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Availability and Extent of Utilization of E-learning Resources in National Open University of Nigeria Study Centres of Anambra and Enugu States, Nigeria

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Abstract:

The main focus of this study was to find out the availability and extent of utilization of e-learning resources in National Open University of Nigeria Study Centres of Anambra and Enugu States, Nigeria. Four research questions were formulated to guide the study. The population of the study comprised of all the 2838 adult learners in the study centres. The sample of the study consisted of 567 adult learners selected through proportionate stratified random sampling technique. Questionnaire which was dully validated by two experts, one from Adult Education and the other from Technical Education was used for data collection. Data collected were analyzed with percentage and mean. The reliability of the instrument was 0.86 which was adjudged highly enough. Among the major findings of the study include that; computer, internet, printed materials, instructional audio tapes, among others were available in the study centres and while computer, internet, multimedia projector, instructional TV and radio were used to low extent, printed materials, CD-ROMS, instructional audio and video tapes were used to high extent. Some of the constraints include poor power supply, high cost of purchasing resources, poor attitude include among others. Some of the strategies include stable power supply, training of the learners on the use of e-learning resources. One of the recommendations is that government should make adequate provisions for different types of e-learning resources in the NOUN study centres.

Keywords: Availability, Utilization, e-learning, e-learning resources.

1. Introduction

The challenge of providing educational opportunities for mature students and other people who are place bound brought about the concept of open and distance learning. According to Fagbamiye (2000), the challenge of the Nigerian higher education system to accommodate all those seeking university admission gave birth to open and distance learning, which started with Rapid Results College, Wesley Hall, and Benneth College as correspondence institutions in the 1950s and 1960s. With respect to the above issue, National Open University of Nigeria (NOUN) (2008) observed that as far back as the early 1960s, there had been a rising commitment to strengthening the delivery system of education in Nigeria. Furthermore, it noted that in the process of getting to the root of the education problems in Nigeria, it became clear to the federal government that the colonial education strategy which targeted only a few privilege people in selected regions of the country did not quite fit the needs of a newly independent Nigeria. NOUN (2008) further stated that the government realized that there was the need to create opportunities for those who have received some form of formal education to update their knowledge and ultimately improve their productive capacity.

In the same vein, Osuji (2004) noted that the Universities in Nigeria cannot admit up to 15% of the qualified JAMB applicants of over 1.5million. Even so, the institutions are stretched in facilities and personnel. According to Terhemba (2007), the year 1983 marked a turning point in the history of open and distance education in Nigeria. The University Act, which subsist in the Law of the Federation of Nigeria (1980) Volume xvii, consequently came into effect on July 22, 1983. Other events prior to this Act both singularly and jointly became a watershed for the established of Open University. Terhemba further observed that to shift from the mainstream campus-based education to self-learning mode, the National Policy on Education emphatically stressed that the education system will be structured to develop the practice of self-learning.

In addition, Ipaye (n.d) stated that the National Open University of Nigeria sprang from the ashes of the defunct National Open University, which was abruptly closed down by a military government in April, 1984, barely one year after its establishment. According to Aramide and Bolarinwa (2010) the re-establishment of Open University in 2002 was sequel to the Open University established in 1983 by former president Shehu Shagari in order to bring education closer to the people. According to Federal Ministry of Education (2002), in the year 2000, after an international workshop co-hosted by the Commonwealth of Learning (COL) and the Nigeria Federal Government, the year 2001-2010 were declared a decade of open and distance learning in Nigeria. Thereafter, a time-line was drawn for series of activities and implementation strategies. One of such strategies was the resuscitation of the defunct Open University which in 2002 was renamed National Open University of Nigeria, (NOUN).

