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INFLUENCE OF ELECTRONIC INFORMATION RESOURCES UTILIZATION ON ACADEMIC PERFORMANCE OF HND STUDENTS IN FEDERAL POLYTECHNIC, NEKEDE, OWERRI

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Abstract

The study investigated the influence of Electronic Information Resources utilization on academic performance of HND students of Federal Polytechnic Nekede, Owerri. The research was descriptive in design and adopted the quantitative survey method using questionnaire as instrument for data collection. The population of the study was 385 students which comprised 202 students in HND 1 and 183 in HND 2 in the Department of Library and Information Science. The entire population was used for the study due to the manageable size. The data was analyzed using mean and standard deviation. The findings revealed that the HND students used Electronic Information Resources (EIR) daily for academic purposes such as helping them in completing their assignment and seminar papers. A greater number of the respondents attested to the fact that the use of EIR influence their performance in seminar writing and presentation positively with a mean score of 2.77 which is above the decision rule of 2.5. Electronic books (e-books) were found to be the resource mostly available for the students' academic consumption. The study identified epileptic power supply and the cost of access as the main challenges faced by the students in the use of EIR. Constant provision of electric power and reduction in the cost of accessing the Internet, were therefore, suggested as the possible solutions to the identified problems in the students' use of EIR.

Keywords: Electronic Information Resources, Utilization, Academic Performance, HND students

Introduction

The introduction and advanced use of information and communication technologies over the years have brought the digitalization, reformation and transformation of libraries into electronic information service systems. This scenario has brought radical changes in the way information is gathered, assembled and utilized in today's libraries by the users. This is given also that the advancement in computer application to information processing has increased the availability of electronic information resources, and services in today's academic libraries. The development and availability of the Internet service has contributed to increasing the impact that information has on people by placing vast information resources at people's door steps (Odumegwu, 2014). For example, many libraries now have print versions and also subscribe to electronic full-text versions of materials online.

Isiakpona & Ifijeh (2012) noted that availability of electronic resources in libraries does not necessarily imply its usage because the source may be available but access to use is prevented for many reasons. Therefore strategies are being made globally to promote the accessibility and usage of the electronic information resources in all formats and forms by improving on the deficiencies and features of underdevelopment such as power failure, machines breakdowns, lack of spare parts, and technicians which intermittently stall the performance of the modern gadget of information storage and transfer in developing countries like Nigeria. In order to properly access and utilize the ever growing range of electronic information resources, students, scholars and users must acquire and practice the skills necessary to exploit them. Tyagi (2011) argued that the ability to use electronic information resources efficiently depends on basic computer skills, knowledge of what is available and how to use it, and ability to define a search problem. How students attain the skills and knowledge needed to utilize Electronic Information Resources effectively for academic

purposes could depend on many factors, such as their disciplines, academic and financial status, interest, and training, among others. This factor could potentially impinge on a student's placing in his or her academic pursuit and performance.

According to the Cambridge University Report (2003), academic performance is the performance level in examination and major modules, as well as the outcome of education, and also the extent to which a student, teacher or institution has achieved their educational goals. It refers to how students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. In educational institutions, success is measured by academic performance, or how well a student meets standards set out by the institution. Academic performance can be measured in several ways such as examinations, class assignment, test, group seminar, and many others.

Fleetwood & Shelley (2000) aver that academically successful students will have more employment opportunities than those with less education. Furthermore, the number of jobs requiring a college education is expected to grow more than twice as fast as those not requiring a college education over the next ten to twenty years. Beyond work and wages, Brown (1999) discussing from the American point of view suggest that academic success is important because the working class will need higher levels of education to tackle the technologically demanding occupations of the future.

The utilization of Electronic Information Resources can be useful tool to enhancing a student's academic performances. The usefulness of EIR to academic performances of students could depend on a lot of already mentioned factors, but specifically the approach of the students to its integration to their studies. How one utilizes electronic information resources largely

determines whether the tool is beneficial to one's academic performance or proves detrimental instead. It is assumed that the utilization of Electronic information resources could positively affect a student's endeavours and in turn influence performance. In view of the foregoing, this study investigates the influence of Electronic Information Resources utilization on academic performance of HND students in Federal Polytechnic, Nekede, Owerri.

Objectives of the Study

The broad objective of the study was to investigate the influence of electronic information resources on academic performance of HND students in Federal Polytechnic, Nekede, Owerri.

