing and their utilization at various levels. In contemporary school system, students and relevant school staff, especially academic staff subscribe to e-journals, CD-ROM databases, online databases, web-based resources and a variety of other electronic resources (Abdullahi 2013). The barrier to information development, sharing and retrieval had been blown away by the advent and use of information and communication technology in educational practice and research. More often, students now resort to the use of e - library resources rather than the conventional library. In fact, there has been increasing evidence that electronic library may be able to provide more flexible and effective ways of lifelong teacher education for today's teachers. Because of rapid development of electronic library, especially the internet, teacher education worldwide is undergoing a rapid change in structure and contents (Abdullahi 2013). There is a range of electronic library options from video conferencing through multimedia delivery web sites which can be used to meet some of the challenges teacher education face today. A variety of electronic library resources can facilitate not only

delivery of instruction, but also teacher education process itself (Abdullahi and Tijani, 2013).

It is worthy of note that with the trend of advancement in technology, students and other stakeholders in the school system hardly make use of the conventional library facilities such as books and journals. Rather students now resort to the use of electronic materials which are much more accessible and comfortable to use. Adeoti (2013) discovered that students now make more use of computers, i-pads, cell phones, etc for surfing the internet for solutions to assignments and similar tasks. Since the teacher and consequently teacher education occupies a very sensitive position in the educational sector of any nation, it becomes important to have an examination of the attitude of teacher – trainees to the use of these resources. Considering the fact that there is now a reasonable level of awareness, appreciation and use of computer technology in instruction coupled with the fact that students hardly find time to use the conventional library system, then it becomes imperative for a research of this nature to investigate students' attitude towards the use of e-library facilities in colleges of education in south west Nigeria.

Literature review

It is important to note that that the library is an essential unit in any academic institution. It is primarily meant to serve the academic and research needs of such organization. The functions of libraries have been changing over time, becoming more faceted and multifarious daily. Quadri (2012) states that libraries are not just building or store houses of materials but are agents of educational, social, economic and political revolutions in the society. Libraries are entrusted with the acquisition, organization, preservation, storage, retrieval and dissemination of information.

The UNESCO Institute for Information Technologies in Education (2006) sees a digital library as a collection of a very large number of digital objects: comprising all types of material and media, that are stored in distributed information repositories and accessed through national computer networks. In other words, an e-library refers to a library in which collections are stored in electronic media format and accessible via computers; the electronic content may be stored locally or accessed remotely via computer networks. Walter (1998) sees an e-library as a centre that provides resources including specialized staff to select, structure, offer intellectual access to, interprete, distribute, preserve the integrity of and ensure the persistence overtime of collections of electronic works so that they are really economically available for use by a defined community.

A digital library can include documents, images, sounds and information gathered from ongoing events (e.g. continuous pictures from a weather satellite). Digital libraries can include reference material or resources accessible through the world wide web. Digitized portions of a library's collection or original material produced for the web can also be included in a digital library. Many types of library materials such as journals, books, patents, newspapers, standards, photographs, pictures, motion pictures or music are now available in electronic form.

E-library resources hold many advantages such as time and place convenience, timeliness, ability to search directly on text (as against the catalogue records), ability to link to further reading material and ability to disseminate and share information. Other advantages of an e-library system identified by Abdullahi (2013) include the following:
- The burden of looking for information will be lessened while information sharing will be enhanced;
- A lot of publications will be made available on-screen without much expenses incurred on its print copies;
- It facilitates acquisitions, record keeping and efficient vendor monitoring;
- Pre-cataloguing, checking and processing library materials are consistently organized through controlled descriptions;
- Produce shelf list, bibliographies, serials list and adequate collection guide;
- Offer current awareness services including selective dissemination of information indexing, abstracting services and lending services; and
- Offer online and network public access within and outside the library setting.

Alenna (2013) states that although an e-library is a computerized system for acquiring, storing, organizing, searching and distributing electronic materials, it may not necessarily be network - based; rather it could be designed to be capable of being attached to a network. However, e-library resources pose human, social and technological problems, such as discomfort in reading on the screen, problems in internet access and speed, poor infrastructure, lack of sufficient skills to use the digital resources, and perceptional change resulting from right to use rather than physical possession (Chauhan, 2004) etc.