Open and distance education can be seen as the mode of teaching in which learners are removed in time and space from the teacher. It used a variety of media and technologies to provide and improve access to good quality education for large numbers of learners wherever they may be. In the same vein, Adu, Eze, Salako and Nyangechi (2013) defined open and distance education as a system of education characterized by physical separation between the teacher and the learner in which instruction is delivered through a variety of media including print and other information and communication technologies to the learner who may either have missed or denied face-to-face formal education due to socio-economic, career, family and other circumstances. Moreover, Jegede (2003) saw open and distance education as education provided by a mode other than the conventional face-to-face method whose goals are similar to the noble and practice on-campus full-time, face-to-face education.

Furthermore, the Federal Republic of Nigeria (NPE, 2004) asserted that the goals of open and distance education in Nigeria is to: provide access to quality education and equity in educational opportunities for those who otherwise would have been denied; meet special needs of employers by mounting special certificate courses for their employees at their workplace; encourage internalization, especially of tertiary education curricula; and ameliorate the effect of internal and external brain drain in tertiary institutions by utilizing Nigerian experts as teachers regardless of their locations or places of work.

In order to achieve its goals, open and distance education must depend heavily on e-learning. Hedge and Hayward (2004) defined e-learning as an innovative approach for delivering electronically mediated, well-designed, learner-centered and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design principles. To this end, Tavangarian, leypold, Nothing and Roser (2004) stated that e-learning includes numerous types of media that deliver text, audio, images, animation and streaming video and technology applications and processes such as audio and video tape, satellite television, CD-ROM, and computer based learning as well as local intranet-extranet and web-based learning.

Apata of Daily Independent (2013) reported that while addressing fears expressed by prospective students and existing ones in the area of getting printed learning materials promptly, the Head, Media and Information Unit of National Open University of Nigeria, D. Ronke Ogunmakin acknowledged that getting printed learning materials promptly, the Head, Media and Information Unit of National Open University of Nigeria, Dr. Ronke Ogumakin acknowledged that getting printed study materials to go round all the learners had been a challenge which the university has been grappling with over the years, a 100 percent achievement is yet to be attained in this area. The author further added that where the materials are not readily available in printed form, they are abundantly available in CD ROMS. According to Bonk and Graham (2006), e-learning comes in many variations and often a combination of the following: purely online-no face-to-face meetings, blended learning – combination of online and face-to-face, synchronous, instructor-led group, self-study, self-study with subject matter expert, web-based, computer-based (CD-ROM), video/audio tape.

In Anambra and Enugu States' study centres, the supply of e-learning resources is inadequate. This may be because of high cost of purchasing the resources and where there are available ones, the skilled manpower will be lacking coupled with inadequate supply of power, lack of adequate guide to learners and learners' poor attitude towards self-learning. The implication is that learners graduate without having the skills of operating some of the e-learning resources which undermines the aims and objectives of NOUN. It is not clear if at all the e-learning resources budgeted for by NOUN have been adequately supplied to the study centres for absolute utilization by teachers and students. It is possible that if adequate strategies are employed, the current state of NOUN in the two states' centres would be improved, hence the need for this study.

2. Research Questions

The following research questions were formulated to guide the study:

1. To what extent are e-learning resources available to learners in the study centres?
2. To what extent are e-learning resources used in the study centres?
3. What are the constraints to the learners' use of e-learning resources in the study centers?
4. What strategies could be used to enhance usage of e-learning resources by the learners in the study centres?

3. Materials and Methods

The study adopted descriptive survey design. The population of the study comprised of all the 2838 adult learners in the National Open University of Nigeria study centres at Abagana in Anambra State and Trans-Ekulu, Nigeria Prisons and Awgu in Enugu State. The sample of the study consisted of 567 adult learners selected through proportionate stratified random sampling technique. A self-structured questionnaire titled "e-learning resources in National Open University of Nigeria (ERNOUN)" was used for data collection. The instrument was subjected to face and content validity by two experts, one from Adult Education and the other from Technical Education all from Nnamdi Azikiwe University, Awka. Comments and recommendations were affected in the final construction of the instrument by the researchers. The reliability of the instrument was ascertained using Cronbach Alpha and 0.86 was obtained and adjudged highly enough. Data collected were analyzed with percentage and mean. Decision rule was based on 4-