The Specific objectives of the study were to:

- i. determine the types of EIR available to the HND students in Federal Polytechnic Nekede, Owerri;
- ii. determine how the HND students access and utilize EIR;
- iii. determine the extent of the use EIR by HND students;
- iv. determine the aspects of academic performance influenced by the use of EIR; and
- v. identify the challenges confronting the HND students in Federal Polytechnic Nekede, Owerri in the use of EIR.

Research Questions

The following research questions were posed to guide the study:

- i. What are the types of EIR available for use by HND students in Federal Polytechnic Nekede, Owerri?
- ii. How do the students access and utilize EIR?
- iii. What is the extent of the use of EIR by the HND students?
- iv. What are the aspects of academic performance influenced by the HND students' use of EIR?

- v. What challenges confront the HND students in the utilization of EIR?

Literature Review

According to Reitz (2004), electronic information resources (EIR) are materials consisting of data and computer programme encoded for reading and manipulation by a computer through a peripheral device directly connected to the computer or remotely via a network such as the Internet. The category includes software applications, electronic texts, and bibliographic database, among others. With the advent of electronic publishing, many library and information materials are now in electronic form: this is especially true of basic reference sources, full text monographs, books and electronic journals. Electronic information resources can be defined as the electronic representation of information which is accessed via electronic system and computer network Johnson, et al., (2012). The authors further buttress that electronic information sources can be seen as one of the most recent developments in information technology and that they are available in various forms like e-books, digital libraries, online journal magazine, e-learning tutors and online test.

Thanuskodi (2012) describes electronic resources as those that deliver the collection of information as full text (aggregated) databases, e-journals, image collections, multimedia in the form of CD, tape, Internet, web technology, e-discussions, e-news, data archives, e-mail online chatting. In electronic information resources, information is stored electronically and made accessible through electronic and computer network. Electronic information sources offer a wide range of products going from electronic periodicals to CD-ROMs, from mailing list to databases, all of them having a common feature of being used directly and sometimes as modified by a

computer. Electronic information sources are becoming more and more important for the academic community (Egberongbe, 2011).

The emergence and utilization of electronic information resources is the most recent transformation and development affecting scholarly communication in academic community. Consequently, the academic community has experienced tremendous changes during these years, assuming new dimensions influenced by technology driven applications, with libraries having witnessed a great metamorphosis in recent years both in their services and structures (Ani & Ahiauzu, 2008). These dramatic changes include the way in which information is been provided, assessed and utilized by users. Armstrong (2001), opines that the pace at which information resources are being produced and converted into an electronic form for maximum utilization by undergraduates in tertiary institutions is greater now than in previous years, and also acknowledged that higher education is changing rapidly with the advent of utilization of electronic information resources.

Shuling (2007), opines that electronic information has gradually become a major resources in every university library in recent years. The growth and diversity of electronic resources, especially e-journals, has led many to predict the extinction of the printed journal. There has been a rapid growth in electronic information resources, and libraries of all types including academic libraries, have been spending huge amount of money on subscriptions to access various online databases for the utilization of their clientele. Electronic information resources provides many advantages over traditional print- based resources (Tyner 2014; Ji, Michaels & Waterman 2014). Blandy (2012) also opines that in order to utilize the growing range of electronic information resources users must acquire and practice the skills necessary to exploit them. It is well believed that attitude towards a particular phenomenon can enhance or mar human approach to such

phenomenon. Positive attitude is widely recognized as a necessary condition for effective use and integration of information technology in teaching and learning.

According to Yousef (2011), academic performance is the extent to which a student, teacher, or institution, has achieved their short or long-term educational goals. In the author's further view, academic performance can be commonly measured or ascertained through examinations or continuous assessments, hence cumulative grade point average (GPA) and completion of educational degrees such as high school and bachelor's degrees represent academic achievements. The author concludes that there is no general agreement on how best to evaluate academic performance or which aspects are more important.

Similarly, (Ali, 2013) posits that academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environment, specifically in schools, colleges, and universities. In view of the foregoing views, academic performance should be considered to be a multi-faceted construct that comprises different domains of learning. Because the field of academic achievement is very wide-ranging and covers a broad variety of educational outcomes, the definition of academic performance depends on the indicators used to measure it.

