

UTILIZATION OF OPEN EDUCATIONAL RESOURCES (OER) AND QUALITY ASSURANCE IN UNIVERSITIES IN NIGERIA

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Abstract

This study examined the utilization of open educational resources (OER) among undergraduates in universities in Nigeria. It further investigated the extent to which the use of OER could ensure quality in education. A descriptive research design was used for the study. Five Research questions were raised and answered. All the research questions were subjected to descriptive analysis. The findings showed that: the level of awareness of undergraduates on the availability and usage of OER was moderate. The undergraduates were faced with series of challenges on the utilization of OER, such as erratic electricity supply, lack of familiarity with OER websites, university not internet connected, ignorance of OER availability. It was revealed that usage of OER enhanced sharing of common knowledge, course structure, access to quality learning materials and use of real instructional materials online. It was however revealed that there were lots of benefits of OER to undergraduates that include sharing world learning resources and students capacity building. It was recommended that universities as a matter of policy and urgency to have expressed connection to internet, give orientation to students on the use of OER, encourage students on the use of OER by attaching their learning to online resources.

Keywords: Open educational resources, utilization of OER, awareness of OER, challenges of using OER, enhancing quality, undergraduates, and benefits of OER.

Introduction

Utilization of open educational resources (OER) is becoming a global trend. The advent of new technology has made the world to become a global village in information dissemination. The developed world has taken the lead in bringing information to the door steps of people. This age of technology is witnessing tremendous opportunities to access learning materials online.

Teaching and learning session can now be accessed through online videos. Educational system is taking the advantage of technology to assess learning resources. The developing world and Nigeria in particular is taking a great advantage of technology to access learning materials. Learning materials published as OER are widely available. Open educational resources (OER) could be described as the availability of learning resources to students, self-learners and educators, online. OER could further be explained as free access to learning materials without any hindrance, at no cost and with opportunities to compare and contrast educational programmes and course contents. OER are teaching and learning materials that are freely available online for everyone to use, whether an instructor, student or self-learner. Examples of OER include: full courses, course modules, syllabi, lectures, home-work, assignments, quizzes, lab and classroom activities, pedagogical materials, games, simulations, and others (JISC OER n.d).

The momentum for developing more OER has never been greater. It is believed that the use and access alone are insufficient, because there is the need to focus on quality and the costs of producing more OER that are of good quality. Education is taking a great turn as far as accessibility to learning resources is concerned. Open courseware (OCW) websites could be accessed online, which has provided adequate opportunities to access learning materials, compare educational programmes and course contents. OER has tremendously enhanced the sharing of knowledge.

Open Educational Resources (OER) movement originated from development in open and distance learning (ODL), and wider context of a culture of open knowledge, free sharing and peer collaboration which emerged in late 20th century (Willey 1998). The MIT OCW project is credited for having sparked a global OER movement after announcing in 2001 that it was going to put MIT'S entire course catalog online and launching this project in 2002 (Willey 2006). Massachusetts Institute of technology (MIT) open courseware (OCW) is a web-based publication of virtually all MIT course contents. OCW is open and available to the world through OCW, educators improve courses and curricula, making their schools more effective; students find additional resources to help them succeed; and independent learners enrich their lives and use the content to tackle some of our world's most difficult challenges, including sustainable development, climate change, and cancer eradication (MIT Open Course ware n.d). The use of MIT OCW site and materials is subject to creative commons and other terms of use. In essence in sharing the learning resources, it can be copied, distributed and transmitted. Further more in remixing the resource, it can be adapted.

OECD explained OER as preferring digitized materials offered freely and openly for educators, students and self-learners to use and re-use for

teaching, learning and research (OECD, 2007). OER is defined as “teaching learning, as research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others (The William and Flora Hewlitt Foundation n.d). Commonwealth of learning has adopted the widest definition of OER as materials offered freely and openly to use and adapt for teaching learning development and research (Wikipedia n.d).

