
PERCEIVED KNOWLEDGE AND USAGE OF ELECTRONIC INFORMATION RESOURCES AMONG DISTANCE LEARNERS, IN ADAMAWA STATE, NIGERIA

BY

J. D. Medugu¹, Mohammed Bashir², Aishatu Shuaibu³

^{1,2}Department of Electrical Technology Education,
Modibbo Adama University of Technology, Yola

³Centre for Distance Learning,
Modibbo Adama University of Technology, Yola

E-mail: jdmedugu2010@yahoo.com

ABSTRACT

This study aimed at determining the perceived knowledge and usage of Electronic Information Resources (EIR) among Distance Learners in Adamawa State. Three purposes and three research questions were formulated and one hypothesis was tested at 0.05 level of significance. The population of the study comprised 193 Distance Learning students of Modibbo Adama University of Technology (MAUTECH), and 114 students of National Open University of Nigeria (NDUN), Yola study centre. The design of the study was descriptive survey and the instrument used was close-ended questionnaire tagged 'Distance Learners Electronic Information Resources Rating Scale (DLIRRS)'. The instrument was designed by the researchers and was validated by three experts from Department of Electrical Technology Education MAUTECH, Yola. The data was analysed using mean and standard deviation to answer the research questions. The Microsoft word excel was used to determine the mean scores and the standard deviation, while Z-test statistics was used for hypothesis testing at 0.05 level of significance. The study found out that, the level of EIR awareness by the distance learning students was not encouraging. The study also found that, the level of EIR usage by distance learning students in Adamawa state was low. The study however found that the level of time stay by distance learning students on internet was also low. The result of the study further revealed that, there was significant difference between the mean responses of the Distance Learning students of MAUTECH and the students of NDUN, Yola study centre on the level of internet awareness. In line with the findings, the study recommended among others, that E-Examinations, Assignments etc. should be encouraged among both the teachers and students to maximize the utilisation of internet services among Distance learners.

Keywords: knowledge, Electronic Information Resources, Distance Learning, Internet

INTRODUCTION

Distance Education is taking a new dimension in the history of education in Nigeria. According to Akande (2011) on report of an international workshop organised by the Federal Government of Nigeria on Distance Learning in collaboration with the United Nations Educational Scientific and Cultural Organisation

(UNESCO), United Nations International Children Emergency Fund (UNICEF) and Commonwealth of Learning (COL); these conferences led to the formulation of a National Policy on Distance Education and the design of a ten-year programme. The provisions of policy and structural framework for the smooth take-off of Distance Education are strong indications that the Government is

committed to the provision of Distance Education to those who are interested. Patrick (2010) defines Distance Education as a means of providing alternative educational opportunity for those who lost such opportunity earlier and are now willing to take advantage of such alternative to ameliorate a lost opportunity or for those who could not afford education through its formal route because they want to study and at the same time keep their jobs. The rationale behind the running of distance learning programme is that students could learn from their chosen locations which could be thousands of miles away. Internet facilities are thus a powerful tool for providing educational services for distance learners and, most importantly, meeting the aspiration of those who qualify but cannot enrol in the existing tertiary institutions due to varying reasons (Fozdar & Kumar, 2016). The use of the internet for distance learning makes the delivery more widely and evenly distributed than just reliance on printed materials.

Provision of electronic resources in university libraries, cybercafés, homes and technology centres in the university is very crucial in that it provides access to vast amount of information which students need to achieve their academic goals. Ray (1998) compares electronic and print sources and opines that recalling information from electronic information sources are often faster than consulting print sources.

It is therefore expected that distance learning would demand much use of information and communication technology. This would enable the students to access electronic information resources like CD-ROM, Internet, Online Public Access Catalogue (OPAC) and other electronic databases through the use of computers. A good number of distant learners in Adamawa State are located in some of the remotest parts of the State and largely affected by socio-cultural factors which deprive them of full access to higher education.

The ability of distance education learners to use the internet to access, generate and disseminate

information will go a long way in facilitating the attainment of Open and Distance Learning Education by Distance Learning System (DLS).