Among the many criteria that indicate academic performance, there are very general indicators which are: procedural knowledge such as skills; and declarative knowledge such as facts acquired in an educational system; more curricular based criteria such as grades or performances on an educational achievement test; and cumulative indicators and certificates. All that these criteria have in common is that they present intellectual endeavors and thus, more or less mirror the intellectual capacity of a person.

Methodology

The research was descriptive in design and adopted the quantitative survey method using questionnaire as instrument for data collection. The population of the study was 385 students which comprised 202 students in HND 1 and 183 in HND 2 in the Department of Library and Information Science. The entire population was used for the study due to the manageable size. The research was limited to the HND 1 and HND 2 students of Library and Information Science in Federal Polytechnic, Nekede Owerri. The data collected for the study were analyzed using mean and standard deviation for answering the research questions while T-test statistics was used for testing the null hypothesis at 0.05 level of significance.

Discussion of Findings

Research Question 1

What are the types of EIR available for use by HND students?

Table 1: Electronic Information Resources available to HND students

Electronic Information Resources	Available	Not Available	Mean
Electronic Books	213	109	1.45
Electronic Journals	201	121	1.26
CD-ROM	152	170	1.31
Free Web Resources	198	124	1.42
Online Databases	120	202	1.15
Online public access catalogue	28	294	1.10
Overall Values	912	1020	1.28

Table 1 reveals the type of EIR available to HND students in Federal Polytechnic, Nekede. Two hundred and thirteen respondents (213) opted that E-books are available, one hundred and nine respondents which represented 33.8 percent of the total respondents said that E-books are not available to them, while fifty-seven respondents which formed 17.7 percent of the total respondents noted that online database were available to them. Fifty-six respondents which amount to 17.4 percent of the total respondents noted that free web resources were available to them, while forty-four respondents which formed 13.6 percent of the total respondents attested to the availability of online public access catalogue. Electronic journal and CD-ROM garnered 32 (10.0) and 24 (7.5) respondents respectively on the availability.

Research Question 2

How do the students access and utilize EIR?

Table 2: Sources of EIR Access by HND students

Sources of EIR Access	Response n = 385	Percentage
Personal Devices	120	37.2
Institutional Library	56	17.5
Internet Cafes	89	27.6
Colleagues	32	10.0
Public Libraries	25	7.7
Total	322	100.0

Table 2 reveals the source through which the students access EIR. Item 1 revealed that 120 respondents which formed 37.2% of the total respondents attested to the fact that they have access to EIR on their personal devices such as phones and laptops. Item 2 reveals that fifty-six, 17.5%

percent of the total respondents had access to EIR in the institutional libraries, while 89 (27.6%) 32 (10.0%), and 25 (7.7%) of the total respondents had access through Internet cafes, colleagues and public libraries respectively.

Research Question 3

What is the extent of the use of EIR by the HND students of the Federal Polytechnic Nekede, Owerri?

Table 3: Extent of use of EIR by HND students

Frequency	Responses	Percentage
Monthly	5	1.5
Twice a Week	98	30.5
Once a Week	45	14.0
Daily	165	51.2
Rarely	4	1.3
Never	5	1.5
Total	322	100.0

Table 3 reveals that the polytechnic students responded highly in the aspect of use as 165 respondents ticked for daily, which means that 51.2 percent of the respondent use electronic internet resources daily. This was followed by ninety-eight respondents which is 30.5 percent of the total respondents that attested to the use of EIR twice a week. Forty-five respondents which formed 14.0 percent attested to the use of EIR once a week, while five, five and four which represent 1.5, 1.5 and 1.32 percent attested to using EIR monthly, Never and Rarely Respectively.

Research Question 4

What are the aspects of academic performance influenced by the use of EIR?