The following are some of the common resources in many e-libraries:
- Electronic journals: These are journals which can be accessed via internet from any web enabled computer system. It offers the benefit of full text searching and downloading of articles. Many publishers of electronic journals offer their journals through consortia of libraries at much lower rates. (Chauhan, 2004).
- Electronic books: An e-book is a text analogous to a book in digital form which can be displayed on a computer screen. E-books offer advantages such portability, regular access, text searching, annotation, linking, multimedia applications and self-publishing possibilities.
- Electronic games: These are computer – based games which could be used to teach and learn certain skills.

These are more commonly used at the elementary levels of educations. Most often, e-games are used to make learning fun.

- Electronic publishing: This has to do with posting and sharing of ideas, knowledge and research findings for the purposes of knowledge advancements, researches and criticisms. In contemporary societies, electronic publishing is used in knowledge dissemination, sharing and even use.
- Electronic bulletin boards: This has to do with the dissemination and consequently sharing of ideas via electronic boards. In contemporary societies, electronic bulletin boards are used to disseminate ideas more colourfully, attractively and decently. In some cases, it is suitable for displaying ideas to large audience.
- Electronic document delivery: This has to do with the sending and delivery of messages, ideas and knowledge via the internet. It involves the use of e-mail and related technologies for information and data transfer.
- Internet: This is a collection of networks with which information could be surfed, accessed and disseminated to meet varying needs. It is the backbone of contemporary e-library systems. It has a lot of resources which are very useful in almost all spheres of life, educational practices inclusive.

Objectives of e-libraries in schools

Abdullahi and Tijani (2013) identified the objectives of e-libraries in schools to include the following, among others:

- It avails schools (students and staff) access to global information;
- It changes the system of operations in libraries and information centres so as to make them effective;
- To fulfill the concept of universal availability of publication through resource sharing;
- To improve the quality of teaching and research in institutions of higher learning and research in Nigeria through the provision of current books, journals and other library resources;
- To enhance access to academic libraries to that of global library and information resources;
- To enhance scholarships, research and lifelong teacher education through the establishment of permanent access to shared electronic archival collections;
- To provide guidance for academic libraries on the application of appropriate technologies used in the production of electronic library resources; and
- To improve the use of globally distributed, networked information resources.

Philosophy and objectives of NCE programmes in Nigeria

According to the National Commission for Colleges of Education (2012), by the end of the NCE programme, students should be able to:

- Discuss intelligently the main ideas that have affected and still affect the development and practice of education generally, and in Nigeria in particular;
- Examine the main psychological, health and socio-economic factors that may help or hinder a child's educational performance;
- Study learners appropriately to determine the most effective ways of relating to them to ensure their maximum achievement;
- Professionally combine use of conventional and ICT or other innovational instructional / learning strategies in generating, and imparting knowledge, attitudes and skills at basic education level;
- Develop, select and effectively use appropriate curriculum process, teaching strategies, instructional materials and methods for maximum learner achievement; among others.

Research questions

The study was guided with the following research questions:

- Do students' gender has any effect on their attitude towards the use of e-libraries in colleges of education in southwest Nigeria?
- Do students' course(s) of study have any effect on their attitude towards the use of e-libraries in colleges of education in southwest Nigeria?

Research hypotheses

The following research hypotheses were tested at 0.05 level of significance:

Ho$_1$:   There is no significant difference between male and female students' use of e-libraries in colleges of education in southwest Nigeria?

Ho$_2$:   There is no significant difference between science-based combination and non-science-based combination students' use of e-libraries in colleges of education in southwest Nigeria?

Population

The population is made up of all students in public colleges of education in southwest geo-political zone of Nigeria.

There are thirteen public colleges of education in south west Nigeria out of which nine (4 federal and 5 state - owned colleges of education) were selected using simple random sampling technique.