Several studies have been conducted to survey the use of internet and computers by students in the universities. For example, Ojedokun (2001); Olatunji Bello, Ibegwam and Odugbemi (2002); Ojo and Akande (2005); Anasi (2006) and Bassi (2011) all focused on regular or full-time students' use of EIR facilities of the undergraduate but this study focused on the Distance Learning students. The researcher wants to determine the extent of internet knowledge and usage among distance learners and its implication to the attainment of goals of Distance learning programmes in Adamawa State

Specifically, the study seeks to determine:

- a) The Electronic Information Resources available in the DLS institutions
- b) The level to which the Distance Learning Students in Adamawa State are aware of what internet can do
- c) The level to which the Distance Learning Students in Adamawa State use the Electronic Information Resources
- d) What level of time do the Distance Learning Students in Adamawa State stay on the internet

Research Questions

This study attempted to answer the following research questions:

- i. What are the EIR available in the DLS institutions?
- ii. To what level do the Distance Learning Students in Adamawa State are aware of what internet can do?
- iii. What is the level of usage of EIR by the Distance Learning Students in Adamawa State?

- iv. What is the Average Level of time that the Distance Learning Students in Adamawa State stay on the Internet?

Research Hypothesis

One null hypothesis is formulated and tested at 0.05 level of significance:

H₀: There is no significant difference between the mean responses of the students of the Centre for Distance Learning (CDL) Modibbo Adama University of Technology (MAUTECH) and the students of National Open University of Nigeria (NOUN), Yola study Centre in Adamawa State on the level of internet awareness

METHODOLOGY

The area of the study is Yola, Adamawa state. Specifically, the study was conducted in Centre for Distance Learning of MAUTECH, and the National Open University of Nigeria, Yola study centre. The descriptive survey research design was adopted. The population of this study comprised 193, 400 level Distance Learning, students of EM/GC programmes of MAUTECH; and 114, 400 level NOUN students of Faculty of Education, all in Adamawa state. The whole population was considered for the study; there was no sampling technique made. The instrument for data collection was a self-administered structured close ended questionnaire tagged Distance Learners Electronic information resources rating scale (DLIRRS) designed by the researcher. The questionnaire was divided into three sections (A, B and C). Section A, seeking for personal biodata of the respondents; B & C, were on DLEIRRS. The questionnaire adopted the five-point Likert scale. A draft of the questionnaire was given to four experts, two of whom were from the Department

of Electrical Technology Education, MAUTECH, while two from facilitators of NOUN, Yola. The observations and suggestions of the validates were considered while producing the final instrument. A trial test was conducted on 41 Distance Learning students of Department of Vocational and Technology Education, ATBU Bauchi. A test retest reliability technique was employed. A reliability coefficient of 0.81 was obtained using Cronbach Alpha. It was found to be acceptable. According to Iheamacho (1997) a reliability of 0.70 and above is desirable.

The instrument was administered to the respondents by the researcher and two research assistants, one each from the sampled institutions. Some of the students were assisted with explanation before filling the questionnaire. Out of the 307-questionnaire distributed to the students, the researcher was able to retrieve 297 questionnaires, representing 97%. The mean and standard deviation were used to answer the research question, while the null hypothesis was tested using z-test at 0.05 level of significance. The real limit of numbers was used. The cut-off points of 3.50 was used. Any item with mean equal or above the cut-off point was considered high, and any item with mean below was considered low. Similarly, the calculated z-test was compared to the z - critical, where the calculated value was found to be less than the table value, the hypothesis was accepted, otherwise, the hypothesis was jettisoned. The Microsoft excel was used for the analysis.

RESULTS

Research Question 1: What are the Electronic Information Resources available in the DLS institutions?

Table 1: Mean and standard deviation of responses of distance learning students on the Electronic Information Resources available in the DLS institutions?

S/N	ITEMS	Mean (X ₁)	SD (S ₁)	Mean (X ₂)	SD (S ₂)	Mean (X ₃)	REMARK
1	E-Journals	0.74	0.70	0.94	0.21	0.81	Not Available
2	E-Books	2.40	0.51	3.50	0.41	2.81	Not Available

