AWARENESS LEVEL AND UTILIZATION OF OPEN EDUCATIONAL RESOURCES IN CHRISTIAN RELIGIOUS STUDIES: EVIDENCE FROM JUNIOR SECONDARY SCHOOLS IN NIGERIA

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Abstract - The study investigated the level of awareness on Open Educational Resources (OER's) among Junior Secondary School (JSS) Christian Religious Studies (CRS) teachers in Nsukka LGA of Enugu State, Nigeria. The design of the study was a descriptive survey, and the study was guided by four research questions. The population of the study consisted of 35 CRS teachers from 32 public JSSs 1-3 in Nsukka LGA, Enugu State. Purposive and random sampling techniques were used. The sample size was 25 respondents, while questionnaire was used for data collection. The instrument was validated by three experts, and a reliability coefficient of 0.87 was obtained using Cronbach alpha. Data were analyzed using mean scores. The results showed that the respondents were unaware of Open Educational Resources. They were unaware that OERs were sharable, re-mixable, reusable, and modifiable. The OERs were un-utilized. Class settings, lesson notes, and class demonstration were most un-utilized OERs, while online bible was utilized. The respondents were unaware of the repositories/sources of OERs. Some of these repositories included University of Nigeria OER, OERTX and OER Africa. Further results showed that OER utilization by JSS CRS teachers was constrained by low level of awareness on OER, poor ICK skills, inadequate electricity supply, and poor remuneration of teachers. The study recommended polices that will increase the remuneration, and knowledge on OERs and ICT of teachers, and improve power supply.

Keywords: Open Educational Resources, CRS, Junior Secondary Education

Introduction

The world has become a global village where knowledge and information are created and disseminated, almost at the tip of the finger. This has led to the interconnectivity of different communities and economies of the world (globalization), driven largely, by innovations in information and communication technology (ICT). Accessing these knowledge and information is essential to participating in this globalization. This has increased scholarly interests in the way knowledge is sought, found, created, disseminated and used (Lafrenière, Menuz, Hurlimann & Godard, 2013; Neal, Campbell, Williams, Liu & Nussbaumer, 2011; Gagnon, 2009). It has brought tremendous impacts and revolutions in educational systems, shaping and reshaping traditional methods of

teaching and learning, and also, the availability and use of educational resources and materials. One of such revolutions in the educational system is the open educational resources [OER] (Onaifo, 2016).

Open Educational Resources (OER) are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under open license, permitting access, re-use, re-purpose, adaptation, and re-distribution by others, at no costs (OECD, 2007; UNESCO, 2002). They are high-quality, openly licensed, online educational materials that offer an extraordinary opportunity for people everywhere to share, use, and reuse knowledge. Examples of OER include textbooks, lecture slides, podcasts, online resources and videos. Others are learning modules, syllabi, learning objects, course websites, course materials, activities, labs, assignments, and software. OER also provides a great mechanism for instructional innovation as networks of teachers and learners share best practices. Open license refers to a license that respects the intellectual property rights of the copyright owner and provides permissions granting the public the rights to access, re-use, re-purpose, adapt and redistribute educational materials. Basically, OER are information resources with the following criteria: digital in nature, distributed with open licenses, modifiable, and supportive of teaching and learning.

OER has become a key factor for sustainable educational development, and the promotion of quality teaching and learning. This is due to its role in the provision of free and easily accessible educational resources. These educational resources are required for effective teaching and learning at every level of education (primary, post-primary and tertiary). It is in this light that OECD (2007 and UNESCO (2002) suggested the use of OER as a veritable means of improving the quality of teaching and learning, and also for increasing access to education on a sustainable basis. This is particularly important for Nigeria, where access to quality and affordable educational resources is, limited for Christian Religious Studies (CRS) teachers and students, the educational system grossly underfunded, teachers poorly remunerated, and often on strike, and students' hooliganism and gangsters are highly pervasive.

Christian Religious Studies (CRS) is one of the religious studies being taught in the institutions of learning across primary, secondary and tertiary levels. It is an academic discipline that focuses on the study of Christianity, its beliefs, practices, history, and impact on society. It typically covers a wide range of

topics related to Christianity (Efido, 2022). It is approved by the national curriculum on education, and it aims at building faith in God, character formation and morale development. CRS provides more opportunities for Nigerian youths to learn more about God and thereby develop Christian attitude and morals such as humility, respect, love, and justice; to instill in the youths, the spirit of tolerance, reconciliation, peaceful co-existence and none violence; and to develop and foster the spirit of respect for all people and human life (FRN, 2013). It offers academic and scholarly explanations, on fundamental Christian teachings and values, which help in shaping the issues in the contemporary world (Enyioke & Mozie, 2012). Hence, the need for OER in the teaching of the subject.