Quality in education is the extent to which course contents, methods of teaching and learning, learning resources, and subsequently learning outcomes can compare favourably with other institutions and students across the world. According to Namara (2005), quality assurance is the confidence attached to a product or service in terms of maintain standard. Akomolafe (2012) said that quality in education has to do with conforming to standard in learning environment, instructional resources, relevant and quality teaching, and students’ learning outcomes. It is paramount to note that quality assurance is the feeling of certainty and confidence that a set standard in academic records, learning resources, teaching and learning, and therefore learning outcomes are attained. Ndili (1983), described the quality of education as dealing with the issue of relevance, validity, functionalism, and efficacy of an educational system in the achievement of national goals and priorities. According to Okebukola (2010), quality assurance is umbrella concept designed to improve the quality of input, process, and output of the educational system.

Observations have shown that despite the level of understanding of usage of OER in developed nations the developing countries are still not putting into expected use, these online learning resources. It seems students are still not aware of the availability of OER, the level of accessing OER is minimal, and that there are series of challenges facing the usage of OER. The purpose of this study was to examine the level of awareness of students on the availability of OER and the extent to which OER are utilized by university undergraduates. It was also to examine the potential of OER in enhancing the quality of education.

Research Questions

The following research questions were raised to guide the study:

- 1 What is the level of awareness of undergraduates on the availability of OER?
- 2 What is the level of usage of OER among undergraduate?
- 3 What are the challenges of using OER among undergraduates?
- 4 What is the extent to which OER enhance quality of education?
- 5 What are the benefits of OER to undergraduates?

Methodology

This study is a descriptive research of survey type. It involved gathering of data from the responses of the subjects used. The subjects used for this study consisted of undergraduates in universities in south west Nigeria. The study employed multi-stage and simple random sampling techniques. A total of 569 undergraduates cutting across faculties and levels of students' year were sampled for the study. The instrument used to gather data was a questionnaire titled: Questionnaire on utilization of open educational resources and quality assurance in universities (QOERQAU).

The face and content validity of the instrument was ensured while the reliability was ascertained using test re-test method, with reliability coefficient of 0.82.

The data collected were subjected to descriptive analysis. The data were analyzed using mean rating and standard deviation. The minimum obtainable mean rating was zero while the maximum mean rating was 3.00. In tables one, two, and four; the mean rating below 1.50 was low, mean rating of 1.50 – 2.00 was moderate, while mean rating above 2.00 was high. In table three mean rating of 1.50 and above is major, mean rating of 1.00 to, below 1.50 was minor, while mean rating of less than 1.00 is not significant, and therefore not accepted as a challenge. In table five, the mean rating of 2.00 and above is high, 1.00 to less than 2.00 was moderate while less than 1.00 was poor and rejected.

Results

Research question one: what is the level of awareness among undergraduates on the availability of open educational resources (OER)?

Table 1: Level of awareness among undergraduates on the availability of OER?

S/N	ITEMS	N	Mean	SD	Remarks
1	I am aware of free access to learning materials online	569.	2.19	.91	High
2	I am aware of Massachusetts Institute of Technology (MIT) open course	569	1.47	1.01	Low
3	I am aware that teaching learning video session could be watched online	569	2.07	.95	High
4	I am aware of open course ware (OCW) consortium online	569	1.59	1.03	Moderate
	Total		7.33	2.76	Moderate

Based on the response on table one, the level of awareness of OER was moderate. The level of awareness on free access to learning materials online was high. The level of awareness on teaching learning video session to be watched online was also high. The level of awareness of undergraduates on open course ware consortium online was moderate while

level of awareness of undergraduate on Massachusetts Institute of Technology (MIT) open course ware online was low.

Research Question Two: What is the level of usage of OER among undergraduates?

Tables 2: Level of usage of OER among undergraduates

S/N	Items	Mean	SD	Remarks
1	I get relevant learning materials online	2.21	.89	High
2	I make use of OER in my assignments	1.74	1.07	moderate
3	Online learning materials have been of immense assistance in my studies	2.03	1.02	High
4	I watch teaching and learning session, on online video	1.42	1.11	Low
5	I visit MIT pen course ware web site to get access to free online learning resources	1.08	1.14	Low
	Total	8.49	3.43	Moderate

Based on the response on table two, the level of getting relevant learning materials online was high. The level of usage of Open educational resources (OER) and the extent to which online learning materials have been of immense assistance to students on their study was high. However, the level of getting OER by watching teaching and learning session on online video was low. The level of visit of students to MIT open course web site to get access to free online learning resources was low. Therefore the level of usage of OER among undergraduate was moderate.