S/N	ITEMS	\bar{X}_1	S_1	\bar{X}_2	S_2	\bar{X}_G	REMARK
3	E-Databases	3.52	0.67	3.67	0.71	3.58	Available
4	E-Magazines	0.93	0.55	1.61	0.01	1.18	Not Available
5	E-Projects	1.15	0.12	3.12	0.70	1.88	Not Available
6	E-Dissertations and Theses	0.98	1.02	1.11	0.99	1.03	Not Available
7	WWW (Internet)	3.92	0.35	4.13	1.01	4.00	Available
8	E-Mails	3.50	0.62	3.61	0.17	3.54	Available
9	CD-ROMs	3.65	0.71	4.10	1.06	3.82	Available
10	Reference Databases	3.49	0.98	3.55	1.11	3.51	Available
11	E-Audio Visual Resources	3.79	0.55	3.52	0.85	3.69	Available
12	Projectors	3.50	0.67	2.50	0.62	3.13	Not Available
13	Online Public Access Catalogues	3.61	0.93	3.52	0.71	3.58	Available
14	E-Examination	1.10	0.46	3.67	0.88	2.05	Not Available

Key: \bar{X}_1 = CD MAUTECH

\bar{X}_2 = CDL NOUN

S_1 = Standard deviation MAUTECH

S_2 = Standard deviation NOUN

\bar{X}_G = Grand mean

The table gives the grand mean of 2.76 and standard deviation of 0.65, this is below the cut-off mean of 3.50. this means that most of the students are of the opinion that, some of the Electronic information resources are not available in the DLS institutions. The finding shows that, E-journals (0.81), E-books (2.81), E-magazines (1.18), E-projects (1.88), E-dissertations and theses (1.03), projectors (3.13) are not either available or

not in use. But for E-examination (2.05), the students of the NOUN show available (3.67), while that of MAUTECH indicates not available (1.10).

Research Question II: To what level do the Distance Learning Students in Adamawa State are aware of what EIR can do?

Table II: Mean and Standard Deviation of Responses of Distance Learning Students on the level of awareness of what EIR can do

S/N	Items	\bar{X}	S	Remark
15	Internet is used to provide current information for academic Improvement	3.36	0.72	Low Level
16	The internet is just a link of computers and nothing more	2.24	1.02	Low Level
17	The Internet gives me more Information on any field of study	3.46	0.76	Low Level
18	The Internet coverage is limited in the quality of Information	3.60	0.99	High Level
19	Only Children of this generation need to bother about the use of the Internet	3.50	1.01	High Level

S/N	Items	\bar{X}	\dagger	Remark
20	Understanding how to navigate the Internet is too cumbersome as to encourage its use among Distance Learners	3.51	1.05	High Level
21	The Internet is a white man's tool to dominate the black man	1.95	1.12	Low Level

Key: \bar{X} = Mean, \dagger = Standard Deviation

Table II shows data on distance learning students level of Internet awareness. The mean scores of the respondents ranged between 1.95 and 3.60. The Grand mean of the table was 3.12; this implies that the level of

Internet awareness by the distance learners in Adamawa State is low.

Research Question III: What is the level of usage of Internet by the Distance Learning Students in Adamawa State?

Table II: Mean and Standard Deviation of Responses of Distance Learning Students on the level of EIR usage.

S/N	Items	\bar{X}	\dagger	Remark
22	I use internet as means to compare my research with current trend in the world at large	3.27	0.72	Low level
23	I use Internet to secure back up for important documents	3.31	0.79	Low level
24.	I can obtain free textbooks, journals and e-books for my studies via the Internet	3.40	0.69	Low level
25	I use video lectures on the Internet to compliment my program lectures	2.96	0.91	Low level
26	I use the Internet as means to find solutions to assignments given by lecturers	3.36	0.84	Low level

Key: \bar{X} = Mean, \dagger = Standard Deviation

Table II provides data on level of usage of internet by the distance learning students in Adamawa State. The mean scores of the respondent's ranges between 2.96 and 3.40 with standard deviation also ranging between 0.69 and 0.91. Also from the table, all the items have been perceived 'low level'. On the whole, the

Grand mean of the table stands at 3.26; this implies that the level of internet Usage by distance learners in Adamawa State is low based on this finding.

Research Question Four: What is the Average Level of time that the Distance Learning Students in Adamawa State stay on the Internet?

Table IV: Mean and Standard Deviation of Responses of Distance Learning Students on the level of Time Stay on the Internet.