Many scholars are of the view that the use of OER will greatly enhance the implementation and achievement of CRS curriculum and objectives, respectively (Baiyeri, 2019). This has become imperative considering the alarming rates of immorality, social vices and violent crimes in the country. These are in addition to inadequate CRS instructional materials and poor academic performance of students in CRS examinations. These importance, not withstanding, not much is known on the use of OER for CRS at junior secondary schools. Empirical information on CRS teachers' awareness level on the use of OER is limited. At this level of education, the students depend mainly on the teachers for information and also, for guidance. The ability of the teachers to access and utilize OER will greatly facilitate effective teaching and learning of CRS, considering that most schools are lacking in quality and affordable instructional materials. Given this importance, it is imperative to gain adequate understanding on the key issues in OER and CRS in junior secondary schools. Findings of the study will have implications, not only for students and teachers, but also, for government. These will contribute towards sustainable educational development in the country.

Statement of the Problem
Christian Religious Studies has been taught in secondary schools in Enugu State and it has been observed that some teachers in government secondary schools are not exposed to ICT that is the brainchild of Open Educational Resources. It has also been observed that there are lots of challenges affecting effective teaching and learning of Christian Religious Studies in secondary schools in the study area. Poor exposure to OER is caused by many factors such as; poor use of technology in education for teaching and learning, students ineffective study

techniques, quality of teachers and method of teaching and learning, the parents inability to provide useful materials like textbooks, exercise books and school fees and problem of inadequate instructional materials for teaching and learning of Christian Religious Studies in schools. However, the pivoting challenge of Christian Religious Studies is complex and can minimally be solved if the teachers change their attitude towards teaching in schools generally. Therefore, the major concern of this paper is to examine the awareness level and utilization of open educational resources in Christian religious studies: evidence from junior secondary schools in Nigeria.

Purpose of the Study

The aim of the study was to examine the awareness level and utilization of open educational resources in Christian Religious Studies using evidence from junior secondary schools in Nigeria. Specifically, the study sought to:

1. Determine the level of awareness of junior secondary school CRS teachers on Open Educational Resources (OER);
2. Identify the Open Educational Resources utilized by junior secondary school CRS teachers and their sources.
3. Identify the level of awareness of junior secondary school CRS teachers on the sources of Open Educational Resources.
4. Identify the challenges militating against the use of Open Educational Resources by junior secondary school CRS teachers.

Research Questions

The research questions include:

1. What is the level of awareness of junior secondary school CRS teachers on Open Educational Resources?
2. What are the Open Educational Resources utilized by junior secondary school CRS teachers?
3. What is the level of awareness of junior secondary school CRS teachers on the sources of Open Educational Resources?
4. What are the challenges militating against the use of Open Educational Resources by junior secondary school CRS teachers?

Methods

The study was carried out in Nsukka Local Government Area (LGA) of Enugu State, Nigeria. Descriptive survey design was adopted for the study because data

were collected and analyzed, from only a few people out of a much larger population. The population of this study consists of 35 CRS teachers in 32 public junior secondary schools (JSS 1 -3) in Nsukka LGA of Enugu State, Nigeria. However, only 25 of the schools had CRS teachers. Public schools were chosen because their teaching and learning follow approved CRS curriculum. Also, junior secondary schools are the basic and most important stage to ensure effective teaching and learning of CRS, in order for the goals and objectives of the CRS curriculum to be achieved. This will ensure that there is the right atmosphere for sustainable socioeconomic growth and development in the country. Purposive and simple random sampling techniques were used. Firstly, 25 junior secondary schools which have CRS teachers were purposively selected. Lastly, one CRS teacher was randomly selected from each of the selected schools.

The instrument for data collection was questionnaire. The questionnaire had two sections, 'one and two'. Section one consisted of the bio-data of the respondents and school, such as sex, and name, while section two was made up of four (4) clusters, A, B, C and D. Cluster A sought for ratings on 8 items on the level of awareness on OERs, cluster B sought for ratings on 7 items on the utilization of OERs, cluster C sought for ratings on 17 items on the level of awareness on the sources of OERs, while cluster D sought for ratings on 10 items on the challenges militating against the use of OERs by CRS teachers. The ratings were carried out on a 4-point scale of strongly aware (SA) [4 points], aware (A) [3 points], unaware (D) [2 points], and strongly unaware (SD) [1 point]. The instrument was validated by two experts from the Department of Arts Education and one expert from Department of Library and Information Science all in University of Nigeria, Nsukka for internal consistency; while a reliability coefficient of 0.87 was obtained using Cronbach alpha. The instruments were directly administered to the teachers. The data collected were analyzed using mean scores for the research questios. The cut-off mark for the mean scores was: 2.50. A mean score ≥ 2.50 implies that the factor is aware, utilized or is a constraint as the case may be, while a mean score ≤ 2.50 implies that the factor is unaware, un-utilized or is not a constraint, respectively.