Table 4: Academic Performance (AP)

Questionnaire Items on AP	SA	A	D	SD	Mean
My use of EIR influences my performance in seminar writing and presentation	196	58	42	26	2.77
My use of EIR influences my performance in class assignments	59	87	82	94	1.96
My use of EIR influences my performance in Examinations	48	82	102	90	1.90
My use of EIR influences my performance in class test	68	78	75	101	1.96
Overall Values	371	305	301	311	2.14

Table 4 reveals that a great number of the respondents attested to the fact that the use of EIR influences their performance in seminar writing and presentation with a means score 2.77 which is high enough and above the benchmark of 2.5. Item 2 revealed that respondents did not really agree to the idea that the use of EIR influences their performance in class assignment, with a mean score of 1.96 which is below the bench mark of 2.5. Item 3 reveals that respondents did not agree to the idea that EIR influences their examination performance with a mean score of 1.90, which is below the benchmark of 2.5. Item 4 which is EIR influences performance in class test reveals with a mean score of 1.96 that respondents did not agree to EIR influencing examination performance. This, therefore implies that the respondents overall, did not agree that the use of EIR influences their academic performance considering the set benchmark of 2.5 and the overall mean returned which was 2.14. However, when mean values are considered per option, the use of EIR influences

the students' academic performance in the area of seminar writing and presentations with a mean value of 2.77, which is above the benchmark.

Research Question 5

What problems confront the HND students in utilization of EIR?

Table 5: Challenges undermining students use

Questionnaire Items	SA	A	D	SD	X
My poor knowledge of information communication technology (ICT) pose a challenge to my use of EIR	186	68	44	24	2.71
The poor orientation on the use of electronic information resources hinders me from accessing available electronic information resources.	75	132	48	67	2.2
My knowledge of available electronic information resources hinders me from accessing available electronic information resources	65	28	72	157	1.67
Lack of ease of access challenges my use of EIR.	187	62	21	52	2.6
Lack of steady power supply hinders me from effectively utilizing EIR	208	51	38	25	2.8
Cost of accessing EIR hinders me from its utilization.	201	43	54	24	2.7
Lack of time is a hindrance to my use of EIR.	132	87	49	54	2.4
Overall Values	1054	471	326	403	2.4

Table 5 which sought to investigate challenges that undermine the students' use of EIR returned a grand mean score of 2.4 which is just below the benchmark of 2.5. This, therefore imply that there is a positivity. Item 1 which is the respondents' knowledge of available electronic information resources hinders them from accessing available electronic information resources. 65 respondents strongly agreed, 28 agreed, 72 disagree while the 157 respondents strongly disagreed that their knowledge of available EIR hinders them from accessing it. On item 2, poor orientation

as a hindering factor, 75 strongly agreed, 132 agreed, 48 disagreed, and while 67 strongly disagreed. Item 3, poor knowledge of ICT, 186 respondents strongly agreed, 68 agreed, 44 disagreed and 24 strongly disagreed. On item 4, lack of ease of access, 187 strongly agreed, 62 agreed, 21 disagreed, and while 52 strongly disagreed on the item. Item 5 which checked on the Lack of steady power supply as a hindering factor for effective utilization of EIR: 208 strongly agreed, 51 agreed, 38 disagreed, and while 25 strongly disagreed. This, therefore implies that a great number of respondents are hindered from using EIR due to power supply. On the cost of accessing EIR, which is item 6, a great number of the respondents felt the cost hindered them from utilizing since 201 strongly agreed; 43 agreed; 54 disagreed; while 24 strongly disagreed. On item 7, which is lack of time as a hindrance in the use of EIR, 132 respondents strongly agreed, 87 agreed, 49 disagreed, and while 54 strongly disagreed.

Conclusion

Based on the findings, the study concludes that the HND students' academic performance was only influenced by the use of EIR only in the area of writing and presenting seminars. The use of EIR had minimal or low influence on other areas such as performance in class assignments, examinations and class tests, although they use EIR daily for academics purposes of learning and self-development. The students had access to e-books as the preponderantly available resource for academic utilization, and personal devices were the primary means through which the students accessed and utilized EIR. The challenges that undermine HND student's use of EIR mostly were discovered to be epileptic power supply and cost of access and use.

Recommendations

Based on the findings of this study, the following recommendations were made;

1. The use of EIR should be encouraged among students at all diploma levels to enhance their seminar writing and presentation performances, as this research revealed positive influence in this area on the HND students.
2. To vitiate personal cost to the students, more avenues for accessing EIR should be made available by the polytechnic library to reduce recourse to their personal devices.
3. Since e-books were mostly used by the students, they should be made more available and accessible for the HND students by the polytechnic library. It would also be important to make provision for other forms of e-resources given that the students utilize them as well, although to a low extent.
4. Constant and stable electric power supply should be made available for students by the polytechnic management to ensure they are able to adequately utilize EIRs.

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