points numerical values on two response modes assigned: Very High Extent (VHE) =4points, High Extent (HE) = 3points, Low Extent (LE) = 2 points and Very Low Extent (VLE) = 1 point and Strongly Agree (SA) = 4 points, Agree (A) = 3 points, Disagreed (D) = 2 points and Strongly Disagree (SD) = 1 point. The criterion mean of 2.5 was obtained. This implies that any mean that is up to 2.5 and above was agreed on while means below 2.5 were disagreed.

4. Results

The findings of the study were presented in tables and analyzed according to the research questions 1-4.

4.1. Research Question One

To what extent are e-learning resources available to learners in the study centres?

S/N	Items Decision	Available	Percentage	Not-Available	Percentage	Total	Remark
1	Computer	406	71.6	161	28.4	100	Available
2	Internet	385	67.9	182	32.1	100	Available
3	Printed Materials	497	87.7	70	12.3	100	Available
4	Multimedia projectors	173	30.5	394	69.5	100	Not Available
5	Instructional audio tapes	363	64	204	36	100	Available
6	Instructional Video tapes	331	58.4	236	41.6	100	Available
7	CD-ROMs	404	71.3	163	28.7	100	Available
8	Instructional Television services	97	17.1	470	82.9	100	Not Available
9	Instructional radio Services ,;	139	24.5	428	75.5	100	Not Available

Table 1: Mean responses of respondents on extent to which e-learning resources are available to learners.

Table 1 shows the availability of e-learning resources to learners in the study centres. 406 learners answered available representing 71.6% as against 161 learners who answered not-available representing 28.4% to item 1 “Computer”. 385 learners answered available representing 67.9% as against 182 learners who answered not-available representing 32.1% to item 2 “internet”. 497 learners answered available representing 87.7% as against 70 learners who answered not available representing 12.3% to item 3 “printed materials”. 173 learners answered available representing 30.5% as against 394 learners who answered not-available representing 69.5% to items 4 “multimedia projectors”. 363 learners answered available representing 64% as against 204 learners who answered not available representing 36% to item 5 “instructional audio tapes”. 331 learners answered available representing 58.4% as against 236 learners who answered not available representing 41.6% to item 6 “instructional video tapes”. 404 learners answered available representing 71.3% as against 163 learners who answered not available representing 28.7% to item 7 “CD-ROMs”. 97 learners answered available representing 17.1% as against 470 learners who answered not available representing 82.9% to item 8 “instructional television services”. 139 learners answered available representing 24.5% as against 428 learners who answered not available representing 75.5% to item 9 “instructional radio services”.

4.2. Research Question 2

To what extent are e-learning resources used in the study centres?

S/N	Items Decision	Weighted Mean	Decision
10	Computer	2.26	Low Extent
11	Internet	2.40	Low Extent
12	Printed Materials	3.27	High Extent
13	Multimedia projector	1.94	Low Extent
14	Instructional Audio tapes	2.80	High Extent
15	Instructional video tapes	2.83	High Extent
16	CD-ROMs	3.16	High extent
17	Instructional Television Services	1.86	Low extent
18	Instructional Radio Services	2.08	Low Extent

Table 2: Mean responses of the respondents on extent to which e-learning resources are used in the study centres.

The results in Table 2 show that items 12, 14, 15 and 16 were used in the centres to a high extent. This means that the respondents agreed to a high extent that they used printed material such as modules or reference book, instructional audio tape, instructional video tape and CD-ROMS in the study centres. However, items 10, 11, 13, 17 and 18 were used in the centres to a low extent which means that respondents used computer, internet, multimedia projectors, instructional television services and instructional radio services to a low extent in the study centres.

4.3. Research Question 3

What are the constraints to the learners’ use of e-learning resources in the study centres?