Results

Research Question One: What is the level of awareness of junior secondary school CRS teachers on Open Educational Resources?

Table 1: Mean scores of the level of awareness of junior secondary school CRS teachers on OERs

Knowledge of Open Educational Resources, OERs	Mean score ($\bar{x}$)	Decision
1. Familiarity with the term, OERs?	1.65	Unaware
2.OERs are digital resources used to support academic Learning	2.52	Unaware
3.They are internet materials or materials you see in the Internet	2.73	Aware
4. They are freely available online	2.62	Aware
5. They are sharable	2.41	Unaware
6. They are remixable	2.34	Unaware
7. They are modifiable	1.90	Unaware
8. They are reusable	2.06	Unaware
Cluster Mean	**2.28**	**Unaware**

The result showed that the cluster mean score was 2.28. This implies that the teachers were not aware of open educational resources. However, further results showed that there are some information/items about OER that the respondents were aware of. They include that OER are: digital resources that support academic learning ($\bar{x}$ = 2.52), materials from the internet ($\bar{x}$ = 2.73) and freely available online ($\bar{x}$ = 2.62).

Research Question Two: What are the Open Educational Resources utilized by junior secondary school CRS teachers?

Table 2: Mean scores on the utilization of OERs by junior secondary school CRS teachers

Open Educational Resources Utilized	Mean score ($\bar{x}$)	Decision
1. Online bible	2.53	Utilized
2. Online CRS textbooks	2.22	Un-utilized
3. Online pictures and drawings	2.08	Un-utilized
4. Lesson notes	1.43	Un-utilized
5. Class settings	1.26	Un-utilized

6. Class demonstration	1.55	Un-utilized
7. Teaching skills	2.17	Un-utilized
Cluster Mean	**1.89**	**Un-utilized**

The mean scores on the utilization of OERs by junior secondary school CRS teachers are presented in Table 2. The Table indicated that the cluster mean score of respondents was 1.89. This implies that Open Educational Resources were not utilized by junior secondary school CRS teachers. However, further results showed that one Open Educational Resource was utilized by the CRS teachers in the study. The resource was online bible with a mean score of 2.53.

Research Question Three: What is the level of awareness of junior secondary school CRS teachers on the sources of Open Educational Resources?

Table 3: Mean scores of the level of awareness of junior secondary school CRS teachers on the sources of Open Educational Resources

Sources/Repositories of Open Educational Resources	Mean score ($\bar{x}$)	Decision
1. Internet	2.80	Aware
2. Search engines e.g. google, internet explorer, and microsoft edge	2.59	Aware
3. Wikipedia	2.67	Aware
4. University of Nigeria OER	2.32	Un-aware
5. MIT OCW	1.01	Un-aware
6. Coursera	1.00	Un-aware
7. Open Learning Initiative	1.43	Un-aware
8. OER Africa	1.54	Un-aware
9. Directory of Open Access Books (DOAB)	1.20	Un-aware
10. Mason OER Metafinder (MOM)	1.00	Un-aware
11. Multimedia Educational Resources for learning and Online Teaching (MERLOT)	1.52	Un-aware
12. Openly Available Sources Integrate searches (OASIS)	1.38	Un-aware
13. OER Commons	1.49	Un-aware
14. OERTX	1.64	Un-aware
15. Open Michigan	1.33	Un-aware
16. OpenStax	1.02	Un-aware
17. Open Textbook Library	1.22	Un-aware
Cluster Mean	**1.60**	**Un-aware**

The results of the level of awareness of JSS CRS teachers on the sources/repositories of Open Educational Resources are presented in Table 3. Table 3 showed that the cluster mean score of the ratings of the CRS teachers was 1.60. This implies that the teachers generally were not aware of the sources of Open educational Resources. However, further results indicated that the teachers were aware of the sources of some specific Open Educational Resources. These sources were: internet ($\overline{x}$ = 2.80), Wikipedia ($\overline{x}$ = 2.62) and search engines such as Google and Microsoft edge ($\overline{x}$ = 2.59).