Research Question Three: What are the challenges of using OER among undergraduates?

Table 3: Challenges of using OER among undergraduates

S/N	ITEMS	Mean	SD	Remarks
1	I am not familiar with OER websites	1.63	1.02	Major
2	Internet browsing is not encouraging due to erratic electricity	1.61	1.07	Major
3	My university is not internet connected	1.15	1.09	Minor
4	I am ignorant of OER online facilities	1.56	1.09	Major
5	I waste much time on browsing due to poor network	1.92	1.00	Major
6	Lack of personal computer hinders my free access to online course materials	1.30	1.12	Minor
7	I cannot access internet on my own due to inadequate browsing knowledge	1.02	1.05	Minor

The result of this study based on table three revealed major challenges of using OER among undergraduates to include: non-familiarity with OER websites and the erratic electricity has made internet browsing not encouraging among undergraduates. Undergraduates' ignorance of OER online facilities was also a major challenge and also wasting time on browsing due to poor network. However, the minor challenges include non-

internet connected of some universities, lack of personal computer hinders some under-graduates free access to online course materials, and lack of access due to inadequate browsing knowledge. In the final analysis all the items on table three constitute challenges on the use of OER among undergraduates.

Research Question Four: What is the extent to which OER enhance quality of education?

Table 4: Extent to which OER enhance quality of education

S/N	Items	Mean	SD	Remarks
1	Accessibility to sharing of common learning resources across continents	2.07	.89	High
2	Sharing course structure with students in similar fields	2.09	.79	High
3	Provision of access to quality learning materials	2.12	.80	High
4	Use of relevant learning materials	2.16	.80	High
5	Use of up to date course materials	2.05	.87	High
6	Making learning practical	1.92	.89	Moderate
7	Use of real instructional materials in online video	1.87	.99	Moderate

The result of this study as revealed in table four showed that accessibility to sharing of common learning resources across continents has highly enhanced the quality of education in universities. Sharing of course structure with students in similar fields also has highly enhanced the quality of education, provision of access to quality, learning materials online has highly enhanced quality of education, use of relevant learning materials online has also highly enhanced quality of education, use of up to date learning materials has highly enhanced the quality of university education. However making learning practical and the use of real instructional materials online have not been really accessed to enhance the quality of education, hence they moderately enhanced the quality of Education.

Research Question Five: What are the benefits of OER to undergraduates?

Table 5: Benefits of OER to undergraduates

S/N	Items	Mean	SD	Remarks
1	Sharing of world learning resources among contemporaries	2.23	.79	Accepted
2	Enhance knowledge sharing and hard work	2.24	.76	Accepted
3	Encourage capacity building among students	2.18	.81	Accepted
4	Opportunities to compare notes and lectures across the world	2.01	.93	Accepted
5	Have access to video of various course lecturers	1.77	.99	Accepted
6	Indigent students are able to get learning resources at relatively little cost	1.74	.98	Accepted

The result of this study based on the items on table five constituted the benefits of OER to student learning. The undergraduates were able to share world learning resources among contemporaries. The students were able to enhance knowledge sharing and this has encouraged hard- work. Students were able to keep themselves busy and therefore have access to learning resources. OER encouraged capacity building among students. OER gave the students opportunities to compare notes and lectures across the world. OER enable students to have access to video of various course lectures. OER also created opportunity for indigent students to get learning resources at relatively cheaper cost.

Discussion

This study revealed a moderate level of awareness on the availability of OER among university undergraduates. It is an indication that many undergraduates access internet facilities in this age. The fact still remains that Massachusetts Institute of Technology (MIT) open course ware was not known to majority of the students despite its pioneering role. However, good number of them was aware of open courses ware consortium.

The result of this study showed that the level of usage of OER among undergraduates was moderate. This indicated that a substantial number of students visit internet to access learning resources in whatever form to support their learning activities. This result was unconnected with the fact that internet usage is no more new to students, even though OER are yet to be fully utilized.