S/N	Items	\bar{X}	\dagger	Remark
27.	I use the Internet only when I have assignments that are very difficult to solve	2.28	0.949	Never Level

S/N	Items	\bar{X}	†	Remark
28.	There is no need to surf the Internet when the school library is available	2.01	0.935	Never Level
29.	Since most relevant materials on the Internet have to be paid for, I seldom use the Internet unless it is extremely necessary	2.50	0.846	Often Level
30.	I don't use the Internet at all since I am not computer literate	1.93	1.024	Never Level
31.	The challenges of the Internet make me use it seldom	2.41	0.876	Never Level
32.	I use the Internet for personal studies outside my class lectures	3.03	1.054	Often Level

Key: \bar{X} = Mean, † = Standard Deviation

The data in Table IV answered research question IV. The mean scores of the respondents ranged between 1.93 and 3.03 with Standard deviation values ranging between 0.846 and 1.054. From the mean scores, two items were perceived 'often' by the respondents, namely 'I use internet for personal studies outside my class lectures; and since most relevant materials on the internet have to be paid for, I seldom use the internet unless it is necessary'. The remaining items were

perceived 'never'. On the whole, the Grand Mean of the table is 2.36, with this; the level of time stay on the internet by the Distance Learners in Adamawa State is Never based on this finding.

Hypothesis: There is no significant difference between the mean responses of the students of CDL of MAUTECH and the students of NOUN, Yola study Centre on the level of EIR awareness.

Table V: Z – Test of Difference Between Mean Responses of Distance Learning Students of MAUTECH and Students of NOUN Yola study centre on the level of Internet awareness.

Variable	N	Mean Response awareness \bar{X}	†	grand mean in Z_{cat}	small IA) Z_{tab}	Remark
CDL	187	2.71	7.051	2.14	1.96	Jettisoned
NOUN	110	3.47	2.601			

Since Z_{cat} (2.14) is greater than Z_{tab} (1.96) at 0.05 level of significance, the null hypothesis is rejected and the researcher concluded that there was significant difference between the mean responses of the students of the Centre for Distance Learning, MAUTECH and the Students of NOUN Yola study centre, on the level of Internet awareness. Although, the CDL NOUN has a higher mean of 3.42

Findings of the Study

The study revealed that, most EIR are not available in the institutions

1. The study revealed that the level of the EIR awareness by the distance learning students in Adamawa State is low
2. The level of the EIR usage by the distance learning students in Adamawa State was low

3. There was significant difference between the mean responses of the students of the Centre for Distance Learning, MAUTECH and the Students of NOUN on the level of Internet awareness.
4. Probably, because the students of NOUN take E-examination

DISCUSSION

The study revealed that, many of the electronic information resources are not available as indicated in table I. the findings shows that E-journals, E-books, E-magazines, E-projects, E-dissertations and thesis, E-projectors, and E-examinations are not either available or not in use. This agrees with the opinion of Akande (2011) who said computer and internet services are not quite available in most sandwich programmes in Nigeria institutions. From Table II, the finding revealed that the level of EIR awareness by Distance Learning Students in Adamawa State was high (3.12). This finding agrees with that of Ifeoma (2013) which revealed that internet use is not prevalent amongst older and less educated people.

From Table III, the level of internet usage by Distance Learning students in Adamawa State was also low (3.26). Low level of the respondents obtained free textbooks, journals, etc for their studies via the internet while the level of respondents that use internet as means of finding solutions to assignments given by their lecturers was also low (3.36). The study of Anunobi (2006) also corroborate this, as it shows 30% of the Nigeria Universities students used internet for academic purpose while 65% used it for entertainment purpose in the study.

Table IV revealed a significant difference in the mean responses of CDL students of MAUTECH (2.71) and students of NOUN (3.47), on the level of internet awareness. Difference between their mean responses was in line with what Adami (2015) discovered in her findings on Library Use in Distance Learning in Nigeria

that 62.3% of her respondents had never used video recording before while 55.6% indicated they had no access to audio recording.

CONCLUSION

The study focused on determining the perceived knowledge and usage of Electronic Information resources among learners of DLS in Adamawa state. It was concluded that the knowledge and usage of internet among DLS in Adamawa state is low

RECOMMENDATIONS

Following the findings of this study, these recommendations were proffered:

1. There should be an increase in available Electronic information resources in each study centre and training of students to maximise the effective use of internet
2. Computer Assisted Instruction should be introduced in each study centre
3. E- Examination, Assignments etc. should be encourage among both the teachers and students
4. As a way of encouraging the students, the Open/ Distance Learning University Authorities should provide a pool of systems with a defined schedule on when the students can access the internet to browse or even for unlimited access as obtained at the Open universities in the developed world to maximise the utilisation of internet services

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