Sample
A sample of five students was taken from each of the following schools in each of the chosen institutions:
Table I: Sample distribution

Schools	Sample taken
Arts and Social Sciences	5
Sciences	5
Vocational Studies / Education	5
Languages	5
Early Childhood Care and Primary Education Studies	5
Total	25

Stratified random sampling technique was used for the selection of the sample. The respondents were mainly 200 and 300 levels students because these set of students are assumed to have stayed enough in their respective institutions to give relevant information about e-library facilities and services in their respective institutions. The students were randomly selected and used for the study during the 2013 / 2014 academic session.

Instrumentation
The survey was carried out using an instrument titled: Extent of Usage of E-Library Resources Questionnaire (EUELIRQ) which was developed by the researchers. The questionnaire has two sections: A and B. Section A elicits demographic information of the respondents while section B covers items on the extent of utilization of e-library resources by students in colleges of education. Draft copies of the questionnaire were made available to two experienced colleagues in one of the tertiary institutions in Oyo State. They were to examine the scope, coverage and relevance of the material. Their suggestions led to necessary modifications in the instrument before final copies were made for administration. The material was face – validated by one experienced library scientist and two experienced information and communication educators in one of the colleges of education in north - east Nigeria. It was pre-tested by administering sixty copies of it on students in colleges of education in south-east Nigeria who were not part of the sample at an interval of two weeks. Using the test re-test method, the reliability coefficient measure of the questionnaire was 0.87.

Procedures for administration
The researchers sought and got the co-operation and assistance of the dean of each of the schools in the sampled institutions. The questionnaire was administered, with the assistance of the some lecturers and other support staff in each of the schools sampled. A total of two hundred and twenty-five were administered; two hundred and nineteen questionnaires were returned but only two hundred and fourteen were properly completed and useable.

Method of data analysis
The demographic data and responses to frequency of use of e-library resources were collected were analyzed using frequency counts and simple percentages. T-test method was used to analyze responses to test the hypotheses.

Results
Table II shows the gender profile of the respondents in the sample.
Table II: Gender profile of the respondents in the sample

Gender	Frequency	Percentages (%)
Males	98	45.8
Females	116	54.2
Total	214	100.0

The analysis of data in table II reveals that 98 (45.8%) were male respondents while 116 (54.2%) were female respondents in the selected colleges of education in southwest Nigeria.

The second part of the questionnaire elicited information on whether or not students' gender and course combination has any effect on their attitudes towards the use of e-library resources.

Test of hypotheses
Ho$_1$: There is no significant difference between male and female students' use of e-libraries in colleges of education in southwest Nigeria?

Table III: T-test analysis of the difference between male and female mathematics students' use of e-libraries in colleges of education in southwest Nigeria?

Group	N	Mean (ẋ)	SD	Df	t-cal	t-table	Decision
Male	98	11.32	0.71	265	1.67	1.53	Ho₁ rejected
Female	116	9.01	0.89				

Level of significance at 0.05

Table III reveals a significant difference in male (N = 98, ẋ = 11.32, SD = 0.71) and female (N = 116, ẋ = 9.01, SD = 0.89) students' use of e-libraries resources. The obtained t-cal value (1.67) is greater than the table t-value (1.53) at 0.05 level of significance. Therefore Ho₁ is rejected.

Ho₂: There is no significant difference between science-based combination and non-science-based students' use of e-libraries in colleges of education in southwest Nigeria?

Table IV: T-test analysis of the difference between science-based combination and non-science-based combination students' use of e-library resources.

Group	N	Mean (ẋ)	SD	Df	t-cal	t-table	Decision
Science-based combination students' use of e-library resources	96	8.19	2.26	306	1.87	1.98	Ho₂ not rejected
Non-science-based combination students' use of e-library resources	118	7.25	2.89				

Level of significance at 0.05

Table IV reveals no significant difference in science-based combination students (N = 96, ẋ = 8.19, SD = 2.26) and non -science-based combination students (N = 118, ẋ = 7.25, SD = 2.89) students' use of e-library resources. The obtained t-cal value (1.87) is lesser than the table t-value (1.98) at 0.05 level of significance. Therefore Ho₂ is accepted.