This study came out with the finding that the use of OER is faced with numerous challenges. In this part of the world non-familiarity with OER website is a great challenge. This may be due to irregular visit of students to internet and probably due to inadequate or even lack of proper orientation on the use of internet and online facilities. Much time wasted on browsing due to poor network and erratic electricity has also constituted challenges on the use of OER for educational advancement.

The result of this study revealed that OER have great impact on the quality of education in the universities. The OER available to students have highly enhanced the quality of learning materials and consequently learning outcomes. The result of this study might be due to the fact that in this age of information technology, students readily access internet to get relevant learning materials.

The finding of this study indicated a various benefits accrued to undergraduates due to their usage of OER. The benefits of OER are really worthy of note, in a situation where students were able to share world learning materials to enhance capacity building and to make them compare

note and lectures across the world. The access to OER has given indigent students opportunities to get learning resources at relatively little cost.

Conclusion

The utilization of OER has been of great advantage to educational development in this age of technology. The usage of OER has highly enhanced the quality of university education in Nigeria. The maximal use of OER has not been attained in this part of the world, because despite the level of understanding of usage of OER in developed nations, the undergraduate still have moderate level of awareness and usage of OER in Nigeria.

The developed nations are continuing to gather further momentum in developing more OER and further more to raise the quality of the OER, Nigeria should not only be a country desire to consume the resources of technology but to aspire to contribute to the development of OER, and also participate in enhancing the quality of OER. Although, Nigeria is facing a lot of challenges in accessing internet to get relevant educational materials never the less, there is no doubt that OER have impacted positively on the quality of education. This study has affirmed that the undergraduates were able to share world learning resources and subsequent capacity building among undergraduates and enhancing the quality of university education in Nigeria.

Recommendations

Based on the findings of this study the following recommendations were made:

- 1 The university should take it as a matter of priority to connect to the internet, and make the facilities accessible to students and staff.
- 2 There is the need to give adequate orientation to students on the usage of OER, encourage students to make use of OER by attaching their learning activities to online resources.
- 3 Academics should adequately utilize OER and ICT facilities in making learning practical and intimate students with online learning video, wherever they are applicable.

References:

Akomolafe, C.O (2012). Capacity Building and Quality Assurance in Higher education in Nigeria. In Revitalizing Nigerian education in Digital age. USA Trafford Publishing
JISC Open educational Resources (OER) (n.d). What are Open Educational Resources? Retrieved
25/05/2013

- MIT Open Courseware (n.d). About Open Course Ware. Online available on <http://ocw.mit.edu> Retrieved 25/05/2013
- Namara, O.A. (2005). Quality education. Cited in Adegun O.A 2012. In Revitalizing Nigerian education in Digital age. USA Trafford Publishing
- OECD (2007). Giving knowledge for Free: The emergence of OER centre for Educational Research and Innovation (CERI). Retrieved 5/6/2013.
- Okebukola, P.O. (2010). Fifty years of Higher Education in Nigeria: Trends in Quality Assurance. Presented at the International Conference on the 50th Independence Anniversary, September 27-29, Abuja.
- The William and Flora Hewlitt Foundation(n.d). Open Education Resources (OER). Online available on en.wikipedia.org/wiki/open_education_resources Retrieved 10/06/2013.
- Wikipedia (n.d). Open Education Resources (OER). Online available on en.wikipedia.org/wiki/open_education_resources Retrieved 10/06/2013
- Wikipedia (n.d). MIT Open Course Ware. Online available on en.wikipedia.org/wiki/MIT-OPEN_COURSEWARE Retrieved 25/05/201.
- Willey, D. (1998). Open Education Resources (OER). Online available on Opencontent.org Retrieved 10/06/2013.
- Willey, D. (2006). Expert meeting on Open Education Resources (OER). Centre for Educational Research and Innovation. Online available on en.wikipedia.org/wiki/open_education_resources Retrieved 10/06/2013
- Ndili, E.O. (1983). The practice of quality education in our secondary school system. Paper Delivered at Nigerian Association of Education Administration and Planning, College of Education, Awka, October, 6