S/N	Items Decision	Weighted Mean	Decision
19	Poor power supply	2.83	Agree
20	Lack of adequate skills to use the resources	3.10	Agree
21	High cost of purchasing the resources	2.89	Agree
22	Shortage of skilled manpower to maintain the resources	3.16	Agree
23	Lack of adequate guide to learners	2.76	Agree
24	Poor attitude of learners towards self-learning	2.30	Disagree
25	Inadequate supply of e-learning resources	3.08	Agree
26	Non-availability of e-learning resources	2.45	Disagree
27	Inadequate access to e-learning resources	3.05	Agree
28	High cost of accessing the resources	2.34	Disagree

Table 3: Mean responses of respondents on constraints to learners' use of e-learning resources.

The Results in Table 3 show that the respondents agreed with items 19, 20, 21, 22, 23, 25 and 27. This means that poor power supply, lack of adequate skill to use the resources, high cost of purchasing the resources, shortage of skilled manpower to maintain the resources, lack of adequate guide to learners, inadequate access to e-learning resources and inadequate supply of e-learning resources were constraints to learners use of e-learning resources. More so, the respondents disagreed with items 24, 26 and 28 which means that poor attitude of learners towards self-learning, non-availability of e-learning resources and high cost of accessing the resources contribute to ineffective use of e-learning resources by learners.

4.4. Research Question 4

What strategies could be used to enhance usage of e-learning resources by the learners in the study centres?

S/N	Strategies	Weighted Mean	Decision
29	Stable power supply	3.07	Agree
30	Training of learners on the use of e-learning resources in their academic activities	2.89	Agree
31	making e-learning resources affordable for learners	3.13	Agree
32	Availability of credit for purchasing the resources to the learners	2.97	Agree
33	Adequate supply of skilled manpower to maintain the resources	3.04	Agree
34	Adequate guide to learners in using the resources	2.85	Agree
35	Adequate supply of e-learning resources for use by the learners	3.11	Agree
36	making the resources accessible and convenient to the learner.	2.81	Agree
37	Adequate maintenance of the available resources	3.13	Agree

Table 4: Mean responses of respondents on strategies for enhancing usage of e-learning resources by the learners in the centres.

The results in Table 4 show that the respondents agreed with all the strategies for enhancing usage of e-learning resources. This implies that stable power supply, training of learners on the use of e-learning resources in their academic activities, making e-learning resources affordable for learners, availability of credit for purchasing the resources to the learners, adequate supply of skilled manpower to maintenance of the resources are the strategies for enhancing usage of e-learning resources.

5. Discussion

The data in table 1 revealed that e-learning resources were available to learners to high extent. It was agreed by the respondents that, for the purpose of instructional delivery, the National Open University of Nigeria provided the following e-learning resources: computers, internet, printed materials such as modules or reference books, instructional audio tapes, instructional video tapes and CD-ROMs. This is in agreement with the opinion of Aramide and Bolarinwa (2010) that in National Open University of Nigeria, Ibadan Study Centre, the University provided the majority of audio visual and electronic resources while the learners provided the rest. The result was further supported by Damilola (2013) who was of the view that at Ibadan and Lagos Study Centres of National Open University of Nigeria, all the electronic information resources were not readily available. The result also indicated that the university failed to provide multi-media projector instructional television services and instructional radio services. Availability of e-learning resources in the study centres is relative. In some centres, e-learning resources are available, while in others, they are not adequately available. The National Open University of Nigeria should make effort to provide the resources since the resources are the yardsticks for content delivery.

The result in table 2 showed that even the available e-learning resources were used at a low extent in the centres. The respondents agreed that e-learning resources such as computer, internet, multimedia projector, instructional television services and instructional radio services were used at a low extent in the study centres. This result agrees with the assertion of Wisdom and Dankaro (2012) that teacher educators could not access ICT resources for instructional development purposes. The result also corroborates with Damilola (2013) who concluded that learners made use of cybercafés within and outside the centres in order to gain access to the electronics information resources, especially internet facility. Nonetheless, the result further showed that printed materials such as modules or reference books, instructional audio tapes, instructional video tapes and CD-ROMs were frequently used in the study centres.