Research Question Four: What are the challenges militating against the use of Open Educational Resources by junior secondary school CRS teachers?

Table 4: Mean scores of the constraints to the use of Open Educational Resources by junior secondary school CRS teachers

Constraints to the use of OERs	Mean score ($\overline{x}$)	Decision
1. It is sinful	1.52	NSC
2. Religious inclinations	1.35	NSC
3. School regulations	1.75	NSC
4. Low awareness level on OER	3.82	SC
5. Poor ICT skills	3.58	SC
6. Lack of android phones and computers	2.80	SC
7. High cost of data/internet access	2.97	SC
8. Poor network facilities	2.66	SC
9. Inadequate electricity supply	3.50	SC
10. Poor remuneration of teachers	3.43	SC
Cluster Mean	**2.74**	**SC**

Key: NSC – Not Serious Constraint; SC – Serious Constraint

The results on constraints to the use of Open Educational Resources by junior secondary school CRS teachers were presented in Table 4. The Table showe that the cluster mean of the CRS teachers on constraints was 2.74. This implies that there were serious constraints to the use of open educational resources. The factors that posed serious constraints to the use OERs included low level of awareness on OER ($\overline{x}$ = 3.82), poor ICT skills ($\overline{x}$ = 3.58), inadequate electricity supply ($\overline{x}$ = 3.50), poor remuneration of teachers ($\overline{x}$ = 3.43) and high cost of data/internet services ($\overline{x}$ = 2.97). More results however, showed that that factors were not serious constraints to the use of OERs. They included OERs

being sinful ($\overline{x}$ = 1.52), religious inclinations ($\overline{x}$ = 1.35) and school regulations ($\overline{x}$ = 1.75).

Discussion

The results showed that the CRS teachers had poor and limited knowledge and understanding of Open Educational Resources. The result is in line with the view of Allen and Seaman (2009) who observed that most educators were unfamiliar with the concept of Open Educational Resource. This stemmed from their lack of familiarity with OER concept and on its unique attributes. This is important bearing in mind that OERs are digital learning materials with unique characteristics that separate them from every other digital material (Onaifo, 2016). These unique open attributes include sharable, re-mixable, modifiable and re-usable. Many of the teachers may have been using OERs such as materials from Wikipedia and University of Nigeria OER, without really knowing what they are. Also, without deliberate and conscious efforts, it may be difficult to understand its unique attributes. As such, many teachers may misconstrue OERs as just online materials that are freely available. It is not surprising therefore that OERs were un-utilized by the JSS CRS teachers.

Furthermore, the OER repositories were unknown to the teachers. These may have arisen also, from the limited knowledge and understanding of OERs. Even though some of them may have been using OERs, they stumble on them by chance, as they are not sure of particular sites to access them. For instance, many of them indicated that they use internet, search engines and Wikipedia, but they were unable to tie them specifically as OERs repository. Nevertheless, only the Wikipedia is an OER repository. More so, the constraints to the use of OERs by JSS CRS teachers reflect the state of decay and neglect of the educational sector in the country. Some of them included low level of awareness on OER, poor ICK skill, inadequate electricity supply, poor remuneration of teachers, and high cost of data/internet access. In the country, there is no budgetary allocation for the training and re-training of teachers. This makes it difficult for teachers to learn new skills and innovations. Worse still, their remuneration is poor, thereby pushing intelligent and smart people out of the profession.

Conclusion

The study investigated awareness and utilization levels of Open Educational Resources in Christian Religious Studies using junior secondary schools in Nsukka Local Government Area of Enugu State, Nigeria. The levels of awareness

and utilization of Open Educational Resources in CRS were low. Its utilization were constrained by low level of awareness on OER, poor ICK skill, inadequate electricity supply, poor remuneration of teachers, and high cost of data/internet.

Recommendations

The study hereby makes the following recommendations:

1. Government should ensure continuous training and re-training of CRS teachers on ICT and Open Educational Resources. This will help to improve their ICT skills making them ICT compliance and also, improve their knowledge, appreciation and understanding of OERs.

2. Government should ensure that the right budget and investments are made in public infrastructure such as electricity and network facilities. This will ensure that all secondary schools have access to electricity supply and also, that infrastructure for internet services are strengthened to provide stable and uninterrupted network services.

3. The remuneration packages of teachers should be reviewed upwards. This will increase the purchasing power of the teachers, thereby enabling them to afford costs of data/internet access, and android phones and computer sets.

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