Findings and discussion

The first hypothesis which states that there is no significant difference between male and female students' use of e-library resources in colleges of education in southwest Nigeria was rejected as the calculated t-value (1.67) is greater than the table t-value (1.53). This is indicated in table III. The implication of this is that male students in colleges of education in southwest Nigeria more often use e-library resources than their female counterparts. This could be attributed to the fact that male students generally have more interest in science subjects than their female counterparts. This finding relates to that of Akinwale (2011) who in his study on the extent of utilization of internet resources among senior secondary school science students in federal government colleges in north east Nigeria discovered that male students have more favourable attitudes to the use of the facilities than their female counterparts. Salawu (2012) in a related study on the extent of utilization of computer technology resources (such as internet, facebook, twitter, etc) among medical and law students in three federal universities in southwest Nigeria discovered that these resources are much more utilized by male students than their female counterparts. Similarly, Abimbola, Iposu and Gbadebo (2014) in a study on the extent of utilization of computer and internet facilities by Ekiti State University undergraduates discovered that male students have more favourable attitudes towards the utilization of information and communication technology resources than their female counterparts. Such areas of application discovered in the study included: chatting on facebook, communications via e-mail, facebook, etc, surfing the internet for solutions to assignments as well as word-processing applications. This is an indication that gender is an important factor in the level of use of e-library resources among teacher – trainees.

The second hypothesis which states that there is no significant difference between science-based combination and non-science-based combination students' use of electronic library resources in colleges of education in southwest Nigeria was accepted as the calculated t-cal value (1.87) is lesser than the table t-value (1.98). This is indicated in table IV. The implication of this is that the subject combination of students in colleges of education in southwest Nigeria has no influence on their extent of usage of e-library resources. In essence, whether a student has his / her subject combination in the sciences or not does not have any influence on his / her attitudes towards the use of e-library resources. This could be attributed to the fact that some types of computers now come in the form of mobile phones which are being used by all classes of people. This finding is in agreement with that of Akueveso and Adeleye (2010) who in a study on the extent of access of university students towards the use of computer facilities discovered that the use of internet and its associated resources cut across all disciplines as the facilities has provision for all subject areas and all levels of education. In a study by Gbadebo, Abimbola, Adeyemi and Odupe (2013) on the extent of teachers' awareness, gender and utilization of information and communication technology tools for effective teaching of Mathematics in Epe Local Government Area of Lagos State discovered that the use of computers and related technologies cuts across all disciplines as the technology had found its place in almost all facets of human endeavour. Similarly, Ayelaagbe (2013) discovered that the computer and related technologies had blown away barriers to information dissemination and usage for all disciplines and had consequently become

an indispensable tool in almost all disciplines and professions.

Conclusion

Since the acquisition of relevant computer skills and its practical application is fast becoming an important development factor in almost all contemporary societies and economies, then the need for proper and care entrenchment of this skill in teacher – training institutions is of paramount importance. Future research direction could be tailored towards investigating the extent to which facilitators, i.e. teachers at teacher-training institutions encourage students to use available electronic library resources by means of assigments, project work, etc.

Recommendations

Based on the findings, the following recommendations are made.

- Teachers at the tertiary levels of education should maintain high levels of ICT usage among students through continuous education and promotion of the benefits attached to the use of ICT resources. This would involve the use of seminars and training programmes as well as encouraging lecturers to embrace e - learning and its resources.
- Introduction of Computer Studies in the school curriculum right from primary to tertiary levels. With this, learners will be earlier exposed to computer skills right from the early stages of schooling before they actually get to the tertiary level of education.
- Government should make a policy compelling all teacher – training institutions to provide sufficient computer and ICT facilities for use in their respective e-libraries.
- The National Commission for Colleges of Education (NCCE) should be make acquisition of adequate computer and ICT skills as part of the conditions for recruiting teaching staff in all colleges of education in Nigeria. This will enhance staffers' usage of e-library facilities which can then be inculcated in the students.
- Government should encourage local production of computers and related accessories in order to make the facilities more affordable.
- Epileptic power supply in Nigeria is one of the major hindering factors in the effective use of computers in schools. Government should provide steady power supply in schools.
- The present situation of low level of appreciation and use of e-library resources need to be corrected via necessary legislation, proper funding and an overhaul of teacher education programmes in Nigerian colleges of education.

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