The results of table 3 showed that a number of constraints militate against the use of e-learning resources in most study centres of National Open University of Nigeria. This is in agreement with Aramide and Bolarinwa (2010) that the major constraints hindering the use of audiovisual and electronic resources include poor power supply, poor infrastructure and lack of adequate skill, high cost, and non-availability. This also corroborates with Folorunso, Ogunseye and Sharma (2006) who observed that mass unawareness, low computer literacy level and cost were identified as critical factors affecting the acceptability of e-learning by students and lecturers of Nigerian Universities.

In line with these views, Anene, Iman and Idumuh (2014) observed many key factors that hamper the successful implementation of ICT in developing countries, especially Nigeria, they include: poor technical infrastructure, lack of computer literacy, inappropriate teacher training, cost of accessing the internet, irregular and frequent interrupted power supply and limited expertise. Furthermore, Ezekoka (2015) identified the constraints to the use of e-learning in NOUN as: fear of use of new technology; lack of computer operating skills by students; high cost of ICTs; and poor internet connectivity.

The results in table 4 revealed that all the strategies can be adopted to enhance usage of e-learning resources for the purpose of instructional delivery in open and distance education. This agrees with Damilola (2013) that it is imperative that governments make adequate provision for different types of electronic information resources for use at NOUN study centres. Damilola suggests that there is an urgent need to improve infrastructure in the country, particularly electronic supply, information technology, telecommunication items such as cellular phone, computer, fax machine, telephone, television, radio and internet service provider. Aramide and Bolarinwa (2010) recommend that infrastructure, including an adequate power supply, for the effective application of audio visual and electronic resources at NOUN should be put in place and should not be limited to urban areas. This will enable distance learners in rural areas to benefit from modern technology. The authors further recommended that the cost of audiovisual and electronic resources must be made affordable for students. They argue that universities can always find ways to make distance education technologies available to staff, but students must also be considered in the cost equation and the cost of e-learning resources must be considered when selecting technologies to support distance education. Finally, Aduke (2008) suggested that the government should make internet connectivity a priority for higher education to be able to leverage on the promises and opportunities ICTs present.

6. Conclusion

E-Learning resources can be seen as instructional materials such as print materials, audio and video cassette, CD-ROM, television and radio broadcast as well as transmission. E-learning resources are used both in informal and formal educational setting for facilitation, instruction, interaction and for instructional delivery. This has been found to be very useful in education especially open distance learning. The study revealed that not all the e-learning resources were available in National Open University of Nigeria Study Centres of Anambra and Enugu States and that even the available e-learning resources were rarely utilized in the study centres, the study also revealed some constraints to effective utilization of e-learning resources at the four surveyed study centres and came up with the strategies to address the constraints to usage of e-learning resources, which include adequate power supply, making of e-learning resources affordable, among others.

7. Recommendations

Based on the findings of this study, the following recommendations were proffered:

1. It is imperative that government makes adequate provisions for different types of e-learning resources for use at NOUN study centres, such as television and radio broadcast, internet facility, computer, including an adequate power supply for the effective application of e-learning resources.
2. There is the need for adequate training of the learners on the use and application of e-learning resources in their academic activities. This will enable them use e-learning resources in carrying out their academic activities, including research.
3. Government and policy makers should explore, encourage and promote the development and use of emerging modern e-learning resources at all levels of education. There is the need also for government to make computer literacy compulsory irrespective of the level and course of study. thus, screening for admission in open and distance education should include practical demonstration of ICT/computer literacy skills by the prospective learners.
4. The government should equally recruit well trained professional course tutors and administrators to handle NOUN activities and promote academic excellence.

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